

# MISSION TRAINING PLAN



for Quartermaster  
Force Provider Company

HEADQUARTERS, DEPARTMENT OF THE ARMY

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MISSION TRAINING PLAN FOR  
QUARTERMASTER FORCE PROVIDER COMPANY

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## PREFACE

1. The most important training in peacetime is unit training. It prepares a unit to accomplish its critical missions. Preparing and conducting unit training is the most difficult job for a unit leader. This job must be attacked aggressively and consistently to instill a "can do" attitude and provide challenging training.

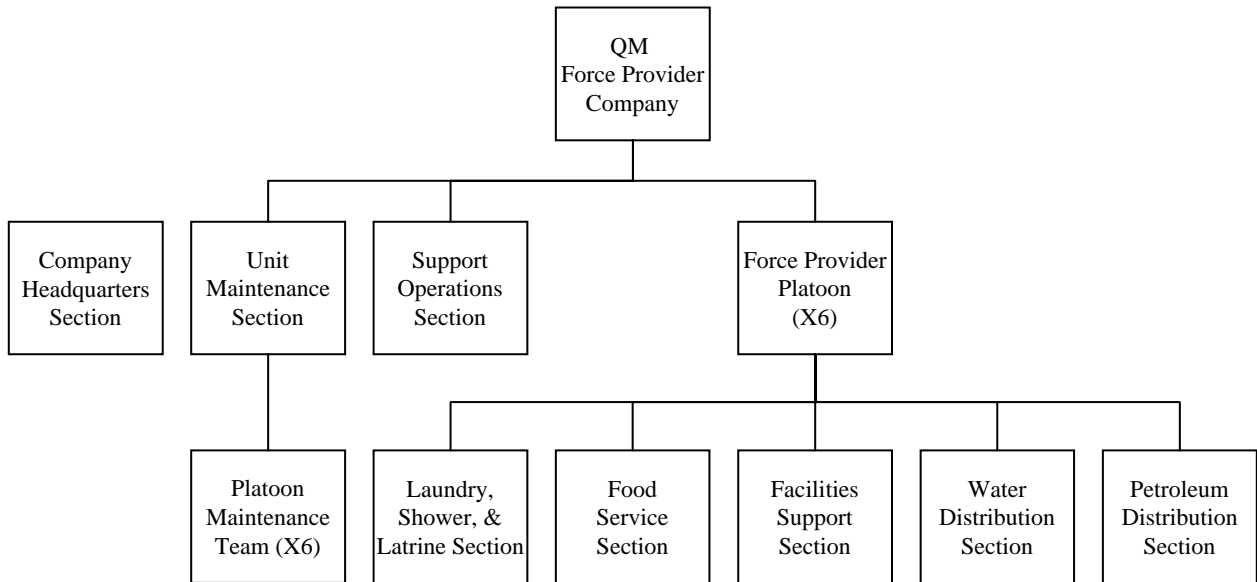
2. Future battlefields will have a tempo and scale never before experienced. Because today's complex weapon systems require extensive logistics channels, effective and timely support is imperative. This unit must be able to anticipate, analyze and tailor available resources to the changing combat situation. It must be flexible enough to support from any base arrangement and survive on the battlefield.

3. The purpose of the MTP is to provide a descriptive, performance-oriented training guide to assist leaders in training their units. The MTP contains tasks which support the unit's mission(s) outlined in doctrinal manuals. Unit leaders must use their Mission Essential Task List (METL) to identify which collective tasks in the MTP must be trained. Task standards in the MTP are the Army's standards for executing those tasks. Standards for training may be made more difficult but may not be lowered. This MTP is in full alignment with and is part of the United States Army's training and tactical doctrine.

4. This MTP applies to the Quartermaster (QM) Force Provider Company which is organized under Table of Organization and Equipment (TO&E) 42-424L000. Figure 1 depicts the typical organization of this unit.

5. Unless otherwise stated, the masculine gender is used for both men and women.

6. The proponent of this publication is HQ TRADOC. Send comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: **COMMANDER, U.S. ARMY CASCOMFL, TRAINING DIRECTORATE, ATTN: ATCL-AQ, 401 FIRST STREET, FORT LEE, VIRGINIA 23801-1511.**



**Figure 1. Organization of the typical QM Force Provider Company,  
TO&E 42424L000.**

## Chapter 1

### Unit Training

**1-1. GENERAL.** This MTP provides the commander and leaders with guidance on how to train the key missions of the unit. The specific details of the unit's training program will depend on the following factors:

- a. The unit's METL.
- b. Chain of command training directives and guidance.
- c. Training priorities of the unit.
- d. Availability of training resources and areas.

**1-2. SUPPORTING MATERIAL.** This MTP describes a critical wartime mission-oriented unit training program which is part of the next higher echelon's training program. This unit's training program consists of:

- a. ARTEP 63-422-30-MTP. This ARTEP MTP indicates the relationship of the next higher headquarters training program to the unit's training program.
- b. Soldiers Training Publications (STP) for the appropriate Military Occupational Specialists (MOS) and skill levels.
- c. Military Qualification Standard (MQS)-II manuals for company grade officers.

Figure 1-1 illustrates the relationship of these supporting materials.

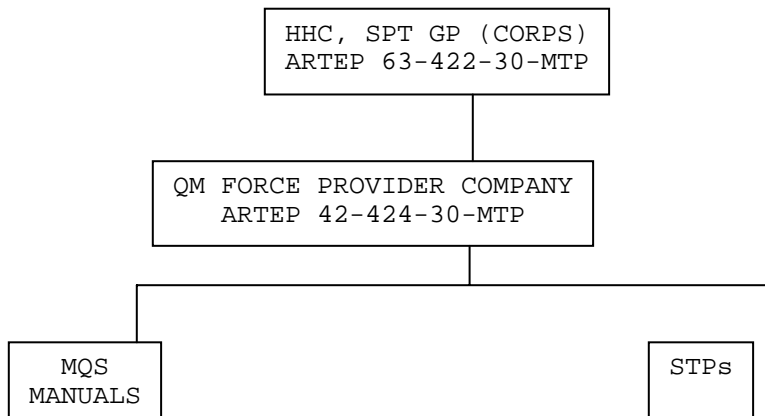


Figure 1-1. MTP echelon relationship diagram



**1-3. CONTENTS.** The MTP is organized into six chapters.

a. Chapter 1, Unit Training, provides the explanation and organization of this MTP. This chapter explains how to use this MTP for establishing an effective training program.

b. Chapter 2, Training Matrix, shows the relationship between missions and collective tasks.

c. Chapter 3, Mission Outline, presents a graphic portrayal of the relationship between the missions and their subordinate tasks.

d. Chapter 4, Training Exercises, consists of a Field Training Exercise (FTX) and its supporting Situational Training Exercises (STX). They provide training information and a preconstructed scenario. Also, they can serve as a part of an internal or external evaluation. These exercises may be modified to suit the training needs of the unit.

e. Chapter 5, Training and Evaluation Outlines, provide the training and evaluation criteria for all the tasks this unit must master to effectively perform its mission. Each task is a T&EO that identifies task steps, performance measures, individual and leader tasks, and OPFOR counter-tasks. Each T&EO is part of a mission, and in various combinations, composes training exercises in Chapter 4.

f. Chapter 6, External Evaluation, provides instructions for the planning, preparation, and execution of an external evaluation.

**1-4. MISSIONS AND TASKS.** This MTP concerns specified missions found in the TOE and implied missions which this unit must perform in order to accomplish the specified missions. The critical wartime mission is the focal mission for this unit. The commander may supplement these missions with his own. The following is a listing of the missions for this unit:

a. Critical Mission. Provide Force Provider Support.

b. Missions.

(1) Conduct Strategic Deployment.

(2) Conduct Force Provider Operations.

(3) Defend Assigned Area.

(4) Conduct Strategic Redeployment

c. Each of these tasks may be trained individually or jointly with other tasks. Training is based on the criteria described in the task and evaluation outlines (T&EO). Several T&EOs can be trained as an STX. Various combinations of STXs can be used to develop an FTX for the unit to practice its entire mission responsibility. Several STXs can be developed into an external evaluation designed by next higher echelon to evaluate the unit's ability to perform multiple missions under stress in a realistic environment.

d. Leader tasks that support the unit's missions are trained through STP and MOS/OFS training, battle simulations, and execution of this unit's missions.

e. Individual tasks that support unit tasks are mastered by training to standards in the appropriate STP.

**1-5. PRINCIPLES OF TRAINING.** This MTP is based on the training principles found in FM 25-100 and FM 25-101.

**1-6. COMBINED ARMS TRAINING STRATEGY (CATS).** The training program developed and executed by a unit to train to standards in its critical wartime missions is a component of the Army's CATS. The purpose of CATS is to provide direction and guidance on how the Total Army will train and identify the resources required to support that training. CATS provides the tools that enables the Army to focus and manage training in an integrated manner. Central to the CATS is a series of proponent generated unit and institutional strategies that describe the training and resources required to train to standard.

a. The unit training strategies central to CATS provide the commander with a descriptive "menu" for training. While the "menu" may reflect an optimal method for training to standard, it is unlikely that all units in the Army will have the exact mix of resources required to execute an optimal training strategy.

b. This unit's training strategy contained in Appendix A is a descriptive training strategy that provides a means for training this unit to standard by listing required training events, critical training gates, training event frequencies, and training resources. The commander selects from this MTP the tasks required to train his METL. The training strategies provided in the MTP provide the means whereby those tasks can be trained through a focused and integrated training plan.

c. This unit's training strategy is comprised of three separate training strategies. When integrated with the training tasks found in the MTP, they form a comprehensive and focused

strategy that allows the unit to train to standard. The elements of this unit's training strategy are:

(1) Maneuver/Collective Strategy. This strategy is intended to provide a set of recommended training frequencies for key training events in a unit and depict those resources which are required to support training events.

(2) Gunnery Strategy. The gunnery strategy is built around weapon systems found in the unit and is intended to provide an annual training plan and to depict resources required to support weapons training. Data for the gunnery strategy comes from the Standards in Training Commission (STRAC) manual or appropriate Field Manual (FM) publications.

(3) Soldier Strategy. The soldier strategy provides an annual plan for training and maintaining skills at the individual level and lists the resources required to train a soldier.

d. A critical element in the unit training strategy is the identification of critical training gates. These gates are defined as training events that must be conducted to standard before moving to a more difficult or resource intensive training event or task. Training gates follow the crawl, walk, run training methodology. For example, if the unit training strategy calls for conducting an FTX, and an STX has been identified as a critical training gate for the FTX, the training tasks contained in the STX must be trained to standard prior to conducting the FTX. Standards must be specified so that a commander can assess the preparedness of his soldiers, or unit before proceeding to more complex training events. Training gates, the unit's METL, and the commander's assessment of his unit's training status will determine the selection and timing of the collective training exercises in a specific unit's training strategy.

e. When developing the unit's training plan, the commander identifies the training tasks from the MTP required to train his METL.

**1-7. CONDUCTING TRAINING.** This MTP helps the planning, preparation, and conduct of unit training as explained in FM 25-100 and FM 25-101.

a. The commander assigns missions and tasks for training based on his METL and training guidance from the next higher headquarters. Trainers must plan and execute training in support of this guidance.

b. The commander will review the mission outlines in Chapter 3 to determine whether the FTX and STXs support or can be modified to support the commander's guidance. If they do not support or need to be modified, refer to the matrix in Chapter 2. These matrixes provide a listing of all critical collective tasks, drills, and individual tasks which must be mastered to perform the mission.

c. The commander and subordinate leaders must prioritize the tasks that need training. There will never be enough time to train everything. The commander must orient on the greatest challenges and most difficult sustainment skills.

d. The commander must integrate tasks into the training schedule according to the following procedures:

(1) List the tasks in the priority and frequency they need to be trained.

(2) Determine the amount of time required and how multi-echelon training can be used to receive the best results.

(3) Determine where the training can take place.

(4) Determine training responsibilities and involvement.

(5) Organize his needs into blocks of time and training vehicles.

e. The commander must approve the list of tasks to be trained and schedule them on the unit training schedule.

f. The commander must determine the equipment and supplies needed to conduct the training.

g. The commander must keep subordinate leaders informed and oversee their training. The standards must be rigidly enforced.

## **1-8 FORCE PROTECTION (SAFETY)**

a. Safety is a component of force protection. Commanders, leaders and soldiers use risk assessment/management to tie force protection into the mission. Risk management assigns responsibilities, institutionalizes commander's review of operational safety and leads to decision making at a level of command appropriate to the risk. The objective of safety is to help units protect combat power through accident prevention which enables units to win fast and decisively, with minimum losses. Safety is an integral part of all combat operations and stability

and support operations(SASO). Safety begins with readiness which determines a unit's ability to perform its METL to standard. Readiness standards addressed during METL assessment are:

(1) Soldiers with the self-discipline to consistently perform tasks to standard.

(2) Leaders who are ready, willing and able to enforce standards.

(3) Training that provides skills needed for performance to standard.

(4) Standards and procedures for task preference that are clear and practical.

(5) Support for task preference, including required equipment, personnel, maintenance, facilities and services.

b. Risk management is a tool that addresses the root causes (readiness shortcomings) of accidents. It assists commanders and leaders in not only identifying what the next accident is going to be, but it also helps identify who will have the next accident. Risk management is a way to put more realism into training without paying the price in deaths, injuries or damaged equipment.

c. Safety demands total chain of command involvement in planning, preparing, executing, and evaluating training. The chain of command responsibilities include:

(1) Commanders.

(a) Seek optimum, not adequate, performance.

(b) Specify the risk they will accept to accomplish the mission.

(c) Select risk reductions provided by staff.

(d) Accept or reject residual risk, based on the benefit to be derived.

(e) Train and motivate leaders at all levels to effectively use risk management concepts.

(2) Staff.

(a) Assist the commander in assessing risks and in developing risk reduction options when planning training.

(b) Integrate risk controls in plans, orders, METL standards, and performance measures.

(c) Eliminate unnecessary safety restrictions that diminish training effectiveness.

(d) Assess safety performance during training.

(e) Evaluate safety performance during after action reviews (AAR).

(3) Subordinate leaders

(a) Apply consistently effective risk management concepts and methods to operations they lead.

(b) Report risk issues beyond their control or authority to their superiors.

(4) Individual soldier.

(a) Report unsafe conditions and acts, and correct the situation when possible.

(b) Establish a buddy system to keep a safety watch on one another.

(c) Take responsibility for personal safety.

(d) Work as a team member.

(e) Modify own risk behavior.

d. Risk management is a five step cyclic process that is easily integrated into the decision making process outlined in FM 101-5. The five steps are:

(1) Identify hazards. Identify the most probable hazards for the missions.

(2) Assess hazards. Analyze each hazard to determine the probability of its causing an accident and the probable effect of the accident. Identify control options to eliminate or reduce the hazard. The Army Standard Risk Assessment Matrix (Figure 1-2) is a tool for assessing hazards.

			HAZARD PROBABILITY				
			FREQUENT	PROBABLE	OCCASIONAL	SELDOM	UNLIKELY
			A	B	C	D	E
E F F E C T	CATASTROPHIC	I	EXTREMELY HIGH				
	CRITICAL	II	HIGH			LOW	
	MODERATE	III	MEDIUM				
	NEGLIGIBLE	IV					

Effect

Catastrophic	Death or permanent total disability, system loss, major property damage.
Critical	Permanent partial disability, temporary total disability in excess of 3 months, major system damage, significant property damage.
Moderate	Minor injury, lost workday accident, compensatable injury or illness, minor system damage, minor property damage.
Negligible	First aid or minor supportive medical treatment, minor system impairment.

Probability

Frequent	Individual soldier/item.....Occurs often in career/equipment service life. All soldiers exposed or item inventory.....Continuously experienced.
Probable	Individual soldier/item.....Occurs several times in career/equipment service life. All soldiers exposed or item inventory.....Occurs frequently.
Occasional	Individual soldier/item.....Occurs sometime in career/equipment service life. All soldiers exposed or item inventory.....Occurs sporadically or several times in inventory service life.
Seldom	Individual soldier/item.....Possible to occur in career/equipment service life. All soldiers exposed or item inventory.....Remote chance of occurrence expected in inventory service life.
Unlikely	Individual soldier/item.....Can assume will not occur in career/equipment service life. All soldiers exposed or item inventory.....Possible, but improbable; occurs only very rarely.

Risk Levels

Extremely High	Loss of ability to accomplish mission.
High	Significantly degrades mission capabilities in terms of required mission standards.
Medium	Degrades mission capabilities in terms of required mission.
Low	Little or no impact on mission accomplishment.

Figure 1-2 Army Standard Risk Assessment Matrix

(3) Develop Controls and Make Risk Decisions. Develop one or more controls that will eliminate the hazard or reduce the risk of a hazardous incident. For each hazard, as controls are developed, revise the evaluation of the level of risk remaining (residual risk). Weigh the risk against the benefits of performing the operation. Accept no unnecessary risk and make any residual risk decisions at the proper level of command.

(4) Implement controls. Integrate specific controls into plans, operation plans (OPLAN), operation orders (OPORD), standing operating procedures (SOP), and rehearsals. Communicate controls to the individual soldier.

(5) Supervise. Determine the effectiveness of controls in reducing the probability and effect of identified hazards to include follow-up and after action reviews. Develop the lessons learned.

e. Fratricide is a component of protecting the force and is closely related to safety. Fratricide is the employment of weapons, with the intent to kill the enemy or destroy his equipment, that result in unforeseen and unintentional death, injury, or damage to friendly personnel or equipment. Fratricide is by definition an accident. Risk assessment/management is the mechanism with which incidences of fratricide can be controlled.

f. The primary causes of fratricide are:

(1) Direct-Fire Control Plan Failures. These occur when units fail to develop defensive, and particularly, offensive fire control plans.

(2) Land Navigation Failures. These result when units stray out of sector, report wrong locations, and become disoriented.

(3) Combat Identification Failure. These failures include gunners or pilots being unable to distinguish thermal/optical signatures near the maximum range of their sighting systems and units in proximity mistaking each other for the enemy under limited visibility conditions.

(4) Inadequate Control Measures. Units fail to disseminate the minimum maneuver and fire support control measures necessary to tie control measures to recognizable terrain or events.

(5) Reporting Communication Failures. Units at all levels face problems in generating timely, accurate, and complete reports as locations and tactical situations change.



(6) Weapons error. Lapses in individual discipline lead to charge errors, accidental discharges, mistakes with explosives and hand grenades, and similar incidents.

(7) Battlefield Hazards. Unexploded ordnance, unmarked or unrecorded minefields, family of scatterable mines (FASCAM), and booby traps litter the battlefield. Failure to mark, remove, record, or anticipate these hazards increases the risk of friendly casualties.

g. Fratricide results in unacceptable losses and increases the risk of mission failure. Fratricide undermines the unit's ability to survive and function. Units experiencing fratricide observe these consequences:

- (1) Loss of confidence in the unit's leadership.
- (2) Increasing self-doubt among leaders.
- (3) Hesitation to use supporting combat systems.
- (4) Over-supervision of units.
- (5) Hesitation to conduct night operations.
- (6) Loss of aggressiveness during fire and maneuver.
- (7) Loss of initiative.
- (8) Disrupted operations.
- (9) General degradation of cohesiveness, morale, and combat power.

**1-9. ENVIRONMENTAL PROTECTION.** Protection of natural resources to include threatened and endangered species habitats has continued to become an ever increasing concern to the Army. It is the responsibility of all unit leaders to decrease, and if possible, eliminate damage to the environment when conducting training. Environmental risk management parallels safety risk management and is based on the same philosophy. Environmental risk management consists of the following steps:

a. Identify Hazards. Identify potential sources for environmental degradation during analysis of mission, enemy, terrain, troops-time available (METT-T) factors. This requires identification of environmental hazards. An environmental hazard is a condition with the potential for polluting air, soil, or water and/or destroying cultural/historical artifacts.

b. Assess the Hazards. Analyze potential severity of environmental degradation using environmental risk assessment matrixes (Figure 1-3) in FM 20-400 and TC20-401. Severity of environmental degradation is considered when determining the potential effect an operation will have on the environment. The risk impact value is defined as an indicator of the severity of environmental degradation. Quantify the risk to the environment resulting from the operation as extremely high, high, medium, or low, using the environmental assessment matrixes.

c. Make Environmental Risk Decisions. Make decisions and develop measures to reduce high environmental risks.

d. Brief Chain of Command. Brief chain of command (to include installation environment office, if applicable) on proposed plans and pertinent high risk environmental matrixes. Risk decisions are made at a level of command that corresponds to the degree of risk.

e. Implement Controls. Implement environmental protection measures by integrating them into plans, orders, SOPs, training performance standards, and rehearsals.

f. Supervise and Evaluate. Supervise and enforce environmental protection standards. Evaluate the effectiveness of each control in reducing or eliminating the environmental risk.

**1-10. EVALUATION.** T&EOs in Chapter 5 list the standards which this unit must meet for each task.

a. Evaluations can be internal or external. An internal evaluation can be conducted at any level, and must be inherent in all training. External evaluations are usually more formal and are normally conducted by the next higher echelon.

b. A critical weakness in training is the failure to evaluate each task every time it is performed. The ARTEP concept is based on simultaneous training and evaluation. Every training exercise provides the opportunity for evaluation and feedback. However, leaders frequently overlook the importance of evaluation and the need to correct deficiencies. The commander must ensure that trainers and leaders continually evaluate training and correct deficiencies each time exercises are conducted.

<b>Environmental Area</b>					<b>Rating:</b>	
<b>Unit Operations</b>	<b>Risk Impact</b>					
Movement of heavy vehicles/systems	5	4	3	2	1	0
Movement of personnel and light vehicles/systems	5	4	3	2	1	0
Assembly area activities	5	4	3	2	1	0
Field maintenance of equipment	5	4	3	2	1	0
Garrison maintenance of equipment	5	4	3	2	1	0
<b>Environmental Risk Assessment Worksheet</b>						
<b>Environmental Area</b>	Movement of heavy vehicles/systems	Movement of personnel and light vehicles/systems	Assembly area activities	Field maintenance of equipment	Garrison maintenance of equipment	Risk rating
Air pollution						
Archeological and historical sites						
Hazardous material/waste						
Noise pollution						
Threaten/endangered species						
Water pollution						
Wetland protection						
Overall rating						
<b>Overall Environmental Risk Assessment Form</b>						
<b>Category</b>	<b>Range</b>	<b>Environmental</b>	<b>Decision Maker</b>			
Low	0-58	Little or none	Appropriate level			
Medium	59-117	Minor	Appropriate level			
High	118-149	Significant	Division commander			
Extremely high	150-175	Severe	MACOM commander			
<b>Risk Categories</b>						

**Figure 1-3. Sample Environmental Risk Assessment Matrix**

c. Leaders should emphasize direct, on-the-spot evaluations. Correcting poor performance during individual or

small group training is easy to do. Outside evaluators usually make this unfeasible for higher-level exercises. AARs should be planned at frequent, logical intervals during exercises. This is a proven technique which will allow you to correct performance shortcomings while they are still fresh in everyone's mind and prevents reinforcement of bad habits.

d. FM 25-101 provides detailed instructions for conducting an AAR and detailed guidance on coaching and critiquing during training.

**1-11. FEEDBACK.** Recommendations for improvement of this MTP are requested. Feedback will help to ensure that this MTP answers the training needs of units in the field. There is a questionnaire in the back of this MTP which may be used to facilitate the submission of feedback.

## Chapter 2

### Training Matrix

**2-1. GENERAL.** The training matrix assists the commander in planning the training of his unit's personnel. Training Matrix, Mission to Collective Tasks, Table 2-1, shows leaders the relationship between missions and their related tasks.

**2-2. TRAINING MATRIX: MISSION TO COLLECTIVE TASKS.** This matrix (Table 2-1) identifies the missions and their supporting tasks. The tasks are listed under the appropriate battlefield operating system (BOS) which are indicated by an asterisk in the matrix. A specific mission is trained by identifying collective tasks in the vertical column for the mission. Based on the proficiency of the unit, training is focused on operational weaknesses.

**Table 2-1. Training matrix: mission to collective tasks**

MISSION				
Collective Tasks and T&EO Numbers	Conduct Strategic Deployment	Conduct Force Provider Operations	Defend Assigned Area	Conduct Strategic Redeployment
<u>*MANEUVER</u>				
Perform FP Unit Deployment Alert Activities 42-2-0219	X			
Perform FP Unit Preparation for Overseas Movement Activities 42-2-0220	X			
Perform FP Unit Predeployment Training Activities 42-2-0221	X			
Perform FP Unit Predeployment Supply Activities 42-2-0222	X			
Perform FP Unit Predeployment Maintenance Activities 42-2-0223	X			

**Table 2-1. Training matrix: mission to collective tasks  
(continued)**

<b>MISSION</b>				
<b>Collective Tasks and T&amp;EO Numbers</b>	<b>Conduct Strategic Deployment</b>	<b>Conduct Force Provider Operations</b>	<b>Defend Assigned Area</b>	<b>Conduct Strategic Redeployment</b>
Conduct FP Advance/ Quartering Party Activities 42-2-0224	X			
Prepare FP Unit Vehicles and Equipment for Deployment 42-2-0225	X			
Prepare FP Unit for Nontactical Move 42-2-0226	X			
Conduct FP Unit Nontactical Road March 42-2-0227	X			
Perform Sea Port of Embarkation Activities for FP Unit Deployment 42-2-0228	X			
Perform Aerial Port of Embarkation Activities for FP Unit Deployment 42-2-0229	X			
Perform Aerial Port of Debarcation Activities for FP Unit Deployment 42-2-0230	X			
Perform Sea Port of Debarcation Activities for FP Unit Deployment 42-2-0231	X			
Prepare Equipment Reception Team for FP Unit Tactical Road March 42-2-0233	X			
Conduct FP Unit Tactical Road March 42-2-0234	X			X
Occupy New FP Unit Operating Site 42-2-0236	X			
Perform FP Unit Redeployment Personnel and Administrative Actions 42-2-0280.				X

**Table 2-1. Training matrix: mission to collective tasks  
(continued)**

<b>MISSION</b>				
<b>Collective Task and T&amp;EO Number</b>	<b>Conduct Strategic Deployment</b>	<b>Conduct Force Provider Operations</b>	<b>Defend Assigned Area</b>	<b>Conduct Strategic Redeployment</b>
Perform FP Unit Redeployment Training Activities 42-2-0281				X
Perform FP Unit Redeployment Supply Activities 42-2-0282				X
Perform FP Unit Redeployment Maintenance Activities 42-2-0283				X
Prepare FP Unit Vehicles and Equipment for Redeployment 42-2-0284				X
Perform FP Unit Aerial Port of Embarkation Activities for Redeployment 42-2-0285				X
Perform FP Unit Sea Port of Embarkation Activities for Redeployment 42-2-0286				X
Perform FP Unit Home Station Activities 42-2-0287				X
Perform FP Unit Aerial Port of Debarkation Activities for Redeployment 42-2-0288				X
Perform FP Unit Sea Port of Debarkation Activities for Redeployment 42-2-0289				X
Prepare Subsystems of a FP Module for Redeployment 42-2-0290				X

**Table 2-1. Training matrix: mission to collective tasks  
(continued)**

<b>MISSION</b>				
<b>Collective Task and T&amp;EO Number</b>	<b>Conduct Strategic Deployment</b>	<b>Conduct Force Provider Operations</b>	<b>Defend Assigned Area</b>	<b>Conduct Strategic Redeployment</b>
<b><u>MOBILITY and SURVIVABILITY</u></b>				
Defend FP March Elements 42-2-0235	X			
Set Up FP Unit Headquarters Area 42-2-0238	X			
Set Up a FP Module 42-2-0239	X			
Set Up FP Unit Defense 42-2-0240	X			
Employ FP Unit Physical Security Measures 42-2-0242	X			X
Prepare FP Unit for Nuclear, Biological, and Chemical Conditions 42-2-0243	X			
Employ FP Unit Operations Security Measures 42-2-0244	X	X	X	X
Use Passive Air Defense Measures in a FP Unit 42-2-0248		X	X	
Prepare a FP Unit for a Chemical Attack 42-2-0252		X		
Respond to a Chemical Attack in a FP Unit 42-2-0253		X		
Perform Operational Decontamination in a FP Unit 42-2-0254		X		
Perform Thorough Decontamination in a FP Unit 42-2-0255		X		



**Table 2-1. Training matrix: mission to collective tasks  
(continued)**

<b>MISSION</b>				
<b>Collective Task and T&amp;EO Number</b>	<b>Conduct Strategic Deployment</b>	<b>Conduct Force Provider Operations</b>	<b>Defend Assigned Area</b>	<b>Conduct Strategic Redeployment</b>
Prepare for a Friendly Nuclear Strike 63-2-R327		X		
Respond to the Initial Effects of a Nuclear Attack 63-2-1020		X		
Respond to the Residual Effects of a Nuclear Attack 63-2-R328		X		
Perform Radiological Decontamination 63-2-R207		X		
Defend Against a Level I Attack in a FP Unit 42-2-0260		X		
Prepare FP Unit for a Level II/III Threat 42-2-0273			X	
Defend FP Unit Area 42-2-0274			X	
Perform FP Area Damage Control Functions 42-2-0275			X	
Perform FP Unit Withdrawal Under Fire 42-2-0276			X	
Conduct FP Unit Hasty Displacement 42-2-0277			X	
Reorganize FP Unit Defense 42-2-0278			X	
Execute FP Unit Battle Handover 42-2-0279			X	
<b>*AIR DEFENSE</b> Take Active Air Defense Measures Against Hostile Aircraft in a FP Unit 42-2-0249			X	

**Table 2-1. Training matrix: mission to collective tasks  
(continued)**

MISSION				
Collective Task and T&EO Number	Conduct Strategic Deployment	Conduct Force Provider Operations	Defend Assigned Area	Conduct Strategic Redeployment
<b>*COMBAT SERVICE SUPPORT</b>				
Provide FP Personnel and Administrative Support 42-2-0245		X		
Provide FP Unit Supply Support 42-2-0247		X		
Combat Battlefield Stress in a FP Unit 42-2-0250	X	X	X	X
Perform Risk Management Procedures in a FP Unit 42-2-0251	X	X	X	X
Process Enemy Prisoners of War 63-2-R304		X	X	
Process Captured Documents and Equipment 63-2-R305		X	X	
Treat Casualties 63-2-0003	X	X	X	
Transport Casualties 63-2-R316	X	X	X	
Perform Mortuary Affairs Operations 10-2-C318	X	X	X	
Perform Field Sanitation Functions 63-2-R315		X		
Perform Unit Level Maintenance 63-2-R322		X		
Conduct Continuous FP Operations 42-2-0268		X		
Conduct FP Laundry and Shower Operations 42-2-0269		X		
Conduct Bulk Fuel Support for FP 42-2-0270		X		
Conduct Food Service Support for a FP Module 42-2-0271		X		

**Table 2-1. Training matrix: mission to collective tasks  
(continued)**

<b>MISSION</b>				
<b>Collective Task and T&amp;EO Number</b>	<b>Conduct Strategic Deployment</b>	<b>Conduct Force Provider Operations</b>	<b>Defend Assigned Area</b>	<b>Conduct Strategic Redeployment</b>
Conduct Water Support Operations for a FP Module 42-2-0272		X		
<b>*<u>COMMAND AND CONTROL</u></b> Plan Occupation of a New FP Unit Area of Operations 42-2-0232	X			
Plan FP Unit Defense 42-2-0237			X	
Plan FP Unit Area Damage Control Operations 42-2-0241			X	
Maintain Communications in a FP Unit 42-2-0246	X	X	X	X

## Chapter 3

### Mission Outline

**3-1. GENERAL.** The mission outline illustrates the relationship between the missions and their supporting tasks.

**3-2. MISSION OUTLINE.** Since unit training is mission-oriented, the mission outline shows how task training contributes to the ability of the unit to perform its missions. The mission outline, Figure 3-1, provides the commander with a visual outline of his unit's missions in a format that facilitates the planning and management of training.

#### FTX C-A

PROVIDE FORCE PROVIDER SUPPORT

#### STX C-1

CONDUCT STRATEGIC DEPLOYMENT

42-2-0219	42-2-0220	42-2-0221	42-2-0222
42-2-0223	42-2-0224	42-2-0225	42-2-0226
42-2-0227	42-2-0228	42-2-0229	42-2-0230
42-2-0231	42-2-0232	42-2-0233	42-2-0234
42-2-0235	42-2-0236	42-2-0237	42-2-0238
42-2-0239	42-2-0240	42-2-0241	42-2-0242
	42-2-0243	42-2-0244	

#### STX C-2

CONDUCT FORCE PROVIDER OPERATIONS

42-2-0245	42-2-0246	42-2-0247	42-2-0248
42-2-0249	42-2-0250	42-2-0251	42-2-0252
42-2-0253	42-2-0254	42-2-0255	63-2-R327
63-2-1020	63-2-R328	63-2-R207	42-2-0260
63-2-R304	63-2-R305	63-2-0003	63-2-R316
10-2-C318	63-2-R315	63-2-R322	42-2-0268
42-2-0269	42-2-0270	42-2 0271	42-2-0272

**Figure 3-1. Mission outline for the unit**

FTX C-A  
PROVIDE FORCE PROVIDER SUPPORT

STX C-3  
DEFEND ASSIGNED AREA

42-2-0273	42-2-0274
42-2-0275	42-2-0276
42-2-0277	42-2-0278
42-2-0279	

STX C-4  
CONDUCT STRATEGIC REDEPLOYMENT

42-2-0280	42-2-0281
42-2-0282	42-2-0283
42-2-0284	42-2-0285
42-2-0286	42-2-0287
42-2-0288	42-2-0289
42-2-0290	

**Figure 3-1. Mission outline for the unit (continued)**

## Chapter 4

### Training Exercises

**4-1. INTRODUCTION.** Training exercises are used to train and practice the performance of collective tasks. This MTP has two types of exercises: FTX and STX. These exercises are designed to assist you in developing, sustaining, and evaluating this unit's mission proficiency. This MTP has one FTX and four STXs, Table 4-1.

**4-2. FIELD TRAINING EXERCISES.** The FTX is designed to provide a training method for the unit to train the critical wartime mission. It provides a logical sequence for the performance of the tasks previously trained in the STXs.

**4-3. SITUATIONAL TRAINING EXERCISES.** The STX is a short, scenario-driven, mission-oriented tactical exercise used to train a group of closely related collective tasks. The STX provides the information for training the missions that make up the critical wartime mission. The STX does the following important functions:

- a. It provides repetitive training on the missions.
- b. It allows training to focus on identified weaknesses.
- c. It allows the unit to practice the mission before the critical wartime mission.
- d. It saves time by providing a majority of the information needed to develop a vehicle for training.

**Table 4-1. Training Exercises**

EXERCISE	TITLE	PAGE
FTX C-A	Provide Force Provider Support	4-2
STX C-1	Conduct Strategic Deployment	4-13
STX C-2	Conduct Force Provider Operations	4-20
STX C-3	Defend Assigned Area	4-27
STX C-4	Conduct Strategic Redeployment	4-33

**QM FORCE PROVIDER COMPANY**

**FTX C-A**

**PROVIDE FORCE PROVIDER SUPPORT**

**1. OBJECTIVE.** This FTX provides the unit with training in its critical mission, Provide Force Provider Support. This FTX is used for internal and external evaluations. The tasks that are executed during this exercise are listed in Table 4-4.

**2. INTERFACE.**

a. This FTX supports the HHC, Corps Support Group FTX, Support Corps Operations in Area of Responsibility.

b. The following unit STXs support this FTX:

- (1) Conduct Strategic Deployment
- (2) Conduct Force Provider Operations.
- (3) Defend Assigned Area.
- (4) Conduct Strategic Redeployment.

**3. TRAINING ENHANCERS.**

a. Chapter 2, Training Matrix, shows the collective tasks that must be mastered to perform the unit's missions. Training that will improve the unit's ability to perform its missions is:

(1) Conducting strategic deployment, conducting Force Provider operations, defending the assigned area, and conducting strategic redeployment. Conduct this training in a garrison or local training area by the following methods:

(a) Map Exercise (MAPEX) combined with sand table exercise. A map of the actual area where the FTX is to be conducted and a sand table model to match the terrain should be used, if possible. MAPEX assists in terrain analysis, determining possible ambush sites, determining possible road obstructions, and identifying possible bypasses.

(b) Command Post Exercise (CPX) conducted in a garrison or field location. The CPX facilitates communication setup, practice of TSOP, and unit mission coordination.

(c) A Training Exercise Without Troops (TEWT) can be conducted at a field site. This exercise should emphasize

terrain analysis, staff coordination, potential OPFOR attack routes and points, leadership procedures, and defense planning.

(d) Deployment Exercise (DEPEX).

(e) Emergency Deployment Readiness Exercise (EDRE).

(f) Command Field Exercise (CFX).

(g) Simulations and games teach leaders as part of a continuing officer and NCO development program.

(2) Establishing an aggressive spirit in leaders and units by the following activities:

(a) Aggressive unit sports and physical fitness program.

(b) Leader and individual confidence courses.

(c) Appropriate training films that have a positive, aggressive effect on the soldiers.

(d) Awareness of the unit's heritage.

b. This exercise begins with the receipt of a deployment alert warning order and ends upon completion of redeployment activities. AARs are conducted as shown in Table 4-2. Figure 4-1 illustrates the general scenario of task performance in this exercise. Table 4-2 is a suggested scenario.

#### **4. GENERAL SITUATION.**

a. The unit is located at home station or mobilization site. The unit is under the command and control of a higher echelon. The unit commander is charged with unit movement, establishment, and security.

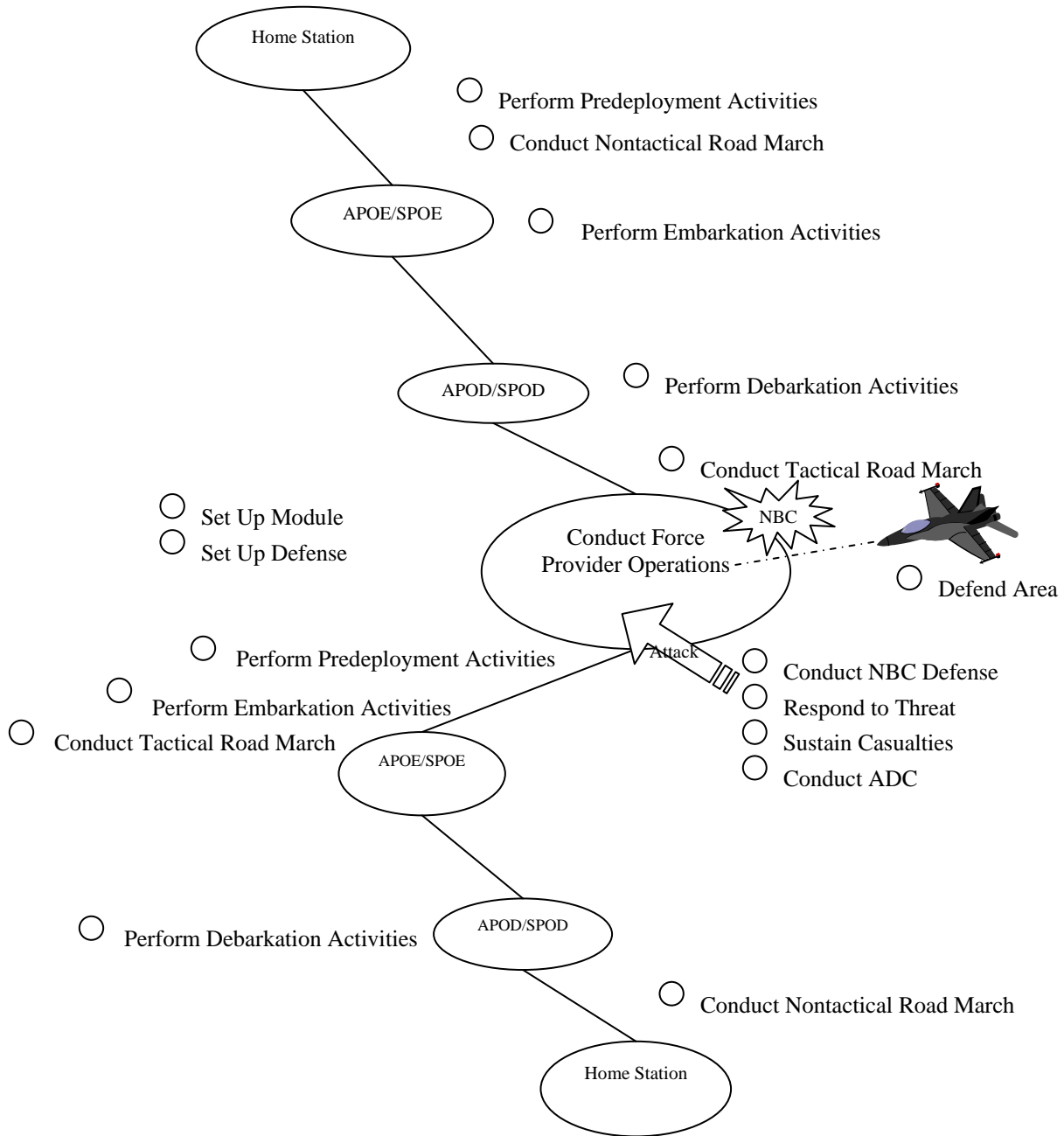
b. This exercise is conducted under all environmental conditions and both day and night operations. The unit operates under threat of NBC attacks, attacks by ground or air, indirect fire, and EW.

c. This exercise is also conducted under threat of Level I, II, or III attacks.

d. The unit should be prepared to relocate at least every 125 days.



e. The unit should be prepared to move by echelons while continuing to provide support.



**Figure 4-1. General scenario illustration**

**Table 4-2. Unit FTX C-A scenario**

SEQUENCE	EVENT	ESTIMATED TIME
1.	Perform administrative preparations	Pre-FTX
2.	Perform predeployment activities	8 hr
3.	Conduct quartering/advance party activities	8 hr
4.	Conduct non-tactical road march	1 hr
5.	Perform APOE/SPOE activities	4 hr
6.	Perform APOD/SPOD activities	4 hr
7.	Perform staging area activities	2 hr
8.	Conduct tactical road march	1 hr
9.	AAR	1 hr
10.	Plan site defense	4 hr
11.	Perform setup activities	80 hr
12.	Set up site defense	4 hr
13.	AAR	1 hr
14.	Provide Force Provider support	24 hr
15.	AAR	1 hr
16.	React to threat	30 min
17.	Reorganize defenses	1 hr
18.	Perform ADC activities	2 hr
19.	AAR	1 hr
20.	Receive warning order	10 min
21.	Perform redeployment activities	8 hr
22.	AAR	1 hr
23.	Perform module dismantle activities	60 hr
24.	AAR	1 hr
25.	Conduct tactical road march	1 hr
26.	Perform APOE/SPOE activities	4 hr
27.	Perform APOD/SPOD activities	4 hr
28.	Conduct nontactical road march	1 hr
29.	Conduct home station activities	1 hr
30.	Final AAR	2 hr
	Total time	230 hr 40 min

Note 1: Additional time is required if large portions of the exercise are conducted at night, under limited visibility, or under MOPP conditions.

Note 2: Events are trained to standards, not time limitations. The time required to train an event may vary based on METT-T factors and the training proficiency of the unit.

## 5. SPECIAL SITUATION.

a. The unit commander or next higher echelon issues the following guidance:

---

"The unit is deploying from CONUS to OCONUS to support operations. The unit will move as part of the higher echelon to the vicinity of grid coordinates \_\_\_\_\_ and will establish support operations."

---

b. The company commander issues the following instructions:

---

"Begin your planning process for deploying, conducting Force Provider operations, defending the assigned area, and redeploying. This exercise begins with receipt of the deployment alert order and ends on notification from me."

---

## **6. SUPPORT REQUIREMENTS.**

a. Minimum trainers and OCs. This exercise will be conducted by the unit commander, who will be the senior internal trainer and OC. If possible, there should be at least two OCs for the unit. At least one other OC is required with the OPFOR.

b. OPFOR.

(1) OPFOR is required for the exercise to simulate Level II/III threat activities.

(2) The OPFOR should be well trained in patrol, assault and guerrilla tactics. The OPFOR should have specific missions in the unit area and be controlled whenever used.

(3) The trainer/OC can assess damage to equipment and personnel casualties.

c. Vehicles and Communications. Vehicles and communications equipment organic to the unit are used. Each trainer and OC needs a vehicle and radio. Radios are required for OPFOR vehicles during mounted operations.

d. Maneuver Area. Depending upon LTA, a training area should have minimum dimensions of 72,469.432 square meters. A road network is required that allows a road march of at least 10 kilometers.

e. MIL. During the FTX, MIL is essential to drive the unit's actions.

f. Consolidated Support Requirements. Table 4-3 shows the suggested support requirements for this FTX.

**Table 4-3. Consolidated support requirements for  
FTX C-A**

ITEM	QUANTITY
AMMUNITION	
5.56mm (Blank)	150 rds/wpn
5.56mm (Blank)	300 rds/wpn OPFOR
Smoke Grenades	24 ea OPFOR
CS Grenade	8 ea OPFOR
Blank Adapter	1 per wpn
Blank Adapter	1 per wpn OPFOR
EQUIPMENT	
All organic equipment to include TOE and CTA authorized Rail and aircraft load simulators.	
FUEL	
Use FM 101-10-1/2 to calculate fuel requirements	
NBC EQUIPMENT	
AN/ODR-T1 (Radiation Survey Set)	1 each
M72A2 Chemical Simulant	4 each
CS Grenade (Practice)	8 each

**Table 4-3. Consolidated support requirements for  
FTX C-A (continued)**

ITEM	QUANTITY
------	----------

## RATIONS

Meals based on ration cycle

## OTHER

War Wound Mouflage Set 1 each

Aircraft for simulated air attack 1 each

NOTE: The consolidated support requirements outlined for this FTX are intended as suggestions. Local policies or constraints may not allow for providing the items.

7. **T&EO SEQUENCE.** Table 4-4 lists the T&EOs for this FTX.

**Table 4-4. T&EOs from Chapter 5 to use in evaluating FTX C-A**

TASK	TASK NUMBER	PAGE
Perform FP Unit Deployment Alert Activities	42-2-0219	5-8
Perform FP Unit Preparation for Overseas Movement Activities	42-2-0220	5-12
Perform FP Unit Predeployment Training Activities	42-2-0221	5-15
Perform FP Unit Predeployment Supply Activities	42-2-0222	5-17
Perform FP Unit Predeployment Maintenance Activities	42-2-0223	5-20
Conduct FP Advance Quartering Party Activities	42-2-0224	5-24

**Table 4-4. T&EOs from Chapter 5 to use in evaluating FTX C-A (continued)**

TASK	TASK NUMBER	PAGE
Prepare FP Unit Vehicles and Equipment for Deployment	42-2-0225	5-31

Prepare FP Unit for Nontactical Move	42-2-0226	5-37
Conduct FP Unit Nontactical Road March	42-2-0227	5-41
Perform Sea Port of Embarkation Activities for FP Unit Deployment	42-2-0228	5-45
Perform Aerial Port of Embarkation Activities for FP Unit Deployment	42-2-0229	5-51
Perform Aerial Port of Debarkation Activities for FP Unit Deployment	42-2-0230	5-55
Perform Sea Port of Debarkation Activities for FP Unit Deployment	42-2-0231	5-58
Plan Occupation of a FP Unit Area of Operations	42-2-0232	5-63
Prepare Equipment Reception Team for FP Unit Tactical Road March	42-2-0233	5-66
Conduct FP Unit Tactical Road March	42-2-0234	5-70
Defend FP March Elements	42-2-0235	5-75
Occupy FP Unit Operating Site	42-2-0236	5-83
Plan FP Unit Defense	42-2-0237	5-86
Set Up FP Unit Headquarters Area	42-2-0238	5-91
Set Up a FP Module	42-2-0239	5-94
Set Up FP Unit Defense	42-2-0240	5-101
Plan FP Unit Area Damage Control Operations	42-2-0241	5-107

**Table 4-4. T&EOs from Chapter 5 to use in evaluating  
FTX C-A (continued)**

TASK	TASK NUMBER	PAGE
Employ FP Unit Physical Security Measures	42-2-0242	5-110
Prepare FP Unit for Nuclear, Biological, and Chemical Conditions	42-2-0243	5-114
Employ FP Unit Operations Security Measures	42-2-0244	5-118
Provide FP Unit Personnel and Administrative Support	42-2-0245	5-123
Maintain Communications in a FP Unit	42-2-0246	5-127
Provide FP Unit Supply Support	42-2-0247	5-131
Use Passive Air Defense Measures in a FP Unit	42-2-0248	5-136
Take Active Air Defense Measures Against Hostile Aircraft in a FP Unit	42-2-0249	5-139
Combat Battlefield Stress in a FP Unit	42-2-0250	5-142
Perform Risk Management Procedures in a FP Unit	42-2-0251	5-145
Prepare a FP Unit for a Chemical Attack	42-2-0252	5-148
Respond to a Chemical Attack in a FP Unit	42-2-0253	5-151
Perform Operational Decontamination in a FP Unit	42-2-0254	5-156
Conduct Thorough Decontamination in a FP Unit	42-2-0255	5-158
Prepare for a Friendly Nuclear Strike	63-2-R327	5-160
Respond to the Initial Effects of a Nuclear Attack	63-2-1020	5-164

**Table 4-4. T&EOs from Chapter 5 to use in evaluating  
FTX C-A (continued)**

TASK	TASK NUMBER	PAGE
Respond to the Residual Effects of a Nuclear Attack	63-2-R328	5-168
Perform Radiological Decontamination	63-2-R207	5-172
Defend Against a Level I Attack in a FP Unit	42-2-0260	5-175
Process Enemy Prisoners of War	63-2-R304	5-178
Process Captured Documents and Equipment	63-2-R305	5-181
Treat Casualties	63-2-0003	5-184
Transport Casualties	63-2-R316	5-187
Perform Mortuary Affairs Operations	10-2-C318	5-192
Perform Field Sanitation Functions	63-2-R315	5-195
Perform Unit Level Maintenance	63-2-R322	5-199
Conduct Continuous FP Operations	42-2-0268	5-205
Conduct FP Laundry and Shower Operations	42-2-0269	5-213
Conduct Bulk Fuel Support for FP	42-2-0270	5-217
Conduct Food Service Support for a FP Module	42-2-0271	5-222
Conduct Water Support Operations for a FP Module	42-2-0272	5-230
Prepare FP Unit for Level II/III Threat	42-2-0273	5-234
Defend FP Unit Area	42-2-0274	5-236



**Table 4-4. T&EOs from Chapter 5 to use in evaluating  
FTX C-A (continued)**

TASK	TASK NUMBER	PAGE
Perform FP Area Damage Control Functions	42-2-0275	5-241
Perform FP Unit Withdrawal Under Fire	42-2-0276	5-244
Conduct FP Unit Hasty Displacement	42-2-0277	5-247
Reorganize FP Unit Defense	42-2-0278	5-250
Execute FP Unit Battle Handover	42-2-0279	5-253
Perform FP Unit Redeployment Personnel and Administrative Actions	42-2-0280	5-256
Perform FP Unit Redeployment Training Activities	42-2-0281	5-259
Perform FP Unit Redeployment Supply Activities	42-2-0282	5-261
Perform FP Unit Redeployment Maintenance Activities	42-2-0283	5-264
Prepare FP Unit Vehicles and Equipment for Redeployment	42-2-0284	5-268
Perform FP Unit Aerial Port of Embarkation Activities for Redeployment	42-2-0285	5-276
Perform FP Unit Sea Port Embarkation Activities for Redeployment	42-2-0286	5-281
Perform FP Unit Home Station Activities	42-2-0287	5-287
Perform FP Unit Aerial Port of Debarkation Activities for Redeployment	42-2-0288	5-291
Perform FP Unit Sea Port of Debarkation Activities for Redeployment	42-2-0289	5-294
Prepare Subsystems of a FP Module for Redeployment	42-2-0290	5-298

**QM FORCE PROVIDER COMPANY**

**STX C-1****CONDUCT STRATEGIC DEPLOYMENT**

**1. OBJECTIVE.** This STX trains the unit in deployment to a new theater of operations. This STX also provides the commander and key leaders with practice in controlling and coordinating unit deployment activities. The unit must become proficient in performing tasks in Table 4-7.

**2. INTERFACE.** This STX supports the unit FTX C-A, Provide Force Provider Support.

**3. TRAINING.**

a. Leader Training.

(1) This STX can be used to plan and implement deployment (land, sea, or air) of the unit as a part of an FTX.

(2) During classroom activities, the use of the TSOP and the responsibilities and procedures outlined in FMs 55-9, 55-10, 55-12, 55-65, and 100-17; ARs 220-10, 700-84, and 750-1 should be discussed and the T&EOs listed in this STX should be reviewed.

(3) MAPEX combined with a sand table exercise. A map of the actual location for the STX area where the STX is to be conducted and a sand table model, if possible, to match the actual terrain should be used. MAPEX assists in terrain analysis, determining possible ambush sites, determining possible road obstructions, and identifying possible bypasses.

(4) CPX conducted in a garrison or field location. The CPX facilitates communication setup, practice of TSOP, and unit mission coordination.

(5) DEPEX.

(6) EDRE.

(7) Simulations and games teach leaders as part of a continuing officer and NCO development program.

(8) Tips for Leader Training.

(a) Leaders should familiarize themselves with the procedures for planning and executing deployment operations.

(b) Leaders should review the unit and next higher echelon deployment SOPs.

(c) Leaders should conduct a personal reconnaissance of the training area where deployment activities will take place, if possible.

b. Tips for Training.

(1) After the unit has demonstrated proficiency in the tasks in Table 4-7, this STX can be trained under several options:

(a) Inclement weather.

(b) Various unit category levels.

(c) Different mode of transportation.

(d) With or without OPFOR interdiction.

(e) With or without NBC conditions.

(f) Day or night.

(g) Movement over single or multiple routes.

(2) The unit must become proficient in the basics of planning and executing deployment before attempting complex options.

(3) After proficiency in this STX is reached, the unit sustains proficiency by executing this STX as part of an FTX.

**4. TRAINING ENHANCERS.**

a. The unit commander, in coordination with higher echelon command, secures deployment SOPs and reviews deployment outload team rosters.

b. UMO/NCO updates unit deployment plans in coordination with unit leaders.

c. The next higher echelon S2/3 provides unit with the deployment sequence.

d. Unless otherwise approved by the chief OC, all reports and recommendations should be provided in hard copy to the senior trainer for evaluation.

e. This exercise begins with receipt of a deployment warning order and ends when unit is established. AARs are conducted as shown in Table 4-5. Table 4-5 is a suggested scenario.

**Table 4-5. QM Force Provider Company,  
STX C-1 scenario**

SEQUENCE	EVENT	ESTIMATED TIME
1.	Receive deployment notification	10 min
2.	Verify deployment notification	10 min
3.	Initiate recall plan	40 min
4.	Brief key personnel	30 min
5.	Update movement, deployment, and marshaling area plans	2 hr
6.	Undergo POM processing	2 hr
7.	AAR	1 hr
8.	Assemble deployment teams	30 min
* 9.	Perform deployment supply activities	2 hr
*10.	Perform deployment maintenance activities	2 hr
11.	Perform advance/quartering party activities	7 hr 30 min
12.	AAR	1 hr
*13.	Inspect vehicles and unit equipment	1 hr 30 min
*14.	Conduct showdown inspections	1 hr 30 min
*15.	Prepare vehicles and equipment	4 hr
*16.	Load vehicles and equipment	3 hr
17.	AAR	1 hr
18.	Receive movement order	20 min
19.	Conduct nontactical road march	1 hr
20.	Perform APOE/SPOE activities	2 hr
21.	Perform APOD/SPOD activities	2 hr
22.	Perform staging area activities	1 hr
23.	AAR	1 hr
*24.	Conduct tactical road march	1 hr
*25.	Defend march element	1 hr
26.	AAR	1 hr
27.	Secure operational site	1 hr
28.	Plan site defense	4 hr
29.	Issue FRAGO	10 min
30.	Perform CP set up activities	8 hr
31.	Perform module set up activities	72 hr
32.	Set up site defense	4 hr
33.	Final AAR	2 hr
	Total time	117 hr 35 min

\* Events occur simultaneously and are not added to total time.

**Table 4-5. QM Force Provider Company,  
STX C-1 scenario (continued)**

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NOTE: Events will be trained to standard, not time limitations. The time required to train an event will vary based on METT-T factors and the training proficiency of the unit.

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**5. GENERAL SITUATION.**

a. The unit is employed at its home station or mobilization site. The unit is under the command and control of the next higher echelon command.

b. Section leaders provide personnel and equipment status reports.

c. The installation provides required deployment support.

d. The OCONUS location is identified.

d. This exercise is conducted in all environmental conditions.

**6. FRAGO.** The unit commander issues the FRAGO in Figure 4-2.

---

Begin set up of the Force Provider module(s). Be prepared to commence operations on or before \_\_\_\_\_ (date/time).

---

**Figure 4-2. Sample unit FRAGO**

**7. SUPPORT REQUIREMENTS.**

a. Minimum Trainer and OCs. This exercise should be conducted with the unit commander as the trainer and primary OC. A minimum of two OCs is required.

b. OPFOR:

(1) OPFOR may or may not be required when exercise is conducted as part of a CPX. OPFOR should be used if exercise is part of an FTX.

(2) OPFOR should have specific missions and be controlled whenever used.

(3) The OCs can assess damage to equipment and personnel casualties.

c. Vehicles and Communications. Vehicles and communications equipment organic to the unit are used. When OPFOR is employed, a vehicle and radio for the OCs are needed.

d. Maneuver Area. Depending upon LTA, it is desirable to have an adequate training area for setting up operations which is 72,469.432 square meters. A road network is required that allows a road march of at least 10 kilometers.

e. MIL. During this STX, MIL is essential to provide input to drive unit actions.

f. Consolidated Support Requirements. Table 4-6 shows the suggested support requirements for this STX.

**Table 4-6. Consolidated support requirements for STX C-1**

ITEM	QUANTITY
<u>AMMUNITION</u>	
5.56mm (Blank)	50 rds/wpn
5.56mm (Blank)	100 rds/wpn OPFOR
Smoke Grenades	8 ea OPFOR
Blank Adapter	1 per wpn
Blank Adapter	1 per wpn OPFOR

EQUIPMENT

All organic equipment to include TOE and CTA authorized.  
Rail and aircraft load simulations.

FUEL

Use FM 101-10-1/2 to calculate fuel requirements.

NBC EQUIPMENT

None

RATIONS

None

**Table 4-6. Consolidated support requirements for  
STX C-1 (continued)**

ITEM	QUANTITY
<u>Other</u>	
War Wound Mouflage Set	1 each

NOTE: The consolidated support requirements outlined for this STX are intended as suggestions. Local policies or constraints may not allow for providing the items.

**8. T&EO SEQUENCE.** Table 4-7 lists the T&EOs for this STX.

**Table 4-7. T&EOs from Chapter 5 to use in evaluating  
STX C-1**

TASK	TASK NUMBER	PAGE
Perform FP Unit Deployment Alert Activities	42-2-0219	5-8
Perform FP Unit Preparation For Overseas Movement Activities	42-2-0220	5-12
Perform FP Unit Predeployment Training Activities	42-2-0221	5-15
Perform FP Unit Predeployment Supply Activities	42-2-0222	5-17
Perform FP Unit Predeployment Maintenance Activities	42-2-0223	5-20
Conduct FP Advance/Quartering Party Activities	42-2-0224	5-24
Prepare FP Unit Vehicles and Equipment for Deployment	42-2-0225	5-31
Prepare FP Unit For Nontactical Move	42-2-0226	5-37
Conduct FP Unit Nontactical Road March	42-2-0227	5-41
Perform Sea Port of Embarkation Activities for FP Unit Deployment	42-2-0228	5-45
Perform Aerial Port of Embarkation Activities for FP Unit Deployment	42-2-0229	5-51

**Table 4-7. T&EOs from Chapter 5 to use in evaluating  
STX C-1 (continued)**

TASK	TASK NUMBER	PAGE
Perform Aerial Port of Debarkation Activities for FP Unit Deployment	42-2-0230	5-55
Perform Sea Port of Debarkation Activities for FP Unit Deployment	42-2-0231	5-58
Plan Occupation of a New FP Unit Area of Operations	42-2-0232	5-63
Prepare Equipment Reception Team for FP Unit Tactical Road March	42-2-0233	5-66
Conduct FP Unit Tactical Road March	42-2-0234	5-70
Defend FP March Elements	42-2-0235	5-75
Occupy New FP Unit Operating Site	42-2-0236	5-83
Plan FP Unit Defense	42-2-0237	5-86
Set Up FP Unit Headquarters Area	42-2-0238	5-91
Set Up a FP Module	42-2-0239	5-94
Set Up FP Unit Defense	42-2-0240	5-101
Plan FP Unit Area Damage Control Operations	42-2-0241	5-107
Employ FP Unit Physical Security Measures	42-2-0242	5-110
Prepare FP Unit for Nuclear, Biological, and Chemical Conditions	42-2-0243	5-114
Employ FP Unit Operations Security Measures	42-2-0244	5-118



**QM FORCE PROVIDER COMPANY**

**STX C-2**

**CONDUCT FORCE PROVIDER OPERATIONS**

**1. OBJECTIVE.** This STX trains the unit to provide the front line soldier a brief respite from the rigors of combat, to support a task force during theater reception, reconstitution, and redeployment, and to support humanitarian aid, noncombatant evacuation, and disaster relief operations. This STX also provides the commander and key leaders with practice in planning, supervising, and coordinating force provider support. The unit must become proficient in performing tasks in Table 4-10.

**2. INTERFACE.**

a. This STX supports the unit FTX C-A, Provide Force Provider Support.

b. This STX supports the HHC, Corps Support Group STX, Direct Logistics Operations.

**3. TRAINING.**

a. Leader Training.

(1) This STX can be used to conduct force provider operations as part of a FTX.

(2) During classroom activities, the use of the TSOP and the responsibilities and procedures outlined in unit doctrinal FMs should be discussed. The T&EOs listed in the STX should be reviewed.

(3) CPX, CFX, and TEWT provide ground training for leaders when the exact area of the STX is used.

(4) Simulations and games teach leaders as part of a continuing officer and NCO development program.

(5) Tips for Leader Training.

(a) Leaders should familiarize themselves with the procedures for providing proponent mission support.

(b) Leaders should review the higher echelon and unit TSOPs.

(c) The leader should conduct a personal reconnaissance of the training area where proponent mission support will take place, if possible.

b. Tips for Training.

(1) After the unit demonstrates proficiency in the tasks in Table 4-10, this STX can be trained under several options:

- (a) With or without OPFOR interdictions.
- (b) With or without NBC environment.
- (c) In a field or Military Operations in Urban Terrain (MOUT) environment.
- (d) Day or night.
- (e) During offensive, defensive, or retrograde operations.
- (f) During low to high intensity operations.
- (g) With or without tenant units.

(2) The unit must become proficient in basic proponent support operations before attempting complex options.

(3) After proficiency in this STX is reached, the unit sustains proficiency by executing this STX as part of an FTX.

#### **4. TRAINING ENHANCERS.**

a. The unit must provide proponent support to the supported units at all times. It must also provide constant security for the operating area and be prepared to respond effectively to Level I and NBC threats.

b. Unless otherwise approved by the chief OC, all reports and recommendations should be provided in hard copy to the senior trainer for evaluation.

c. This exercise begins when, proponent support requests are received and ends when the company comes under a Level II or III threat. AARs are conducted as shown in Table 4-8. Table 4-8 is a suggested scenario.

**Table 4-8. QM Force Provider Company, STX C-2 scenario**

SEQUENCE	EVENT	ESTIMATED TIME
* 1.	Commander issues guidance	15 min
* 2.	Issue FRAGO	15 min
3.	Conduct Force Provider support activities	24 hr
* 4.	Respond to Level I threat activities	1 hr
5.	AAR	1 hr
* 6.	Conduct NBC operations (OPFOR)	30 min
* 7.	Respond to NBC attack	1 hr
* 8.	Force Provider support degradation	2 hr
9.	AAR	1 hr
*10.	Defend against air attacks (OPFOR)	30 min
*11.	Conduct restoration activities	1 hr
*12.	Receive notification of Level II/III threat	15 min
13.	Final AAR	2 hr
	TOTAL TIME:	28 hr

\* Events occur simultaneously and are not added to total time.

Note: Events are trained to standards not time limitations. The time requested to train an event will vary based on METT-T factors and the training proficiency of the company.

## 5. GENERAL SITUATION.

a. The unit is established in the support area and is prepared to support operations. Supported units have requested support.

b. A defense plan is available for Level I attack.

c. A safety program is established.

d. The unit operates under the threat of NBC attack.

e. The OPFOR has the potential to conduct ground, air, and NBC warfare.

f. This exercise is conducted in all environmental conditions.

6. **FRAGO.** The unit commander issues the FRAGO in Figure 4-3:

---

"Commence continuous Force Provider operations and defend assigned area until notified otherwise by me."

---

**Figure 4-3. Sample unit FRAGO**

**7. SUPPORT REQUIREMENTS.**

a. Minimum trainers and OCs. This exercise should be conducted with the company commander as the trainer and primary OC. A minimum of two OCs is required.

b. OPFOR:

(1) OPFOR should not be more than squad size with one crew-served weapon. OPFOR should have specific missions and be controlled when used.

(2) The OCs can assess damage to equipment and personnel casualties.

c. Vehicles and Communications. Vehicles and communications equipment organic to the unit are used. When OPFOR are employed, a vehicle and radio for the OCs are needed.

d. Maneuver Area. Depending upon LTA, it is desirable to have an adequate training area which is 72,469.432 square meters.

e. MIL. During the STX, MIL is essential to provide input to drive actions.

f. Consolidated Support Requirements. Table 4-9 shows the suggested support requirements for this STX.

**Table 4-9. Consolidated support requirements for  
STX C-2**

ITEM	QUANTITY
<u>AMMUNITION</u>	
5.56mm (Blank)	50 rds/wpn
5.56mm (Blank)	100 rds/wpn OPFOR
Smoke Grenades	8 ea OPFOR
CS Grenade	4 ea OPFOR
Blank Adapter	1 per wpn
Blank Adapter	1 per wpn OPFOR
<u>EQUIPMENT</u>	
All organic equipment to include TOE and CTA authorized	
<u>FUEL</u>	
Use FM 101-10-1/2 to calculate fuel requirements.	
<u>EQUIPMENT</u>	
AN/ODR-T1 (Radiation Survey Set)	1 each
M72A2 Chemical Simulant	2 each
CS Grenades (Practice)	4 each
<u>RATIONS</u>	
Meals	based on ration cycle
<u>OTHER</u>	
War Wound Mouflage Set	1 each
Aircraft for Simulated Air Attack	1 each
NOTE: The consolidated support requirements outlined for this STX are intended as suggestions. Local policies or constraints may not allow for providing the items.	

8. **T&EO SEQUENCE.** Table 4-10 lists the T&EOs for this STX.

**Table 4-10. T&EOs from Chapter 5 to use in evaluating  
STX C-2**

TASK	TASK NUMBER	PAGE
Provide FP Personnel and Administrative Support	42-2-0245	5-123
Maintain Communications in a FP Unit	42-2-0246	5-127
Provide FP Unit Supply Support	42-2-0247	5-131
Use Passive Air Defense Measures in a FP Unit	42-2-0248	5-136
Take Active Air Defense Measures Against Hostile Aircraft in a FP Unit	42-2-0249	5-139
Combat Battlefield Stress in a FP Unit	42-2-0250	5-142
Perform Risk Management Procedures in a FP Unit	42-2-0251	5-145
Prepare a FP Unit for a Chemical Attack	42-2-0252	5-148
Respond to a Chemical Attack in a FP Unit	42-2-0253	5-151
Perform Operational Decontamination in a FP Unit	42-2-0254	5-156
Perform Thorough Decontamination in a FP Unit	42-2-0255	5-158
Prepare for a Friendly Nuclear Strike	63-2-R327	5-160
Respond to the Initial Effects of a Nuclear Attack	63-2-1020	5-164
Respond to the Residual Effects of a Nuclear Attack	63-2-R328	5-168
Perform Radiological Decontamination	63-2-R207	5-172
Defend Against a Level I Attack in a FP Unit	42-2-0260	5-175

**Table 4-10. T&EOs from Chapter 5 to use in evaluating  
FTX C-2 (continued)**

TASK	TASK NUMBER	PAGE
Process Enemy Prisoners of War	63-2-R304	5-178
Process Captured Documents and Equipment	63-2-R305	5-181
Treat Casualties	63-2-0003	5-184
Transport Casualties	63-2-R316	5-187
Perform Mortuary Affairs Operations	10-2-C318	5-192
Perform Field Sanitation Functions	63-2-R315	5-195
Perform Unit Level Maintenance	63-2-R322	5-199
Conduct Continuous FP Operations	42-2-0268	5-205
Conduct FP Laundry and Shower Operations	42-2-0269	5-213
Conduct Bulk Fuel Support for FP	42-2-0270	5-217
Conduct Food Service Support for a FP Module	42-2-0271	5-222
Conduct Water Support Operations for a FP Module	42-2-0272	5-230

**QM FORCE PROVIDER COMPANY****STX C-3****DEFEND ASSIGNED AREA**

**1. OBJECTIVE.** This STX trains the unit in defending the assigned area, conducting and reorganizing the defense, and performing post defense functions. This STX also provides the commander and key leaders with practice in coordinating and providing command and control of self-defense operations. The unit must become proficient in performing the tasks in Table 4-13.

**2. INTERFACE.**

a. This STX supports the unit FTX C-A, Provide Force Provider Support.

b. This STX supports the HHC, Corps Support Group STX, Direct Defense of Assigned Area.

**3. TRAINING.**

a. Leader Training.

(1) This STX can be used to plan and implement the defense of the operating area as a part of an FTX.

(2) During classroom activities, the use of the unit and next higher echelon TSOPs should be discussed and the T&EOs listed in this STX should be reviewed.

(3) The leader should use a map of the actual area where the STX is to be conducted and a sand table model to match the actual terrain, if possible.

(4) CFX and TEWTs provide ground training for leaders when the exact area of the STX is used.

(5) Simulations and games teach leaders as a part of a continuing officer and NCO development program.

(6) Tips for Leader Training.

(a) Leaders should familiarize themselves with the procedures for coordinating and implementing unit defense.



(b) Leaders should review the next higher echelon and unit TSOPs.

(c) Leaders should conduct a personal reconnaissance of the training area where defensive operations will take place, if possible.

b. Tips for Training.

(1) After the unit has demonstrated proficiency in the tasks in Table 4-13, this STX can be trained under several options:

- (a) Under NBC conditions.
- (b) In a field or MOUT environment.
- (c) Day or night.
- (d) With or without tenant units.

(2) The unit must be proficient in the basics of planning, coordinating, and implementing defense before attempting complex options.

(3) After proficiency in this STX is reached, the unit sustains proficiency by executing this STX as part of an FTX.

**4. TRAINING ENHANCERS.**

a. When proponent support operations begin, the unit must be flexible enough to operate from a range of maximum support and minimum security to maximum security and minimum support.

b. Unless otherwise approved by the chief OC, all reports and recommendations should be provided in hard copy to the senior trainer for evaluation.

c. This exercise begins with notification of a Level II or III threat in the area, and ends after unit completes restoration activities. AARs are conducted as shown in Table 4-11. Table 4-11 is a suggested scenario.

**Table 4-11. QM Force Provider Company, STX C-3 scenario**

SEQUENCE	EVENT	ESTIMATED TIME
1.	Notify elements of Level II/III threat	15 min
2.	Upgrade defensive positions	1 hr
3.	Respond to threat attack	1 hr 30 min
4.	AAR	1 hr
5.	Reorganize defenses	30 min
6.	Maintain contact (OPFOR)	30 min
7.	Handover the battle	30 min
8.	AAR	1 hr
9.	Issue FRAGO	10 min
10.	Conduct hasty displacement	30 min
11.	Conduct ADC activities	1 hr 30 min
12.	Final AAR	2 hr
	TOTAL TIME:	10 hr 25 min

Note: Events are trained to standards, not to time limitations. The time requested to train an event will vary based on METT-T factors and the training proficiency of the unit.

## 5. GENERAL SITUATION.

a. The unit is deployed in the support area as part of a base defense, which is commanded and controlled by the next higher echelon rear operations element. The OPFOR has infiltrated or air dropped a platoon-size or larger force in the area to seek out command and control and support facilities to disrupt friendly battle sustainment.

b. The next higher echelon OPORD with rear operations annex is available.

c. The next higher echelon and unit TSOPs are available.

d. The unit defense has been established.

e. Rear operations communication system has been established.

f. This exercise is conducted in all environmental conditions.

g. The OPFOR has the potential to conduct ground, air, and NBC warfare.

6. **FRAGO.** The unit commander issues the FRAGO in Figure 4-4.
- 

"Conduct a hasty displacement. Destroy supplies and equipment as directed and ensure that no documents of military value are left behind. Move to the new assembly area over the prescribed route at \_\_\_\_\_ (grid coordinates)."

---

**Figure 4-4 Sample unit FRAGO**

7. **SUPPORT REQUIREMENTS.**

a. Minimum trainers and OCs. This exercise should be conducted with the unit commander as the trainer and primary OC. A minimum of three OCs is required.

b. OPFOR:

(1) The OPFOR should not be more than squad (+) size with two crew-served weapons. The OPFOR should be well trained in patrol, assault, and guerrilla tactics. The OPFOR should have specific missions and be controlled whenever used.

(2) The OCs can assess damage to equipment and personnel casualties.

(3) The OPFOR should be well trained in threat tactics being portrayed.

c. Vehicles and Communications. Vehicles and communications organic to unit are used. Communications are needed for each OC. The OPFOR OC reports to the senior OC.

d. Maneuver Area. Depending upon LTA, it is desirable to have an adequate training area which is 72,469.432 square meters.

e. Consolidated Support Requirements. Table 4-12 shows the suggested support requirements for this STX.

**Table 4-12. Consolidated support requirements for STX C-3**

ITEM	QUANTITY
<u>AMMUNITION</u>	
5.56mm (Blank)	50 rds/wpn
5.56mm (Blank)	100 rds/wpn OPFOR
Smoke Grenades	8 ea OPFOR
CS Grenade	4 ea OPFOR
Blank Adapter	1 per wpn
Blank Adapter	1 per wpn OPFOR
<u>EQUIPMENT</u>	
All organic equipment to include TOE and CTA authorized.	
<u>FUEL</u>	
Use FM 101-10-1/2 to calculate fuel requirements.	
<u>NBC EQUIPMENT</u>	
AN/ODR-T1 (Radiation Survey Set)	1 each
M72A2 Chemical Simulant	2 each
CS Grenades (Practice)	4 each
<u>RATIONS</u>	
Meals	based on ration cycle
<u>OTHER</u>	
War Wound Mouflage Set	1 each
Aircraft for simulated air attack	1 each
NOTE: The consolidated support requirements outlined for this STX are intended as suggestions only. Local policies or constraints may not allow for provision of these items.	

8. **T&EO SEQUENCE.** Table 4-13 lists the T&EO for this STX.

**Table 4-13. T&EOs from Chapter 5 to use in evaluating  
STX C-3**

TASK	TASK NUMBER	PAGE
Prepare FP Unit for Level II/III Threat	42-2-0273	5-234
Defend FP Unit Area	42-2-0274	5-236
Perform FP Area Damage Control Functions	42-2-0275	5-241
Perform FP Unit Withdrawal Under Fire	42-2-0276	5-244
Conduct FP Unit Hasty Displacement	42-2-0277	5-247
Reorganize FP Unit Defense	42-2-0278	5-250
Execute FP Unit Battle Handover	42-2-0279	5-253

**QM FORCE PROVIDER COMPANY****STX C-4****CONDUCT STRATEGIC REDEPLOYMENT**

1. **OBJECTIVE.** This STX trains the unit in redeploying the unit from a theater of operations to home station or mobilization site. This STX also provides the commander and key leaders with practice in coordinating and providing command and control for redeployment operations. This unit must become proficient in performing the tasks in Table 4-16.

2. **INTERFACE.** This STX supports the unit FTX C-A, Provide Force Provider Support.

3. **TRAINING.**

a. Leader Training.

(1) This STX can be used to plan and implement redeployment (land, sea, or air) of the unit as a part of an FTX.

(2) During classroom activities, the use of the TSOP and the responsibilities and procedures outlined in FMs 55-9, 55-10, 55-12, 55-65, 90-26, and 100-17; ARs 220-10, 700-84, and 750-1 should be discussed and the T&EOs listed in this STX should be reviewed.

(3) MAPEX combined with a sand table exercise. A map of the actual location for the STX area where the STX is to be conducted and a sand table model, if possible, to match the actual terrain should be used. MAPEX assists in terrain analysis, determining possible ambush sites, determining possible road obstructions, and identifying possible bypasses.

(4) Command Post Exercise (CPX) conducted in a garrison or field location. The CPX facilitates communication setup, practice of TSOP, and unit mission coordination.

(5) DEPEX.

(6) EDRE.

(7) Simulations and games teach leaders as part of a continuing officer and NCO development program.

(8) Tips for Leader Training.

(a) Leaders should familiarize themselves with the procedures for planning and executing redeployment operations.

(b) Leaders should review the next higher echelon and the unit redeployment SOPs.

(c) Leaders should conduct a personal reconnaissance of the training area where redeployment activities will take place, if possible.

b. Tips for Training.

(1) After the unit has demonstrated proficiency in the tasks in Table 4-16, this STX can be trained under several options:

(a) Inclement weather.

(b) Multiple Increments.

(c) Different mode of transportation.

(d) Day or night.

(2) The unit must become proficient in the basics of planning and executing basic redeployment activities before attempting complex options.

(3) After proficiency in this STX is reached, the unit sustains proficiency by executing this STX as part of an FTX.

**4. TRAINING ENHANCERS.**

a. The unit commander, in coordination with the next higher echelon S2/3, secures required redeployment SOPs.

b. UMO/NCO updates unit redeployment plans in coordination with next higher echelon staff.

c. The next higher echelon S2/3 provides the unit with the redeployment sequence.

d. Unless otherwise approved by the chief OC, all reports and recommendations should be provided in hard copy to the senior trainer for evaluation.

e. This exercise begins with receipt of a warning order and ends upon completion of redeployment activities. AARs are conducted as shown in Table 4-14. Table 4-14 is a suggested scenario.

**Table 4-14. QM Force Provider Company, STX C-4 scenario**

SEQUENCE	EVENT	ESTIMATED TIME
1.	Receive redeployment order	10 min
2.	Issue FRAGO	10 min
* 3.	Perform redeployment administrative activities	4 hr
* 4.	Perform redeployment supply activities	2 hr
* 5.	Perform redeployment maintenance activities	2 hr
6.	Perform module dismantle activities	60 hr
7.	AAR	1 hr
* 8.	Inspect vehicles and unit equipment	1 hr 30 min
* 9.	Conduct showdown inspection	1 hr 30 min
*10.	Prepare vehicles and equipment	4 hr
*11.	Load vehicles and equipment	3 hr
12.	AAR	1 hr
5.	Conduct tactical road march	1 hr
6.	Defend march elements	1 hr
7.	Perform APOE/SPOE activities	2 hr
8.	AAR	1 hr
9.	Perform APOD/SPOD activities	2 hr
10.	Conduct nontactical road march	1 hr
11.	Perform home station activities	1 hr
12.	Final AAR	2 hr
	Total Time	74 hr 20 min

\* Events occur simultaneously and are not included in total time.

NOTE: Events will be trained to standard, not time limitations. The time required to train an event will vary based on METT-T factors and the training proficiency of the unit.

## 5. GENERAL SITUATION.

a. The unit is employed in a theater of operations and is to be redeployed to CONUS. The unit is under the command and control of the next higher echelon element.

b. Section leaders provide personnel and equipment status reports.



c. The base support elements provide required redeployment support.

d. This exercise is conducted in all environmental conditions.

**6. FRAGO.** The unit commander issues the FRAGO in Figure 4-5.

---

Dismantle Force Provider module(s) and prepare to move to CONUS by \_\_\_\_\_ (date/time).

---

**Figure 4-5. Sample unit FRAGO**

**7. SUPPORT REQUIREMENTS.**

a. Minimum Trainer and OCs. This exercise should be conducted with the unit commander as the trainer and primary OC. A minimum of two OCs is required.

b. OPFOR: none

c. Vehicles and Communications. Vehicles and communications equipment organic to the company are used.

d. Maneuver Area. A road network is required that allows a road march of at least 10 kilometers.

e. MIL. During this STX, MIL is essential to provide input to drive unit actions.

f. Consolidated Support Requirements. Table 4-15 shows the suggested support requirements for this STX.

**Table 4-15. Consolidated support requirements for  
STX C-4**

ITEM	QUANTITY
<u>AMMUNITION</u>	
None	
<u>EQUIPMENT</u>	
All organic equipment to include TOE and CTA authorized. Rail and aircraft load simulations.	
<u>FUEL</u>	
Use FM 101-10-1/2 to calculate fuel requirements.	
<u>NBC EQUIPMENT</u>	
None	
<u>RATIONS</u>	
None	
NOTE: The consolidated support requirements outlined for this STX are intended as suggestions. Local policies or constraints may not allow for providing the items.	

**8. T&EO SEQUENCE.** Table 4-16 lists the T&EOs for this STX.

**Table 4-16. T&EOs from Chapter 5 to use in evaluating  
STX C-4**

TASK	TASK NUMBER	PAGE
Perform FP Unit Redeployment Personnel and Administrative Actions	42-2-0280	5-256
Perform FP Unit Redeployment Training Activities	42-2-0281	5-259
Perform FP Unit Redeployment Supply Activities	42-2-0282	5-261
Perform FP Unit Redeployment Maintenance Activities	42-2-0283	5-264

**Table 4-16. T&EOs from Chapter 5 to use in evaluating  
STX C-4 (continued)**

TASK	TASK NUMBER	PAGE
Prepare FP Unit Vehicles and Equipment for Redeployment	42-2-0284	5-268
Perform FP Unit Aerial Port of Embarkation Activities for Redeployment	42-2-0285	5-276
Perform FP Unit Sea Port of Embarkation Activities for Redeployment	42-2-0286	5-281
Perform FP Unit Home Station Activities	42-2-0287	5-287
Perform FP Unit Aerial Port of Debarkation Activities for Redeployment	42-2-0288	5-291
Perform FP Unit Sea Port of Debarkation Activities for Redeployment	42-2-0289	5-294
Prepare Subsystems of a FP Module for Redeployment	42-2-0290	5-298

## Chapter 5

### Training and Evaluation Outlines

**5-1. INTRODUCTION.** This chapter contains the training and evaluation outlines for the unit. T&EOs are learning objectives (task, conditions, and standards) for the collective tasks which support the critical mission. The unit must master these collective tasks to perform its critical mission. T&EOs may be trained separately in an STX/FTX or during internal/external evaluation.

**5-2. STRUCTURE.** The T&EOs in this chapter are listed in Table 5-1. The Mission to Collective Task Matrix in Chapter 2 lists the T&EOs required to train the missions according to their specific BOS.

**5-3. FORMAT.** The T&EO are prepared for every collective task that supports critical operations accomplishment. Each T&EO contains the following components:

a. Element. Identifies the unit or unit element(s) that perform the task. The tasks beginning with "63" numbers are common logistics tasks. Choose the element that applies to your unit.

b. Task. Describes the action to be performed by the unit.

c. Task Number. Identifies the task throughout the MTP.

d. References. These are in parenthesis following the task number. The reference which contains the most information about the task is underlined.

e. Iteration. Identifies the number of times a task is performed and evaluated during training. The "M" identifies when the task is performed in MOPP 4.

f. Commander/Leader Assessment. This is used by the unit leadership to assess the proficiency of the unit in performing the task to standards. Assessments are subjective in nature and use all available evaluation data and sub-unit leader input to develop an assessment of the organization's overall capability to accomplish the task. Use the following ratings:

(1) T - Trained. The unit is trained and has demonstrated its proficiency in accomplishing the task to wartime standards.

(2) P - Needs Practice. The unit needs to practice the task. Performance has demonstrated that the unit does not achieve standard without some difficulty or has failed to perform non-critical task steps to standard.

(3) U - Untrained. The unit can not demonstrate an ability to achieve wartime proficiency or failed to achieve one or more of the critical task steps to standard.

g. Conditions. Describes the environment and situation under which the task is to be performed and contains the initiating cue for the task.

h. Task Standard.

(1) The task standard states the performance criteria that a unit must achieve to successfully execute the task. This overall standard should be the focus of training. It should be understood by every soldier.

(2) The trainer or evaluator determines the unit's training status using performance observation measurements, where applicable, and his judgment. The unit must be evaluated in the context of the METT-T conditions. This will establish a common base for unit performance.

i. Task Step and Performance Measures. This is a listing of actions that are required to complete the task. These actions are stated in terms of observable performance for evaluating training proficiency. The task steps are arranged sequentially along with supporting individual tasks and their reference. Leader tasks within each T&EO are indicated by asterisk (\*). Under each task step are listed performance measures that must be accomplished to correctly perform the task step. If the unit fails to correctly perform one of these task steps to standard, it has failed to achieve the overall task standard.

j. GO/NO GO. Used to record the performance of the performance measure. Evaluate each performance measure for a task step and place an "X" in the appropriate column. A major portion of the performance measures must be marked a "GO" for the task step to be successfully performed.

k. Task Performance/Evaluation Summary Block Provides the trainer a means of recording the total number of task steps and performance measures evaluated and those evaluated as "GO". It also provides the evaluator a means to rate the unit's performance as a "GO" or "NO GO". It also provides the leader with a historical record for five training iterations.

l. Supporting Individual Tasks. A listing of all supporting tasks required to correctly perform the task. Listed are the reference, task title, and task number.

m. OPFOR Tasks and Standards. Provides overall OPFOR performance for selected collective tasks. These tasks and standards also ensure that OPFOR soldiers accomplish meaningful training and the training unit to perform its task to standard or "lose" to the OPFOR. The OPFOR standards specify what must be accomplished, and not how it must be accomplished. The OPFOR must always attain its task standards by using the doctrine and tactics consistent with the threat they are portraying.

**5-4. USAGE OF T&EO.** The T&EO can be used to train or evaluate a single task. Several T&EOs can be used to train or evaluate a group of tasks such as an STX or FTX.

**Table 5-1. List of unit's T&EOs**

BOSS AND TASK TITLE	TASK NUMBER	PAGE
<b>MANEUVER</b>		
Perform FP Unit Deployment Alert Activities	42-2-0219	5-8
Perform FP Unit Preparation for Overseas Movement Activities	42-2-0220	5-12
Perform FP Unit Predeployment Training Activities	42-2-0221	5-15
Perform FP Unit Predeployment Supply Activities	42-2-0222	5-17
Perform FP Unit Predeployment Maintenance Activities	42-2-0223	5-20
Conduct FP Advance/Quartering Party Activities	42-2-0224	5-24
Prepare FP Unit Vehicles and Equipment for Deployment	42-2-0225	5-31
Prepare FP Unit for Nontactical Move	42-2-0226	5-37
Conduct FP Unit Nontactical Road March	42-2-0227	5-41

**Table 5-1. List of unit's T&EOs (continued)**

BOSS AND TASK TITLE	TASK NUMBER	PAGE
Perform Sea Port of Embarkation Activities for FP Unit Deployment	42-2-0228	5-45
Perform Aerial Port of Embarkation Activities for FP Unit Deployment	42-2-0229	5-51
Perform Aerial Port of Debarkation Activities for FP Unit Deployment	42-2-0230	5-55
Perform Sea Port of Debarkation Activities for FP Unit Deployment	42-2-0231	5-58
Prepare Equipment Reception Team for FP Unit Tactical Road March	42-2-0233	5-66
Conduct FP Unit Tactical Road March	42-2-0234	5-70
Occupy New FP Unit Operating Site	42-2-0236	5-83
Perform FP Unit Redeployment Personnel and Administrative Actions	42-2-0280	5-256
Perform FP Unit Redeployment Training Activities	42-2-0281	5-259
Perform FP Unit Redeployment Supply Activities	42-2-0282	5-261
Perform FP Unit Redeployment Maintenance Activities	42-2-0283	5-264
Prepare FP Unit Vehicles and Equipment for Redeployment	42-2-0284	5-268
Perform FP Unit Aerial Port of Embarkation Activities for Redeployment	42-2-0285	5-276
Perform FP Unit Sea Port of Embarkation Activities for Redeployment	42-2-0286	5-281
Perform FP Unit Home Station Activities	42-2-0287	5-287
Perform FP Unit Aerial Port of Debarkation Activities for Redeployment	42-2-0288	5-291

**Table 5-1. List of unit's T&EOs (continued)**

BOSS AND TASK TITLE	TASK NUMBER	PAGE
Perform FP Unit Sea Port of Debarkation Activities for Redeployment	42-2-0289	5-294
Prepare Subsystems of a FP Module for Redeployment	42-2-0290	5-298
<b>MOBILITY and SURVIVABILITY</b>		
Defend FP March Elements	42-2-0235	5-75
Set Up FP Unit Headquarters Area	42-2-0238	5-91
Set Up a FP Module	42-2-0239	5-94
Set Up FP Unit Defense	42-2-0240	5-101
Employ FP Unit Physical Security Measures	42-2-0242	5-110
Prepare FP Unit for Nuclear, Biological, and Chemical Conditions	42-2-0243	5-114
Employ FP Unit Operations Security Measures	42-2-0244	5-118
Use Passive Air Defense Measures in a FP Unit	42-2-0248	5-136
Prepare a FP Unit for a Chemical Attack	42-2-0252	5-148
Respond to a Chemical Attack in a FP Unit	42-2-0253	5-151
Perform Operational Decontamination in a FP Unit	42-2-0254	5-156
Perform Thorough Decontamination in a FP Unit	42-2-0255	5-158
Prepare For a Friendly Nuclear Strike	63-2-R327	5-160
Respond to the Initial Effects of a Nuclear Attack	63-2-1020	5-164
Respond to the Residual Effects of a Nuclear Attack	63-2-R328	5-168



**Table 5-1. List of unit's T&EOs (continued)**

BOSS AND TASK TITLE	TASK NUMBER	PAGE
Perform Radiological Decontamination	63-2-R207	5-172
Defend Against a Level I Attack in a FP Unit	42-2-0260	5-175
Prepare FP Unit for a Level II/III Threat	42-2-0273	5-234
Defend FP Unit Area	42-2-0274	5-236
Perform FP Area Damage Control Functions	42-2-0275	5-241
Perform FP Unit Withdrawal Under Fire	42-2-0276	5-244
Conduct FP Unit Hasty Displacement	42-2-0277	5-247
Reorganize FP Unit Defense	42-2-0278	5-250
Execute FP Unit Battle Handover	42-2-0279	5-253
<b>AIR DEFENSE</b>		
Take Active Air Defense Measures Against Hostile Aircraft in a FP Unit	42-2-0249	5-139
<b>COMBAT SERVICE SUPPORT</b>		
Provide FP Personnel and Administrative Support	42-2-0245	5-123
Provide FP Unit Supply Support	42-2-0247	5-131
Combat Battlefield Stress in a FP Unit	42-2-0250	5-142
Perform Risk Management Procedures in a FP Unit	42-2-0251	5-145
Process Enemy Prisoners of War	63-2-R304	5-178
Process Captured Documents and Equipment	63-2-R305	5-181
Treat Casualties	08-2-0003	5-184
Transport Casualties	63-2-R316	5-187

Perform Mortuary Affairs Operations	10-2-C318	5-192
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**Table 5-1. List of unit's T&EOs (continued)**

BOSS AND TASK TITLE	TASK NUMBER	PAGE
Perform Field Sanitation Functions	63-2-R315	5-195
Perform Unit Level Maintenance	63-2-R322	5-199
Conduct Continuous FP Operations	42-2-0268	5-205
Conduct FP Laundry and Shower Operations	42-2-0269	5-213
Conduct Bulk Fuel Support for FP	42-2-0270	5-217
Conduct Food Service Support for a FP Module	42-2-0271	5-222
Conduct Water Support Operations for a FP Module	42-2-0272	5-230
<b>COMMAND AND CONTROL</b>		
Plan Occupation of a New FP Unit Area of Operations	42-2-0232	5-63
Plan FP Unit Defense	42-2-0237	5-86
Plan FP Unit Area Damage Control Operations	42-2-0241	5-107
Maintain Communications in a FP Unit	42-2-0246	5-127

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT DEPLOYMENT ALERT ACTIVITIES (42-2-0219)

(AR 220-10) (FM 100-17) (FM 42-424)  
 (FM 55-10) (FM 55-65)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company is at a normal state of deployment readiness and receives a warning order to prepare for overseas deployment. Higher HQ movement plan is available. The CQ or 1st Sergeant has notified the commander. The company Movement Plan, Recall Plan, Security Plan, company and higher HQ access rosters, and current maps are available. The company has a trained officer and NCO appointed as UMO/NCO. Main body personnel, Advance/Quartering Party personnel, SPOE Team, Equipment Reception Team, Packing and Crating Team, Weighing and Marking Team, Rail Loading Team, and Supercargoes have been designated by the commander and trained in their duties Alert notification activities are performed day or night, under all environmental conditions. This task should not be trained in MOPP4.

**TASK STANDARDS:** Company personnel are recalled IAW the Recall Plan. All personnel are present or accounted for, and briefings are conducted for unit personnel and deployment teams, IAW Movement Plan. Security is established IAW Security Plan.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander supervises deployment alert notification activities. a. Directs the CQ or 1st Sergeant to implement the Recall Plan. b. Coordinates with higher HQ staff personnel for guidance concerning deployment requirements. c. Briefs company leaders on deployment and mission requirements. d. Directs UMO/NCO to update Movement Plan, Deployment SOP, and MA plans, as required.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Assigns additional and/or replacement personnel to deployment teams, as required.</p> <p>f. Monitors security of company area for compliance with Security Plan.</p> <p>g. Monitors recall of company personnel to ensure recall time standards are met and personnel accountability is accomplished IAW Recall Plan.</p> <p>h. Submits reports to higher HQ IAW Recall Plan, Security Plans, Deployment OPORD, and Movement Plan.</p> <p>i. Briefs staff personnel on status of deployment alert activities.</p> <p>j. Directs coordination/liaison with Army Materiel Command (AMC) Logistic Support Element (LSE).</p> <p>2. Company HQ performs recall personnel accountability functions.</p> <p>a. Initiates recall procedures IAW Recall Plan.</p> <p>b. Sets up central check-in IAW Recall Plan.</p> <p>c. Checks personnel as they arrive, to ensure only personnel listed on current access rosters enter the company area.</p> <p>d. Annotates recall roster to indicate personnel are present for duty as they arrive.</p> <p>e. Computes percent present for duty, IAW Recall Plan.</p> <p>f. Briefs commander on present-for-duty status as recall progresses.</p> <p>g. Disestablishes control check-in when all soldiers are present or accounted for.</p> <p>3. Company performs personnel recall activities.</p> <p>a. Relays alert notification, as required.</p> <p>b. Reports for duty to company HQ IAW Recall Plan.</p> <p>c. Repairs or replaces personal gear, as required.</p> <p>d. Performs security functions, as required.</p> <p>e. Provides family members with information on deployment, as permitted.</p> <p>*4. UMO/NCO assemble deployment teams.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>a. Identify company deployment team requirements by reviewing Movement Plan.</p> <p>b. Confirm deployment teams' personnel are available.</p> <p>c. Request commander to assign additional and/or replacement deployment team members, as required.</p> <p>d. Brief deployment teams on their duties and responsibilities, IAW the Movement Plan.</p> <p>e. Brief commander on status of deployment teams.</p> <p>*5. Company leaders supervise platoon/section alert activities.</p> <p>a. Monitor arrival of platoon personnel to ensure all personnel are accounted for.</p> <p>b. Supervise establishment of security of assigned area IAW Security Plan.</p> <p>c. Brief personnel on deployment.</p> <p>d. Link up with AMC LSE teams.</p> <p>*6. Section Chiefs and/or Team Leaders supervise alert activities.</p> <p>a. Inspect personnel as they arrive to ensure all have required clothing and personal gear.</p> <p>b. Inspect alert bags to ensure all personal gear is present and serviceable.</p> <p>c. Assign personnel to security posts IAW Security Plan.</p> <p>d. Brief platoon leaders and/or section chiefs on alert status.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT PREPARATION FOR OVERSEAS MOVEMENT  
 ACTIVITIES (42-2-0220)  
 (AR 220-10) (FM 100-17) (FM 42-424)  
 (FM 55-65)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Higher HQ staff personnel have provided a POM processing schedule to the commander. Company personnel have been recalled for deployment to an overseas site. The higher HQ staff personnel have coordinated with installation facilities for contact team support to conduct POM activities. Transportation to move the company to POM facilities is available. The Deployment SOP, Movement Plan, Family Assistance Plan, and higher HQ Deployment OPORD are available. POM activities are performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**TASK STANDARDS:** POM activities are accomplished IAW the Movement Plan, Deployment OPORD, higher HQ staff personnel POM processing schedule, and commander's guidance.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs personnel and administrative POM activities. a. Provides POM processing schedule to the UMO/NCO. b. Directs the XO/1st Sergeant to publish a company POM processing schedule based on the higher HQ staff personnel POM processing schedule. c. Forwards list of nondeployable personnel to the higher HQ staff personnel. d. Directs personnel to complete POM processing activities. e. Directs personnel to secure POVs and personal property IAW Movement Plan. f. Directs XO to prepare briefing for dependents.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>g. Directs XO to update Family Assistance Plan as required.</p> <p>h. Requests higher HQ staff personnel appoint Class A agents to act as pay agents during deployment, if necessary.</p> <p>i. Coordinates with higher HQ staff personnel to close out unit fund account.</p> <p>j. Briefs higher HQ staff personnel on status of POM activities.</p> <p>2. Company HQ processes POM records.</p> <p>a. Delivers unit POM records to POM processing site.</p> <p>b. Verifies that 100 percent of deploying personnel have processed.</p> <p>c. Returns POM records to company HQ.</p> <p>d. Delivers POM records to higher HQ rear detachment prior to departure.</p> <p>3. Company HQ performs personnel replacement functions.</p> <p>a. Identifies nondeployable personnel by reviewing monthly USR, 1st Sergeant Daily Report, and POM processing results.</p> <p>b. Coordinates with higher HQ staff personnel Section for replacement personnel.</p> <p>c. Recommends assignment of replacement personnel to commander.</p> <p>d. Assigns replacement personnel IAW commander's instructions.</p> <p>e. Updates the Family Assistance Plan, as required.</p> <p>4. Company HQ monitors company POM activities.</p> <p>a. Publishes company POM processing schedule based on Movement Plan, higher HQ staff personnel POM processing schedule, and commander's guidance.</p> <p>b. Distributes company POM processing schedule to platoons and sections.</p> <p>c. Monitors POM processing to ensure activities are completed IAW POM processing schedule.</p> <p>d. Coordinates with the higher HQ staff personnel Section for additional POM processing, as required.</p> <p>e. Briefs Company Commander on POM processing status.</p>		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>*5. Company leaders supervise personnel and administrative POM activities.</p> <ul style="list-style-type: none"> <li>a. Direct personnel to complete POM processing IAW POM processing schedule.</li> <li>b. Designate personnel to assist contact teams in POM processing activities, as required.</li> <li>c. Monitor POM processing to ensure activities are completed IAW POM processing schedule.</li> <li>d. Coordinate with the UMO/NCO for additional POM processing as required.</li> <li>e. Identify nondeployable personnel.</li> <li>f. Coordinate personnel replacement with company HQ.</li> <li>g. Monitor securing of POVs and personal property for compliance with Movement Plan and commander's instructions.</li> <li>h. Brief personnel on Family Assistance Plan.</li> <li>i. Brief Company Commander on results of POM processing.</li> </ul> <p>6. Company performs POM activities.</p> <ul style="list-style-type: none"> <li>a. Performs POM contact team functions as directed.</li> <li>b. Completes POM processing activities as directed.</li> <li>c. Secures POVs and personal property IAW Movement Plan and Company Commander's instructions.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT PREDEPLOYMENT TRAINING ACTIVITIES  
(42-2-0221)

(AR 700-84) (AR 220-10) (FM 100-17)  
(FM 42-424) (FM 55-65) (TM 10-5419-200-12)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** The company is preparing for deployment to an overseas site. Sufficient time exists for the company to conduct predeployment training. The commander has designated a training officer and NCO. The company Deployment SOP, Movement Plan, higher HQ Deployment OPORD, and training records are available. Predeployment training is performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**TASK STANDARDS:** Predeployment training is accomplished, IAW the training schedule and commander's guidance.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs predeployment training activities. (STP 21-II-MQS: 01-8951.00-8959) a. Identifies training requirements through coordination with company leaders and review of the Movement Plan and training records. b. Identifies special training requirements by reviewing higher HQ Deployment OPORD and coordinating with the higher HQ staff personnel. c. Directs training officer to schedule training to correct training deficiencies. d. Designates personnel to receive training IAW higher HQ staff personnel instructions. e. Briefs higher HQ staff personnel on status of predeployment training. f. Enforces safety procedures. g. Enforces environmental stewardship procedures.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>*2. Training Officer/NCO supervise predeployment training activities.</p> <ul style="list-style-type: none"> <li>a. Develop training schedule based on Movement Plan, Deployment OPORD, specialized training requirements, and commander's instructions.</li> <li>b. Coordinate training support with the higher HQ staff personnel as required.</li> <li>c. Provide training schedule to company leaders as appropriate.</li> <li>d. Monitor training to ensure appropriate training is provided to personnel.</li> <li>e. Brief commander on status of predeployment training.</li> </ul> <p>*3. Company leaders perform predeployment training activities.</p> <ul style="list-style-type: none"> <li>a. Coordinate with UMO/NCO for required training support.</li> <li>b. Conduct training IAW training schedule if required.</li> <li>c. Annotate training results on individual and team training records.</li> <li>d. Enforce safety procedures.</li> <li>e. Enforce environmental stewardship procedures.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-II-MQS	01-8951.00-8959	CONDUCT TRAINING AT COMPANY LEVEL

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT PREDEPLOYMENT SUPPLY ACTIVITIES (42-2-0222)

(AR 700-84) (FM 42-424) (AR 220-10)  
 (FM 100-17) (FM 55-65) (TM 10-5419-200-12)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company is preparing for deployment to an overseas site. Basic loads of ammunition, rations, and repair parts are available. The company Movement Plan, TSOP, and higher HQ Deployment OPORD are available. Predeployment supply activities are performed day or night, under all environmental conditions. This task should not be trained in MOPP4.

**TASK STANDARDS:** Predeployment supply activities are accomplished IAW the Movement Plan, TSOP, and commander's guidance.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander supervises predeployment supply activities. <ul style="list-style-type: none"> <li>a. Identifies float and/or replacement equipment and additional supply requirements to the Movement Plan deployment supply list, based on the Deployment OPORD, METT-T, and coordination with the higher HQ staff personnel.</li> <li>b. Coordinates with the higher HQ staff personnel for issue of additional supplies, as required.</li> <li>c. Coordinates with higher HQ staff element for information regarding the release of FP module(s) and transportation arrangements of module(s).</li> <li>d. Coordinates with higher HQ staff personnel for requisition of FP expendable supplies as identified in TM 10-5419-200-12 to support FP operations.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>e. Coordinates with higher HQ staff for authorization or information regarding the release of an FP cold weather kit, if ambient, operating temperatures are expected to be 32°F or lower.</li> <li>f. Coordinates with higher HQ staff personnel for issue of float and/or replacement equipment, as necessary.</li> <li>g. Directs company leaders to provide supply and equipment requests to Supply Sergeant.</li> <li>h. Directs Supply Sergeant to request required supplies and equipment.</li> <li>i. Briefs battalion commander and the higher HQ staff personnel on supply status, as required.</li> <li>j. Enforces safety procedures.</li> <li>k. Enforces environmental stewardship procedures.</li> </ul> <p>2. Platoons perform predeployment supply activities.</p> <ul style="list-style-type: none"> <li>a. Identify shortages of supplies and equipment by conducting inventories and inspections.</li> <li>b. Submit requests for supplies and equipment to supply sergeant IAW TSOP, as required.</li> <li>c. Issue individual basic loads, as required.</li> <li>d. Employ safety procedures.</li> <li>e. Employ environmental stewardship procedures.</li> </ul> <p>3. Company HQ provides supply support.</p> <ul style="list-style-type: none"> <li>a. Submits requests for issue of personal clothing and equipment to higher HQ staff personnel IAW AR 700-84.</li> <li>b. Submits request for basic loads and required supplies and equipment to higher HQ staff personnel IAW Movement Plan and TSOP.</li> <li>c. Draws basic loads IAW higher HQ staff personnel instructions.</li> <li>d. Coordinates with higher HQ staff personnel to resolve outstanding requisitions.</li> <li>e. Coordinates with commander or higher HQ staff personnel for transportation and MHE support to pick up, issue, and/or pack deployment supplies, if necessary.</li> <li>f. Inspects float and/or replacement equipment for serviceability.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
g. Signs for float and/or replacement equipment. h. Issues supplies and equipment IAW TSOP, as required. i. Secures unissued supplies and equipment IAW TSOP. j. Turns in equipment, supplies, and hazardous material to appropriate facility, as required. k. Briefs commander on deployment supply status. l. Coordinates with higher HQ staff personnel to change address of company DODAC. m. Updates property book records, as required.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### OPFOR TASKS AND STANDARDS

NONE:

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT PREDEPLOYMENT MAINTENANCE ACTIVITIES  
(42-2-0223)

(DA Pam 738-750)	(AR 220-1)	(AR 700-138)
(AR 750-1)	(DA Pam 750-35)	(FM 100-17)
(FM 42-424)	(FM 43-5)	(FM 55-65)

**ITERATION:**                                    1    2    3    4    5    M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:**    T    P    U  
(Circle)

**CONDITIONS:** The company is preparing for deployment to an overseas site. Sufficient time exists for the company to conduct predeployment maintenance activities. The commander has designated a motor officer. Required tools, equipment, and personnel are available. MSTs are available in the unit maintenance area. The Movement Plan, Maintenance SOP, and higher HQ Deployment OPORD are available. Predeployment maintenance is performed day or night, under all environmental conditions. This task should not be trained in MOPP4.

**TASK STANDARDS:** Predeployment maintenance is accomplished IAW the Maintenance SOP and commander's guidance.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>*1. Commander directs predeployment maintenance activities. (STP 21-II-MQS: 01-4965.90-0001, 03-4976.90-0501)</p> <ul style="list-style-type: none"> <li>a. Monitors maintenance activities for compliance with the Maintenance SOP and commander's guidance.</li> <li>b. Approves the use of controlled exchange when required repair parts are not available.</li> <li>c. Checks MCSR for accuracy and completeness.</li> <li>d. Forwards MCSR to the higher HQ staff section.</li> <li>e. Coordinates with higher HQ staff for maintenance support, as required.</li> <li>f. Prioritizes repair of vehicles and equipment.</li> <li>g. Enforces safety procedures.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>h. Enforces environmental stewardship procedures.</p> <p>*2. Motor Officer and/or Motor Sergeant supervise predeployment maintenance activities. (STP 21-II-MQS: 03-5101.00-0283)</p> <p>a. Identify unit operational readiness levels by reviewing vehicle and equipment status reports, PMCS, and predeployment maintenance checks.</p> <p>b. Prepare MCSR IAW AR 220-1 and AR 700-138.</p> <p>c. Submit current MCSR to commander.</p> <p>d. Submit request for MSTs to commander as required.</p> <p>e. Submit request for controlled exchanges to commander for approval.</p> <p>f. Designate company maintenance personnel to assist MSTs IAW Maintenance SOP and higher HQ staff section and commander's instructions.</p> <p>g. Direct calibration of tools if required.</p> <p>h. Submit request for PLL replenishment to higher HQ staff section, as required.</p> <p>i. Verify completion of repairs by reviewing maintenance records.</p> <p>j. Coordinate with higher HQ staff section to identify status of vehicles and equipment in support maintenance.</p> <p>k. Coordinate with higher HQ staff section to evacuate nondeployable vehicles and equipment to support maintenance.</p> <p>l. Brief the commander on maintenance status of vehicles and equipment as required.</p> <p>m. Enforce safety procedures.</p> <p>n. Enforce environmental stewardship procedures.</p> <p>3. Company HQ performs organizational maintenance activities.</p> <p>a. Calibrates tools as required.</p> <p>b. Inspects equipment IAW appropriate operator and organizational maintenance TMs.</p> <p>c. Records all deficiencies on equipment inspection worksheets.</p> <p>d. Corrects unit-level maintenance deficiencies.</p>		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>e. Forwards requests for DS maintenance to supporting maintenance facility.</li> <li>f. Requests required repair parts from PLL clerk.</li> <li>g. Repairs equipment IAW applicable TM(s).</li> <li>h. Requests approval for controlled exchange through Motor Officer or Sergeant when required repair parts are not available.</li> <li>i. Performs controlled exchange IAW Motor Officer or Sergeant's instructions.</li> <li>j. Performs final inspection to ensure quality control of repairs.</li> <li>k. Conducts inventory of PLL to confirm shortages IAW PLL listing.</li> <li>l. Submits request for PLL replenishment to motor sergeant as required.</li> <li>m. Performs technical inspections of float and/or replacement equipment IAW appropriate TMs and manufacturer's instructions.</li> <li>n. Releases equipment to appropriate platoon or section.</li> <li>o. Employs safety procedures.</li> <li>p. Employs environmental stewardship procedures.</li> </ul> <p>4. Company HQ conducts transactions with MSTs.</p> <ul style="list-style-type: none"> <li>a. Identifies vehicles and equipment that require MST support.</li> <li>b. Prepares required documentation for submission to MST.</li> <li>c. Delivers vehicles and equipment to MST.</li> <li>d. Picks up equipment from MST upon notification that required repairs are completed.</li> <li>e. Notifies owning element to pick up vehicles and equipment.</li> </ul> <p>*5. Company leaders supervise predeployment operator maintenance activities.</p> <ul style="list-style-type: none"> <li>a. Monitor performance of PMCS and predeployment maintenance for compliance with Maintenance SOP, appropriate TM, and commander's guidance.</li> <li>b. Inspect vehicles, weapons, and equipment to ensure compliance with Maintenance SOP, appropriate TM, and commander's guidance.</li> </ul>		

<b>TASK STEPS AND PERFORMANCE MEASURES</b>	<b>GO</b>	<b>NO-GO</b>
c. Provide input for MCSR to motor officer as required. d. Enforce safety procedures. e. Enforce environmental stewardship procedures.  6. Company performs predeployment operator maintenance. a. Performs PMCS IAW appropriate TM(s). b. Notifies supervisor of maintenance problems beyond operator's capabilities. c. Employs safety procedures. d. Employs environmental stewardship procedures.		

<b>TASK PERFORMANCE / EVALUATION SUMMARY BLOCK</b>							
<b>ITERATION</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>M</b>	<b>TOTAL</b>
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### **SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-II-MQS	01-4965.90-0001	SUPERVISE UNIT MAINTENANCE OPERATIONS
	03-4976.90-0501	PREPARE A MATERIEL CONDITION STATUS REPORT
	03-5101.00-0283	SUPERVISE THE MAINTENANCE OF UNIT PRESCRIBED LOAD LIST

#### **OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENTS:** COMPANY  
PROVIDER PLT

**TASK:** CONDUCT FP ADVANCE/QUARTERING PARTY ACTIVITIES  
(42-2-0224)  
(FM 17-95) (FM 42-424) (FM 44-8)  
(TM 10-5419-200-12)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** The FP unit has deployed its Advance/Quartering Party ahead of the main body. The FP unit will be assigned to a TAACOM or COSCOM, and may be attached to a HHD, Supply and Service Battalion, or to a HHC, Corps Support Group. The Advance/Quartering Party has linked up with and accompanies the AMC LSE advance team. The Advance/Quartering Party and AMC LSE advance team will jointly coordinate and establish FP requirements with the theater and FP unit. The Advance/Quartering Party has the FP unit's movement order and higher command's plan for FP operations. The FP unit's and higher HQ's TSOP are available. The Advance/Quartering Party possesses all required organic equipment and supplies. Normal military and nominal support is acquired. The FP modules' shipping containers may or may not be at the FP operational site and will be under theater control. The higher command provides billeting, rations, communications support, and transportation for the Advance/Quartering Party upon its arrival. The Contracting Officer has the required obligation authority. Sufficient guides, markers, and other equipment are available. The main body arrives before completion of this task. This task should not be trained in MOPP4.

**TASK STANDARDS:** A site for the FP module(s) is recommended that meets the criteria in TM 10-5419-200-12 and the FP unit's mission. Shipping containers for module(s) are secured in a holding area. Finance, legal, personnel and administration services, security, transportation, fire fighting, utilities and power generation, potable water and petroleum, solid waste and sewage disposal, health service and religious, and contractual labor/services support is identified IAW the TSOP and higher headquarters/theater instructions.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>*1. Advance/Quartering Party manages the coordination of FP operations required to support the theater. (STP 21-II-MQS: 03-3711.12-0001)</p> <ul style="list-style-type: none"> <li>a. Confirms release of FP module(s) to theater control.</li> <li>b. Confirms transportation arrangements and dates for FP module(s).</li> <li>c. Determines nature and schedule of units to be supported.</li> <li>d. Determines relationship with supporting staff and logistics agencies.</li> </ul> <p>*2. Advance/Quartering Party leader supervises the activities of the FP Advance/Quartering Party. (STP 21-1-SMCT: 071-329-1005, STP 21-24-SMCT: 071-326-5805)</p> <ul style="list-style-type: none"> <li>a. Coordinates contracting, engineer, and preventive medicine staff actions in preparation for the FP unit's arrival.</li> <li>b. Coordinates supply, maintenance, and field service support for the FP unit.</li> <li>c. Directs route and area reconnaissance of potential FP sites.</li> <li>d. Recommends appropriate FP operational site to higher headquarters.</li> <li>e. Coordinates combat service and service support for FP operations with higher headquarters.</li> <li>f. Establishes communications with cognizant OCONUS higher command staff element and FP unit at home station.</li> <li>g. Informs company headquarters and next higher headquarters of reconnaissance party actions.</li> <li>h. Employs OPSEC and physical security procedures.</li> <li>i. Employs safety procedures.</li> <li>j. Employs environmental stewardship procedures.</li> </ul> <p>*3. Purchasing/Contracting Officer acquires nonmilitary support for FP operations.</p> <ul style="list-style-type: none"> <li>a. Reviews support requirements for the FP unit's operations.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>b. Determines support needed to make up shortfall in supplies and services.</p> <p>c. Coordinates with the higher command's HQ's contracting officer staff for nonmilitary labor, services, and materials.</p> <p>d. Contracts for required nonmilitary supplies and services.</p> <p>e. Prepares documents for supplies and services.</p> <p>f. Coordinates with higher HQ for real estate acquisition.</p> <p>g. Forwards contractual reports and documentation to higher HQ, as required.</p> <p>h. Employs OPSEC and physical security procedures.</p> <p>i. Employs safety procedures.</p> <p>j. Employs environmental stewardship procedures.</p> <p>4. The Support Operations Section directs FP site preparation and engineer support.</p> <p>a. Verifies in site surveys and selection.</p> <p>b. Confirms suitability of appropriate site(s) for FP operations.</p> <p>c. Verifies the initial site plan based on unit TSOP, mission, and selected site.</p> <p>d. Coordinates with theater for engineer preparation of FP site IAW site plan.</p> <p>e. Coordinates for utilities and commercial or PRIME power support, if available.</p> <p>f. Coordinates for graywater and blackwater collection and disposal.</p> <p>g. Provides staff supervision of site preparation by supporting engineer unit.</p> <p>h. Employs OPSEC and physical security procedures.</p> <p>i. Employs safety procedures.</p> <p>j. Employs environmental stewardship procedures.</p> <p>5. Preventive Medicine NCO coordinates medical support for FP operations.</p> <p>NOTE: Perform this task step, if required, based on METT-T.</p> <p>a. Coordinates with area medical support battalion for support for FP module(s).</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>b. Coordinates for potable water testing.</p> <p>c. Coordinates preventive medicine measures with higher command.</p> <p>d. Evaluates site for vector control and other health hazards.</p> <p>e. Employs OPSEC and physical security procedures.</p> <p>f. Employs safety procedures.</p> <p>g. Employs environmental stewardship procedures.</p> <p>6. Advance/Quartering Party moves to new operating site. (STP 21-1-SMCT: 071-331-0815, 441-091-1101, STP 21-24-SMCT: 071-326-5805)</p> <p>a. Wears uniform as prescribed by the higher headquarters movement order and TSOP.</p> <p>b. Crosses SP, checkpoints, and RP as prescribed by movement order.</p> <p>c. Follows prescribed route from old to new area.</p> <p>d. Reports route changes and/or information to main body by messenger, route guides, route markers, or other nonelectronic means.</p> <p>7. Advance/Quartering Party assists in securing the FP operational area.</p> <p>a. Assumes designated MOPP level before entering area.</p> <p>b. Provides required number of personnel for initial security teams.</p> <p>c. Provides required personnel and equipment to conduct NBC surveys of assigned area.</p> <p>d. Places OPs on probable avenues of approach consistent with the available personnel.</p> <p>e. Conducts NBC survey of the entire assigned FP unit area.</p> <p>NOTE: If survey team(s) monitor high levels of contamination in the area it should evacuate it immediately.</p> <p>f. Conducts sweep of FP unit area to locate all mines, booby traps, and other signs of threat presence.</p> <p>*8. Advance/Quartering Party leader supervises area preparation tasks. (STP 21-II-MQS: 03-3711.12-0001)</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>a. Conducts unit area site reconnaissance with platoon/section leaders, pointing out assigned areas and traffic circulation IAW the tentative layout plan.</p> <p>b. Verifies movement of platoons/sections to their respective areas to ensure compliance with site plan.</p> <p>c. Finalizes site plan and staking plan.</p> <p>d. Enforces safety procedures.</p> <p>e. Enforces environmental stewardship procedures.</p> <p>9. Advance/Quartering Party performs area preparation tasks. (STP 21-1-SMCT: 071-331-0815)</p> <p>a. Marks location of CP IAW site plan and staking plan.</p> <p>b. Marks location of FP module subsystem components IAW staking plan.</p> <p>c. Lays communication wire from CP to all platoons/sections.</p> <p>d. Marks unit area traffic direction IAW the site plan.</p> <p>e. Sets up radio antenna in location required by the site plan.</p> <p>f. Marks vehicle and shipping container locations IAW site plan.</p> <p>g. Marks section defensive boundaries IAW the site plan.</p> <p>h. Erects barriers to block all unauthorized entrances and exits into and out of the CP area.</p> <p>i. Employs camouflage and concealment measures consistent with tactical situation.</p> <p>j. Employs light discipline consistent with tactical situation.</p> <p>k. Employs safety procedures.</p> <p>l. Employs environmental stewardship procedures.</p> <p>*10. Advance/Quartering Party leader supervises reception of FP main body.</p> <p>a. Identifies guide pickup points.</p> <p>b. Briefs ground guides on moving FP platoons/sections into their respective areas with emphasis on OPSEC.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
c. Monitors platoons' /sections' guides activities to ensure compliance with guidance by FP quartering party leader and the higher headquarters and FP unit TSOP. d. Enforces countersurveillance procedures. 11. Advance/Quartering Party performs guide functions. a. Guides sections into assigned positions without having vehicles stop in exposed areas. b. Employs prearranged signals IAW the higher headquarters and FP unit TSOP. c. Parks one vehicle or positions one shipping container at a time during darkness or reduced visibility. d. Employs filtered flashlights during darkness or reduced visibility. e. Employs countersurveillance measures during reception activities.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-24-SMCT	071-326-5705	ESTABLISH AN OBSERVATION POST
	071-326-5805	CONDUCT A ROUTE RECONNAISSANCE MISSION
	071-720-0015	CONDUCT AN AREA RECONNAISSANCE BY A PLATOON
STP 21-1-SMCT	071-329-1005	DETERMINE A LOCATION ON THE GROUND BY TERRAIN ASSOCIATION
	071-331-0815	PRACTICE NOISE, LIGHT, AND LITTER DISCIPLINE



**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-II-MQS	03-3711.12- 0001	IMPLEMENT OPERATIONS SECURITY

**OPFOR TASKS AND STANDARDS**

**NONE.**

**ELEMENT:** COMPANY

**TASK:** PREPARE FP UNIT VEHICLES AND EQUIPMENT FOR DEPLOYMENT  
(42-2-0225)

(FM 42-424) (FM 55-65) (AR 220-10)  
(FM 100-17) (FM 55-10) (FM 55-12)  
(FM 55-9)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** The company receives a movement directive to deploy to an overseas site. A rail head is available on the installation. All personnel are present and have been trained on requirements for preparing vehicles and equipment for deployment. Packing and Crating, Weighing and Loading, and Rail Loading Teams have been designated and trained. The Movement Order, Movement Plan, Deployment SOP, and Deployment OPORD are available. The company has a trained officer and NCO appointed as UMO/NCO. Equipment preparation is performed day or night under all environmental conditions.

**NOTE:** This task applies only to FP unit equipment and not to FP modules' equipment or subsystems. This task should not be trained in MOPP4.

**TASK STANDARDS:** Organic vehicles and equipment to be deployed are prepared for deployment and loaded for movement to the APOE or SPOE IAW the Deployment SOP, Movement Plan, and commander's guidance.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs vehicle and equipment preparation activities. <ul style="list-style-type: none"> <li>a. Identifies vehicles, equipment, and supplies to be deployed based on movement directive, Movement Plan, Deployment OPORD, higher HQ commander's guidance, and METT-T.</li> <li>b. Identifies personnel, equipment, and vehicles scheduled to move to the APOE or SPOE by road or rail by reviewing Movement Plan and higher HQ commander's guidance.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>c. Designates a UMA and container packing area.</p> <p>d. Designates storage areas for equipment not to be deployed.</p> <p>e. Coordinates with the higher HQ staff personnel for disposition of equipment not to be deployed or stored by the unit.</p> <p>f. Provides company leaders with disposition instructions for equipment not being deployed.</p> <p>g. Coordinates with higher HQ staff personnel for transportation support to the APOE or SPOE, if necessary.</p> <p>h. Inspects area to ensure all excess vehicles, equipment, and supplies have been turned-in or placed in a designated holding area.</p> <p>i. Notifies battalion higher HQ staff personnel when vehicles and containers are loaded and ready to move.</p> <p>j. Enforces safety procedures.</p> <p>k. Enforces environmental stewardship procedures.</p> <p>*2.UMO/NCO supervise vehicle and equipment preparation activities.</p> <p>a. Update AUDEL to reflect vehicles, equipment, and supplies to be deployed based on physical inventory and commander's guidance.</p> <p>b. Update AUDEL to reflect actual weights based on results of weighing and any dimensions beyond those listed in TB 55-46-1 for equipment TOE LIN/INDEX NO.</p> <p>c. Input updated AUDEL into the ITO or TAMCA/MCT TC-ACCIS station.</p> <p>NOTE: When verified by the UMO, the updated AUDEL becomes the DEL produced by TC-ACCIS.</p> <p>d. Provide UMC and/or higher HQ staff personnel with information on oversize and overweight vehicles, equipment, and cargo requiring special handling, as required.</p> <p>e. Coordinate with UMC for DEL, BBPCT material requirements lists, vehicle/rail loading plans and schedules, special hauling permit requests, military shipping labels, and convoy clearance requests produced by TC-ACCIS.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Coordinate with higher HQ staff personnel for packing materials, weighing scales, MHE, containers, inserts, pallets, and other equipment preparation and loading materials, as required.</p> <p>g. Provide company leaders with deployment forms, shipping labels, and documents, as required.</p> <p>h. Coordinate container pick-up with higher HQ staff personnel.</p> <p>i. Provide special instructions to Packing and Crating Teams, if necessary.</p> <p>j. Provide container packing schedule to company leaders.</p> <p>k. Identify transportation support requirements by reviewing Movement Plan and current vehicle status reports.</p> <p>l. Coordinate with higher HQ staff personnel for movement of vehicles and equipment to rail loading site.</p> <p>m. Provide rail loading plan to Rail Loading Team Chief.</p> <p>n. Coordinate with UMC for port call message and verification of Movement Plan APOE and SPOE requirements and procedures.</p> <p>o. Brief commander on status of preparation of vehicles and equipment for deployment.</p> <p>p. Employ safety procedures.</p> <p>q. Employ environmental stewardship procedures.</p> <p>*3. Company leaders supervise preparation of platoons or sections for deployment.</p> <p>a. Verify adequate space has been allowed for personnel items and secondary loads by reviewing loading plans.</p> <p>b. Revise loading plans, as required.</p> <p>c. Monitor packing and loading for compliance with Deployment SOP, Movement Plan, and UMO/NCO's instructions.</p> <p>d. Inspect area to ensure all equipment to be deployed has been packed and/or loaded.</p> <p>e. Inspect area to ensure all excess vehicles, equipment, and supplies have been turned-in or placed in a designated holding area.</p> <p>f. Inspect internal loads to ensure loads are secure and in compliance with loading plans.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>g. Notify UMO/NCO of any load plan revisions.</p> <p>h. Enforce safety procedures.</p> <p>i. Enforce environmental stewardship procedures.</p> <p>*4. UMO/NCO maintain an up-to-date AUEL.</p> <p>a. Conduct physical inventory of vehicles and equipment to be deployed to verify accuracy of AUEL.</p> <p>b. Revise AUEL, as required.</p> <p>c. Submit AUEL changes to UMC, if necessary.</p> <p>5. Packing and Crating Teams prepare equipment for deployment.</p> <p>a. Pack containers IAW loading plans, AUEL, and UMO/NCO's instructions.</p> <p>b. Pack hazardous materials IAW Deployment SOP, UMO/NCO's instructions, and applicable publications.</p> <p>c. Prepare container packing lists and shipping documents IAW FM 55-65, UMO/NCO's instructions, and applicable publications.</p> <p>d. Distribute container packing lists and shipping documents IAW FM 55-65, UMO/NCO's instructions, and applicable publications.</p> <p>e. Place military shipping labels and designated markings on containers IAW Movement Plan, Deployment SOP, FM 55-65, and UMO/NCO's instructions.</p> <p>f. Assist container pick-up crew in loading operations, as required.</p> <p>g. Employ safety procedures.</p> <p>h. Employ environmental stewardship procedures.</p> <p>6. Company prepares vehicles, equipment and personal gear for deployment.</p> <p>a. Places equipment not being deployed in designated storage area IAW Movement Plan and commander's instructions.</p> <p>b. Turns in excess vehicles, equipment, and supplies to supply sergeant IAW Deployment SOP and/or commander's instructions.</p> <p>c. Packs personal gear IAW Movement Plan.</p> <p>d. Marks and/or tag vehicles, equipment, and personal gear IAW Deployment SOP, Movement Plan, and UMO/NCO's instructions.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Places military shipping labels on vehicles and equipment IAW Movement Plan and UMO/NCO's instructions.</p> <p>f. Moves equipment to be packed in containers to the container packing area IAW UMO/NCO's instructions.</p> <p>g. Loads vehicles IAW Deployment SOP, Movement Plan, loading plans, and UMO/NCO's instructions.</p> <p>h. Moves vehicles to UMA or rail loading site as directed.</p> <p>i. Employs safety procedures.</p> <p>j. Employs environmental stewardship procedures.</p> <p>7. Weighing and Marking Team weighs and marks vehicles for deployment.</p> <p>a. Sets up weighing and marking area in designated area IAW Deployment SOP.</p> <p>b. Guides vehicles onto scales as they arrive.</p> <p>c. Identifies vehicle gross weight.</p> <p>d. Identifies vehicle axle weights (air movement only).</p> <p>e. Computes vehicle center of gravity based on axle weights (air movement only).</p> <p>f. Marks center of gravity on vehicles IAW Deployment SOP, FM 55-12, and UMO/NCO'S instructions (air movement only).</p> <p>g. Reports gross weights for each deploying vehicle to UMO/NCO.</p> <p>h. Disestablishes weighing and marking area.</p> <p>i. Returns vehicle weighing scales IAW UMO/NCO or owning facility officials' instructions.</p> <p>j. Employs safety procedures.</p> <p>k. Employs environmental stewardship procedures.</p> <p>*8. Rail Loading Team Chief supervises rail loading activities.</p> <p>a. Coordinates with UMO/NCO for rail loading plans.</p> <p>b. Coordinates with installation UMC to identify special rail loading requirements.</p> <p>c. Verifies the presence of all rail guards by conducting roll call if required.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>d. Verifies the presence of manifested vehicles and equipment by conducting physical inventory.</li> <li>e. Inspects vehicles and equipment for military shipping labels and proper markings.</li> <li>f. Provides a cargo manifest to conductor if required.</li> <li>g. Notifies commander when rail loading is complete.</li> <li>h. Enforces safety procedures.</li> <li>i. Enforces environmental stewardship procedures.</li> </ul> <p>9. Rail Loading Team performs rail loading.</p> <ul style="list-style-type: none"> <li>a. Stages vehicles IAW rail loading plan.</li> <li>b. Loads vehicles and equipment on rail cars IAW rail loading plan and UMO/NCO'S instructions.</li> <li>c. Secures vehicles and equipment IAW rail loading plan and UMO/NCO's instructions.</li> <li>d. Notifies Rail Loading Team Chief when rail loading is complete.</li> <li>e. Employs safety procedures.</li> <li>f. Employs environmental stewardship procedures.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PREPARE FP UNIT FOR NONTACTICAL MOVE (42-2-0226)  
 (FM 55-30) (FM 3-4) (FM 3-5)  
 (FM 42-424) (FM 55-12) (FM 55-65)  
 (FM 55-9) (FM 7-20)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company receives a movement directive to move to the A/SPOE for deployment to an overseas site. Routes, scheduled halts, and logistics and administrative support are available IAW the Movement Plan. Higher HQ has an advance party at the A/SPOE and the advance party has conducted a route reconnaissance. The company march commander has been designated. Security for the move has been coordinated. The Movement Order, Movement Plan, port call message, load plans, and strip maps are available. Vehicles are loaded and in the UMA. The company has a trained officer and NCO appointed as UMO/NCO. Preparation for movement is performed day or night, under all environmental conditions. This task should not be trained in MOPP4.

**NOTE:** This task applies only to FP unit equipment and not to equipment or subsystems in FP modules.

**TASK STANDARDS:** Company is ready to cross SP NLT the time prescribed in the movement directive.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. UMO/NCO supervise preparation for movement to A/SPOE. a. Coordinate with higher HQ staff personnel to verify Movement Plan information for accuracy. b. Compute travel time and distance from proposed SP to RP. c. Compare travel time and start time to verify company will arrive at A/SPOE IAW port call message.		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Inspect vehicles and equipment for proper markings, and military shipping labels IAW FM 55-9, FM 55-12, FM 55-65, Movement Plan, and current instructions.</p> <p>e. Notify higher HQ staff personnel Section that company is ready to move.</p> <p>f. Brief commander on preparations for movement.</p> <p>g. Enforce safety procedures.</p> <p>h. Enforce environmental stewardship procedures.</p> <p>2. Company prepares organic vehicles and equipment for movement to A/SPOE.</p> <p>a. Performs before-operations PMCS on all vehicles and equipment.</p> <p>b. Corrects maintenance discrepancies within the operator's capabilities IAW applicable TM.</p> <p>c. Reports all maintenance deficiencies beyond operator's capability to immediate supervisor.</p> <p>d. Corrects loading deficiencies IAW loading plan, if necessary.</p> <p>e. Recomputes vehicle center of gravity, if necessary (APOE only).</p> <p>f. Remarks center of gravity on vehicle, if necessary (APOE only).</p> <p>g. Marks vehicles for movement to A/SPOE IAW FM 55-12, FM 55-30, Movement Order, and UMO/NCO's instructions.</p> <p>h. Places military shipping labels on vehicles and equipment IAW Movement Plan and UMO/NCO's instructions.</p> <p>i. Employs safety procedures.</p> <p>j. Employs environmental stewardship procedures.</p> <p>*3. March commander and leaders organize convoy for movement to A/SPOE.</p> <p>a. Assign vehicle positions with the heavier, slower vehicles placed first.</p> <p>b. Assign control vehicles.</p> <p>c. Assign recovery vehicle(s) positions, where they can move to disabled vehicles without disrupting convoy movement.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Assign sufficient number of recovery vehicles and mechanics to trail party element.</p> <p>e. Provide vehicle position listing with location of all vehicles to the trail party leader.</p> <p>f. Open radio net(s) as specified in the Movement Plan.</p> <p>g. Enforce safety procedures.</p> <p>h. Enforce environmental stewardship procedures.</p> <p>*4. March commander and leaders conduct premovement inspections. (STP 21-I-MQS: 04-3304.01-0002)</p> <p>a. Inspect personnel and their equipment for compliance with Movement Directive, Movement Plan, and commander's instructions.</p> <p>b. Inspect organizational equipment for accountability and serviceability.</p> <p>c. Inspect vehicles, trailers, and loads for serviceability, proper stowing, and security.</p> <p>d. Forward personnel and equipment status to company HQ and higher HQ.</p> <p>*5. March commander conducts briefings for convoy personnel. (STP 21-I-MQS: 03-9007.01-0020)</p> <p>a. Provides strip maps to each vehicle driver.</p> <p>b. Briefs convoy chain of command.</p> <p>c. Briefs convoy route.</p> <p>d. Prescribes the rate of march and catch-up speeds.</p> <p>e. Briefs vehicle intervals.</p> <p>f. Identifies scheduled halts.</p> <p>g. Briefs safety, accident, and break-down procedures.</p> <p>h. Identifies location of maintenance support.</p> <p>i. Provides location and identification of destination.</p> <p>j. Briefs arm/hand signals, radio frequencies, and call signs.</p> <p>6. Company prepares to cross SP.</p> <p>a. Stages vehicles for convoy IAW march commander's instructions.</p> <p>b. Notifies march commander that vehicles are ready to cross SP for convoy to A/SPOE.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-II-MQS	03-9007.01-0020	GIVE BRIEFINGS
	04-3304.01-0002	CONDUCT INSPECTION

**OPFOR TASKS AND STANDARDS**

**NONE:**

**TLEMENT:** COMPANY

**TASK:** CONDUCT FP UNIT NONTACTICAL ROAD MARCH (42-2-0227)  
 (FM 55-30) (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Time specified to cross SP for convoy to A/SPOE has arrived. All equipment to be moved by convoy is loaded and vehicles are positioned for departure. The route of march is identified and the reconnaissance party has traveled it. All weight, height, and width restrictions along route of march have been verified. Coordination for rest stops, RON facilities, and personnel and maintenance support has been accomplished. A security element has been assigned. RP is within the A/SPOE MA. Convoy operations may be performed during daylight or darkness. Radio and visual signals are used for march column control. The Movement Plan and Deployment OPORD are available. Map and overlays with checkpoints, SP, RP, and critical points are available. Column may conduct halts during movement. This task should not be trained in MOPP4.

**NOTE:** This applies only to FP unit equipment and not to FP module's equipment or subsystems.

**TASK STANDARDS:** Unit crosses the SP, checkpoints, and RP at the times specified in the road movement table in the movement plan, or at the adjusted times set by the march commander.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. March commander initiates convoy. (STP 21-II-MQS: 01-7200.75-0100) a. Notifies march commander that vehicles are ready to cross SP for convoy to A/SPOE. b. Directs lead vehicle to cross SP at specified time. c. Verifies vehicles have crossed the SP. d. Forwards SP crossing report to the higher HQ staff personnel when company elements have crossed the SP. e. Enforces safety procedures.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Enforces environmental stewardship procedures.</p> <p>*2. March commander reports convoy information to the higher HQ staff personnel.</p> <p>a. Forwards checkpoint(s) clearance report as checkpoints are crossed.</p> <p>b. Employs current SOI/SSI codes in all transmissions.</p> <p>*3. March commander enforces march discipline. (STP 21-II-MQS: 01-7200.75-0100)</p> <p>a. Places directional guides at all critical intersections along route, if necessary.</p> <p>b. Assumes position(s) along march route that provides command presence at critical turns or other points of decision.</p> <p>c. Enforces all movement policies defined in the movement plan, with emphasis on formation, distances, speeds, passing procedures, and halts.</p> <p>d. Adjusts formation distances and speed consistent with roads and speed limits.</p> <p>e. Enforces security measures to protect equipment and cargo during halts.</p> <p>f. Communicates to unit leaders and operators, by radio or proper visual signals, any violations of march discipline or changes to current orders.</p> <p>4. Company employs march discipline.</p> <p>a. Maintains designated march speed specified in Movement Plan or as prescribed by the march commander.</p> <p>b. Maintains proper vehicle interval as specified in Movement Plan or as adjusted by the march commander.</p> <p>c. Obeys vehicle driving regulations and safe driving procedures based on conditions.</p> <p>d. Crosses all check points as scheduled.</p> <p>e. Reacts correctly to march commander's arm/hand signals.</p> <p>f. Employs safety procedures.</p> <p>g. Employs environmental stewardship procedures.</p> <p>5. Company conducts scheduled halt(s).</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>a. Stops column at prescribed time and location.</p> <p>b. Reports scheduled halt to higher HQ staff personnel, if appropriate.</p> <p>c. Performs during-operation PMCS on vehicles (operators).</p> <p>d. Inspects vehicle loads for safety and security.</p> <p>e. Begins departure at specified time in the Movement Plan or march commander's instructions.</p> <p>f. Reports resumption of march to the higher HQ staff personnel, if appropriate.</p> <p>6. Company conducts unscheduled halt(s).</p> <p>a. Alerts march column with prescribed arm/hand signal.</p> <p>b. Reports halt and circumstances to the higher HQ staff personnel, if appropriate.</p> <p>c. Resumes march as soon as reason for halt is rectified.</p> <p>d. Reports resumption of march to the higher HQ staff personnel, if appropriate.</p> <p>7. Trail party recovers disabled vehicle. (STP 21-II-MQS: 03-4995.90-0010)</p> <p>a. Inspects disabled vehicle for reparability.</p> <p>b. Repairs disabled vehicle, when possible.</p> <p>c. Reports vehicle status to march commander.</p> <p>d. Tows disabled vehicle to applicable maintenance facility or destination based on march commander's instructions.</p> <p>*8. March Commander monitors company crossing RP. (STP 21-II-MQS: 01-7200.75-0100)</p> <p>a. Verifies that lead vehicle has crossed RP at specified time.</p> <p>b. Verifies the vehicles that have crossed RP.</p> <p>c. Forwards SITREP to higher HQ staff personnel.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-II-MQS	01-7200.75-0100	CONDUCT CONVOY OPERATIONS
	03-4995.90-0010	DIRECT VEHICLE AND EQUIPMENT RECOVERY OPERATIONS

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PERFORM SEA PORT OF EMBARKATION ACTIVITIES FOR FP UNIT DEPLOYMENT (42-2-0228)  
 (FM 55-65) (AR 220-10) (FM 100-17)  
 (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company's wheeled-vehicle convoy crosses the RP and is in the SPOE MA. The commander has designated a company SPOE Team and SPOE Team OIC. The commander or SPOE Team OIC has notified higher HQ staff personnel, supporting installation, and port commander representatives of the company's arrival. PSA officials have requested company vehicle operators' assistance in offloading company vehicles deployed to the SPOE by rail. The rail head is located in the SPOE AO and the company's equipment has arrived. Transportation, maintenance, and logistics support is available. The Movement Plan, Deployment SOP, MA Plan, and Deployment OPORD are available. The company has a trained officer and NCO appointed as UMO/NCO. SPOE activities are performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**NOTE:** This applies only to FP unit equipment and not to FP module's equipment or subsystems.

**TASK STANDARDS:** SPOE activities are performed IAW Movement Plan and higher HQ staff personnel and PSA officials' instructions.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander or SPOE Team OIC directs SPOE activities. a. Directs team to perform after-operation PMCS checks of vehicles, upon arrival in the SPOE MA. b. Identifies transportation requirements for return to unit area.		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>c. Coordinates with supporting installation officials for transportation, maintenance, and logistics support, as required.</p> <p>d. Coordinates with PSA officials to verify SPOE movement schedules, procedures, and requirements.</p> <p>e. Briefs team leaders on SPOE movement schedules, procedures, and requirements.</p> <p>f. Briefs UMO or NCO on POC for maintenance support.</p> <p>g. Directs team to offload and inspect equipment arriving by rail.</p> <p>h. Coordinates with PSA to identify number of supercargoes authorized.</p> <p>i. Inspects supercargoes (if used) to ensure they are prepared for sea movement.</p> <p>j. Briefs supercargoes (if used) on boarding schedule, responsibilities, and POC during sea movement.</p> <p>k. Conducts acceptance inspection of vehicles, equipment, and cargo with PSA officials.</p> <p>l. Directs team to correct deficiencies noted during PSA acceptance inspection.</p> <p>m. Transfers custody of vehicles, equipment, and cargo to SPOE officials.</p> <p>n. Briefs the higher HQ staff personnel on status of SPOE activities.</p> <p>o. Enforces safety procedures.</p> <p>p. Enforces environmental stewardship procedures.</p> <p>2. Supercargoes prepare for deployment if required.</p> <p>a. Report to port commander's representative IAW UMO/NCO's instructions.</p> <p>b. Perform SPOE activities IAW port commander's instructions.</p> <p>c. Coordinate with vessel POC for instructions on responsibilities and accommodations.</p> <p>d. Load baggage IAW instructions from vessel POC.</p> <p>e. Board ship IAW instructions from vessel POC.</p> <p>f. Employ safety procedures.</p> <p>g. Employ environmental stewardship procedures.</p> <p>*3. UMO/NCO coordinate SPOE activities.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>a. Coordinate with PSA officials to verify loading sequence of vehicles and equipment (ship stow plan).</p> <p>b. Monitor PSA acceptance inspection of vehicles and cargo to determine deficiencies.</p> <p>c. Coordinate with maintenance support POC for disposition of excess fuel, POL products, and maintenance support, as necessary.</p> <p>d. Inspect military shipping labels and markings on vehicles and equipment for compliance with Deployment SOP and PSA officials' instructions.</p> <p>e. Coordinate with PSA officials to correct deficiencies in military shipping labels and markings on vehicles and equipment.</p> <p>f. Brief commander and/or SPOE Team OIC on status of SPOE activities.</p> <p>g. Enforce safety procedures.</p> <p>h. Enforce environmental stewardship procedures.</p> <p>*4. UMO/NCO coordinate rail offloading.</p> <p>a. Coordinate with PSA officials and intermediate command UMO/NCO for rail offloading schedule and requirements.</p> <p>b. Designate personnel to assist in rail offloading activities.</p> <p>c. Brief personnel designated to perform rail offloading activities on schedule and requirements.</p> <p>d. Supervise rail offloading activities.</p> <p>e. Assume custody of equipment deployed by rail by signing appropriate shipping documents.</p> <p>f. Notify SPOE Team leaders equipment deployed by rail has arrived in the MA.</p> <p>g. Brief commander/OIC on status of SPOE activities.</p> <p>5. SPOE Team performs rail offloading operations.</p> <p>a. Reports to the rail head IAW UMO/NCO's instructions.</p> <p>b. Offloads equipment from railcars IAW PSA officials' instructions.</p> <p>c. Moves equipment to SPOE MA IAW PSA officials' instructions.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Employs safety procedures.</p> <p>e. Employs environmental stewardship procedures.</p> <p>6. SPOE Team performs SPOE MA maintenance.</p> <p>a. Performs after-operation PMCS IAW Deployment SOP and appropriate TM.</p> <p>b. Notifies supervisor of maintenance problems beyond operator's capability.</p> <p>c. Checks vehicles, cargo, and personal gear for completeness, damage, proper markings, and compliance with loading plans.</p> <p>d. Conducts final preparation of vehicles and equipment IAW Deployment SOP and FM 55-65.</p> <p>e. Adjusts vehicle fuel levels IAW Movement Plan and PSA officials' instructions.</p> <p>f. Turns in excess fuel and POL products IAW UMO/NCO's instructions.</p> <p>g. Verifies placement of placards, labels, and certification documents on hazardous material IAW Deployment SOP, Movement Plan, and PSA officials' instructions.</p> <p>h. Corrects deficiencies on vehicles, cargo, and personal gear IAW company leader's instructions.</p> <p>i. Moves to SPOE SA as directed.</p> <p>j. Employs safety procedures.</p> <p>k. Employs environmental stewardship procedures.</p> <p>*7. SPOE Team leaders supervise final preparation of vehicles, equipment, cargo, and personal gear for deployment.</p> <p>a. Inspect military shipping labels and markings on vehicles and equipment for compliance with Deployment SOP and UMO/NCO's instructions.</p> <p>b. Inspect vehicles and cargo to ensure deficiencies noted during acceptance inspection have been corrected.</p> <p>c. Coordinate maintenance assistance with Commander and/or SPOE Team OIC.</p> <p>d. Enforce safety procedures.</p> <p>e. Enforce environmental stewardship procedures.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>8. SPOE Team performs final preparation of vehicles, equipment, cargo, and personal gear for deployment.</p> <ul style="list-style-type: none"> <li>a. Moves vehicles and equipment to SPOE SA, as directed.</li> <li>b. Stages vehicles for loading IAW UMO/NCO's instructions.</li> <li>c. Corrects deficiencies in military shipping labels and markings on vehicles and equipment IAW UMO/NCO's instructions.</li> <li>d. Drives vehicles to call forward area, as directed.</li> <li>e. Employs safety procedures.</li> <li>f. Employs environmental stewardship procedures.</li> </ul> <p>*9. UMO/NCO update transportation documentation.</p> <ul style="list-style-type: none"> <li>a. Verify DEL by conducting physical inspection of equipment.</li> <li>b. Update DEL, as required.</li> <li>c. Verify the presence of supercargoes by conducting roll call.</li> <li>d. Update supercargo manifest, as required.</li> </ul> <p>10. SPOE Team returns to unit area location in MA.</p> <ul style="list-style-type: none"> <li>a. Assembles for return to company area IAW SPOE Team OIC's instructions.</li> <li>b. Reports to transportation loading area IAW SPOE Team OIC's instructions.</li> <li>c. Loads baggage on vehicles IAW SPOE Team OIC's instructions.</li> <li>d. Boards transportation to return to company IAW SPOE Team OIC's instructions.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PERFORM AERIAL PORT OF EMBARKATION ACTIVITIES FOR FP UNIT DEPLOYMENT (42-2-0229)  
 (FM 55-12) (AR 220-10) (FM 100-17)  
 (FM 42-424) (FM 55-10) (TM 38-250)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company arrives at the APOE MA for aerial deployment. Equipment and vehicles not deploying by air have been moved to the SPOE. The ITO or TAMCA/MCT has a UMC and advance party at the APOE to assist in APOE activities. Transportation support is available. The Deployment SOP, Movement Plan, port call message, and higher HQ Deployment OPORD are available. The company has a trained officer and NCO appointed as UMO/NCO. APOE activities are performed day or night under all environmental conditions, unless terminated by the DACG. This task should not be trained in MOPP4.

**NOTE:** This task applies only to FP unit equipment and not to FP module's equipment or subsystems.

**TASK STANDARDS:** APOE activities are performed IAW Deployment SOP and Movement Plan and DACG officials and commander's instructions.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs APOE activities. a. Notifies UMC and DACG officials that the company has arrived at the APOE. b. Coordinates with UMC, DACG, and/or supporting installation officials to verify APOE movement schedules, procedures, and requirements. c. Briefs company on duties and responsibilities, based on UMC, DACG and/or supporting installation officials' instructions.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>d. Directs company to conduct final preparation of vehicles and equipment IAW Deployment SOP and FM 55-12.</li> <li>e. Conducts acceptance inspection of vehicles and equipment with DACG officials at the alert holding area.</li> <li>f. Directs company to correct deficiencies noted during acceptance inspection.</li> <li>g. Transfers custody of equipment and cargo to DACG officials IAW Deployment SOP.</li> <li>h. Briefs higher HQ staff personnel on status of APOE activities.</li> <li>i. Enforces safety procedures.</li> <li>j. Enforces environmental stewardship procedures.</li> </ul> <p>*2. UMO/NCO supervise APOE activities.</p> <ul style="list-style-type: none"> <li>a. Coordinate with DACG and/or supporting installation officials for transportation, maintenance, logistics and other support, as required.</li> <li>b. Coordinate with DACG officials to verify APOE movement schedules, procedures, and requirements.</li> <li>c. Coordinate with DACG to verify loading sequence of vehicles and equipment.</li> <li>d. Verify that deficiencies noted during DACG acceptance inspection have been corrected.</li> <li>e. Verify the presence of all manifested personnel by conducting roll call.</li> <li>f. Provide verified personnel and cargo manifest to DACG at the alert holding area.</li> <li>g. Enforce safety procedures.</li> <li>h. Enforce environmental stewardship procedures.</li> </ul> <p>*3. Company leaders supervise final preparation of vehicles, equipment, cargo, and personal gear for deployment.</p> <ul style="list-style-type: none"> <li>a. Inspect vehicles, equipment, cargo, and personal gear for completeness, damage and compliance with loading plans IAW MA Plan.</li> <li>b. Inspect vehicles, equipment, cargo, and personal gear for proper marking and documentation IAW MA Plan.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>c. Inspect vehicles and cargo to ensure deficiencies noted during acceptance inspection have been corrected.</p> <p>d. Coordinate with the UMO/NCO for maintenance assistance, as required.</p> <p>e. Enforce safety procedures.</p> <p>f. Enforce environmental stewardship procedures.</p> <p>4. Company performs APOE MA activities.</p> <p>a. Performs after-operations PMCS IAW Deployment SOP and appropriate TMs.</p> <p>b. Notifies supervisor of maintenance problems beyond operator's capability to repair.</p> <p>c. Conducts final preparation of vehicles and equipment IAW FM 55-12 and UMO/NCO's instructions.</p> <p>d. Adjusts vehicle fuel levels IAW TM 38-250 and UMO/NCO's instructions.</p> <p>e. Turns in excess fuel IAW UMO/NCO's instructions.</p> <p>f. Corrects deficiencies on vehicles, cargo, and personal gear IAW company leaders' instructions.</p> <p>g. Corrects deficiencies on placement of placards, labels, and certification documents on hazardous material IAW Deployment SOP, Movement Plan, TM 38-250 and UMO/NCO's instructions.</p> <p>h. Moves to APOE alert holding area, as directed.</p> <p>i. Employs safety procedures.</p> <p>j. Employs environmental stewardship procedures.</p> <p>5. Company performs APOE alert holding area activities.</p> <p>a. Corrects deficiencies in shipping documents, markings, custom labels, and decontamination tags on vehicles and equipment IAW Deployment SOP, and UMO/NCO's instructions.</p> <p>b. Drives vehicles to call-forward area, as directed.</p> <p>6. Company performs APOE passenger activities.</p>		



TASK STEPS AND PERFORMANCE MEASURES						GO	NO-GO
a. Reports to designated location for DACG safety and antiterrorism briefing IAW UMO/NCO's instructions. b. Completes security screen IAW DACG officials' instructions. c. Boards aircraft IAW loadmaster's instructions.							
TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PERFORM AERIAL PORT OF DEBARKATION ACTIVITIES FOR FP  
 UNIT DEVELOPMENT (42-2-0230)  
 (FM 55-65) (FM 100-17) (FM 42-424)  
 (FM 55-10)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Aircraft carrying main body lands at the APOD. The higher HQ has advance party personnel at the APOD to assist the company in APOD activities. Representatives from the higher HQ advance party and AACG meet the aircraft. AACG officials have requested that company personnel assist in offloading vehicles. The AACG has designated a holding area and a MA for the company to complete APOD activities. Transportation is available to move the company to the MA, SPOD, and theater SA. The commander has designated an Equipment Reception Team to travel to the SPOD and receive company vehicles and equipment deployed by ship. The Deployment SOP is available. APOD activities are performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**NOTE:** This task applies only to FP unit equipment and not to FP module's equipment or subsystems.

**TASK STANDARDS:** APOD activities are performed IAW Deployment SOP and AACG officials and commander's instructions.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander coordinates arrival of personnel. a. Coordinates with higher HQ advance party and ATMCT officials upon arrival for location of holding and marshaling areas, maintenance support, movement, security, and other special APOD requirements. b. Assembles company in holding area. c. Directs company leaders to establish security, as required.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Coordinates with higher HQ representative or ATMCT for transportation support to APOD MA, SPOD holding area, and theater SA.</p> <p>e. Coordinates with higher HQ representative for tactical intelligence, security requirements, and movement schedule.</p> <p>f. Briefs company leaders on tactical situation, security requirements, movement schedule, and special APOD requirements.</p> <p>g. Directs company leaders to establish security IAW higher HQ instructions.</p> <p>h. Enforces safety procedures.</p> <p>i. Enforces environmental stewardship procedures.</p> <p>*2. UMO/NCO supervise APOD activities.</p> <p>a. Coordinate with AACG for offloading and movement schedules.</p> <p>b. Brief company leaders on offloading and movement schedules.</p> <p>c. Provide AACG, supporting installation officials, and higher HQ representative a copy of DEL.</p> <p>d. Coordinate with higher HQ representatives for convoy routes, maps, and timetable for road movements to SPOE and theater SA.</p> <p>e. Coordinate with higher HQ representatives for fuel and supplies for road movements.</p> <p>f. Brief commander on APOD activities.</p> <p>g. Enforce safety procedures.</p> <p>h. Enforce environmental stewardship procedures.</p> <p>*3. Company leaders supervise APOD activities.</p> <p>a. Inspect personnel and weapons for accountability as they exit aircraft.</p> <p>b. Brief personnel on location of holding and marshaling areas, movement requirements, and special APOD requirements.</p> <p>c. Establish security IAW commander's instructions.</p> <p>d. Designate personnel to assist in offloading aircraft as required.</p> <p>e. Inspect personnel and personal gear at the holding area and MA to ensure all personnel have arrived with required personal gear and baggage.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
f. Brief commander on APOD activities. g. Enforce safety procedures. h. Enforce environmental stewardship procedures.  4. Main body performs APOD activities. a. Disembarks aircraft IAW loadmaster's instructions. b. Assembles in APOD holding area as directed. c. Performs offloading activities IAW AACG officials and loadmaster's instructions. d. Performs security functions as directed. e. Moves to APOD MA IAW commander's instructions. f. Performs security functions as directed. g. Inspects vehicles and equipment to ensure all equipment is offloaded and serviceable. h. Notifies company leaders of vehicle and/or equipment deficiencies that can not be corrected. i. Reconfigures vehicles and cargo for road movement if necessary. j. Fuels vehicles for convoy to theater SA if appropriate. k. Loads baggage on transportation for movement to SPOD holding area or theater SA as directed. l. Boards transportation for movement to SPOD holding area or theater SA as directed. m. Employs safety procedures. n. Employs environmental stewardship procedures.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**OPFOR TASKS AND STANDARDS**

NONE :

**ELEMENT:** COMPANY

**TASK:** PERFORM SEA PORT OF DEBARKATION ACTIVITIES FOR FP UNIT DEPLOYMENT (42-2-0231)  
 (FM 55-65) (FM 100-17) (FM 42-424)  
 (FM 55-10)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Company organic equipment and supercargoes have arrived at the SPOD. The commander has designated an Equipment Reception Team and is located with the Equipment Reception Team in the SPOD holding area. The Equipment Reception Team has been trained and briefed on duties and responsibilities. The higher HQ staff representatives have coordinated with MCT for reception and onward movement requirements. A Rail Loading Team Chief and Rail Loading Team has been designated and trained. Transportation support is available. HN or MP security is provided. The PSA has designated an area for equipment to be inventoried and inspected as it is offloaded. Rail and road MAs have been designated for the company to complete SPOD activities and prepare for movement to the theater SA. Sufficient railcars and vehicles are available to move the company to the theater SA. The company's main body is located in the theater SA. The Deployment SOP is available. SPOD activities are performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**NOTE:** This task applies only to FP unit equipment and not to FP module's equipment or subsystems.

**TASK STANDARDS:** SPOD activities are performed IAW Deployment SOP and PSA officials and commander's guidance.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs SPOD activities. a. Coordinates with higher HQ staff personnel and/or PSA and ATMCT officials upon arrival for location of holding and marshaling areas, maintenance, logistics, and movement support and security, and other special SPOD requirements.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>b. Identifies amount of PREPO unit materiel required.</li> <li>c. Assembles company in holding area.</li> <li>d. Conducts acceptance inspection with PSA officials.</li> <li>e. Notifies higher HQ representatives of missing or damaged equipment.</li> <li>f. Assumes custody of equipment and cargo IAW higher HQ representative and PSA officials' instructions.</li> <li>g. Coordinates with higher HQ representatives for transportation support to theater SA, if required.</li> <li>h. Coordinates with higher HQ for departure schedules to the theater SA.</li> <li>i. Verifies arrival, morale, and welfare of supercargoes (if used).</li> <li>j. Directs convoy and rail loading parties to proceed to rail loading or road convoy marshaling areas IAW higher HQ instructions.</li> <li>k. Monitors preparation of equipment for road convoy or rail movement to ensure compliance with TSOP.</li> <li>l. Briefs company leaders on APOD requirements.</li> <li>m. Briefs higher HQ staff or designated representative on SPOD activities, as required.</li> <li>n. Enforces safety procedures.</li> <li>o. Enforces environmental stewardship procedures.</li> </ul> <p>*2. UMO/NCO supervise SPOD activities.</p> <ul style="list-style-type: none"> <li>a. Coordinate with higher HQ representatives to identify offloading schedules, location of holding and MAs, location of PREPO vehicles and materiel, and other SPOD information, as required.</li> <li>b. Brief personnel on offloading schedules, drawing PREPO vehicles and materiel, special SPOD requirements, and location of MA.</li> <li>c. Coordinate with higher HQ representatives to identify equipment, loading times and sites, and company loading requirements to prepare designated equipment for rail movement to theater SA.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>d. Coordinate with higher HQ representatives for convoy routes, maps, tactical intelligence, and timetable for road move to theater SA.</li> <li>e. Coordinate with higher HQ representatives for fuel, ammunition and supplies for road move to theater SA.</li> <li>f. Provide rail loading plan to Rail Loading Team Chief.</li> <li>g. Monitor rail loading procedures to ensure compliance with MCT's instructions.</li> <li>h. Monitor preparation of equipment for road convoy to ensure compliance with TSOP.</li> <li>i. Brief equipment reception party on rail loading and convoy requirements.</li> <li>j. Brief commander on SPOD activities.</li> <li>k. Enforce safety procedures.</li> <li>l. Enforce environmental stewardship procedures.</li> </ul> <p>3. Supercargoes, if used, perform SPOD activities.</p> <ul style="list-style-type: none"> <li>a. Disembark ship IAW vessel POC's instructions.</li> <li>b. Report to commander for instructions.</li> </ul> <p>4. Equipment Reception Team performs equipment reception activities.</p> <ul style="list-style-type: none"> <li>a. Offloads vehicles IAW PSA officials' instructions.</li> <li>b. Inspects equipment to ensure all equipment is operational.</li> <li>c. Moves vehicles and materiel from PREPO locations to rail or convoy MAs.</li> <li>d. Moves unit vehicles and cargo to SPOD rail or convoy MAs.</li> <li>e. Performs before-operations PMCS on all vehicles and equipment.</li> <li>f. Corrects all vehicle and equipment discrepancies within the operator's capabilities IAW applicable TM.</li> <li>g. Reports all deficiencies beyond operator's capability to immediate supervisor.</li> <li>h. Reconfigures vehicles and cargo for road movement, if necessary.</li> <li>i. Fuels vehicles for convoy to theater SA, if appropriate.</li> <li>j. Draws weapons, ammunition, and other tactical supplies from higher HQ elements, if necessary.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>k. Notifies UMO/NCO that vehicles are offloaded and operational.</p> <p>l. Employs safety procedures.</p> <p>m. Employs environmental stewardship procedures.</p> <p>*5. Rail Loading Team Chief supervises rail loading activities.</p> <p>a. Coordinates with UMO/NCO for rail loading plans.</p> <p>b. Coordinates with UMO/NCO to identify special rail loading requirements.</p> <p>c. Verifies the presence of all rail guards by conducting roll call.</p> <p>d. Verifies the presence of manifested vehicles and equipment by conducting physical inventory.</p> <p>e. Provides a copy of the personnel and cargo manifest to conductor.</p> <p>f. Notifies commander when rail loading is completed.</p> <p>g. Enforces safety procedures.</p> <p>h. Enforces environmental stewardship procedures.</p> <p>6. Rail Loading Team performs rail loading.</p> <p>a. Stages vehicles IAW rail loading plan.</p> <p>b. Loads vehicles and equipment on railcars IAW rail loading plan and UMO/NCO's instructions.</p> <p>c. Secures vehicles and equipment IAW rail loading plan and UMO/NCO's instructions.</p> <p>d. Notifies Rail Loading Team Chief when rail loading is completed.</p> <p>e. Employs safety procedures.</p> <p>f. Employs environmental stewardship procedures.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.



**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PLAN OCCUPATION OF NEW FP UNIT AREA OF OPERATIONS  
 (42-2-0232)  
 (FM 55-30) (FM 3-4) (FM 3-5)  
 (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The unit receives the Advance/Quartering Party's initial site and staking plan showing the location and proposed dimensions of the new unit area. Maps of the new area, map overlays, and the unit TSOP are available. Tentative plans are subject to change by the advance/quartering party. Higher HQ analysis of the AO is available. NOTE: This task can take place prior to, during, or after deployment. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Tentative layout plan is completed NLT before the main body's arrival at the FP operational site and accommodates all unit activities and equipment IAW higher HQ and unit TSOP. At MOPP level 4, performance degradation factors increase planning completion time.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders verify suitability of new area. a. Verify space requirements for number and types of vehicles, base facilities, and possible augmentations. b. Verify area's ability to support weight of vehicles, equipment, and supplies in various types of weather using the analysis of the AO. c. Coordinate area limitations, constraints, and possible resolutions with higher HQ staff element. d. Enforce safety procedures. e. Enforce environmental stewardship procedures. *2. Commander and leaders draft a tentative unit layout plan.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>a. Identify general location of the unit CP.</p> <p>b. Identify area of all subelements, including tentative defensive boundaries.</p> <p>c. Develop traffic plan which identifies the traffic pattern and dismount point(s).</p> <p>d. Develop hasty security plan that identifies tentative guard posts and defensive positions.</p> <p>e. Develop communication plan depicting a wire communications diagram for all subelements.</p> <p>f. Provide "runner" instructions until wire communications are operational.</p> <p>g. Coordinate tentative layout plan with higher HQ staff element.</p> <p>h. Brief Advance/Quartering Party on details of tentative layout plan with adjustment options.</p> <p>*3. Commander and leaders plan Advance/Quartering Party activities.</p> <p>a. Identify required Advance/Quartering Party tasks from the TSOP.</p> <p>b. Identify Advance/Quartering Party vehicles and personnel constraints as established by higher HQ staff element.</p> <p>c. Identify time limitations for completion of advance/quartering party tasks.</p> <p>d. List essential Advance/Quartering Party tasks.</p> <p>e. List equipment required to perform essential tasks within vehicle constraints.</p> <p>f. Brief Advance/Quartering Party leader on area preparation tasks, available equipment, and possible options due to decreases in personnel or equipment failure.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### OPFOR TASKS AND STANDARDS

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PREPARE EQUIPMENT RECEPTION TEAM FOR FP UNIT TACTICAL ROAD MARCH (42-2-0233)  
 (FM 55-30) (FM 7-20) (FM 3-4)  
 (FM 3-5) (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company has received a movement order from the higher HQ to move from the SPOD MA to theater SA or TAA. The company's vehicles have been offloaded and are operational. Movement can occur in a field or MOUT environment. The MCT has provided routes of march and a movement schedule. Higher HQ staff personnel have accomplished initial area reconnaissance, coordination for fire support, and medical evacuation support. The higher HQ and unit TSOPs are available. The company march commander has been designated. Higher HQ staff representatives have provided strip maps. Some iterations of this task should be performed in MOPP4.

**NOTE:** This task applies only to FP unit equipment and not to FP module's equipment or subsystems.

**TASK STANDARDS:** Equipment Reception Team is ready to cross SP NLT time prescribed in movement order. At MOPP4, performance degradation factors increase preparation time.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Equipment Reception Team prepares vehicles and equipment. a. Removes all unit identification markings on vehicles. b. Covers all reflective surfaces of all vehicles or cargo with available materials. c. Hardens all vehicles using sandbags and/or other authorized materials. d. Places antennas at lowest height. e. Turns radio volume and squelch to lowest operational setting consistent with operational requirements.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Sets squelch setting "on" and call-light "off" when operating at night.</p> <p>g. Employs safety procedures.</p> <p>h. Employs environmental stewardship procedures.</p> <p>*2. March commander and leaders organize convoy. (STP 21-II-MQS: 01-7300.75-0500)</p> <p>a. Assign vehicle positions with the heavier, slower vehicles placed first.</p> <p>b. Assign control vehicles without setting a pattern.</p> <p>c. Assign recovery vehicle(s) positions where they can move to disabled vehicles without disrupting convoy movement.</p> <p>d. Assign hardened vehicle(s) with crew-served weapons interspersed throughout the convoy.</p> <p>e. Assign passenger locations where all unit personnel have a position and semiautomatic and automatic weapons are alternated throughout the convoy to cover front, rear, and flanks.</p> <p>f. Assign soldiers to air guard duties with specific search sectors covering 360 degrees.</p> <p>g. Assign sufficient number of recovery vehicles and mechanics to trail party element.</p> <p>h. Provide vehicle position listing with locations of all vehicles to the trail party leader.</p> <p>i. Open radio net(s) as specified in the movement order.</p> <p>j. Enforce safety procedures.</p> <p>k. Enforce environmental stewardship procedures.</p> <p>*3. March commander and leaders conduct premovement inspections. (STP 21-I-MQS: 04-3304.01-0002)</p> <p>a. Inspect personnel and their equipment for compliance with commander's guidance, movement order, and TSOP.</p> <p>b. Inspect organizational equipment for accountability and serviceability.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>c. Inspect vehicles, trailers, and loads for serviceability, proper stowing, and security.</p> <p>d. Forward personnel and equipment status to commander and the higher HQ staff personnel.</p> <p>*4. March commander conducts briefings for convoy personnel. (STP 21-I-MQS: 03-9007.01-0020)</p> <p>a. Provides strip maps to each vehicle driver.</p> <p>b. Briefs convoy chain of command.</p> <p>c. Briefs convoy route.</p> <p>d. Prescribes the rate of march and catch-up speeds.</p> <p>e. Briefs vehicle intervals.</p> <p>f. Identifies scheduled halts.</p> <p>g. Briefs safety, accident, and break-down procedures.</p> <p>h. Briefs immediate action security measures.</p> <p>i. Briefs blackout condition procedures.</p> <p>j. Identifies location of medical support.</p> <p>k. Identifies location of maintenance support.</p> <p>l. Provides location and identification of destination.</p> <p>m. Briefs arm/hand signals.</p> <p>n. Briefs radio frequencies and call signs for control personnel and medical evacuation support.</p> <p>5. Equipment Reception Team prepares to cross SP.</p> <p>a. Positions all vehicles IAW march commander's instructions.</p> <p>b. Clears all individual weapons.</p> <p>c. Posts air guards in positions designated by march commander.</p> <p>d. Posts security guards to maintain 360-degree surveillance.</p> <p>e. Forwards movement readiness report to higher HQ staff personnel.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-I-MQS	03-9007.01-0020	GIVE BRIEFINGS
	04-3304.01-0002	CONDUCT INSPECTION
STP 21-II-MQS	01-7300.75-0500	PLAN CONVOY OPERATIONS

#### OPFOR TASKS AND STANDARDS

NONE:



**ELEMENT:** COMPANY

**TASK:** CONDUCT FP UNIT TACTICAL ROAD MARCH (42-2-0234)  
 (FM 55-30) (FM 3-3) (FM 3-4)  
 (FM 3-5) (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Time specified in movement order to cross SP has arrived. All equipment is uploaded and vehicles are positioned for departure. The route of march is identified. Convoy operations may be performed during daylight or darkness, including blackout conditions. The convoy may go through an urban area. Radio and visual signals are used for march column control. The higher HQ TSOP and OPORD with movement order are available. Maps and overlays with checkpoints, RP, and critical points are available. Column may conduct halts during movement. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** SP, checkpoints, and RP are crossed at times specified in the movement order or times adjusted on the road movement table by higher HQ staff element. At MOPP4, performance degradation factors increase travel time.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. March commander initiates convoy. (STP 21-II-MQS: 01-7200.75-0100) a. Directs lead vehicle to cross SP at specified time. b. Verifies vehicles have crossed the SP. c. Forwards SP crossing report to higher HQ staff element when unit elements have crossed the SP.  *2. March commander reports convoy information to higher HQ staff element. a. Forwards checkpoint(s) clearance report as checkpoints are crossed. b. Reports all ground sightings that conflict with maps and map overlays. c. Forwards en route NBC information.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Reports all threat sightings using SALUTE format.</p> <p>e. Employs correct SOI/SSI codes in all transmissions.</p> <p>*3. March commander enforces march discipline. (STP 21-II-MQS: 01-7200.75-0100)</p> <p>a. Assumes position(s) along march route that provides command presence at points of decision for reaction to changing tactical situation.</p> <p>b. Enforces all movement policies defined in the TSOP and movement order, with emphasis on formation, distances, speeds, passing procedures, and halts.</p> <p>c. Adjusts formation distances and speed consistent with NBC, terrain, and light conditions.</p> <p>d. Enforces security measures, with emphasis on air guards, surveillance, manning of automatic weapons, and concealment of critical cargo.</p> <p>e. Communicates to unit leaders and operators, by radio or proper visual signals, any violations of march discipline, security procedures, or changes to current orders.</p> <p>f. Enforces COMSEC measures, including radio silence periods IAW the movement order and SOI/SSI.</p> <p>g. Enforces safety procedures.</p> <p>h. Enforces environmental stewardship procedures.</p> <p>4. Unit employs march discipline.</p> <p>a. Maintains designated march speed specified in movement order or as prescribed by the march commander.</p> <p>b. Maintains proper vehicle interval as specified in movement order or as adjusted by the march commander.</p> <p>c. Adjusts formation distances and speed consistent with NBC, terrain, and light conditions.</p> <p>d. Dons eye protection goggles if driver or passenger is in a vehicle without cover or when windshield is lowered.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Crosses all check points as scheduled.</p> <p>f. Reacts correctly to march commander's arm/hand signals.</p> <p>g. Maintains ground and air surveillance that covers 360 degrees until movement is completed.</p> <p>h. Employs safety procedures.</p> <p>i. Employs environmental stewardship procedures.</p> <p>5. Unit conducts scheduled halt(s).</p> <p>a. Stops column at prescribed time and location.</p> <p>b. Moves vehicles off road to positions that provide overhead cover while maintaining the prescribed interval between vehicles.</p> <p>c. Occupies hasty defensive positions with 360 degree protective coverage (passengers).</p> <p>d. Reports scheduled halt to higher HQ staff element.</p> <p>e. Performs during-operation PMCS on vehicles (operators).</p> <p>f. Inspects vehicle loads for safety and security.</p> <p>g. Begins departure at specified time in the movement order.</p> <p>h. Reports resumption of march to higher HQ staff element.</p> <p>6. Unit conducts unscheduled halt(s).</p> <p>a. Alerts march column with prescribed arm/hand signal.</p> <p>b. Reports halt and circumstances immediately to higher HQ staff element.</p> <p>c. Moves vehicles off the road while maintaining the prescribed interval between vehicles.</p> <p>d. Occupies hasty fighting position with 360 degree protective coverage.</p> <p>e. Resumes march as soon as reason for halt is rectified.</p> <p>f. Reports resumption of march to higher HQ staff element.</p> <p>7. Trail party recovers disabled vehicle. (STP 21-II-MQS: 03-4995.90-0010)</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>a. Posts guard to maintain surveillance until recovery operation is completed.</li> <li>b. Inspects disabled vehicle for reparability.</li> <li>c. Repairs disabled vehicle, when possible.</li> <li>d. Tows disabled vehicle to appropriate maintenance facility.</li> <li>e. Reports vehicle status to march commander.</li> </ul> <p>8. Unit conducts a night convoy.</p> <ul style="list-style-type: none"> <li>a. Briefs drivers on night conditions.</li> <li>b. Provides visual adjustment period if march began during daylight.</li> <li>c. Prepares vehicles for blackout conditions IAW the TSOP.</li> <li>d. Maintains prescribed interval between vehicles.</li> <li>e. Wears night vision goggles (selected personnel).</li> <li>f. Wears regular eye protection goggles (all other personnel).</li> <li>g. Employs ground guides during poor visibility periods.</li> </ul> <p>9. Unit conducts convoy through an urban area.</p> <ul style="list-style-type: none"> <li>a. Verifies all weight, height, and width restrictions along route of march.</li> <li>b. Employs close column formation.</li> <li>c. Obeys traffic control directions unless escorted by military or HN police.</li> <li>d. Employs directional guides at all critical intersections.</li> </ul> <p>*10. March commander monitors unit crossing RP. (STP 21-II-MQS: 01-7200.75-0100)</p> <ul style="list-style-type: none"> <li>a. Verifies that lead vehicle has crossed RP at specified time.</li> <li>b. Verifies that all remaining vehicles have crossed RP.</li> <li>c. Forwards SITREP to higher HQ staff element.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-II-MQS	01-7200.75-0100	CONDUCT CONVOY OPERATIONS
	03-4995.90-0010	DIRECT VEHICLE AND EQUIPMENT RECOVERY OPERATIONS

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** DEFEND FP MARCH ELEMENTS (42-2-0235)  
 (FM 55-30) (FM 3-3) (FM 3-4)  
 (FM 3-5) (FM 42-424) (FM 44-8)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Threat forces attack the march column. The unit is conducting a tactical road march. The threat is capable of launching ground, air, and indirect fire attacks. The march column has radio communications with higher HQ staff element. CAS sorties and indirect fire support have been allocated, but with low priority. Pyrotechnics are available for signaling and marking locations. Higher HQ movement order and TSOP are available. Some iterations of this task should be performed in MOPP4.

**NOTE:** This task applies only to FP unit equipment and not to FP module's equipment or subsystem.

**TASK STANDARDS:** Attacks are repelled by proper immediate action techniques and march is resumed IAW TSOP and movement order.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. March commander supervises reaction to sniper fire. a. Locates approximate location of sniper incident on map from march element reports. b. Identifies whether area is a free fire zone or restricted fire zone. c. Authorizes return fire only if sniper(s) are located. d. Directs march elements to increase march speed and interval between vehicles until they have cleared the area. e. Provides instructions to follow-on march elements. f. Forwards incident report to higher HQ staff element.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>2. Unit takes action against sniper fire. (STP 21-1-SMCT: 071-311-2007, 071-326-0502)</p> <ul style="list-style-type: none"> <li>a. Reports sniper fire to march commander immediately upon contact.</li> <li>b. Returns fire immediately that kills snipers or suppresses their fire (designated personnel only).</li> <li>c. Increases column rate of march and vehicle interval.</li> </ul> <p>*3. March commander supervises defense against ambush with the road blocked and with the road not blocked. (STP 21-24-SMCT: 061-283-6003, STP 21-I-MQS: 03-2830.00-6003, 04-3303.01-0019)</p> <ul style="list-style-type: none"> <li>a. Identifies location of ambush site on map with map overlay.</li> <li>b. Directs march elements under attack to employ correct protective actions as prescribed in higher HQ movement order and TSOP.</li> <li>c. Provides instructions on halt points and security requirements to all march elements.</li> <li>d. Forwards initial incident report to higher HQ staff element.</li> <li>e. Directs hardened vehicles with automatic fire capability into position to lay down concentrated fire on threat position(s).</li> <li>f. Directs the march elements ahead and march element following to organize security teams to attack flanks of threat ambush party.</li> <li>g. Maintains constant communications with all march elements engaging threat to immediately make adjustments to tactical situation.</li> <li>h. Forwards subsequent SITREP reports to higher HQ staff element as situation changes.</li> <li>i. Requests immediate CAS and/or indirect fire support from higher HQ staff element.</li> <li>j. Directs use of pyrotechnics for signaling or marking areas.</li> <li>k. Develops contingency plans to displace elements not under attack and withdraw elements under attack.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>4. Unit defends against ground ambush (road not blocked). (STP 21-1-SMCT: 071-311-2007, 071-326-0510)</p> <ul style="list-style-type: none"> <li>a. Reports ambush to march commander immediately upon contact.</li> <li>b. Identifies threat location(s).</li> <li>c. Returns fire immediately that kills threat and suppresses their fire (non-driving personnel).</li> <li>d. Stops vehicles that are not in kill zone.</li> <li>e. Increases rate of march until out of kill zone (for vehicles in kill zone).</li> <li>f. Keeps roadway clear by pushing disabled vehicles aside.</li> <li>g. Organizes security element(s) of soldiers not in kill zone (senior member present).</li> <li>h. Directs fire and maneuver of security elements to allow remaining vehicles to pass through kill zone (senior member present).</li> <li>i. Forwards SITREP to march commander.</li> </ul> <p>5. Unit defends against ground attack (road blocked). (STP 21-1-SMCT: 071-311-2007, 071-326-0503, 071-326-0513, 04-3305.01-0005)</p> <ul style="list-style-type: none"> <li>a. Reports ambush to march commander immediately upon contact.</li> <li>b. Dismounts vehicles on opposite side of direction of ambush.</li> <li>c. Returns fire immediately that kills threat or suppresses their fire (soldiers in kill zone).</li> <li>d. Takes up firing positions while awaiting orders (soldiers not in kill zone).</li> <li>e. Organizes security element(s) of soldiers not in kill zone (senior member present).</li> <li>f. Directs fire and maneuver of security elements to allow removal of road block (senior member present).</li> <li>g. Forwards SITREP to march commander.</li> </ul> <p>*6. March commander requests indirect fire support. (STP 21-24-SMCT: 061-283-6003, STP 21-I-MQS: 03-2830.00-6003)</p> <ul style="list-style-type: none"> <li>a. Requests fire support IAW instructions in the higher HQ movement order or TSOP.</li> </ul>		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>b. Identifies grid direction to threat location.</p> <p>c. Identifies threat target location using grid coordinates or shift from a known point.</p> <p>d. Transmits call for fire in proper sequence.</p> <p>e. Transmits fire adjustments information in proper sequence to the fire support element, if an "Adjust" fire mission.</p> <p>f. Transmits "end of mission" and surveillance report if fire was sufficient.</p> <p>g. Forwards SITREP to march commander.</p> <p>*7. March commander requests CAS.</p> <p>a. Verifies threat position(s).</p> <p>b. Requests CAS by means prescribed in higher HQ movement order.</p> <p>c. Supervises preparation of unit personnel for friendly strike.</p> <p>d. Directs marking of friendly unit location(s) with prescribed colored smoke.</p> <p>e. Communicates strike effectiveness to higher HQ staff element.</p> <p>8. Unit employs passive defense measures against air attack. (STP 21-1-SMCT: 071-326-0513, STP 21-24-SMCT: 441-091-1040)</p> <p>a. Provides the prescribed signal to alert column.</p> <p>b. Staggers vehicles to avoid linear patterns.</p> <p>c. Positions vehicle in shadows or along edge of wood lines.</p> <p>d. Assumes firing positions.</p> <p>e. Fires only upon command.</p> <p>f. Reports all aircraft actions to higher HQ staff element.</p> <p>9. Unit employs active defense measures against air attack. (STP 21-24-SMCT: 441-091-1040, STP 21-II-MQS: 01-0401.20-0001)</p> <p>a. Employs the prescribed signal to alert march elements.</p> <p>b. Identifies threat aircraft visually.</p> <p>c. Disperses vehicles to concealed locations.</p> <p>d. Assumes firing positions.</p> <p>e. Fires weapons at attacking aircraft only if fired upon or on command.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>*10. March commander supervises reorganization after attack.</p> <ul style="list-style-type: none"> <li>a. Identifies status of all personnel, equipment, and cargo through march element reports.</li> <li>b. Coordinates requirements within march elements for load transfer, vehicle repairs, mortuary affairs, and medical transportation.</li> <li>c. Requests emergency destruction authorization from higher HQ staff element for items that cannot be evacuated.</li> <li>d. Forwards SITREP to higher HQ staff element.</li> </ul> <p>11. Unit reorganizes after the attack. (STP 21-1-SMCT: 081-831-1000, 081-831-1005, 081-831-1007, 081-831-1016, 081-831-1017, 081-831-1025, 081-831-1026, 081-831-1033, 081-831-1034, 081-831-1040, 081-831-1041, 081-831-1042, 101-515-1900, STP 21-24-SMCT: 081-831-0101, STP 21-II-MQS: 03-4995.90-0010)</p> <ul style="list-style-type: none"> <li>a. Maintains 360-degree surveillance.</li> <li>b. Treats casualties.</li> </ul> <p>NOTE: See task 08-2-0003 for detailed treatment procedures.</p> <ul style="list-style-type: none"> <li>c. Reports casualties.</li> <li>d. Requests air ambulance support through march commander.</li> <li>e. Reestablishes chain of command if necessary.</li> <li>f. Secures landing zone if air ambulance is required.</li> <li>g. Transports casualties.</li> </ul> <p>NOTE: See task 63-2-R316 for detailed casualty transportation procedures.</p> <ul style="list-style-type: none"> <li>h. Performs mortuary affairs functions.</li> </ul> <p>NOTE: See task 10-2-C318 for detailed mortuary affairs procedures.</p> <ul style="list-style-type: none"> <li>i. Assesses damage to vehicles and cargo to determine operability and reparability.</li> <li>j. Performs BDAR for recoverable vehicles.</li> <li>k. Removes critical items from unrecoverable vehicles.</li> <li>l. Requests emergency destruction of vehicles and nonmedical equipment from march commander.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
m. Forwards SITREP to march commander. n. Reorganizes march elements. o. Resumes march.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-1-SMCT	071-311-2007	ENGAGE TARGETS WITH AN M16A1 OR M16A2 RIFLE
	071-326-0502	MOVE UNDER DIRECT FIRE
	071-326-0503	MOVE OVER, THROUGH, OR AROUND OBSTACLES (EXCEPT MINEFIELDS)
	071-326-0510	REACT TO INDIRECT FIRE WHILE DISMOUNTED
	071-326-0513	SELECT TEMPORARY FIGHTING POSITIONS
	081-831-1000	EVALUATE A CASUALTY
	081-831-1005	PREVENT SHOCK
	081-831-1007	GIVE FIRST AID FOR BURNS
	081-831-1016	PUT ON A FIELD OR PRESSURE DRESSING
	081-831-1017	PUT ON A TOURNIQUET
	081-831-1025	APPLY A DRESSING TO AN OPEN ABDOMINAL WOUND
	081-831-1026	APPLY A DRESSING TO AN OPEN CHEST WOUND
	081-831-1033	APPLY A DRESSING TO AN OPEN HEAD WOUND
	081-831-1034	SPLINT A SUSPECTED FRACTURE
	081-831-1040	TRANSPORT A CASUALTY USING A ONE-MAN CARRY
	081-831-1041	TRANSPORT A CASUALTY USING A TWO-MAN CARRY OR AN IMPROVISED LITTER

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	081-831-1042	PERFORM MOUTH-TO-MOUTH RESUSCITATION
STP-21-24-SMCT	081-831-0101	REQUEST MEDICAL EVACUATION
	061-283-6003	ADJUST INDIRECT FIRE
	101-515-1900	PERFORM MORTUARY AFFAIRS OPERATIONS
	441-091-1040	VISUALLY IDENTIFY THREAT AIRCRAFT
STP 21-II-MQS	01-0401.20-0001	DIRECT UNIT AIR DEFENSE
	03-4995.90-0010	DIRECT VEHICLE AND EQUIPMENT RECOVERY OPERATIONS
STP 21-I-MQS	03-2830.00-6003	ADJUST INDIRECT FIRE
	04-3303.01-0019	USE A MAP OVERLAY
	04-3305.01-0005	ENGAGE TARGETS WITH AN M16A1 OR M16A2 RIFLE

**OPFOR TASKS AND STANDARDS**

**TASK:** CONDUCT HASTY AMBUSH (63-OPFOR-1003)

**CONDITION:** OPFOR element is moving in a wooded area when an enemy march element is seen moving along a nearby route.

**STANDARD:** 1. Prepare ambush site before arrival of enemy element. 2. Surprise enemy forces. 3. Inflict casualties within the designated kill zone. 4. Inflict damage to vehicles and equipment within the designated kill zone. 5. Delay enemy march element from reaching its destination for a specified period. 6. Withdraw, on order, within two minutes of ambush initiation. 7. Report actions to superiors.

**TASK:** CONDUCT DELIBERATE AMBUSH (63-OPFOR-1004)

**CONDITION:** OPFOR element is operating along an enemy MSR. OPFOR intelligence has reported that an enemy element is conducting a road march along the route. OPFOR has set up an ambush. The march element is approximately fifteen minutes from the ambush point. OPFOR element possesses automatic weapons, anti-armor weapons, and command detonated mines. OPFOR HQs has ordered complete destruction of march element.

**STANDARD:** 1. Prepare ambush site before arrival of enemy element. 2. Surprise enemy forces. 3. Force enemy march element to halt in kill zone. 4. Initiate ambush on order of the OPFOR

leader. 5. Kill, wound, or capture enemy personnel, and destroy specified vehicles and equipment in the kill zone. 6. Engage enemy reinforcements and security elements. 7. Consolidate and withdraw from the area on order. 8. Report all specified PIR and other intelligence requirements.

**TASK:** CONDUCT SNIPER OPERATIONS (63-OPFOR-1005)

**CONDITION:** OPFOR has assigned snipers, regular and/or irregular elements, in the enemy rear area along MSR and near support sites.

**STANDARD:** 1. Set up well concealed location(s). 2. Engage vehicle drivers or personnel on foot with short bursts of semi-automatic fire. 3. Kill or wound selected target. 4. Prevent position from being discovered by enemy forces. 5. Evacuate the area without being spotted. 6. Report all specified PIR and other intelligence requirements to OPFOR HQs.

**ELEMENT:** COMPANY

**TASK:** OCCUPY NEW FP UNIT OPERATING SITE (42-2-0236)  
 (FM 55-30) (TM 10-5419-200-12) (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Main body has moved into assigned positions. Advance/Quartering Party leader briefs the commander on the status of site preparation. Commander assembles element leaders for briefing. Movement into new area can occur during daylight or darkness. While unit is moving into position, the threat has the capability to launch a surprise attack with a small group. This task should not be trained in MOPP4.

**TASK STANDARDS:** Unit completes initial security functions within time specified by higher HQ after shipping containers have been positioned IAW the staking and site plans.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander supervises occupation of FP operational area. <ul style="list-style-type: none"> <li>a. Adjusts site plan as tactical and terrain considerations drive changes.</li> <li>b. Records adjustment(s) on map overlay(s).</li> <li>c. Identifies essential tasks to be completed.</li> <li>d. Briefs subelement leaders on final site plan, positioning of triple containers (TRICONS), and tasks they are to perform.</li> <li>e. Monitors convoy movement for accountability of module.</li> <li>f. Enforces safety measures.</li> <li>g. Enforces environmental stewardship procedures.</li> </ul> 2. Unit moves organic vehicles and shipping containers into positions. <ul style="list-style-type: none"> <li>a. Reacts correctly to guide's prescribed visual signals.</li> <li>b. Takes actions to minimize noise.</li> <li>c. Takes actions to minimize dust and exhaust smoke.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Drives vehicles into predesignated positions without stopping in exposed areas.</p> <p>e. Positions vehicle facing toward roadway to allow for quick dispersion.</p> <p>f. Positions shipping containers and containerized subsystems for FP IAW the site plan.</p> <p>g. Employs safety procedures.</p> <p>h. Employs environmental stewardship procedures.</p> <p>3. Unit moves vehicles to positions at night. (STP 21-1-SMCT: 071-331-0815)</p> <p>a. Picks up guides at dismount point.</p> <p>b. Turns off blackout drive lights at dismount point.</p> <p>c. Reacts correctly to filtered flashlight signals of guide.</p> <p>d. Maintains noise and light discipline.</p> <p>e. Takes actions to minimize dust and exhaust smoke.</p> <p>4. Unit occupies initial defensive positions (designated personnel only). (STP 21-1-SMCT: 071-331-0801, 071-331-0815) (STP 21-24-SMCT: 071-326-5704)</p> <p>a. Occupies positions as directed by Advance/Quartermaster Party leader.</p> <p>b. Prepares hasty fighting positions that provide frontal protection from direct fire and are at least half a meter (18 inches) deep.</p> <p>c. Positions automatic weapons on likely avenues of approach.</p> <p>d. Positions individual weapons to protect flanks of automatic weapons and to provide interlocking fires.</p> <p>e. Employs light and noise discipline along defensive line.</p> <p>f. Employs correct challenge and password techniques.</p> <p>g. Employs safety measures.</p> <p>h. Employs environmental stewardship procedures.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
5. Unit personnel receipt for FP module(s) from appropriate theater personnel at the operational site. <ul style="list-style-type: none"> <li>a. Verify the number and type of sealed shipping containers as received.</li> <li>b. Coordinate with higher HQ for moving the shipping containers to FP operational site.</li> <li>c. Designate personnel to escort shipping containers within operational site.</li> <li>d. Position shipping containers and containerized subsystems for FP IAW the site plan.</li> <li>e. Complete necessary receipt documents.</li> <li>f. Identify shortages and damage to TRICONS, and report shortages and damage to higher HQ.</li> <li>g. Secure shipping containers in operational site IAW the final site and staking plans.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-24-SMCT	071-326-5704	SUPERVISE CONSTRUCTION OF A FIGHTING POSITION
STP 21-1-SMCT	071-331-0801	CHALLENGE PERSONS ENTERING YOUR AREA
	071-331-0815	PRACTICE NOISE, LIGHT, AND LITTER DISCIPLINE

**OPFOR TASKS AND STANDARDS**

**NONE:**



**ELEMENTS:** COMPANY  
 PROVIDER PLT

**TASK:** PLAN FP UNIT DEFENSE (42-2-0237)  
 (FM 42-424) (FM 7-10) (FM 7-8 [HTF])

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The FP unit is assigned to a TAACOM or COSCOM, and may be attached to a HHD, Supply and Service Battalion, or to a HHC, Corps Support Group. This unit is dependent on corps or theater army for additional security support. The higher HQ has incorporated the FP site into a base cluster defense. FP unit's and tenant unit's defensive areas of responsibility are assigned by the higher HQ. FP unit commander has conducted a physical or map/photograph reconnaissance of the area. Selected FP personnel have occupied initial security positions. The threat is capable of employing TACAIR sorties, airborne and airmobile regular army units, and local guerrilla elements. Higher HQ and FP unit TSOPs and the base cluster defense plan are available. Field-expedient and natural shelters are available. The task is performed with or without a tenant unit occupying the FP operational site. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Defense plan is completed IAW the TSOP and higher HQ guidance, and is integrated into the higher HQ base cluster defense plan. At MOPP4, performance degradation factors increase FP unit's planning times.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Commander and platoon/section leaders perform terrain analysis of FP unit's area of responsibility. (STP 21-II-MQS: S3-8988.01-0001, STP 21-24-SMCT: 071-331-0820, 071-326-5770, 071-326-5775, 071-332-5000, 071-720-0015) a. Identify terrain features that provide cover and concealment or other advantages to the threat force.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>b. Identify likely avenues of approach for mounted and dismounted threat forces and threat aircraft.</p> <p>c. Identify probable dead space(s) in the FP unit's area of responsibility.</p> <p>d. Identify locations of preplanned indirect fire targets and target reference points in coordination with higher HQ staff element and tenant unit.</p> <p>e. Identify locations of restrictive fire zones within or in the immediate vicinity of the FP unit's area of responsibility.</p> <p>*2. Commander and platoon/section leaders prepare preliminary FP site fire plan. (STP 21-II-MQS: 03-3711.12-0001, 04-3303.02-0014, S3-8961.00-0001)</p> <p>a. List available weapon systems and element to which they are assigned.</p> <p>b. Calculate each element's personnel assets based on the availability of personnel during normal operations.</p> <p>c. Designate subelement boundaries that cover the entire FP unit area of responsibility based on the normal availability of weapons and personnel.</p> <p>d. List probable engagement areas based on terrain analysis of the area of responsibility and data the higher HQ staff element provides.</p> <p>e. Establish coordination channels with tenant unit to integrate interlocking fires.</p> <p>f. List indirect fire and CAS target reference points.</p> <p>g. Coordinate fire support coordination measures with tenant unit and higher HQ staff element.</p> <p>*3. Commander and platoon/section leaders prepare preliminary mobility and countermobility plan for FP site.</p> <p>a. List locations and types of obstacles, based on desired engagement areas, dead space, and preplanned indirect fire support.</p> <p>b. Identify available obstacle assets and resources for emplacement.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>c. Coordinate additional obstacle requirements with tenant unit and higher HQ staff element.</p> <p>*4. Commander and platoon/section leaders prepare preliminary air defense plan. (STP 21-II-MQS: 01-0401.20-0001)</p> <p>a. Identify applicable air defense policies, procedures, and requirements in higher HQ and FP unit TSOP.</p> <p>b. List probable air avenues of approach.</p> <p>c. List current weapon control status as received from higher HQ staff element.</p> <p>d. Identify air defense warning signals.</p> <p>e. Designate locations for air watch positions.</p> <p>5. Commander prepares reaction force plan.</p> <p>a. Lists base cluster reaction force requirements based on higher HQ TSOP or guidance.</p> <p>b. Lists internal reaction force requirements based on FP unit TSOP and personnel availability.</p> <p>c. Designates internal reaction force rally point.</p> <p>d. Lists FP subelements' taskings for external and internal reaction forces requirements.</p> <p>*6. Commander develops FP site defense plan with tenant unit, if present.</p> <p>a. Identifies location(s) of FP unit's deliberate OPs and LPs.</p> <p>b. Reviews defense sectors of responsibility as either assigned by higher HQ or determined by tenant unit.</p> <p>c. Coordinates site fire plan.</p> <p>d. Coordinates mobility and countermobility plan.</p> <p>e. Coordinates air defense plan.</p> <p>f. Coordinates reaction force plan.</p> <p>*7. Commander prepares FP site defense plan.</p> <p>a. Designates boundaries of FP subelements based on coordinated FP site defense plan.</p> <p>NOTE: Boundaries should be consistent with subelements' weapon systems and personnel available to defend the FP unit's sector.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>b. Designates individual weapons positions where fires overlap and provide flank security for tenant unit's automatic weapons.</li> <li>c. Identifies indirect fire and CAS target reference points within each primary position that covers the same sector of fire as the primary position.</li> <li>d. Selects individual alternate positions based on key weapon alternate positions.</li> <li>e. Selects alternate positions that provide covered and concealed withdrawal routes.</li> <li>f. Selects supplementary positions that are within 200 meters of primary positions and are oriented in a different direction from primary positions.</li> <li>g. Designates sectors of fire for each supplementary position that interlock and provide mutual supporting fire.</li> <li>h. Coordinates integration of interlocking fires with adjacent FP or tenant unit elements.</li> </ul> <p>*8. Commander coordinates FP site defense plan with BCOC.</p> <ul style="list-style-type: none"> <li>a. Identifies composition, location, and mission of the reaction force.</li> <li>b. Identifies critical missions, facilities, roads, bridges, rail lines, airfields, helipads, and ports.</li> <li>c. Identifies the location of hasty minefields and barriers.</li> <li>d. Provides landing zone, helipad, and drop zone coordinates.</li> <li>e. Identifies likely enemy air and ground avenues of approach.</li> <li>f. Identifies site security and patrol activities.</li> <li>g. Coordinates fire support and reaction force requirements.</li> <li>h. Identifies CAS and indirect fire target reference points.</li> <li>i. Identifies available host-nation or contractor support to be used in the site's defense.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
j. Specifies ADC measures.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-24-SMCT	071-326-5770	PREPARE A PLATOON SECTOR SKETCH
	071-326-5775	COORDINATE WITH AN ADJACENT PLATOON
	071-331-0820	ANALYZE TERRAIN
	071-332-5000	PREPARE AN OPERATION OVERLAY
	071-720-0015	CONDUCT AN AREA RECONNAISSANCE BY A PLATOON
STP 21-II-MQS	01-0401.20-0001	DIRECT UNIT AIR DEFENSE
	03-3711.12-0001	IMPLEMENT OPERATIONS SECURITY
	04-3303.02-0014	PREPARE PLATOON OR COMPANY COMBAT ORDERS
	S3-8961.00-0001	DESCRIBE REAR OPERATIONS DOCTRINE LEADERSHIP
	S3-8988.01-0001	DESCRIBE REGIONAL AND SPECIAL THREATS

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** SET UP FP UNIT HEADQUARTERS AREA (42-2-0238)  
 (FM 10-27-3) (FM 42-424) (TM 10-5419-200-12)  
 (TM 10-8340-224-13&P)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Quartering party has escorted company headquarters to new site. New area of operations for company HQ and bivouac areas have been selected in a field site or MOUT environment. Operating sites for the FP subsystems, tenant unit motor pool and storage area, unit administrative area, unit supply, and unit maintenance have been selected. Advance/Quartering party has initially secured the area and established the CP. The layout plan is available. TEMPERs are available from the FP module and have been inventoried. Sanitation facilities are required for the new area. This task should not be trained in MOPP4.

**NOTE:** If FP platoon is conducting independent or detached operations, the FP platoon will conduct these tasks at platoon level.

**TASK STANDARDS:** The company HQ and bivouac areas are set up, IAW tactical SOP and/or layout plan, within the prescribed time frame.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander/Commander/First Sergeant directs set up of company HQ and bivouac billeting areas. <ul style="list-style-type: none"> <li>a. Supervises the set up of unit CP.</li> <li>b. Inspects set up of bivouac location of unit elements based on site plan.</li> <li>c. Supervises set up of operator billeting, administrative area, supply, maintenance, and parking areas.</li> <li>d. Designates NBC decontamination and treatment site.</li> <li>e. Designates contaminated waste site.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Designates EPW holding area and MA collecting point.</p> <p>g. Verifies helipad site.</p> <p>h. Inspects setup of operator areas to ensure set up IAW revised layout and site plans.</p> <p>i. Coordinates with Support Operations Section for additional resources for set up of FP module if required.</p> <p>j. Supervises establishment of communications.</p> <p>k. Enforces safety procedures.</p> <p>l. Enforces environmental stewardship procedures.</p> <p>2. Unit sets up the unit administrative area.</p> <p>a. Locates the area IAW the staking plan.</p> <p>b. Positions equipment and tentage TEMPERs according to staking plan. (Execute Drill 42-2-D0001, Set Up the Four-Section TEMPER.)</p> <p>c. Establishes communications with subordinate elements.</p> <p>d. Establishes local security.</p> <p>e. Employs safety procedures.</p> <p>f. Employs environmental stewardship procedures.</p> <p>3. Unit sets up the unit supply area.</p> <p>a. Erects equipment and TEMPER. (Execute Drill 42-2-D0001, Set Up the Four-Section TEMPER.)</p> <p>b. Secures weapons and ammunition.</p> <p>c. Positions supply vehicles.</p> <p>d. Employs safety procedures.</p> <p>e. Employs environmental stewardship procedures.</p> <p>4. Unit sets up unit maintenance area.</p> <p>a. Erects unit maintenance tent.</p> <p>b. Establishes traffic pattern.</p> <p>c. Positions equipment.</p> <p>d. Safeguards equipment and repair parts.</p> <p>e. Establishes electrical power systems.</p> <p>f. Employs safety procedures.</p> <p>g. Employs environmental stewardship procedures.</p> <p>5. The Support Operations Section coordinates graywater and blackwater support for FP module(s).</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
a. Identifies graywater and blackwater support requirements. b. Plans graywater and blackwater support. c. Supervises establishment of graywater and blackwater collection/disposal systems and procedures. d. Employs environmental stewardship procedures.  6. Unit sets up operator billeting area. a. Locates area away from traffic flow and roadways. b. Erects TEMPERS. (Execute Drill 42-2-D0001, Set Up the Four-Section TEMPER.) c. Sets up commander's billeting area. d. Employs safety procedures. e. Employs environmental stewardship procedures.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### OPFOR TASKS AND STANDARDS

NONE:



**ELEMENT:** COMPANY

**TASK:** SET UP A FP MODULE (42-2-0239)  
 (TM 10-5419-200-12) (FM 10-52-1) (FM 10-67-1)  
 (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The FP unit TSOP and higher headquarters TSOP are available. The FP unit has occupied an operational site for a FP module. Company HQ has designated locations for FP subsystems. The site has been prepared IAW the site plan and all the FP module(s) have arrived. Sufficient materials, supplies, and labor are available to accomplish the module set up. Commercial power and engineer prime power battalion support are not available initially. A potable water supply is available. The FP company HQ may or may not be located with the FP module. MWR personnel are available. The FP unit has been notified that a battalion-size tenant unit will arrive at the site in six days and supplies for the tenant unit will begin arriving in five days. This task should not be trained in MOPP4.

**TASK STANDARDS:** The contents of the shipping containers are checked against the inventory lists in TM 10-5419-200-12 and components inspected for serviceability. The FP module's subsystems will be set up by the time specified in the TSOP and schedules directed by higher HQ.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Platoon and section Platoon and section leaders supervise direct set up of FP module. a. Supervise set up of FP subsystems and components IAW staking plan. b. Coordinate any revisions to the staking plan. c. Direct communications checks with company net station IAW company TSOP and current communications instructions.. d. Coordinate with company HQ for replacement parts and equipment.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Enforce safety procedures.</p> <p>f. Enforce environmental stewardship procedures.</p> <p>2. FP platoon sets up operator billeting and platoon HQ.</p> <p>a. Locates the area IAW the site plan and the staking plan.</p> <p>b. Inventories contents of containers.</p> <p>c. Inspects equipment for serviceability.</p> <p>d. Tags damaged/inoperative equipment.</p> <p>e. Reports shortages or damage to platoon HQ.</p> <p>f. Erects billets and platoon HQ TEMPERS. (Execute Drill 42-2-D0001, Set Up the Four-Section TEMPER.)</p> <p>g. Marks traffic patterns and FP unit vehicle parking areas.</p> <p>h. Reports operational condition of equipment to platoon HQ.</p> <p>i. Establishes wire communications with higher HQ and tenant support area.</p> <p>j. Employs safety procedures.</p> <p>k. Employs environmental stewardship procedures.</p> <p>3. FP platoon personnel set up tenant billeting and support facilities.</p> <p>a. Inventory contents of containers.</p> <p>b. Inspect equipment for serviceability.</p> <p>c. Tag damaged/inoperative equipment.</p> <p>d. Report shortages or damage to platoon HQ.</p> <p>e. Erect billet TEMPERS according to staking plans. (Execute Drill 42-2-D0001, Set Up the Four-Section TEMPER.)</p> <p>f. Erect administration TEMPER according to staking plans. (Execute Drill 42-2-D0001, Set Up the Four-Section TEMPER.)</p> <p>g. Erect MWR, medical, chaplain, and PX facilities TEMPERS according to staking plans. (Execute Drill 42-2-D0001, Set Up the Four-Section TEMPER.)</p> <p>h. Position MWR equipment and supplies in the MWR TEMPER.</p> <p>i. Mark outdoor recreation area.</p> <p>j. Position cots, chairs, cleaning equipment and foot lockers in TEMPERS.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>k. Mark tenant unit motor pool and storage areas.</p> <p>l. Install communications lines from tenant administration area to FP platoon HQ.</p> <p>m. Report operational condition of equipment to platoon HQ.</p> <p>n. Employ safety procedures.</p> <p>o. Employ environmental stewardship procedures.</p> <p>4. Laundry/Shower Section sets up laundry, latrine, and shower subsystems. (STP 10-57E14-SM-TG: 101-514-1156, 101-514-2901)</p> <p>a. Inventories contents of containers.</p> <p>b. Inspects equipment for serviceability.</p> <p>c. Tags damaged/inoperative equipment.</p> <p>d. Reports shortages or damages to platoon HQ.</p> <p>e. Sets up Containerized Batch Laundry (CBL). (Execute Drill 42-2-D0004, Set Up and Maintain the Containerized Batch Laundry [CBL]).</p> <p>f. Sets up Containerized Latrine (CL). (Execute Drill 42-2-D0006, Set Up and Maintain the Containerized Latrine [CL]).</p> <p>g. Sets up shower. (Execute Drill 42-2-D0008, Set Up, Maintain, and Operate the Shower).</p> <p>h. Installs wire communications with platoon HQ.</p> <p>i. Reports operational condition of equipment to platoon HQ.</p> <p>j. Employs safety procedures.</p> <p>k. Employs environmental stewardship procedures.</p> <p>5. Petroleum Distribution Section sets up bulk fuel storage and distribution subsystem. (STP 10-77F15-SM-TG: 101-519-1304, 101-519-2304, 101-519-3215)</p> <p>a. Inventories contents of containers.</p> <p>b. Inspects equipment for serviceability.</p> <p>c. Tags damaged/inoperative equipment.</p> <p>d. Reports shortages or damage to platoon HQ.</p> <p>e. Sets up bulk fuel storage and distribution subsystem. (Execute Drill 42-2-D0010, Set Up the Bulk Fuel Storage and Distribution Subsystem for a FP Module.)</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Reports operational condition of equipment to platoon HQ.</p> <p>g. Employs safety procedures.</p> <p>h. Employs environmental stewardship procedures.</p> <p>6. Facilities Support Section establishes power support. (STP 9-52D12-SM: 091-182-0101, 091-182-0301, 091-182-0603, 091-182-2901, 091-182-0501) (STP 9-52D3-SM-TG: 091-382-0108) (STP 5-51R12-SM-TG: 051-246-1111, 051-246-1119)</p> <p>a. Inventories contents of containers.</p> <p>b. Inspects equipment for serviceability.</p> <p>c. Tags damaged/inoperative equipment.</p> <p>d. Reports shortages or damage to platoon HQ.</p> <p>e. Sets up power grid using generators. (Execute Drill 42-2-D0015, Set Up a Power Generation Cluster for a FP Module and Drill 42-2-D0020.)</p> <p>f. Sets up portable floodlight set. (Execute Drill 42-2-D0020, Set Up, Operate, and Maintain a Portable Floodlight Set for a FP Module.)</p> <p>g. Assists PRIME Power team or electrical utilities team in converting power grid to PRIME or commercial power, if available.</p> <p>h. Provides assistance to FP sections in connecting to the power grid.</p> <p>i. Inspects TEMPERs and subsystem hook-ups to the power grid.</p> <p>j. Installs wire communications to platoon HQ.</p> <p>k. Reports operational condition of equipment to platoon HQ.</p> <p>l. Employs safety procedures.</p> <p>m. Employs environmental stewardship procedures.</p> <p>7. Food Service/Facilities Support Section sets up establishes food service support subsystem.</p> <p>a. Inventories contents of containers.</p> <p>b. Inspects equipment for serviceability.</p> <p>c. Tags damaged/inoperative equipment.</p> <p>d. Reports shortages or damage to platoon HQ.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Sets up food service subsystem and walk-in refrigerators. (Execute Drill 42-2-D0013, Set Up and Maintain the Food Service Subsystem for a FP Module.)</p> <p>f. Installs wire communications to platoon HQ.</p> <p>g. Reports operational condition of equipment to platoon HQ.</p> <p>h. Employs safety procedures</p> <p>i. Employs environmental stewardship procedures.</p> <p>8. Water Distribution Section sets up establishes water support. (STP 10-77W14- SM-TG: 091-109-7003, 101-540-1065, 101-540-1069, 101-540-2004, 101-540-2027, 101-540-2030)</p> <p>a. Inventories contents of containers.</p> <p>b. Inspects equipment for serviceability.</p> <p>c. Tags damaged/inoperative equipment.</p> <p>d. Reports shortages or damage to platoon HQ.</p> <p>e. Sets up potable water distribution and storage subsystem. (Execute Drill 42-2-D0018, Set Up, Maintain, and Operate a Potable Water Distribution and Storage Site.)</p> <p>f. Installs cold weather kit, if available and if ambient temperature will be below 32°F.</p> <p>g. Installs wire communications to platoon HQ.</p> <p>h. Reports operational condition of equipment to platoon HQ.</p> <p>i. Employs safety procedures.</p> <p>j. Employs environmental stewardship procedures.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 5-51R12-SM-TG	051-246-1111	INSTALL ELECTRICAL CABLES
	051-246-1119	INSTALL CABLE SYSTEMS
STP 9-52D12-SM	091-182-0101	MAINTAIN DIESEL ENGINE LUBRICATION SYSTEM
	091-182-0301	MAINTAIN DIESEL ENGINE FUEL SYSTEM
	091-182-0501	MAINTAIN DIESEL ENGINE COOLING SYSTEM
	091-182-0603	MAINTAIN DIESEL ENGINE CONTROL PANELS AND INSTRUMENTS
	091-182-2901	MAINTAIN POWER GENERATION EQUIPMENT
STP 9-52D3-SM-TG	091-382-0108	INSPECT AND TROUBLESHOOT GENERATOR SYSTEMS
STP 10-57E14-SM-TG	101-514-1156	OPERATE THE SHOWER UNIT'S WATER HEATER
	101-514-2901	SELECT LAUNDRY AND SHOWER FIELD OPERATIONAL SITES
STP 10-77F15-SM-TG	101-519-1304	ASSEMBLE, OPERATE, PERFORM PMCS, AND DISASSEMBLE THE FORWARD AREA REFUELING EQUIPMENT (FARE) SYSTEM
	101-519-2304	SUPERVISE THE ASSEMBLY, OPERATION, PMCS, AND DISASSEMBLY OF THE FORWARD AREA REFUELING EQUIPMENT (FARE)
	101-519-3215	DIRECT THE ASSEMBLY, OPERATION, PMCS, AND DISASSEMBLY OF THE FORWARD AREA REFUELING EQUIPMENT (FARE)
	091-109-7003	OPERATE/PERFORM PMCS ON THE 60-KW DIESEL GENERATOR
STP 10-77W14-SM-TG	101-540-1065	CONDUCT WATER ANALYSIS TESTING
	101-540-1069	COMPLETE ENTRIES ON WATER REPORTS/LOGS/FORMS
	101-540-2004	SUPERVISE WATER ANALYSIS TESTING
	101-540-2027	SUPERVISE THE OPERATION/PMCS OF THE 60-KW DIESEL GENERATOR
	101-540-2030	SUPERVISE COMPLETION OF WATER REPORTS/LOGS/FORMS

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** SET UP FP UNIT DEFENSE (42-2-0240)  
 (FM 7-10) (FM 21-75) (FM 3-4)  
 (FM 3-5) (FM 42-424) (FM 7-20)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** All fighting positions, locations of obstacles, and early warning devices are selected. Unit defense plan is completed. The higher HQ and unit TSOPs are available. Time limit is set for unit to complete defense preparations. The tenant unit may or may not be present at the FP operational site. This task should not be trained in MOPP4.

**TASK STANDARDS:** All preparations are completed for the defense within the time specified and IAW the defense plan.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Unit leaders supervise set up of element defensive sector. (STP 21-24-SMCT: 071-326-5704, 071-326-5770, 071-326-5775, STP 21-II-MQS: 01-1940.00-1001) a. Assign all personnel to primary fighting positions based on type weapon as prescribed in the defense plan. b. Assign sectors of fire for each primary position as prescribed in the defense plan. c. Assign alternate and supplementary positions for each primary position. d. Assign sectors of fire for each supplementary position. e. Verify sectors of fire, range cards, aiming stakes, and possible dead space before authorizing construction of positions. f. Supervise construction of individual fighting positions within the element's sector. g. Supervise clearing of fields of fire. h. Supervise construction of obstacles IAW the defense plan.		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>i. Supervise construction of OP/LP.</li> <li>j. Supervise emplacement of expedient warning device and position barriers.</li> <li>k. Assign personnel to unit internal reaction force IAW defense plan.</li> <li>l. Prepare defensive sector sketch showing the location and sector of fire for each weapon, all known dead space, and the location and estimated ranges to prominent terrain features within the assigned area.</li> <li>m. Forward sector sketch to unit leader.</li> <li>n. Coordinate sector defense with tenant unit if present.</li> <li>o. Enforce safety procedures.</li> <li>p. Enforce environmental stewardship procedures.</li> </ul> <p>*2. Commander coordinates with tenant unit (if present) for defense responsibilities.</p> <ul style="list-style-type: none"> <li>a. Establishes reaction force composition, command, location, and objectives.</li> <li>b. Provides for the integration of FP personnel into overall site defense.</li> <li>c. Establishes priorities for FP supply and FP subsystem defense based on their importance to the site's mission.</li> <li>d. Integrates tenant unit's observation, reconnaissance, and surveillance operations into overall site defense.</li> <li>e. Identifies barriers and obstacles to slow, impede, or canalize enemy movements.</li> <li>f. Specifies command and control procedures.</li> <li>g. Identifies site defense training and rehearsal requirements.</li> <li>h. Integrates tenant unit fire support into site defense.</li> <li>i. Identifies site security and control procedures.</li> <li>j. Identifies site area damage control plans and operations.</li> </ul> <p>3. Unit personnel construct primary fighting positions. (STP 21-1-SMCT: 071-326-5703, 071-331-0852)</p> <ul style="list-style-type: none"> <li>a. Identify position location and sector of fire as directed by unit leader.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>b. Dig an initial hasty fighting position at least one-half meter (18 to 20 inches) deep and with partially cleared fields of fire.</p> <p>c. Walk sector to determine ranges and dead space using buddy system.</p> <p>d. Improve hasty fighting position to a two-man position.</p> <p>e. Install sector of fire stakes to identify area directed by unit leader.</p> <p>f. Prepare appropriate range card by sighting in rifles and grenade launchers on the assigned engagement area.</p> <p>NOTE: FP units do not have crew served or anti-armor weapons. However, the tenant unit may have them.</p> <p>g. Dig position to fit the natural cover available at least armpit deep using dirt to build a parapet (front cover) at least 18 inches thick.</p> <p>h. Dig two trench grenade sumps, one at each end of the two-man position, with the position's floor sloping toward the sumps.</p> <p>i. Complete clearing fields of fire using foliage for camouflage.</p> <p>j. Construct overhead and flank cover for fighting position as time permits.</p> <p>k. Camouflage position to prevent easy detection from 35 meters.</p> <p>l. Report completion of primary positions to the unit leader.</p> <p>m. Mark alternate and supplementary positions as directed by unit leader.</p> <p>n. Employ safety procedures.</p> <p>o. Employ environmental stewardship procedures.</p> <p>4. Unit personnel emplace obstacles and early warning devices.</p> <p>a. Place PEWS expedient warning devices into operation at location(s) directed by the element leader.</p> <p>b. Emplace man-made barriers, concertina wire and field expedient devices in locations directed by the unit leader.</p> <p>c. Position trip flares and field-expedient noise devices in locations directed by the unit leader.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Camouflage all obstacles and devices.</p> <p>e. Report completion of barrier emplacements to the unit leader.</p> <p>f. Employ safety procedures.</p> <p>g. Employ environmental stewardship procedures.</p> <p>*5. Unit leaders supervise set up of defensive sector. (STP 21-24-SMCT: 071-326-5705)</p> <p>a. Consolidate element defense sketches after verification of compliance into a unit defensive sector sketch.</p> <p>b. Forward unit's defensive sector sketch to unit CP within one hour after arrival at the new site.</p> <p>c. Inspect unit positions to ensure structure, camouflage, and location comply with the unit defense plan and TSOP.</p> <p>d. Verify interlocking fires, dead space, and sector of fire for key weapon positions.</p> <p>e. Inspect OP/LP and personnel for communications, camouflage, and knowledge of withdrawal route.</p> <p>f. Inspect obstacles to ensure compliance with unit defense plan and TSOP.</p> <p>g. Report completion of sector set up to unit CP.</p> <p>h. Enforce safety procedures.</p> <p>i. Enforce environmental stewardship procedures.</p> <p>6. Unit personnel establish OP/LP. (STP 21-24-SMCT: 071-326-5705)</p> <p>a. Position OP/LP within effective small arms range of unit elements.</p> <p>b. Establish communications (wire or radio) with nearest unit element.</p> <p>c. Camouflage OP/LP to prevent it from being detected within 35 meters.</p> <p>d. Establish withdrawal route that provides adequate cover and concealment.</p> <p>*7. Commander supervises set up of the unit's defensive sector.</p> <p>a. Inspects defensive preparation to ensure compliance with the defense plan.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
b. Consolidates element sector defense sketches, after verification of compliance, into the unit sector sketch.. c. Forwards unit sector sketch to the BCOC or higher HQ staff element. d. Posts sector sketch in the unit CP and tenant unit CP, if present. e. Directs establishment of centrally located ammunition resupply and casualty collection point in the unit area. f. Enforces safety procedures. g. Enforces environmental stewardship procedures.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-1-SMCT	071-326-5703	CONSTRUCT INDIVIDUAL FIGHTING POSITIONS
	071-331-0852	CLEAR A FIELD OF FIRE
STP 21-24-SMCT	071-326-5704	SUPERVISE CONSTRUCTION OF A FIGHTING POSITION
	071-326-5705	ESTABLISH AN OBSERVATION POST
	071-326-5770	PREPARE A PLATOON SECTOR SKETCH
	071-326-5775	COORDINATE WITH AN ADJACENT PLATOON
STP 21-II-MQS	01-1940.00-1001	SUPERVISE CONSTRUCTION OF OBSTACLES

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PLAN FP UNIT AREA DAMAGE CONTROL OPERATIONS  
 (42-2-0241)  
 (FM 7-20) (FM 3-4) (FM 3-5)  
 (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The CP, billeting, operational areas, and perimeter defenses are set up. The higher HQ TSOP and OPORD are available. This plan is contingent upon a disaster caused by threat forces or natural elements. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** ADC plan is completed, IAW TSOP and OPORD, within the time the higher HQ staff element prescribes. At MOPP4, performance degradation factors increase planning completion time.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Unit HQ identifies ADC assets and probable requirements. <ul style="list-style-type: none"> <li>a. Identifies static requirements and procedures by reviewing higher HQ TSOP and OPORD.</li> <li>b. Coordinates ADC requirement changes with the higher HQ staff element.</li> <li>c. Identifies on-hand equipment required for ADC operations prescribed by the higher HQ TSOP.</li> <li>d. Identifies personnel available for ADC operations.</li> <li>e. Requests equipment to fill shortages through higher HQ staff element.</li> <li>f. Coordinates for resolution of equipment and personnel shortages with higher HQ staff element.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>g. Tasks subelements for ADC personnel and vehicles based on higher HQ TSOP, current mission requirements, and personnel availability during normal operations.</p> <p>h. Coordinates with and briefs tenant unit on ADC plan.</p> <p>i. Enforces safety procedures.</p> <p>j. Enforces environmental stewardship procedures.</p> <p>*2. Element leaders provide support to unit ADC plan.</p> <p>a. Identify element personnel and equipment to be used for ADC.</p> <p>b. Forward a list of required personnel and equipment to the unit HQ.</p> <p>c. Enforce safety procedures.</p> <p>d. Enforce environmental stewardship procedures.</p> <p>3. Unit headquarters prepares ADC plan.</p> <p>a. Organizes light rescue, decontamination, and other teams with equipment prescribed by the TSOP and OPORD.</p> <p>b. Identifies ADC priorities of all the CP facilities in coordination with higher HQ staff element.</p> <p>c. Identifies locations of alternate operational or alert sites in coordination with higher HQ staff element.</p> <p>d. Provides instructions on hardening support facilities.</p> <p>e. Forwards ADC plan to the BCOC or higher HQ for approval.</p> <p>f. Disseminates ADC plan to all subelements and tenant unit upon approval.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### OPFOR TASKS AND STANDARDS

**NONE:**





TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Forward CP physical security plan to the BCOC or higher HQ staff element for approval.</p> <p>g. Enforce safety procedures.</p> <p>h. Enforce environmental stewardship procedures.</p> <p>2. Unit HQ supervises guard force.</p> <p>a. Tasks unit elements to man guard posts in the CP area.</p> <p>b. Establishes communication network that permits access to all guard posts.</p> <p>3. Unit performs guard duty functions. (STP 21-1-SMCT: 071-331-0801, STP 21-I-MQS: 04-3306.01-0006)</p> <p>a. Mans position or guard post as designated by leader or special orders.</p> <p>b. Observes assigned sector.</p> <p>c. Employs challenge and password procedures prescribed in the TSOP and SOI/SSI.</p> <p>d. Reports all suspicious activities to the guard commander or as special orders prescribe.</p> <p>*4. Commander and leaders direct response(s) against saboteurs or terrorists.</p> <p>a. Forward incident report to the higher HQ staff element.</p> <p>b. Direct perimeter manning level increases as prescribed by the TSOP.</p> <p>c. Maintain a current operations status of the situation.</p> <p>d. Provide continuous situation updates to the BCOC or higher HQ staff element.</p> <p>e. Direct shifting of response force from assembly areas to threat contact area(s).</p> <p>f. Sound "All Clear" signal as soon as attack is over and intruders have been eliminated.</p> <p>g. Direct decrease in manning levels consistent with the tactical situation.</p> <p>5. Unit responds to saboteur or terrorist intrusions.</p> <p>a. Occupies predesignated fighting positions (designated personnel only).</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>b. Reports to unit CP (personnel selected for response force).</p> <p>c. Reconnoiters assigned sector for threat activities.</p> <p>d. Fires at any target in area as prescribed by rules of engagement.</p> <p>e. Treats casualties.</p> <p>NOTE: See task 63-2-0003 for detailed treatment procedures.</p> <p>f. Transports casualties.</p> <p>NOTE: See task 63-2-R316 for detailed casualty transportation procedures.</p> <p>g. Performs mortuary affairs functions.</p> <p>NOTE: See task 10-2-318 for detailed mortuary affairs procedures.</p> <p>*6. Commander supervises post-attack activities.</p> <p>a. Forwards casualty and damage report(s) submitted by subelements to the higher HQ staff elements.</p> <p>b. Coordinates life support requirements caused by destruction of supplies, equipment, or personnel with the higher HQ staff element.</p> <p>c. Coordinates replenishment of destroyed equipment and supplies with the higher HQ staff element.</p> <p>d. Directs unit elements to continue their assigned missions.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-I-MQS	04-3306.01-0006	USE CHALLENGE AND PASSWORD

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-1-SMCT	071-331-0801	CHALLENGE PERSONS ENTERING YOUR AREA
STP 21-II-MQS	03-3751.02-5800	DEVELOP UNIT PHYSICAL SECURITY AND CRIME PREVENTION STANDING OPERATING PROCEDURES

**OPFOR TASKS AND STANDARDS**

**TASK:** CONDUCT TERRORIST AND SABOTEUR ATTACKS (63-OPFOR-1013)

**CONDITION:** OPFOR dispatches small teams into enemy rear area to disrupt CSS operations.

**STANDARD:** 1. Locate rear support bases and C2 facilities. 2. Delay and disrupt CSS operations through probes. 3. Infiltrate CSS bases to conduct sabotage and terrorist activities. 4. Inflict casualties. 5. Destroy supplies and equipment.

**ELEMENT:** COMPANY

**TASK:** PREPARE FP UNIT FOR NUCLEAR, BIOLOGICAL, AND CHEMICAL CONDITIONS (42-2-0243)

(FM 3-3)

(FM 3-4)

(FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** A constant NBC threat exists. FP area and perimeter defenses are set up. The higher HQ TSOP and OPORD are available. Unit and individual NBC defense equipment are available. The unit commander has provided his guidance. Tenant unit may or may not be present. Threat has the capability to deliver chemical/biological agents and nuclear weapons. NBC Vulnerability Analysis is performed by the higher HQ NBC Officer/NCO and distributed to the unit. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** All NBC defense preparatory tasks are completed IAW the TSOP and OPORD and within the time the higher HQ staff personnel set forth. If the task is performed in MOPP4, some degradation of performance is to be expected and more time will be required to execute the task.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders plan unit NBC defense preparatory activities. (STP 21-II-MQS: S4-5030.00-3003) a. Identify stated policies and procedures by reviewing the TSOP and OPORD. b. Identify current NBC threat and recommended countermeasures in coordination with the higher HQ staff element and unit NBC Specialist. c. Coordinate with tenant unit NBC Specialists (if present) for NBC warning and countermeasures mutual assistance. d. Identify location(s) of natural shelters consistent with NBC threat. e. Identify location(s) for construction of protective shelters if required or available. f. Identify location(s) for placement of automatic alarm systems. g. Provide instructions on improvement of individual and crew-served weapons fighting positions.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>h. Identify the availability of personnel to perform tasks.</p> <p>i. Designate MOPP level as prescribed by the higher HQ staff element.</p> <p>j. Establish decontamination priorities for operational sites in coordination with the higher HQ staff element.</p> <p>k. List tasks to be performed and time limits for each task.</p> <p>l. Disseminate NBC defense preparation plan to all subelements.</p> <p>m. Coordinate NBC defense preparation with tenant unit NBC personnel, if present.</p> <p>n. Task elements to provide NBC equipment operators.</p> <p>o. Conduct MOPP analysis.</p> <p>p. Provide guidance for the protection of food, water, and mission essential supplies.</p> <p>*2. Element leaders implement NBC defense plan and preparatory tasks. (STP 21-24-SMCT: 031-503-3006, 031-503-4002, 031-503-3008)</p> <p>a. Conduct inventory of all the NBC defense element's equipment.</p> <p>b. Request issue of shortages from the unit supply facility.</p> <p>c. Direct placement of automatic alarm system(s) located in element areas.</p> <p>d. Direct improvement of individual fighting positions with consideration for blast, thermal, and nuclear radiation, electromagnetic pulse, transient radiation effects on electronics, and blackout.</p> <p>e. Supervise construction of protective shelters in assigned area.</p> <p>f. Assign each element member to a protective shelter.</p> <p>g. Forward roster of all element NBC defense equipment operators to unit CP.</p> <p>h. Provide instructions on audio and visual NBC alarms, MOPP level, and protective shelters.</p> <p>i. Inspect all NBC defense equipment for proper fit, serviceability, and accountability.</p> <p>j. Enforce field sanitation and personal hygiene measures.</p> <p>k. Inspect all element personnel for compliance with measures prescribed by the higher HQ, and unit TSOP, OPORD and commander's directives.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Forward element completion report to unit CP. m. Enforce safety procedures. n. Enforce environmental stewardship procedures. 3. Unit personnel perform NBC defense preparatory tasks. (STP 21-1-SMCT: 031-503-1005, 031-503-1011, 031-503-1026) (STP 21-24-SMCT: 031-503-2013, 031-503-2020) a. Construct protective shelters at locations the element leaders designate. b. Improve fighting positions with consideration for blast, thermal, and radiation effects. c. Perform PMCS on all survey, monitoring, and chemical detection equipment, and individual protective equipment. d. Zero all dosimeters using appropriate charger. e. Inspect protective masks and clothing for serviceability and accountability. f. Identify assigned protective shelters or defensive positions to be used in case of an attack. g. Carry protective mask with hood, skin decontamination kit, and detector paper (as permitted directed by designated MOPP level). h. Store overgarments, overboots, and gloves within reach while at work station (as permitted by designated MOPP level). i. Employ field sanitation and personal hygiene measures. j. Employ safety procedures. k. Employ environmental stewardship procedures.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS							
TOTAL TASK STEPS "GO"							
TRAINING STATUS							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-1-SMCT	031-503-1005	MAINTAIN YOUR M17-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1011	MAINTAIN YOUR M24 OR M25-SERIES PROTECTIVE MASK WITH HOOD

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	031-503-1026	MAINTAIN YOUR M40-SERIES PROTECTIVE MASK WITH HOOD
STP 21-24-SMCT	031-503-2020	USE AND PERFORM OPERATOR MAINTENANCE ON THE IM93 OR IM147 DOSIMETER AND PP1578-SERIES CHARGER
	031-503-2013	USE AND PERFORM OPERATOR MAINTENANCE ON THE IM174-SERIES RADIACMETER
	031-503-3006	SUPERVISE RADIATION MONITORING
	031-503-3008	IMPLEMENT MISSION-ORIENTED PROTECTIVE POSTURE
	031-503-4002	SUPERVISE UNIT PREPARATION FOR NBC ATTACK
STP 21-II-MQS	S4-5030.00-3003	DESCRIBE NUCLEAR, BIOLOGICAL, AND CHEMICAL DEFENSE CONCEPTS

**OPFOR TASKS AND STANDARDS**

NONE.



**ELEMENT:** COMPANY

**TASK:** EMPLOY FP UNIT OPERATIONS SECURITY MEASURES  
(42-2-0244)

(FM 34-54)	(AR 380-19-1)	(AR 380-5)
(AR 530-1)	(FM 19-30)	(FM 3-3)
(FM 3-4)	(FM 3-5)	(FM 42-424)

**ITERATION:**                           1   2   3   4   5   M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:**   T   P   U  
(Circle)

**CONDITIONS:** Support operations are commencing. Implementation of the support plan is conducted by radio, wire, and normal distribution. Unit is authorized automated equipment. Threat forces are capable of intelligence-gathering by electronic, visual, and audio means. DE devices may be used in the area. The higher HQ OPSEC plan and unit TSOP are available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** The unit location is not compromised by electronic, visual, or auditory means. Performance of this task in MOPP4 may result in degradation and more time required to execute the task.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>*1. Commander and leaders supervise OPSEC activities. (STP 21-II-MQS: 01-5700.02-0001, 03-3711.12-0001)</p> <p>a. Inspect guard post and dismount point(s) to ensure compliance with TSOP or other written/oral instructions.</p> <p>b. Monitor information security measures to ensure compliance with TSOP and command guidance.</p> <p>c. Monitor signal security measures to ensure compliance with TSOP and command guidance.</p> <p>d. Monitor employment of counter and counter-countersurveillance measures to ensure procedures are taken IAW TSOP and command guidance.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Monitor employment of automated systems security and defense against DE devices preventive measures to ensure compliance with TSOP and command guidance.</p> <p>f. Perform "on-the-spot correction" when OPSEC weaknesses or violations are discovered.</p> <p>g. Enforce safety procedures.</p> <p>h. Enforce environmental stewardship procedures.</p> <p>2. Unit personnel employ information security measures. (STP 21-II-MQS: 03-3711.12-0002)</p> <p>a. Account for all OPORDs and annexes by requiring receipt signature during distribution.</p> <p>b. Account for all SOIs/SSIs at all times.</p> <p>c. Control all operational information on a need-to-know basis.</p> <p>d. Maintain all classified information and materials in an authorized security container.</p> <p>e. Maintain emergency destruction instructions IAW applicable regulations and the TSOP.</p> <p>f. Maintain details of military activities separate from personal materials.</p> <p>3. Unit personnel employ SIGSEC measures. (STP 21-24-SMCT: 113-573-8006, STP 21-II-MQS: 04-5770.02-0002, STP 21-I-MQS: 01-5700.01-0001, 01-5700.01-0002, 01-5700.01-0003)</p> <p>a. Transmit mission essential information by radio only.</p> <p>b. Employ authentication and encryption codes specified in the SOI/SSI.</p> <p>c. Employ code names for persons, equipment, units, and locations when transmitting over nonsecure means.</p> <p>d. Transmit messages no longer than 20 seconds.</p> <p>e. Report all COMSEC discrepancies/violations to higher HQ communications personnel.</p> <p>4. Unit personnel employ EP. (STP 21-II-MQS: 01-5767.02-0001)</p> <p>a. Tune equipment to assigned frequencies specified in current SOI/SSI.</p> <p>b. Observe all radio silence periods as directed.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>c. Employ correct anti-jamming procedures.</p> <p>d. Forward MIJI Feeder Voice Template Report to higher HQ communications personnel within 10 minutes of the incident.</p> <p>5. Unit personnel employ countersurveillance measures. (STP 21-1-SMCT: 071-331-0815, STP 21-I-MQS: 04-3306.01-0007)</p> <p>a. Employ litter prevention measures that keep area free of trash, litter, or personal items.</p> <p>b. Employ measures that prevent creating footpaths and vehicle tracks between elements in the unit area.</p> <p>c. Set radio volumes and squelches to lowest possible setting.</p> <p>6. Unit personnel employ automated systems security.</p> <p>a. Position computers within an enclosure that provides controlled access.</p> <p>b. Secure all electrical facilities that support the system.</p> <p>c. Restrict access to the computer by use of classified passwords.</p> <p>d. Control all logons and file access by the use of unique operator passwords.</p> <p>e. Destroy all printouts of reports and lists as new ones are printed.</p> <p>7. Unit personnel employ defense against DE devices. (STP 21-II-MQS: 03-8952.00-9050)</p> <p>a. Position unit equipment and vehicles in covered or concealed locations.</p> <p>b. Cover glass or mirrors within line-of-sight of known threat locations.</p> <p>c. Wear laser safety goggles when laser devices are used in the immediate area.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-I-MQS	04-3306.01-0007	PRACTICE NOISE, LIGHT, AND LITTER DISCIPLINE
STP 21-1-SMCT	071-331-0815	PRACTICE NOISE, LIGHT, AND LITTER DISCIPLINE
STP 21-24-SMCT	113-573-8006	USE AN AUTOMATED SIGNAL OPERATION INSTRUCTION (SOI)
STP 21-II-MQS	01-5700.02-0001	ENFORCE PLATOON AND COMPANY COMMUNICATIONS SECURITY MEASURES
	01-5767.02-0001	CONDUCT ELECTRONIC COUNTER-COUNTER MEASURES
	03-3711.12-0001	IMPLEMENT OPERATIONS SECURITY
	03-3711.12-0002	PROTECT CLASSIFIED INFORMATION AND MATERIAL
	03-8952.00-9050	EMPLOY DIRECTED ENERGY AND LASER PROTECTIVE MEASURES
	04-5770.02-0002	OPERATE COMMUNICATIONS SECURITY EQUIPMENT VINSON

## OPFOR TASKS AND STANDARDS

**TASK:** CONDUCT AERIAL RECONNAISSANCE (63-OPFOR-1007)

**CONDITION:** OPFOR HQs requires intelligence on the location and identification of enemy elements. Aircraft is dispatched to take photographs and conduct a visual inspection of enemy rear area.

**STANDARD:** 1. Photograph assigned sectors. 2. Make quick visual checks where cloud ceiling is low. 3. Locate enemy positions in the rear area, particularly support and storage bases, and C2 facilities. 4. Report PIR and other information requirements to OPFOR HQs.

**TASK:** GATHER INTELLIGENCE (63-OPFOR-1008)

**CONDITION:** Small OPFOR elements, operating in the rear area, are planning attacks on enemy bases. Information is needed to complete plans.

**STANDARD:** 1. Identify all PIR and other intelligence requirements. 2. Pass through any outpost, defensive wire, or warning devices undetected. 3. Move to an OP that offers cover and concealment and is close enough to gather PIR and other intelligence requirements. 4. Gather all PIR and other intelligence requirements. 5. Withdraw from area undetected. 6. Report all information to OPFOR HQs.

**TASK:** CONDUCT ELECTRONIC WARFARE (63-OPFOR-1012)

**CONDITION:** OPFOR employs a large number of RDF sets, along with ground and airborne communications analysts, to monitor enemy forces for loose communications security practices.

**STANDARD:** 1. Locate the positions of enemy command, intelligence, and logistics radio nets. 2. Forward locations to OPFOR HQs. 3. Use jamming signals against enemy radio receivers. 4. Monitor enemy radio nets for intelligence information.

**ELEMENT:** COMPANY

**TASK:** PROVIDE FP PERSONNEL AND ADMINISTRATIVE SUPPORT  
(42-2-0245)

(FM 12-6) (AR 380-5) (FM 3-4)  
(FM 3-5) (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** The higher HQ staff element requires a personnel update. The unit is currently conducting FP operations in a tactical environment. Unit personnel may be killed, wounded, captured, and/or missing. Replacements are arriving and administrative problems are occurring. The tactical situation allows time for personnel and administrative actions. The unit TSOP and higher HQ OPORD are available and include the CHS plan. This task is performed simultaneously with other support and operational tasks. Some iterations of this task should be performed in MOPP4.

**NOTE:** Task steps may be performed manually or soldiers may use appropriate automated systems.

**TASK STANDARDS:** All personnel and administrative support services are provided as TSOP and OPORD prescribe. At MOPP4, personnel and administrative support is reduced to minimal essential actions.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Unit HQ processes casualty reports. a. Verifies reports for completeness and accuracy. b. Forwards 100 percent accurate reports and witness statements to higher HQ staff element within 24 hours of incident. c. Updates unit battle roster to reflect 100 percent accuracy.  2. Unit HQ performs strength accounting. (STP 21-II-MQS: 03-0170.01-1005) a. Consolidates elements' personnel status reports.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>b. Forwards personnel status report to the higher HQ staff element NLT time specified in the OPORD and TSOP.</p> <p>c. Updates battle roster to reflect 100 percent accuracy.</p> <p>3. Unit HQ performs equipment status reporting. (STP 21-II-MQS: 03-4976.90-0501)</p> <p>a. Consolidates elements' equipment status reports.</p> <p>b. Forwards equipment status reports to higher HQ staff element NLT time specified in the OPORD and TSOP.</p> <p>c. Updates equipment status reports to reflect 100 percent accuracy.</p> <p>4. Unit HQ processes replacements.</p> <p>a. Inspects all replacement personnel for proper weapons, equipment, clothing, and shot records.</p> <p>b. Briefs replacements on tactical situation.</p> <p>c. Briefs replacements on specific duties.</p> <p>d. Issues required supplies and equipment.</p> <p>e. Escorts replacements to assigned area.</p> <p>f. Records replacement data on battle reports.</p> <p>5. Unit HQ provides administrative support. (STP 21-II-MQS: 03-0150.00-1008, 03-3711.12-0002, 03-9080.10-1002, STP 21-I-MQS: S1-9080.00-0001)</p> <p>a. Forwards 100 percent accurate personnel and finance support requests to higher HQ staff element within 24 hours.</p> <p>b. Coordinates UCMJ actions with the battalion legal clerk.</p> <p>c. Administers unit awards program IAW procedures prescribed in the higher HQ TSOP.</p> <p>d. Provides unit-level mail service as prescribed by appropriate regulations and unit TSOP.</p> <p>e. Maintains classified materials IAW appropriate regulations.</p> <p>6. Unit HQ establishes microcomputer and ULC security procedures.</p> <p>a. Establishes "controlled access" procedures to ULC and microcomputer area(s).</p> <p>b. Restricts access to computers by use of</p> <p>c. Rotates operator passwords every 30 days.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
d. Monitors ULC and microcomputers for proper usage. e. Establishes computer report distribution procedures.  7. Unit HQ provides health, welfare, and morale support for FP operators. (STP 21-II-MQS: 03-0001.00-0028, 03-5105.00-0002) a. Monitors unit sleep and rest plan for compliance with the TSOP. b. Supervises physical conditioning program. c. Coordinates religious activity support with the higher HQ chaplain. d. Disseminates health, welfare, and morale support information to all subelements. e. Enforces safety procedures. f. Enforces environmental stewardship procedures		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-II-MQS	03-0001.00-0028	DEVELOP A PHYSICAL FITNESS PROGRAM AT THE COMPANY OR BATTALION LEVEL
	03-0150.00-1008	INITIATE A RECOMMENDATION FOR AN AWARD
	03-0170.01-1005	PERFORM WARTIME STRENGTH ACCOUNTING AT UNIT LEVEL
	03-3711.12-0002	PROTECT CLASSIFIED INFORMATION AND MATERIAL
	03-4976.90-0501	PREPARE A MATERIEL CONDITION STATUS REPORT
	03-5105.00-0002	DIRECT FIELD FEEDING OPERATIONS



**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	O3-9080.10-1002	ADMINISTER MILITARY JUSTICE AT PLATOON OR SECTION LEVEL
STP 21-I-MQS	S1-9080.00-0001	THE MILITARY JUSTICE SYSTEM

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** MAINTAIN COMMUNICATIONS IN A FP UNIT (42-2-0246)  
 (AR 380-40) (FM 24-18) (AR 530-1)  
 (FM 24-1) (FM 24-33) (FM 3-4)  
 (FM 3-5) (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The unit is currently conducting FP operations. The SOI/SSI is available. Coordination of FP operations is conducted by radio, telephone, or messenger. Threat is conducting EW and is capable of locating stations with direction finding equipment. Higher HQ OPORD and TSOP are available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Unit provides uninterrupted 24-hour communications through one or more external means.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Unit HQ operates the unit NCS. (STP 21-24-SMCT: 113-573-8006, STP 21-II-MQS: 01-5700.02-0001) a. Opens net IAW current SOI/SSI. b. Challenges all stations in net as the SOI/SSI requires. c. Controls entry and departure of all stations. d. Enforces station and net restrictions. e. Monitors the net to detect errors in operating procedures. f. Corrects all errors in net operating procedures. g. Enforces station listening silence as prescribed by or commander's directive. h. Lifts radio listening silence as prescribed by OPORD or commander's directive. i. Completes transition to extend range of radio station within 15 minutes if required. j. Remotes radio station at least one kilometer, if required.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>k. Directs change to alternate frequency when compromise of primary frequency is suspected.</p> <p>l. Closes net IAW the SOI/SSI.</p> <p>2. Radio operators transmit and receive messages over the radio net.</p> <p>a. Process messages by precedence, date/time group, and IAW the TSOP.</p> <p>b. Process incoming messages without errors.</p> <p>c. Forward incoming messages to appropriate element/section.</p> <p>d. Check outgoing messages for completeness and readability.</p> <p>e. Employ approved radio-telephone procedures.</p> <p>f. Transmit messages IAW precedence, correct format, and prescribed text.</p> <p>g. Employ approved codes and brevity lists when transmitting the names of persons, places, and sensitive information.</p> <p>h. Encode all grid coordinates using the current SOI/SSI.</p> <p>i. Decode all grid coordinates using the current SOI/SSI.</p> <p>j. Transmit messages for no longer than 20 seconds.</p> <p>k. Employ lowest operational power setting consistent with operations requirements.</p> <p>l. Maintain station log.</p> <p>m. Troubleshoot radio set as necessary and within operator's capability.</p> <p>n. Correct faults (within operator's capability).</p> <p>o. Report uncorrectable faults to higher HQ communications branch team chief for resolution.</p> <p>3. Unit personnel maintain land communications. (STP 21-II-MQS: 01-5711.02-0001)</p> <p>a. Maintain wire communications between the unit CP and all subelements.</p> <p>b. Maintain a hot loop between the unit CP and subelements if switchboard is not available.</p> <p>c. Establish messenger runners when land communications are inoperative.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>4. Radio operators implement FM remedial ECCM. (STP 21-II-MQS: 01-5767.02-0001)</p> <ul style="list-style-type: none"> <li>a. Identify whether source of interference is internal or external by disconnecting the radio antenna.</li> <li>b. Continue to operate in an attempt to communicate through the jamming.</li> <li>c. Switch to high power on RT.</li> <li>d. Advise distant station to switch to high power.</li> <li>e. Relocate radio set (mobile units) to take advantage of terrain features to reduce the effects of jamming.</li> <li>f. Relocate the antenna to take advantage of terrain features to reduce the effects of jamming.</li> <li>g. Submit initial MIJI Feeder Voice Template Report to higher HQ communications branch.</li> <li>h. Reroute message traffic using alternate means of communications, such as relay (through another station), AM, RWI, or wire.</li> <li>i. Request (using alternate means) that the net change to a backup frequency.</li> </ul> <p>5. Unit headquarters maintains generator power.</p> <ul style="list-style-type: none"> <li>a. Operates generators IAW appropriate TMs.</li> <li>b. Constructs sound barrier and screening system to muffle noise and minimize heat signature.</li> <li>c. Constructs a fuel storage and fire control point for all generators with fire extinguishers as prescribed by the TSOP and commander's guidance.</li> </ul> <p>6. Unit personnel employ SIGSEC measures.</p> <ul style="list-style-type: none"> <li>a. Employ COMSEC measures to deny friendly telecommunication information to the enemy.</li> <li>b. Employ ELSEC measures to protect electromagnetic transmissions, other than communication devices, from threat detection.</li> <li>c. Evaluate TEMPEST controls to identify emanation vulnerabilities and implement countermeasures.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-24-SMCT	113-573-8006	USE AN AUTOMATED SIGNAL OPERATION INSTRUCTION (SOI)
STP 21-II-MQS	01-5700.02-0001	ENFORCE PLATOON AND COMPANY COMMUNICATIONS SECURITY MEASURES
	01-5711.02-0001	INSTALL HOT LOOP WITH TELEPHONE TA-312/PT
	01-5767.02-0001	CONDUCT ELECTRONIC COUNTER-COUNTER MEASURES

#### OPFOR TASKS AND STANDARDS

**TASK:** CONDUCT ELECTRONIC WARFARE (63-OPFOR-1012)

**CONDITION:** OPFOR employs a large number of RDF sets, along with ground and airborne communications analysts, to monitor enemy forces for loose communications security practices.

**STANDARD:** 1. Locate the positions of enemy command, intelligence, and logistics radio nets. 2. Forward locations to OPFOR HQs. 3. Use jamming signals against enemy radio receivers. 4. Monitor enemy radio nets for intelligence information.

**ELEMENT:** COMPANY

**TASK:** PROVIDE FP UNIT SUPPLY SUPPORT (42-2-0247)  
 (DA Pam 710-2-1) (AR 25-400-2) (AR 710-2)  
 (FM 3-4) (FM 3-5) (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Unit HQ is receiving requests for supplies from subordinate elements. Equipment and supplies are arriving through supply channels, but additional supplies may be required. Extra small arms and ammunition are stored in the supply area. The unit TSOP and higher HQ OPORD are available. The supply area has been established and supply support is a continuous task that is performed simultaneously with other support and operational tasks. Some iterations of this task should be performed in MOPP4.

**NOTE:** Task steps may be performed manually or soldiers may use appropriate automated systems.

**TASK STANDARDS:** Equipment and supplies are distributed without interfering with mission requirements as established by the TSOP and OPORD. At MOPP4, unit supply support is reduced to minimum essential actions.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs unit supply operations. (STP 21-II-MQS: 03-5101.00-0281, 03-5101.00-0284) a. Inspects supply records and status to ensure compliance with supply regulations, directives, and TSOP. b. Directs inventories of supplies and equipment to calculate assets on hand. c. Inspects unit equipment, weapons, and ammunition storage areas for compliance with supply regulations, directives, and TSOP. d. Directs issue of supplies and equipment IAW higher HQ guidance and TSOP or both sustainment controls. e. Enforces safety procedures.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Enforces environmental stewardship procedures.</p> <p>*2. Supply Sergeant supervises unit supply. (STP 10-92Y24-SM-TG: 101-521-2151, 101-521-2152, 101-521-2154, 101-521-2161, 101-521-2202, 101-521-2252, 101-521-3101, 101-521-3102, 101-521-3105, 101-521-3107, 101-521-3251, 101-521-3252)</p> <p>a. Inspects supply status to determine total assets.</p> <p>b. Conducts inventories to calculate assets on hand.</p> <p>c. Develops supply storage plans.</p> <p>d. Develops unit laundry procedures.</p> <p>e. Coordinates organizational clothing and individual equipment (OCIE) issue and turn-in.</p> <p>f. Develops property book procedures.</p> <p>g. Monitors supply transactions to ensure compliance with established supply procedures.</p> <p>h. Supervises control of weapons and ammunition.</p> <p>i. Prepares input to Material Condition Status Reports.</p> <p>j. Enforces safety procedures.</p> <p>k. Enforces environmental stewardship procedures.</p> <p>3. Supply personnel request additional supplies. (STP 10-92Y1-SM: 101-521-1155)</p> <p>a. Coordinate requirements with elements.</p> <p>b. Calculate resupply requirements.</p> <p>c. Record requests on appropriate document register.</p> <p>d. Forward resupply requests to higher HQ staff element.</p> <p>4. Supply personnel receive supplies. (STP 10-92Y1-SM: 101-521-1154, 101-521-1156, 101-521-1163)</p> <p>a. Inspect incoming supplies for quantity and condition.</p> <p>b. Record receipt on appropriate document register.</p> <p>c. Store supplies IAW storage plans.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Notify requesting element of availability of supply for issue.</p> <p>e. Employ safety procedures.</p> <p>f. Employ environmental stewardship procedures.</p> <p>5. Supply personnel issue supplies. (STP 10-92Y1-SM: 101-521-1155)</p> <p>a. Process supply requests IAW appropriate regulations, directives, and TSOP.</p> <p>b. Prepare transaction documents IAW appropriate regulations, directives, and TSOP.</p> <p>c. Issue supplies as prescribed by commander's guidance.</p> <p>d. Maintain prescribed copies of transactions IAW appropriate regulations and directives.</p> <p>e. Employ safety procedures.</p> <p>f. Employ environmental stewardship procedures.</p> <p>6. Supply personnel maintain small arms and ammunition. (STP 10-92Y1-SM: 101-521-1201, 101-521-1202, 101-521-1203, 101-521-1204) (STP 10-92Y24-SM-TG: 101-521-2161, 101-521-3105, 101-521-3107)</p> <p>a. Control stored weapons and ammunition IAW appropriate regulations and command policies.</p> <p>b. Request ammunition resupply from higher HQ staff element.</p> <p>c. Perform unit-level maintenance on small arms.</p> <p>d. Forward weapons beyond organizational repair capabilities to support maintenance elements.</p> <p>e. Employ safety procedures.</p> <p>f. Employ environmental stewardship procedures.</p>		



TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-I-MQS	04-3304.01-0002	CONDUCT INSPECTION
STP 10-92Y1-SM	101-521-1163	PREPARE AND MAINTAIN A DOCUMENT REGISTER
	101-521-1154	RECEIVE SUPPLIES AND EQUIPMENT
	101-521-1155	ISSUE SUPPLIES AND EQUIPMENT TO HAND-RECEIPT HOLDERS
	101-521-1156	STORE SELECTED SUPPLIES AND EQUIPMENT IN UNIT STORAGE AREAS
	101-521-1201	CONTROL WEAPONS AND AMMUNITION IN THE ARMS ROOM
	101-521-1202	MAINTAIN KEY CONTROL REGISTER FOR WEAPONS STORAGE AREA
	101-521-1203	ISSUE AND RECEIVE UNIT WEAPONS
	101-521-1204	PERFORM ORGANIZATIONAL MAINTENANCE ON SMALL ARMS
STP 10-92Y24-SM-TG	101-521-2151	PREPARE A PROPERTY BOOK
	101-521-2152	POST TRANSACTIONS IN THE MANUAL PROPERTY BOOK
	101-521-2154	DETERMINE METHOD OF OBTAINING RELIEF FROM RESPONSIBILITY FOR LOST, DAMAGED, OR DESTROYED PROPERTY
	101-521-2161	REQUEST AND TURN IN AMMUNITION
	101-521-2202	PLAN FOR THE STORAGE OF SUPPLIES (CLASSES I, III, AND V)
	101-521-2252	PREPARE EQUIPMENT TRANSFER, LOSS, OR GAIN REPORT

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	101-521-3101	ACCOUNT FOR ABSENTEE'S CLOTHING, EQUIPMENT, AND PERSONAL EFFECTS
	101-521-3102	DISPOSE OF ABSENTEE'S CLOTHING, EQUIPMENT, AND PERSONAL EFFECTS
	101-521-3105	DIRECT THE CONTROL AND SECURITY OF WEAPONS AND AMMUNITION IN UNIT STORAGE AREA
	101-521-3107	INSPECT ORGANIZATIONAL MAINTENANCE OF WEAPONS
	101-521-3251	MAINTAIN MANUAL/AUTOMATED HAND RECEIPT
	101-521-3252	CONTROL/SUPERVISE PROPERTY ADMINISTRATION IN UNIT SUPPORTED BY MANUAL/AUTOMATED SYSTEMS
STP 21-II-MQS	03-5101.00-0281	DIRECT THE PREPARATION AND MAINTENANCE OF UNIT SUPPLY RECORDS
	03-5101.00-0284	INSPECT UNIT SUPPLY RECORDS

**OPFOR TASKS AND STANDARDS****NONE:**

**ELEMENT:** COMPANY

**TASK:** USE PASSIVE AIR DEFENSE MEASURES IN A FP UNIT  
(42-2-0248)

(FM 44-8)  
(FM 3-5)

(FM 20-3)  
(FM 42-424)

(FM 3-4)  
(FM 44-30)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** Threat aircraft sighting is reported in the general area. The higher HQ staff element has issued an air defense weapon status "hold" for the area. The unit is currently conducting FP operations. Defense procedures and plans have been coordinated with the tenant unit. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** All available resources are employed to hide the unit from detection by air, and to lessen its vulnerability if attacked. At MOPP level 4, air watch activities are degraded significantly because of eye-lens distortion.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>*1. Commander and leaders supervise passive air defense and air watch activities.</p> <ul style="list-style-type: none"> <li>a. Direct manning of the OP that provides an early warning of approaching aircraft.</li> <li>b. Establish a listening watch on the air defense early warning radio net, if equipment is available.</li> <li>c. Depict on the map board current threat aircraft sightings in the immediate area.</li> <li>d. Forward all aircraft sightings with direction of flight to the higher HQ staff element.</li> <li>e. Designate personnel shelters.</li> <li>f. Establish alarm procedures.</li> <li>g. Rehearse alarm procedures.</li> <li>h. Enforce safety procedures.</li> <li>i. Enforce environmental stewardship procedures.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
2. FP Unit and tenant unit personnel react to aircraft sightings. (STP 21-24-SMCT: 441-091-1040) <ul style="list-style-type: none"> <li>a. Sound prescribed alarm to alert all unit personnel of the presence of threat aircraft.</li> <li>b. Occupy predesignated fighting positions and field fortifications.</li> <li>c. Maintain constant surveillance of assigned search sector.</li> <li>d. Identify threat aircraft visually.</li> <li>e. Remain concealed and hold fire to avoid revealing position.</li> <li>f. Restrict movement of vehicles or movement of personnel in open areas.</li> <li>g. Sound "All Clear" signal as directed by the FP or tenant unit HQ.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-24-SMCT	441-091-1040	VISUALLY IDENTIFY THREAT AIRCRAFT

**OPFOR TASKS AND STANDARDS**

**TASK:** CONDUCT AERIAL RECONNAISSANCE (63-OPFOR-1007)

**CONDITION:** OPFOR HQs requires intelligence on the location and identification of enemy elements. Aircraft is dispatched to take photographs and conduct a visual inspection of enemy rear area.

**STANDARD:** 1. Photograph assigned sectors. 2. Make quick visual checks where cloud ceiling is low. 3. Locate enemy positions in the rear area, particularly support and storage bases, and C2 facilities. 4. Report PIR and other information requirements to OPFOR HQs.

**ELEMENT:** COMPANY

**TASK:** TAKE ACTIVE AIR DEFENSE MEASURES AGAINST HOSTILE AIRCRAFT IN A FP UNIT (42-2-0249)  
 (FM 44-8) (FM 3-4) (FM 3-5)  
 (FM 42-424) (FM 44-30)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Unit receives early warning of unknown or hostile aircraft in the area. The unit is currently conducting FP operations. Weapon control status is "Tight." If a tenant unit is present, the higher HQ has incorporated the tenant unit into the site defense plan and has coordinated the plan with the tenant unit. Air attack causes casualties and damage to operating area and facilities. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Unit destroys or repulses attacking aircraft. At MOPP4, air search, aircraft engagement, and post-attack activities are significantly degraded because of protective clothing.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Unit personnel employ preparatory measures before engaging hostile aircraft. (STP 21-24-SMCT: 441-091-1040, STP 21-II-MQS: 01-0401.20-0001) a. Sound air attack alarm to alert all personnel to the presence of hostile aircraft. b. Occupy designated fighting positions. c. Search assigned sector for approaching aircraft. d. Identify threat aircraft visually. e. Report all aircraft actions to the BCOC or higher HQ staff element. f. Prepare personnel to fire on orders of senior individual present or to automatically return fire, if fired upon by aircraft.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>2. Unit engages hostile aircraft.</p> <ul style="list-style-type: none"> <li>a. Places weapon on highest rate of fire.</li> <li>b. Selects proper aim point for type of aircraft and direction of flight.</li> <li>c. Engages hostile aircraft with all available weapons until destroyed or warded off.</li> </ul> <p>*3. Commander and leaders supervise post-attack activities.</p> <ul style="list-style-type: none"> <li>a. Give "All Clear" signal when hostile aircraft have departed the area. (STP 21-II-MQS: 03-0170.01-1005)</li> <li>b. Forward damage report and personnel status report to the higher HQ staff element.</li> <li>c. Submit PIR to the higher HQ staff element.</li> <li>d. Coordinate casualty treatment and evacuation with the higher HQ staff element.</li> <li>e. Direct clearing of mission-hindering destroyed supplies and equipment.</li> <li>f. Coordinate changes or delays to support plan caused by air attack with the higher HQ staff element.</li> <li>g. Coordinate replacement of personnel and equipment with the higher HQ staff element.</li> <li>h. Direct unit to continue assigned mission.</li> </ul> <p>4. Unit personnel perform post-attack activities.</p> <ul style="list-style-type: none"> <li>a. Treat casualties.</li> </ul> <p>NOTE: See task 63-2-003 for detailed treatment procedures.</p> <ul style="list-style-type: none"> <li>b. Evacuate casualties.</li> </ul> <p>NOTE: See task 63-2-R316 for detailed casualty evacuation procedures.</p> <ul style="list-style-type: none"> <li>c. Reconstruct damaged fighting positions and field fortifications.</li> <li>d. Repair damaged camouflage material.</li> <li>e. Move KIA remains and personal effects to designated MA collection point.</li> </ul> <p>NOTE: See task 10-2-C318 for detailed mortuary affairs procedures.</p> <ul style="list-style-type: none"> <li>f. Report casualties to CP.</li> <li>g. Clear debris from areas essential to mission accomplishment.</li> <li>h. Continue mission as directed by the commander.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-24-SMCT	441-091-1040	VISUALLY IDENTIFY THREAT AIRCRAFT
STP 21-II-MQS	01-0401.20-0001	DIRECT UNIT AIR DEFENSE
	03-0170.01-1005	PERFORM WARTIME STRENGTH ACCOUNTING AT UNIT LEVEL

#### OPFOR TASKS AND STANDARDS

**TASK:** CONDUCT AIR ATTACKS (63-OPFOR-1006)

**CONDITION:** OPFOR elements in the rear area have forwarded the positions of enemy support sites and/or the locations of road march elements to OPFOR HQs. OPFOR aircraft have been dispatched to attack enemy installations or convoys.

**STANDARD:** 1. Locate command and control site(s) or convoys. 2. Conduct attack runs on designated target(s). 3. Destroy enemy equipment, supplies, vehicles, and personnel.



**ELEMENT:** COMPANY

**TASK:** COMBAT BATTLEFIELD STRESS IN A FP UNIT (42-2-0250)  
 (FM 22-51) (FM 22-9) (FM 3-4)  
 (FM 3-5) (FM 42-424) (FM 8-51)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The unit is currently conducting FP operations. The unit's sleep plan and SOP to manage BF soldiers is developed. Personnel are cross-trained on critical tasks. Operations are continuous over a prolonged period of time, causing stressful situations for personnel. The commander has directed that battlefield stress management procedures be implemented. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Unit applies techniques that counter battlefield stress. At MOPP4, performance degradation factors increase the need for stress prevention implementation.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders perform stress prevention leader actions. (STP 21-II-MQS: 03-9001.11-0002, S3-9001.18-0002) a. Issue warning orders, OPORDs, and FRAGOs to the lowest possible level. b. Provide soldiers an accurate assessment of the friendly and enemy situation. c. Brief leaders' intention to all unit personnel. d. Speak positively concerning the unit's missions, purpose, and abilities. e. Encourage a positive attitude throughout the unit. f. Institute an information dissemination plan designed to quell and prevent rumors. g. Inform personnel of availability of religious support.  *2. Commander and leaders implement sleep plan.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>a. Provide a safe and secure area away from vehicles and other high-noise activities.</p> <p>b. Adjust sleep plan as tactical situation dictates.</p> <p>c. Enforce the sleep plan IAW the TSOP.</p> <p>*3. Leaders implement task rotation or restructuring procedures.</p> <p>a. Alternate cross-trained unit personnel on critical tasks as required.</p> <p>b. Rotate unit personnel between demanding and nondemanding tasks.</p> <p>c. Assign two soldiers to function independently on tasks requiring a high degree of accuracy.</p> <p>d. Adjust task rotation policies and procedures to the tactical situation.</p> <p>*4. Leaders implement stress-coping and management techniques. (STP 21-II-MQS: S3-9001.18-0002)</p> <p>a. Integrate new unit members into the unit immediately.</p> <p>b. Assist soldiers in resolving homefront problems.</p> <p>c. Implement a buddy system to observe signs of stress or BF among the soldiers and leaders.</p> <p>d. Provide instruction on relaxation techniques to all personnel prior to deployment.</p> <p>e. Conduct routine after-action debriefings.</p> <p>f. Conduct unit award, decoration, recognition, and memorial ceremonies.</p> <p>*5. Commander and leaders implement stress control techniques.</p> <p>a. Implement a plan to deal with mildly stressed, seriously stressed, or BF cases.</p> <p>b. Assign soldiers who show signs of stress or BF to simple tasks.</p> <p>c. Direct personnel to be supportive of BF or stressed soldiers.</p> <p>d. Refer soldiers showing signs of serious stress or BF to supporting MTF for medical evaluation.</p> <p>e. Integrate RTD soldiers into their specific elements.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
6. Unit personnel employ stress prevention measures. a. Maintain a positive attitude concerning the unit's mission, purpose, and abilities. b. Comply with the commander's sleep plan. c. Identify other soldiers with signs of stress or BF. d. Provide immediate buddy aid support. e. Report signs of stress or BF in other soldiers to immediate supervisor. f. Accept new unit members immediately. g. Practice relaxation techniques at appropriate times and places. h. Participate in buddy system and after-action stress debriefings.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-II-MQS	O3-9001.11-0002	ESTABLISH A POSITIVE COMMAND CLIMATE
	S3-9001.18-0002	MINIMIZE COMBAT STRESS

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PERFORM RISK MANAGEMENT PROCEDURES IN A FP UNIT  
 (42-2-0251)  
 (AR 385-10) (FM 3-3) (FM 3-4)  
 (FM 3-5) (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Safety hazards for personnel and equipment exist. The unit is currently conducting FP operations. Hazards increase as operations intensify. Higher HQ OPORD and TSOP are available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** All potential safety problems for tasks are identified and either reduced or eliminated. At MOPP4, performance degradation factors increase risk management implementation times.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders identify risk or safety hazards. (STP 21-II-MQS: 03-9003.02-0001, 03-9003.03-0001) a. Identify specified and implied missions or tasks in the OPLAN/OPORD or FRAGO. b. Identify all risks associated with specified and implied missions or tasks. c. Integrate safety into every phase of the planning process. d. Identify the benefits of safety measures to the unit's mission versus the potential cost of risk or safety hazards. e. Conduct continuous assessment of phases of operations for safety and risk reduction. f. Enforce safety procedures. g. Enforce environmental stewardship procedures.  *2. Commander and leaders evaluate risk or safety hazards identified during operations.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>a. Identify previously executed unsafe acts and their corrective actions.</li> <li>b. Identify all unwarranted risks.</li> <li>c. Compare identified risk to the commander's acceptable risk level based on stated training objectives.</li> <li>d. Calculate projected loss of equipment and personnel from accidents by reviewing historical records.</li> <li>e. Describe operations in terms of its risk level (extremely high, high, medium, low).</li> <li>f. Prepare COA that minimizes risk.</li> <li>g. Enforce safety procedures.</li> <li>h. Enforce environmental stewardship procedures.</li> </ul> <p>*3. Commander and leaders eliminate or reduce risk and safety hazards. (STP 21-II-MQS: 03-9003.02-0001, 03-9003.03-0001)</p> <ul style="list-style-type: none"> <li>a. Select COA that maximizes the operation and minimizes the risk.</li> <li>b. Develop procedures that reduce risk.</li> <li>c. Provide guidance that enhances safety in all phases of operation.</li> <li>d. Prescribe safety and protective equipment that enhances safety and reduces risks.</li> </ul> <p>4. Unit personnel employ safety procedures.</p> <ul style="list-style-type: none"> <li>a. Practice safety procedures during all mission rehearsals and operations.</li> <li>b. Correct unsafe acts on the spot.</li> <li>c. Report all risk and safety violations to commander and the higher HQ Safety Officer.</li> <li>d. Employ safety procedures.</li> <li>e. Employ environmental stewardship procedures.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-II-MQS	03-9003.02-0001	MANAGE ACCIDENT RISK IN UNIT OPERATIONS
	03-9003.03-0001	SUPERVISE THE MANAGEMENT OF ACCIDENT RISK IN UNIT OPERATIONS

#### OPFOR TASKS AND STANDARDS

NONE:

**ELEMENT:** COMPANY

**TASK:** PREPARE A FP UNIT FOR A CHEMICAL ATTACK (42-2-0252)  
 (FM 3-4) (FM 3-100) (FM 42-424)  
 (TM 10-5419-200-12)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The higher HQ staff element has advised the FP unit that, based on the latest intelligence reports, threat forces may use chemical weapons. The higher HQ staff element directs the implementation of actions designed to minimize casualties and damage. The unit is currently operating at MOPP2. Higher HQ TSOP and OPORD are available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Preparations for the chemical attack are completed prior to the attack or the effects of the attack reaching the unit's location. Conduct of this task in MOPP4 may result in performance degradation and more time required to execute.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>*1. Commander and leaders issue warning order.                      (STP 21-24-SMCT: 031-503-4002, STP 21-I-MQS: S1-5030.00-1010)                      a. Conduct Chemical Vulnerability Analysis.                      b. Conduct MOPP Analysis.                      c. Notify all unit personnel and assigned and attached or OPCON elements of threat status.                      d. Direct implementation of defensive preparations consistent with the mission and threat.                      e. Provide guidance on level of degradation of support mission.</p> <p>2. Unit personnel take additional actions consistent with mission. (STP 21-1-SMCT: 031-503-1014, 031-503-1020, STP 21-24-SMCT: 031-503-2001, 031-503-2012, STP 21-II-MQS: 04-5030.00-2017)</p>		

<b>TASK STEPS AND PERFORMANCE MEASURES</b>	<b>GO</b>	<b>NO-GO</b>
a. Harden individual fighting positions and support facilities. b. Employ proper field sanitation measures and personal hygiene. c. Check operation of detection equipment as leaders and supervisors direct. d. Identify protective shelter location(s), if available. e. Inspect all unit personnel protective masks and clothing for proper fitting. f. Cover all exposed equipment and supplies. g. Implement procedures to prevent further contamination IAW the TSOP. h. Shut down all nonessential equipment. i. Monitor area by testing with detector kits and/or paper to determine level of contamination.		

<b>TASK PERFORMANCE / EVALUATION SUMMARY BLOCK</b>							
<b>ITERATION</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>M</b>	<b>TOTAL</b>
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### **SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-1-SMCT	031-503-1014	IDENTIFY CHEMICAL AGENTS USING M8 DETECTOR PAPER
	031-503-1020	DETECT CHEMICAL AGENTS USING M9 DETECTOR PAPER
STP 21-24-SMCT	031-503-2001	USE M256 OR M256A1 CHEMICAL AGENT DETECTOR KIT
	031-503-2012	SUPERVISE THE FITTING OF PROTECTIVE MASKS
	031-503-4002	SUPERVISE UNIT PREPARATION FOR NBC ATTACK
STP 21-II-MQS	04-5030.00-2017	PREPARE FOR NUCLEAR, BIOLOGICAL, OR CHEMICAL ATTACK



**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-I-MQS	S1-5030.00-1010	THE NBC WARNING AND REPORTING SYSTEM

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** RESPOND TO A CHEMICAL ATTACK IN A FP UNIT  
 (42-2-0253)  
 (FM 3-4) (FM 3-100) (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Intelligence reports from the higher HQ staff element indicate that the threat is capable of attacking with chemical weapons. Automatic alarms sound or color changes in chemical detector paper to indicate presence of contaminants. The unit is currently conducting FP operations at MOPP2. The TSOP and higher HQ OPORD are available. This task is always performed in MOPP4.

**TASK STANDARDS:** Unit personnel react to the chemical alarm within 15 seconds, assume MOPP4 within 2 to 4 minutes, and perform testing and unmasking procedures until the unit is reorganized and reduced MOPP level functions are reinstated.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Unit personnel employ protective measures. (STP 21-1-SMCT: 031-503-1004, 031-503-1012, 031-503-1014, 031-503-1015, 031-503-1020, 031-503-1025, 031-503-1028, STP 21-24-SMCT: 031-503-2001, 031-503-3008, STP 21-II-MQS: 04-5030.00-2006, 04-5030.00-2013) a. Don protective mask within 9 seconds, with hood within 15 seconds. b. Initiate appropriate alarm (vocal and nonvocal). c. Don protective gloves within 45 seconds of alarm. d. Continue mission unless directed otherwise. e. Conduct skin decontamination within 2 minutes. f. Conduct operator spraydown and personal equipment decontamination within 15 minutes. g. Identify type of agent using chemical agent detector kits.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>2. Unit personnel protect equipment. (STP 21-1-SMCT: 031-503-1014, 031-503-1020)</p> <ul style="list-style-type: none"> <li>a. Cover all exposed equipment and supplies.</li> <li>b. Implement procedures to prevent further contamination IAW the TSOP.</li> <li>c. Monitor the area to determine contamination levels by testing with detector kits and paper.</li> </ul> <p>*3. Unit leaders provide NBC reports to the higher HQ staff element. (STP 21-24-SMCT: 031-503-3005, STP 21-II-MQS: 04-5030.00-2008, STP 21-I-MQS: S1-5030.00-1010)</p> <ul style="list-style-type: none"> <li>a. Forward initial NBC 1 chemical report as soon as tactical situation permits.</li> <li>b. Request permission to move, if mission permits.</li> <li>c. Coordinate with BCOC or higher HQ staff element for hasty or deliberate decontamination support.</li> <li>d. Forward follow-up NBC 1 chemical report within 20 minutes after the attack.</li> </ul> <p>*4. Unit leaders initiate unmasking procedures (chemical agent detector kits indicate negative results). (STP 21-24-SMCT: 031-503-3002, STP 21-II-MQS: 04-5030.00-2021)</p> <ul style="list-style-type: none"> <li>a. Direct two individuals to conduct unmasking procedures.</li> <li>b. Observe directed individuals for 10 minutes for symptoms of illness.</li> <li>c. Observe directed individuals for delayed symptoms.</li> <li>d. Initiate "All Clear" signal if no symptoms of chemical poisoning are detected.</li> </ul> <p>5. Unit personnel employ unmasking procedures (chemical agent detector kits indicate negative results). (STP 21-1-SMCT: 031-503-1004, 031-503-1012, 031-503-1020, 031-503-1025, 031-503-1028, STP 21-24-SMCT: 031-503-3002)</p> <ul style="list-style-type: none"> <li>a. Break the seal in a shady area (directed personnel).</li> <li>b. Remain unmasked for five minutes (directed personnel).</li> <li>c. Remask and clear masks (directed personnel).</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>NOTE: Perform Task steps 6 and 7 only if chemical agent detector kits are not available.</p> <p>*6. Unit leaders initiate unmasking procedures (using M8/M9 detector paper). (STP 21-2-SMCT: 031-503-3002, STP 21-II-MQS: 04-5030.00-2021)</p> <ol style="list-style-type: none"> <li>a. Check area for physical signs of liquid contamination using M8/M9 detector paper.</li> <li>b. Direct two individuals to conduct unmasking procedures.</li> <li>c. Observe directed individuals for 10 minutes for symptoms of chemical incapacitation.</li> </ol> <p>NOTE: Wait five minutes after directed individuals have unmasked.</p> <ol style="list-style-type: none"> <li>d. Observe directed individuals for another ten minutes after they unmask again, for symptoms of chemical incapacitation.</li> <li>e. Initiate "All Clear" signal if no symptoms appear.</li> </ol> <p>7. Unit personnel employ unmasking procedures (using M8 detector paper). (STP 21-1-SMCT: 031-503-1004, 031-503-1012, 031-503-1020, 031-503-1025, 031-503-1028)</p> <ol style="list-style-type: none"> <li>a. Break mask seal in a shady area (directed individuals).</li> <li>b. Keep eyes open for 15 seconds (directed individuals).</li> <li>c. Clear mask (directed individuals).</li> <li>d. Reseal mask (directed individuals).</li> <li>e. Remain masked for ten minutes (directed individuals).</li> <li>f. Unmask for five minutes (directed individuals).</li> <li>g. Remask for ten minutes (directed individuals).</li> <li>h. Initiate "All Clear" if no symptoms appear.</li> </ol> <p>*8. Commander and leaders reorganize unit area.</p> <ol style="list-style-type: none"> <li>a. Reestablish chain of command.</li> <li>b. Coordinate required unit MOPP level with the higher HQ staff element.</li> <li>c. Inspect unit personnel to ensure that individuals remain at the directed MOPP level.</li> <li>d. Direct periodic chemical monitoring in the unit area.</li> </ol>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
e. Supervise the request and distribution of replacement chemical defense equipment and supplies.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-1-SMCT	031-503-1004	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/CONTAMINATION USING THE M17-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1012	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/CONTAMINATION USING YOUR M24 OR M25-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1014	IDENTIFY CHEMICAL AGENTS USING M8 DETECTOR PAPER
	031-503-1015	PROTECT YOURSELF FROM NBC INJURY/CONTAMINATION WITH MISSION-ORIENTED PROTECTIVE POSTURE (MOPP) GEAR
	031-503-1020	DETECT CHEMICAL AGENTS USING M9 DETECTOR PAPER
	031-503-1025	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M40-SERIES PROTECTIVE MASK WITH HOOD

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	031-503-1028	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M42 PROTECTIVE MASK WITH HOOD
STP 21-24-SMCT	031-503-2001	USE M256 OR M256A1 CHEMICAL AGENT DETECTOR KIT
	031-503-2012	SUPERVISE THE FITTING OF PROTECTIVE MASKS
	031-503-3005	PREPARE AND SUBMIT NBC-1 REPORTS
	031-503-3008	IMPLEMENT MISSION-ORIENTED PROTECTIVE POSTURE
STP 21-II-MQS	04-5030.00-2006	SUPERVISE UNIT RESPONSE TO A CHEMICAL OR BIOLOGICAL ATTACK
	03-5030.00-2008	PREPARE AND SUBMIT NUCLEAR, BIOLOGICAL, OR CHEMICAL 1 REPORT
	04-5030.00-2013	IMPLEMENT MISSION-ORIENTED PROTECTIVE POSTURE BASED ON THREAT OR DIRECTION
	04-5030.00-2021	CONDUCT UNMASKING PROCEDURES
STP 21-I-MQS	S1-5030.00-1010	THE NBC WARNING AND REPORTING SYSTEM

**OPFOR TASKS AND STANDARDS**

**TASK:** DISRUPT ENEMY MOVEMENT AND OPERATIONS USING PERSISTENT AND NON-PERSISTENT CHEMICAL WEAPONS (63-OPFOR-1001)

**CONDITION:** OPFOR units deliver chemical agents by means of conventional artillery weapons or aircraft along selected routes and key bases in the rear area.

**STANDARD:** 1. Deliver chemical agents in low and/or densely wooded areas. 2. Delay movement of enemy supplies and equipment to forward areas by disrupting C2 system. 3. Restrict enemy units movement in rear area. 4. Channel movement into predesignated ambush areas. 5. Contaminate enemy supplies and equipment. 6. Inflict casualties on enemy forces.

**ELEMENT:** COMPANY

**TASK:** PERFORM OPERATIONAL DECONTAMINATION IN A FP UNIT  
(42-2-0254)

(FM 3-5) (FM 3-100) (FM 3-3)  
(FM 3-4) (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** As the result of a chemical attack, the unit is contaminated with a persistent chemical agent. Replacement overgarments, supertropical bleach, brooms, mops, or other expedient chemical defense items are on hand. The higher HQ TSOP are available. Unit has assumed MOPP4. This task is always performed in MOPP4.

**TASK STANDARDS:** Unit personnel perform decontamination within 15 minutes after attack and continue the mission without spreading contamination.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Unit personnel perform essential decontamination. (STP 21-1-SMCT: 031-503-1007) a. Complete skin decontamination within one minute of attack or contamination. b. Conduct personal equipment wipe down with supertropical bleach.  2. Unit personnel exchange MOPP gear. (STP 21-1-SMCT: 031-503-1023, STP 21-II-MQS: 04-5030.00-2006) a. Perform individual decontamination of load-bearing equipment. b. Remove contaminated hoods and outer garment using the buddy system. c. Don fresh overgarments, overshoes, and gloves by using the buddy system. d. Secure hood using the buddy system. e. Secure individual load-bearing equipment.		

<b>TASK PERFORMANCE / EVALUATION SUMMARY BLOCK</b>							
<b>ITERATION</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>M</b>	<b>TOTAL</b>
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### **SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-I-SMCT	031-503-1007	DECONTAMINATE YOUR SKIN AND PERSONAL EQUIPMENT USING AN M258A1 DECONTAMINATION KIT
	031-503-1023	PROTECT YOURSELF FROM NBC INJURY/CONTAMINATION WHEN CHANGING MISSION-ORIENTED PROTECTIVE POSTURE (MOPP) GEAR
STP 21-II-MQS	04-5030.00-2006	SUPERVISE UNIT RESPONSE TO A CHEMICAL OR BIOLOGICAL ATTACK

#### **OPFOR TASKS AND STANDARDS**

**NONE:**



**ELEMENT:** COMPANY

**TASK:** PERFORM THOROUGH DECONTAMINATION IN A FP UNIT  
(42-2-0255)

(FM 3-5)

(FM 42-424)

(TM 10-5419-200-12)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** The unit has completed operations in a contaminated area. The tactical situation allows the unit time to conduct a detailed equipment decontamination. The higher HQ power-driven decontamination equipment and crew are available. Only those personnel directly involved in decontamination must be in MOPP 4. This task is always performed in MOPP4.

**NOTE:** This task provides for the decontamination of the FP unit's equipment and vehicles only. It does not apply to the decontamination of the FP module's subsystems, components, and equipment. Higher HQ will advise the FP unit of actions to take to decontaminate the module.

**TASK STANDARDS:** Contamination removal allows personnel to operate equipment safely for extended periods at reduced MOPP levels.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Unit headquarters coordinates for detailed equipment decontamination. <ul style="list-style-type: none"> <li>a. Coordinates additional decontamination support requirements with higher HQ staff element.</li> <li>b. Coordinates time and location with higher HQ staff element or supporting decontamination element.</li> <li>c. Dispatches an advance party to rendezvous with decontamination elements at the decontamination site.</li> <li>d. Provides security and traffic control at the decontamination site.</li> <li>e. Employs safety procedures.</li> <li>f. Employs environmental stewardship procedures.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>2. Unit prepares for decontamination.</p> <ul style="list-style-type: none"> <li>a. Completes basic soldier skills decontamination prior to leaving old AO.</li> <li>b. Prioritizes vehicles for decontamination based on commander's guidance.</li> <li>c. Closes all windows and flaps on vehicles.</li> <li>d. Removes all items from inside vehicle that cannot be decontaminated by using DS2.</li> <li>e. Moves vehicles and equipment to the decontamination site.</li> </ul> <p>3. Unit processes vehicles and equipment through the decon site.</p> <ul style="list-style-type: none"> <li>a. Processes vehicles and equipment IAW directions of the decontamination element during decontamination operations.</li> <li>b. Moves vehicles to unit motor pool area after completing decontamination of vehicles.</li> </ul> <p>4. Unit clears the decontamination site.</p> <ul style="list-style-type: none"> <li>a. Provides assistance to decon element, as required.</li> <li>b. Forwards completion report to higher HQ staff element.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENTS:** COMPANY HEADQUARTERS

COMPANY  
 DETACHMENT HQ  
 DETACHMENT

**TASK:** PREPARE FOR A FRIENDLY NUCLEAR STRIKE (63-2-R327)  
 (FM 3-4) (FM 3-100) (FM 3-5)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The unit receives a STRIKEWARN message from the higher HQ staff element with specific actions to be implemented. The unit is supporting tactical operations. Unit OPORS and TSOP are available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Preparations for a friendly nuclear strike are completed within 30 minutes of the time specified in the warning. At MOPP level 4, performance degradation factors increase strike preparation time threefold.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Unit hqs acknowledges warning. (STP 21-24-SMCT: 113-572-4008, 113-572-5005, 113-572-6005, 113-572-6006, STP 21-II-MQS: 01-5831.02-0003, STP 21-I-MQS: 01-5700.01-0001, 01-5704.00-0001) a. Authenticate the call. b. Transcribe message to hard copy with 100 percent accuracy. c. Acknowledge receipt by return message.  *2. Commander and leaders issue warning order. (STP 21-II-MQS: 04-5030.00-2007) a. Alert assigned and attached subelements by most expedient means. b. Relay specific directed actions by land lines or messengers.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>3. Unit performs preparatory actions. (STP 21-1-SMCT: 031-503-1004, 031-503-1012, 031-503-1015, 031-503-1025, 031-503-1028, STP 21-24-SMCT: 031-503-2020, 031-503-3008, STP 21-II-MQS: 04-5030.00-2007, 04-5030.00-2013, 04-5030.00-2017, 04-5030.00-2019, STP 21-I-MQS: 01-5030.00-1004)</p> <ul style="list-style-type: none"> <li>a. Covers foxholes and shelters.</li> <li>b. Places all externally stored equipment inside tents or shelters, if possible.</li> <li>c. Place vehicles and equipment on terrain that provides shielding.</li> <li>d. Covers all equipment, munitions, fuel, food, and water containers.</li> <li>e. Covers nose and mouth with handkerchief or clean rag.</li> <li>f. Wears designated MOPP gear to minimize skin exposure.</li> <li>g. Zeros dosimeters.</li> <li>h. Wears individual dosimeters (selected personnel).</li> <li>i. Disconnect non-essential electronic equipment.</li> <li>j. Tie down essential antennas.</li> <li>k. Disassemble non-essential antennas and antenna leads.</li> <li>l. Improve shelters and individual positions with consideration for blast, thermal, and radiation effects.</li> <li>m. Secure loose flammable or explosive items and water containers.</li> <li>n. Start periodic monitoring.</li> <li>o. Continue to harden positions and vehicles.</li> <li>p. Disconnect all electronic equipment.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-1-SMCT	031-503-1004	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M17-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1012	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/CONTAMINATION USING YOUR M24 OR M25-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1015	PROTECT YOURSELF FROM NBC INJURY/CONTAMINATION WITH MISSION-ORIENTED PROTECTIVE POSTURE (MOPP) GEAR
	031-503-1025	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M40-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1028	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M42 PROTECTIVE MASK WITH HOOD
STP 21-24-SMCT	031-503-2020	USE AND PERFORM OPERATOR MAINTENANCE ON THE IM93 OR IM147 DOSIMETER AND PP1578-SERIES CHARGER
	031-503-3008	IMPLEMENT MISSION-ORIENTED PROTECTIVE POSTURE
	031-503-4002	SUPERVISE UNIT PREPARATION FOR NBC ATTACK
	113-572-4008	TRANSMIT A VOICE UNITED STATES MESSAGE TEXT FORMAT (USMTF) MESSAGE
	113-572-5005	RECEIVE A VOICE UNITED STATES MESSAGE TEXT FORMAT (USMTF) MESSAGE
	113-572-6005	WRITE A UNITED STATES MESSAGE TEXT FORMAT (USMTF) MESSAGE
	113-572-6006	READ A UNITED STATES MESSAGE TEXT FORMAT (USMTF) MESSAGE

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-I-MQS	01-5700.01-0001	COMMUNICATE ON A TACTICAL RADIO
	01-5704.00-0001	PLACE A RADIOI SET, AN/PRC-77 INTO OPERATION
	01-5030.00-1004	USE YOUR M17 SERIES PROTECTIVE MASK WITH HOOD
	113-573-8006	USE AN AUTOMATED SIGNAL OPERATION INSTRUCTION (SOI)
STP 21-II-MQS	01-5831.02-0003	READ A MESSAGE
	04-5030.00-2007	SUPERVISE UNIT RESPONSE TO NUCLEAR ATTACK OR RADIOLOGICAL HAZARD
	04-5030.00-2013	IMPLEMENT MISSION-ORIENTED PROTECTIVE POSTURE BASED ON THREAT OR DIRECTION
	04-5030.00-2017	PREPARE FOR NUCLEAR, BIOLOGICAL, OR CHEMICAL ATTACK
	04-5030.00-2019	CONTROL UNIT RADIATION EXPOSURE

**OPFOR TASKS AND STANDARDS****NONE:**

**ELEMENTS:** COMPANY HEADQUARTERS

COMPANY  
 DETACHMENT HQ  
 DETACHMENT

**TASK:** RESPOND TO THE INITIAL EFFECTS OF A NUCLEAR  
 ATTACK (63-2-1020)  
 (FM 3-3) (FM 3-4) (FM 3-5)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Brilliant light flashes across the horizon. Intelligence summaries from higher HQ staff element indicate the possible use of tactical nuclear weapons by threat. The unit is supporting tactical operations. All nonessential equipment is stowed for protection. Positions and equipment are hardened. MOPP level 2 is designated. The unit has all authorized NBC equipment on hand. The higher HQ OPORD and unit TSOP are available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Unit personnel take immediate protective actions and reorganize the unit area as prescribed by the OPORD and TSOP. At MOPP level 4, performance degradation factors increase protective action implementation times.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Unit personnel employ immediate protective actions. (STP 21-1-SMCT: 031-503-1004, 031-503-1012, 031-503-1018, 031-503-1025, 031-503-1028, STP 21-24-SMCT: 031-503-3005, 031-503-3008, STP 21-II-MQS: 04-5030.00-2007, 04-5030.00-2019, STP 21-I-MQS: 01-5030.00-1009) a. Seek cover. b. Lie face down on ground with head toward blast. c. Drop to the floor, under a desk or table, if in a shelter or building. d. Cover eyes and exposed skin. e. Place hands or fingers over ears.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Stay concealed and covered until blast wave passes and debris stops falling.</p> <p>g. Don protective mask with hood within 15 seconds after flash and blast have passed.</p> <p>h. Commence continuous monitoring.</p> <p>i. Protect all food, water, and mission essential supplies from contamination.</p> <p>j. Continue to improve positions prior to the arrival of fallout.</p> <p>k. Request permission to move out of the expected hazard area if mission permits.</p> <p>l. Report radiation exposure status to the higher HQ IAW dosimeter readings.</p> <p>2. Unit reorganizes unit area. (STP 21-24-SMCT: 031-503-3005, STP 21-II-MQS: 04-5030.00-2008, STP 21-I-MQS: S1-5030.00-1010)</p> <p>a. Inspects immediate area for casualties and damaged equipment.</p> <p>b. Forwards NBC 1 nuclear report to higher HQ staff element.</p> <p>c. Performs ADC operations.</p> <p>NOTE: See task 42-2-0275 for detailed ADC procedures.</p> <p>d. Treats casualties. (STP 21-24-SMCT: 031-503-3005, STP 21-II-MQS: 04-5030.00-2008, STP 21-I-MQS: S1-5030.00-1010)</p> <p>NOTE: See task 63-2-0003 for detailed treatment procedures.</p> <p>e. Transports casualties.</p> <p>NOTE: See task 63-2-R316 for detailed casualty evacuation procedures.</p> <p>f. Reestablishes chain of command.</p> <p>g. Resumes operational mission within time established by higher HQ staff element.</p> <p>h. Forwards casualty reports to higher HQ staff element.</p>		



TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-1-SMCT	031-503-1004	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M17-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1012	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/CONTAMINATION USING YOUR M24 OR M25-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1018	REACT TO A NUCLEAR HAZARD
	031-503-1025	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M40-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1028	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M42 PROTECTIVE MASK WITH HOOD
STP 21-24-SMCT	031-503-3005	PREPARE AND SUBMIT NBC 1 REPORTS
	031-503-3008	IMPLEMENT MISSION-ORIENTED PROTECTIVE POSTURE
STP 21-II-MQS	04-5030.00-2007	SUPERVISE UNIT RESPONSE TO NUCLEAR ATTACK OR RADIOLOGICAL HAZARD
	04-5030.00-2008	PREPARE AND SUBMIT NUCLEAR, BIOLOGICAL, OR CHEMICAL 1 REPORT
	04-5030.00-2019	CONTROL UNIT RADIATION EXPOSURE

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-I-MQS	S1-5030.00-1010	THE NBC WARNING AND REPORTING SYSTEM
	01-5030.00-1009	REACT TO NUCLEAR HAZARD

**OPFOR TASKS AND STANDARDS**

**TASK:** DISRUPT ENEMY MOVEMENT AND OPERATIONS USING TACTICAL NUCLEAR WEAPONS (63-OPFOR-1002)

**CONDITION:** Tactical nuclear weapons are employed against key locations in the rear area.

**STANDARD:** 1. Disrupt or delay movement of equipment and supplies to forward areas. 2. Destroy enemy equipment and supplies. 3. Inflict nuclear casualties among enemy troops. 4. Deny enemy use of specified areas. 5. Contaminate enemy equipment and supplies.

**ELEMENTS:** COMPANY HEADQUARTERS

- COMPANY
- DETACHMENT HQ
- DETACHMENT HQ

**TASK:** RESPOND TO THE RESIDUAL EFFECTS OF A NUCLEAR ATTACK  
(63-2-R328)

(FM 3-5) (FM 3-3) (FM 3-4)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** The unit is located within the predicted fallout area. The higher HQ staff element has disseminated a simplified fallout prediction with estimated time of arrival for fallout. The battalion TSOP and unit NBC defense equipment are available. The NBC 3 nuclear reports and OEG have been provided by the higher HQ staff element. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Unit personnel complete fallout preparation before arrival of fallout IAW the TSOP and directives provided by the higher HQ staff element. At MOPP level 4, performance degradation factors increase fallout preparation implementation time.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>1. Unit prepares for radiological fallout. (STP 21-1-SMCT: 031-503-1012, 031-503-1018, 031-503-1025, 031-503-1028, STP 21-24-SMCT: 031-503-2020, STP 21-II-MQS: 04-5030.00-2019, STP 21-I-MQS: 01-5030.00-1004, 01-5030.00-1009, 031-503-1004)</p> <p>a. Don protective mask.</p> <p>NOTE: If protective mask is unavailable, cover nose and mouth with handkerchief or clean rag.</p> <p>b. Don designated MOPP gear to minimize skin exposure.</p> <p>c. Wear individual dosimeters (selected personnel).</p> <p>d. Cover foxhole and shelter.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Place all externally stored equipment inside tents or shelters.</p> <p>f. Cover all equipment, munitions, fuel, food, and water containers.</p> <p>g. Continue operational mission as directed by the higher HQ staff element (essential personnel only).</p> <p>h. Occupy shelters or closed vehicles (nonessential personnel).</p> <p>i. Start continuous monitoring.</p> <p>j. Continue to improve/increase overhead cover prior to the arrival of fallout.</p> <p>k. Occupy shelters upon the arrival of fallout.</p> <p>l. Calculate optimum time of exit.</p> <p>m. Identify fallout prediction zone the unit is in.</p> <p>n. Calculate how much radiation is expected.</p> <p>o. Submit NBC 4 initial report to the higher HQ.</p> <p>p. Take readings every 15 minutes.</p> <p>q. Submit NBC 4 peak report to the higher HQ.</p> <p>r. Take readings every 30 minutes for 2.5 hours.</p> <p>s. Submit NBC series report to the higher HQ based on readings.</p> <p>2. Unit NBC defense teams perform monitoring activities. (STP 21-24-SMCT: 031-503-2004, 031-503-2013, 031-503-3006, 031-503-4003)</p> <p>a. Initiate radiacmeter monitoring to determine radiation dose rate.</p> <p>b. Relay warning to unit personnel.</p> <p>c. Take shelter, if mission permits, until "All Clear" is given or if directed to move.</p> <p>d. Monitor radiacmeter to determine dose rate and total dosage.</p> <p>e. Report dose rate and total dosage to the higher HQ staff element.</p> <p>*3. Commander and leaders develop contingency plan.</p> <p>a. Identify current mission status.</p> <p>b. Perform comparative analysis between the RES and the OEG.</p> <p>c. Direct development of personnel rotation plans by subelements to minimize personnel exposure.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
d. Direct development of entry and exit procedures by subelements to minimize shelter and vehicle contamination. e. Develop relocation plan in coordination with the higher HQ staff element. f. Disseminate contingency plan to all subelements and the higher HQ staff element. g. Coordinate with the higher HQ for decontamination after fallout is complete. h. Direct deliberate decontamination.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-1-SMCT	031-503-1012	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/CONTAMINATION USING YOUR M24 OR M25-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1018	REACT TO A NUCLEAR HAZARD
	031-503-1025	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M40-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1028	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M42 PROTECTIVE MASK WITH HOOD
STP 21-24-SMCT	031-503-2004	PREPARE AND SUBMIT NBC 4 REPORTS

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	031-503-2013	USE AND PERFORM OPERATOR MAINTENANCE ON THE IM174-SERIES RADIACMETER
	031-503-2020	USE AND PERFORM OPERATOR MAINTENANCE ON THE IM93 OR IM147 DOSIMETER AND PP1578-SERIES CHARGER
	031-503-3006	SUPERVISE RADIATION MONITORING
	031-503-3008	IMPLEMENT MISSION-ORIENTED PROTECTIVE POSTURE
	031-503-4003	CONTROL UNIT RADIATION EXPOSURE
STP 21-II-MQS	04-5030.00-2019	CONTROL UNIT RADIATION EXPOSURE
STP 21-I-MQS	031-503-1004	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M17-SERIES PROTECTIVE MASK WITH HOOD
	01-5030.00-1004	USE YOUR M17-SERIES PROTECTIVE MASK WITH HOOD
	01-5030.00-1009	REACT TO NUCLEAR HAZARD

**OPFOR TASKS AND STANDARDS**

**TASK:** DISRUPT ENEMY MOVEMENT AND OPERATIONS USING TACTICAL NUCLEAR WEAPONS (63-OPFOR-1002)

**CONDITION:** Tactical nuclear weapons are employed against key locations in the rear area.

**STANDARD:** 1. Disrupt or delay movement of equipment and supplies to forward areas. 2. Destroy enemy equipment and supplies. 3. Inflict nuclear casualties among enemy troops. 4. Deny enemy use of specified areas. 5. Contaminate enemy equipment and supplies.

**ELEMENTS:** COMPANY HEADQUARTERS

COMPANY  
 DETACHMENT HQ  
 DETACHMENT

**TASK:** PERFORM RADIOLOGICAL DECONTAMINATION (63-2-R207)  
 (FM 3-5) (FM 3-3) (FM 3-4)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The unit area is contaminated by radiological fallout. Higher HQ TSOP and ORORD are available. NBC 3 and OEG have been provided by higher HQ staff element. External NBC decontamination support is requested in coordination with the higher HQ staff element. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Unit decontaminates personnel and equipment to within the designated negligible risk level established by higher HQ staff element.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Unit performs basic skills decontamination procedures. (STP 21-1-SMCT: 031-503-1007, STP 21-II-MQS: 04-5030.00-2020, STP 21-I-MQS: 01-5030.00-1007) a. Starts basic soldier skills procedures within 15 minutes of indications of contamination. b. Employs basic soldier skills procedures IAW the battalion and unit TSOP. c. Disposes of contaminated dust and articles IAW prescribed techniques in TAACOM/COSCOM OPORD and TSOP.  2. Unit performs hasty vehicle and equipment decontamination procedures. (STP 21-II-MQS: 04-5030.00-2007) a. Starts procedures within 30 minutes of indications of contamination, if mission permits.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
b. Employs hasty vehicle and equipment decontamination procedures IAW TAACOM/COSCOM OPORD and TSOP. c. Disposes of contaminated dust and water IAW prescribed techniques in the TSOP. *3. Commander directs resumption of operational mission. a. Directs elements to perform assigned mission as specified by the TAACOM/COSCOM OPORD and commander's guidance. b. Monitors unit radiation status in coordination with each subelement to ensure compliance with battalion commander's OEG. c. Forwards radiation status updates to higher HQ staff element. d. Coordinates replenishment of NBC decon items with the higher HQ staff element.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-1-SMCT	031-503-1007	DECONTAMINATE YOUR SKIN AND PERSONAL EQUIPMENT USING AN M258A1 DECONTAMINATION KIT
STP 21-24-SMCT	031-503-3006	SUPERVISE RADIATION MONITORING
STP 21-II-MQS	04-5030.00-2007	SUPERVISE UNIT RESPONSE TO NUCLEAR ATTACK OR RADIOLOGICAL HAZARD
	04-5030.00-2020	SUPERVISE NUCLEAR, BIOLOGICAL, OR CHEMICAL DECONTAMINATION



**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-I-MQS	01-5030.00-1007	DECONTAMINATE YOUR SKIN AND PERSONAL EQUIPMENT

**OPFOR TASKS AND STANDARDS**

**NONE:**



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>a. Sounds prescribed attack alarm.                      b. Occupies fighting positions as directed.                      c. Continues normal operational mission with weapons and protective mask within reach, as directed.                      d. Assembles at predesignated rally point (internal reaction force).                      e. Issues challenge and demands password from all personnel outside defensive lines during night operations.                      f. Engages Level I threat with all available fire until threat is defeated and driven from the FP area.                      g. Forwards SITREP to CP.</p> <p>3. Unit responds to the effects of a Level I attack. (STP 21-24-SMCT: 071-430-0003, 071-430-0007)</p> <p>a. Replaces key personnel as required.                      b. Replaces weapon systems that are destroyed during engagement.                      c. Relocates compromised fighting positions.                      d. Replaces camouflage on defensive positions as required.                      e. Treats casualties.</p> <p>NOTE: See task 63-2-0003 for detailed casualty treatment procedures.                      f. Transports casualties.</p> <p>NOTE: See task 63-2-R316 for detailed casualty transportation procedures.                      g. Performs ADC operations.                      h. Inspects all communication lines for breaks or tampering.                      i. Forwards personnel and equipment status report to unit CP.                      j. Assembles KIAs and personal effects at designated MA collection location.</p> <p>NOTE: See task 10-2-318 for detailed MA procedures.                      k. Moves all EPW to a designated collection area.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO"/"NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-1-SMCT	071-311-2007	ENGAGE TARGETS WITH AN M16A1 OR M16A2 RIFLE
	181-906-1505	CONDUCT COMBAT OPERATIONS ACCORDING TO THE LAW OF WAR
	071-325-4407	EMPLOY HAND GRENADES

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	071-331-0801	CHALLENGE PERSONS ENTERING YOUR AREA
STP 21-24-SMCT	071-430-0002	CONDUCT A DEFENSE BY A SQUAD
	071-430-0003	CONSOLIDATE A SQUAD FOLLOWING ENEMY CONTACT WHILE IN THE DEFENSE
	071-430-0004	REORGANIZE A SQUAD FOLLOWING ENEMY CONTACT WHILE IN THE DEFENSE
	071-430-0006	CONDUCT A DEFENSE BY A PLATOON
	071-430-0007	CONSOLIDATE A PLATOON FOLLOWING ENEMY CONTACT WHILE IN THE DEFENSE
	071-430-0008	REORGANIZE A PLATOON FOLLOWING ENEMY CONTACT WHILE IN THE DEFENSE
STP 21-I-MQS	04-3305.01-0005	ENGAGE TARGETS WITH AN M16A1 OR M16A2 RIFLE
STP 21-II-MQS	04-3306.01-0006	USE CHALLENGE AND PASSWORD
	01-3301.02-0011	DEFEND A COMPANY POSITION
	S3-9060.00-1000	CONDUCT SMALL UNIT COMBAT OPERATIONS ACCORDING TO THE LAW OF WAR

**OPFOR TASKS AND STANDARDS**

**TASK:** CONDUCT RAID (63-OPFOR-1009)

**CONDITION:** OPFOR element has occupied an objective rally point and has orders to conduct a raid on a CSS base.

**STANDARD:** 1. Surprise enemy forces. 2. Assault enemy support base and accomplish assigned tasks. 3. Destroy specified equipment and supplies. 4. Avoid decisive engagement. 5. Withdraw all personnel from objective area(s) within time prescribed. 6. Obtain all PIR from raid site.

**TASK:** CONDUCT TERRORIST AND SABOTEUR ATTACKS (63-OPFOR-1013)

**CONDITION:** OPFOR dispatches small teams into enemy rear area to disrupt CSS operations.

**STANDARD:** 1. Locate rear support bases and C2 facilities. 2. Delay and disrupt CSS operations through probes. 3. Infiltrate CSS bases to conduct sabotage and terrorist activities. 4. Inflict casualties. 5. Destroy supplies and equipment.

**ELEMENTS:** COMPANY HEADQUARTERS

- COMPANY
- DETACHMENT HQ
- DETACHMENT
- TROOP
- HQ TRP

**TASK:** PROCESS ENEMY PRISONERS OF WAR (63-2-R304)  
 (FM 19-40) (FM 100-15) (FM 3-4)  
 (FM 3-5)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Threat soldiers are surrendering or being captured. The unit is supporting tactical operations. MPs have established an EPW collection point in the support area. Unit and higher HQ TSOP are available. Some iterations of this task should be performed in MOPP4.

**NOTE:** Masks and protective clothing are provided to EPW, if available.

**TASK STANDARDS:** Unit evacuates EPW to the designated EPW holding area within the time prescribed in the TSOP and/or battalion directives. At MOPP level 4, EPW processing and evacuation times increase significantly.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders supervise EPW processing in the unit area. (STP 21-24-SMCT: 071-331-0820, 191-377-5250, 191-379-4450, 301-337-6001, STP 21-II-MQS: 03-3751.01-0101) a. Disseminate designated EPW collection point(s) locations to all subelements. b. Coordinate disposition of EPW with higher HQ staff element before transporting to the rear. c. Monitor processing procedures to ensure compliance with the TSOP and current INTSUM.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>2. Unit personnel search EPW. (STP 21-24-SMCT: 191-377-5250, 301-337-6001, STP 21-II-MQS: 03-3711.13-0001)</p> <ul style="list-style-type: none"> <li>a. Remove all weapons and documents.</li> <li>b. Return personal items of no military intelligence value.</li> <li>c. Provide EPW a receipt for personal items taken.</li> <li>d. Tag each EPW and each item removed with date/time group, location of capture, capturing unit, and circumstances of capture.</li> </ul> <p>3. Unit personnel segregate EPW. (STP 21-24-SMCT: 191-377-5250)</p> <ul style="list-style-type: none"> <li>a. Segregate EPW by rank, sex, deserters, civilians, nationality, and ideology, when possible.</li> <li>b. Treat EPW casualties.</li> </ul> <p>NOTE: See task 8-2-0003 for detailed treatment procedures.</p> <ul style="list-style-type: none"> <li>c. Evacuate EPW casualties.</li> </ul> <p>NOTE: See task 63-2-R316 for detailed evacuation procedures.</p> <p>4. Unit personnel silence EPW. (STP 21-24-SMCT: 191-377-5250)</p> <ul style="list-style-type: none"> <li>a. Prevent EPW leaders from giving orders.</li> <li>b. Prevent communications between captured personnel.</li> <li>c. Conduct no conversations in front of EPW except to issue orders and maintain discipline.</li> </ul> <p>5. Unit personnel transport EPW to the rear. (STP 21-24-SMCT: 071-331-0820, 191-377-5250)</p> <ul style="list-style-type: none"> <li>a. Remove EPW from dangers of the immediate battle area.</li> <li>b. Prevent abuse of EPW by fellow soldiers or local populace.</li> <li>c. Transport EPW to the nearest collection point by vehicle.</li> </ul> <p>NOTE: If transportation is unavailable and time and distance factors permit, march EPW to the nearest collection point.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-24-SMCT	071-331-0820	ANALYZE TERRAIN
	191-377-5250	HANDLE ENEMY PERSONNEL AND EQUIPMENT
	191-379-4450	SUPERVISE HANDLING OF ENEMY PERSONNEL AND EQUIPMENT AT UNIT LEVEL
STP 21-II-MQS	301-337-6001	PROCESS CAPTURED MATERIEL
	03-3711.13-0001	PROCESS CAPTURED MATERIEL
	03-3751.01-0101	SUPERVISE PROCESSING OF CAPTIVES AT UNIT LEVEL

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENTS:** COMPANY HEADQUARTERS

- COMPANY
- DETACHMENT HQ
- DETATCHMENT HQ
- DETACHMENT
- TROOP
- HQ TRP

**TASK:** PROCESS CAPTURED DOCUMENTS AND EQUIPMENT (63-2-R305)

- (FM 34-54) (FM 100-15) (FM 19-40)
- (FM 3-4) (FM 3-5)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** Threat equipment and documents are captured. The unit is supporting tactical operations. The higher HQ OPORD and TSOP are available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Unit processes all captured documents and equipment IAW disposition instructions from the higher HQ staff element and the higher HQ TSOP. At MOPP level 4, captured documents and equipment processing and disposition times increase.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. Commander and leaders supervise captured document and equipment processing . (STP 21-24-SMCT: 071-331-0820, 191-377-5250, 191-379-4450, 301-337-6001, STP 21-II-MQS: 03-3711.12-0001) a. Disseminate to all subelements instructions and procedures for processing captured documents and equipment. b. Coordinate disposition of captured documents and equipment with higher HQ staff element. c. Coordinate with higher HQ staff element for transportation of equipment to the rear. d. Monitor processing procedures to ensure compliance with the TSOP and higher HQ staff element guidance.		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>2. Unit reports capture of documents or equipment to the higher HQ staff element.</p> <p>a. Process reports for documents and equipment IAW FM 34-54 and TSOP.</p> <p>b. Request disposition of captured documents and equipment from the higher HQ staff element.</p> <p>c. Tag all captured documents and equipment before evacuation.</p> <p>3. Unit executes approved disposition of captured documents and equipment.</p> <p>a. Evacuate captured equipment IAW disposition instructions.</p> <p>b. Destroy the captured equipment (less medical) IAW disposition instructions.</p> <p>NOTE: If tactical situation does not permit equipment destruction or evacuation, or other special instructions exist, abandon captured equipment IAW disposition instructions.</p> <p>c. Evacuate documents through the higher HQ staff element to intelligence personnel.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-24-SMCT	071-331-0820	ANALYZE TERRAIN
	191-377-5250	HANDLE ENEMY PERSONNEL AND EQUIPMENT
	191-379-4450	SUPERVISE HANDLING OF ENEMY PERSONNEL AND EQUIPMENT AT UNIT LEVEL
	301-337-6001	PROCESS CAPTURED MATERIEL
STP 21-II-MQS	03-3711.12-0001	IMPLEMENT OPERATIONS SECURITY

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY  
PLATOON

**TASK:** TREAT CASUALTIES (63-2-0003)  
 (FM 21-11) (FM 3-4) (FM 8-230)  
 (FM 3-5) (FM 8-10-6)  
 (FM 8-285) (FM 8-35)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** Control team sustained casualties. The control team has no organic medical personnel. Soldiers are wounded and may have chemical contamination or non-battle injuries. Control team members are treating the wounded. This task will be performed simultaneously with other reorganization tasks. The TAACOM or COSCOM and control team TSOPs are available. Some iterations of this task should be done in MOPP 4. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Unit members treat casualties IAW FM 21-11. At MOPP 4, performance degradation factors increase casualty treatment times.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Control team commander and leaders supervise treatment of casualties. a. Monitor treatment for compliance with FM 21-11 and to ensure all casualties are treated. b. Coordinate replenishment of Class VIII supplies with the supporting unit IAW the TSOP. c. Direct distribution of Class VIII supplies and equipment IAW the TSOP. d. Enforce quality control procedures for Class VIII items issued to control team elements.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
2. Control team elements survey each casualty (STP 21-I-MQS, 04-8310.00-3007, 04-8310.00-3008, 04-8310.00-3009, 04-8310.00-3010, 04-8310.00-3011, 04-8310.00-3013, 04-8310.00-3014, 04-8310.00-3016, 04-8310.00-3018, 04-8310.00-3020, 04-8310.00-3024, 04-8310.00-3025, 04-8310.00-3026) (STP 21-1-SMCT, 081-831-1000, 081-831-1003, 081-831-1005, 081-831-1007, 081-831-1008, 081-831-1009, 081-831-1016, 081-831-1017, 081-831-1025, 081-831-1026, 081-831-1031, 081-831-1033, 081-831-1034, 081-831-1042) (STP 21-24-SMCT, 121-030-3534). a. Evaluate casualty condition. b. Perform appropriate first aid procedures.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-1-SMCT	081-831-1000	EVALUATE A CASUALTY
	081-831-1003	CLEAR AN OBJECT FROM THE THROAT OF A CONSCIOUS CASUALTY
	081-831-1005	PREVENT SHOCK
	081-831-1007	GIVE FIRST AID FOR BURNS
	081-831-1008	GIVE FIRST AID FOR HEAT INJURIES
	081-831-1009	GIVE FIRST AID FOR FROSTBITE
	081-831-1016	PUT ON A FIELD OR PRESSURE DRESSING
	081-831-1017	PUT ON A TOURNIQUET
	081-831-1025	APPLY A DRESSING TO AN OPEN ABDOMINAL WOUND

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	081-831-1026	APPLY A DRESSING TO AN OPEN CHEST WOUND
	081-831-1031	ADMINISTER FIRST AID TO A NERVE AGENT CASUALTY (BUDDY-AID)
	081-831-1033	APPLY A DRESSING TO AN OPEN HEAD WOUND
	081-831-1034	SPLINT A SUSPECTED FRACTURE
	081-831-1042	PERFORM MOUTH-TO-MOUTH RESUSCITATION
STP 21-24-SMCT	121-030-3534	REPORT CASUALTIES
STP 21-I-MQS	04-8310.00-3007	EVALUATE A CASUALTY
	04-8310.00-3008	CLEAR AN OBJECT FROM THE THROAT OF A CONSCIOUS CASUALTY
	04-8310.00-3009	PERFORM MOUTH-TO-MOUTH RESUSCITATION
	04-8310.00-3010	PUT ON A FIELD OR PRESSURE DRESSING
	04-8310.00-3011	PUT ON A TOURNIQUET
	04-8310.00-3012	PREVENT SHOCK
	04-8310.00-3013	SPLINT A SUSPECTED FRACTURE
	04-8310.00-3014	GIVE FIRST AID FOR BURNS
	04-8310.00-3016	ADMINSTER FIRST AID TO A NERVE AGENT CASUALTY (BUDDY-AID)
	04-8310.00-3018	GIVE FIRST AID FOR FROSTBITE
	04-8310.00-3020	GIVE FIRST AID FOR HEAT INJURIES
	04-8310.00-3024	APPLY A DRESSING TO AN OPEN CHEST WOUND
	04-8310.00-3025	APPLY A DRESSING TO AN OPEN HEAD WOUND
	04-8310.00-3026	APPLY A DRESSING TO AN OPEN ABDOMINAL WOUND

**OPFOR TASKS AND STANDARDS**

**NONE:**



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Coordinate transport of casualties from unit area with higher HQ staff element IAW TSOP and FM 8-10-6.</p> <p>e. Coordinate security requirements for the pick-up site with subelements and higher HQ staff element.</p> <p>f. Disseminate transportation information to unit personnel.</p> <p>g. Forward casualty feeder report and witness statements to higher HQ staff element IAW TSOP and FM 12-6.</p> <p>2. Unit elements prepare casualties for transportation. (STP 21-24-SMCT: 121-030-3534)</p> <p>a. Treat casualties.</p> <p>NOTE: See task 63-2-0003 for detailed treatment procedures.</p> <p>b. Report casualties, as required.</p> <p>c. Collect classified documents such as SOI/SSI, maps, overlays, and key lists.</p> <p>d. Secure custody of organizational equipment IAW the TSOP.</p> <p>e. Forward spot casualty reports to unit HQ IAW TSOP.</p> <p>3. Unit elements transport casualties to casualty collection points using manual carries. (STP 21-1-SMCT: 081-831-1040, 081-831-1041, STP 21-I-MQS: 04-8310.00-3027, 04-8310.00-3028)</p> <p>a. Select type of manual carry appropriate to situation and injury.</p> <p>b. Transport casualty without causing further injury IAW FM 8-10-6.</p> <p>4. Unit elements transport casualties to casualty collection points using litter carries. (STP 21-1-SMCT: 081-831-1040, 081-831-1041, STP 21-I-MQS: 04-8310.00-3028)</p> <p>a. Identify litter team(s).</p> <p>b. Construct improvised litter from available material as required.</p> <p>c. Secure casualty on litter.</p> <p>d. Transport casualty without causing further injury IAW FM 8-10-6.</p> <p>5. Unit elements transport casualties to a MFT using available vehicles.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>a. Load maximum number of casualties with the most seriously injured last IAW FM 8-10-6.</p> <p>b. Secure casualties in vehicle.</p> <p>c. Transport casualties without causing further injury IAW FM 8-10-6.</p> <p>*6. Commander and leaders request aeromedical evacuation. (STP 21-24-SMCT: 081-831-0101)</p> <p>a. Transmit request IAW OPORD, TSOP, and FM 8-10-6.</p> <p>b. Select landing site which provides sufficient space for helicopter hover, landing, and takeoff IAW FM 8-10-6 and FM 57-38.</p> <p>c. Supervise removal of all dangerous objects likely to be blown about prior to aircraft arrival.</p> <p>d. Supervise security of landing site IAW the TSOP.</p> <p>7. Unit elements assist in loading ambulance.</p> <p>a. Employ proper carrying and loading techniques IAW FM 8-10-6.</p> <p>b. Load casualties in the sequence directed by crew.</p> <p>c. Load casualty without causing unnecessary discomfort.</p> <p>d. Employ safety procedures IAW the TSOP and FM 8-10-6.</p> <p>e. Employ environmental protection procedures IAW AR200-1 and TSOP.</p> <p>8. Unit elements transport chemically contaminated casualties. (STP 21-1-SMCT: 031-503-1004, 031-503-1012, 031-503-1015, 031-503-1025, 031-503-1028)</p> <p>a. Assume MOPP 4.</p> <p>b. Mark contaminated casualties IAW the TSOP.</p> <p>c. Notify supporting MTF that contaminated casualties are enroute to their location.</p> <p>d. Transport casualties directly to a designated decontamination and treatment station.</p> <p>e. Protect casualty from further contamination during transport.</p> <p>9. Unit personnel transport EPW casualties.</p>		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
a. Maintain security of EPW casualties IAW the TSOP. b. Search EPW casualties for weapons and ordnance prior to transportation. c. Transport EPW casualties IAW the provisions of the Geneva Convention agreements and the TSOP.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-1-SMCT	031-503-1004	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M17-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1012	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/CONTAMINATION USING YOUR M24 OR M25-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1015	PROTECT YOURSELF FROM NBC INJURY/CONTAMINATION WITH MISSION-ORIENTED PROTECTIVE POSTURE (MOPP) GEAR
	031-503-1025	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M40-SERIES PROTECTIVE MASK WITH HOOD

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	031-503-1028	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M42 PROTECTIVE MASK WITH HOOD
	081-831-1040	TRANSPORT A CASUALTY USING A ONE-MAN CARRY
	081-831-1041	TRANSPORT A CASUALTY USING A TWO-MAN CARRY OR AN IMPROVISED LITTER
STP 21-24-SMCT	081-831-0101	REQUEST MEDICAL EVACUATION
	121-030-3534	REPORT CASUALTIES
STP 21-I-MQS	04-8310.00-3027	TRANSPORT A CASUALTY USING A ONE-MAN CARRY
	04-8310.00-3028	TRANSPORT A CASUALTY USING A TWO-MAN CARRY OR AN IMPROVISED LITTER

**OPFOR TASKS AND STANDARDS****NONE:**

**ELEMENTS:** COMPANY  
 DETACHMENT  
 TROOP  
 HQ TRP  
 COMPANY HEADQUARTERS

**TASK:** PERFORM UNIT MORTUARY AFFAIRS OPERATIONS (10-2-C318)  
 (FM 10-63-1) (FM 10-27-2) (FM 10-63)  
 (FM 3-3) (FM 3-4) (FM 3-5)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The unit has sustained fatalities. Unit may have the capability of performing an air reconnaissance. Some remains may be contaminated. The higher HQ TSOP and OPORD are available. This task may be performed by non-MA personnel. The commander has assigned search and recovery team leader(s) and personnel. Temporary interment is authorized by the geographic combatant commander. NOTE: At MOPP4, only those tasks deemed mission-essential by the commander are performed. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Search, recovery, evacuation, and emergency burial operations are performed IAW the TSOP and OPORD. At MOPP4, these activities are curtailed.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
* 1 Search and recovery team leader(s) NCOIC prepares for the search. a. Performs a map or aerial reconnaissance of the search area. b. Identify additional support requirements. c. Request additional support requirements from higher HQ. d. Identify search pattern to be used. e. Coordinate NBC and EOD assistance with higher HQ. f. Coordinates security of area with higher HQ staff element.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>*2. Search and recovery team leader(s) supervise search, recovery, and evacuation operations.</p> <ul style="list-style-type: none"> <li>a. Brief search and recovery team(s) on operational procedures.</li> <li>b. Issue personal effects bags, human remains pouches, if available, and NBC agent tags.</li> <li>c. Assign area of search to each team.</li> <li>d. Assign a portion of the search area to an individual team member.</li> <li>e. Monitor search and recovery team team(s) operations for compliance with TSOP, OPORD, and the commander's guidance.</li> </ul> <p>3. Search and recovery team(s) conduct the search.</p> <ul style="list-style-type: none"> <li>a. Search assigned areas for remains and personal effects.</li> <li>b. Mark locations of remains.</li> <li>c. Prepare recovery site sketch indicating locations where remains and personal effects were found.</li> </ul> <p>4. Search and recovery team(s) recovers remains.</p> <ul style="list-style-type: none"> <li>a. Inspect immediate area for booby traps and NBC contaminants..</li> <li>b. Perform procedures for tentative identifications.</li> <li>c. Attach to contaminated remains a tag marked with a large "C."</li> </ul> <p>NOTE: Remains found in a contaminated area are to be handled IAW procedures set forth in FM 10-63 and taken to the MA decontamination collection point.</p> <ul style="list-style-type: none"> <li>d. Attach personal effects to remains.</li> <li>e. Shroud remains with available materials.</li> <li>f. Prepare a sketch of the recovery site showing major landmarks.</li> <li>g. Prepare a map overlay of the recovery site.</li> <li>h. Coordinate evacuation of recovered remains to collection points with higher HQ staff element.</li> <li>i. Forward SITREP IAW TSOP to higher HQ staff element.</li> </ul> <p>NOTE: Remains should not be transported in ambulance.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
6. Search and recovery team(s) leaders supervise temporary interment. a. Identify specific burial site in coordination with higher HQ staff element. b. Supervise marking of grave sites IAW FM 10-63, TSOP, and current directives. c. Supervise the burial of all recovered remains and their personal effects. d. Report burial data to BCOC.  *7. Search and recovery team leader supervises emergency burials. a. Prepare the interment site(s) IAW TSOP and current directives. b. Mark all interment sites. c. Inter U.S., Allied, and enemy forces remains and personal effects in separate rows.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-1-SMCT	101-515-1900	PERFORM MORTUARY AFFAIRS OPERATIONS

**OPFOR TASKS AND STANDARDS**

NONE:

**ELEMENTS:** COMPANY HEADQUARTERS

COMPANY  
 DETACHMENT HQ  
 DETACHMENT

**TASK:** PERFORM FIELD SANITATION FUNCTIONS (63-2-R315)

(FM 21-10) (AR 385-10) (AR 40-5)  
 (FM 10-52) (FM 21-10-1) (FM 3-3)  
 (FM 3-4) (FM 3-5)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Health hazards exist which require field sanitation measures. The unit is in the field without permanent sanitation or water facilities. A unit field sanitation team is assisting the commander in countering the health threat. The TSOP and higher HQ OPORD are available. All required sanitation equipment is available. Field sanitation activities are continuous and are performed simultaneously with other operational tasks. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Field sanitation measures are accomplished IAW the TSOP, OPORD, and FM 21-10. FST performs field sanitation measures IAW the TSOP, FM 21-10, FM 21-10-1 and commander's guidance. At MOPP level 4, only minimal essential field sanitation activities are performed.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs field sanitation measures. (STP 21-II-MQS: 03-8310.00-9000) a. Directs field sanitation activities to counter the health threat. b. Monitors field sanitation activities for compliance with TSOP and FM 21-10. c. Enforces individual field sanitation measures. d. Requests assistance from supporting PVNTMED element for sanitation problems that are beyond the expertise of the unit's FST IAW TSOP and OPORD.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Corrects field sanitation deficiencies.</p> <p>f. Reports field sanitation deficiencies which cannot be corrected by unit personnel to the FST.</p> <p>g. Enforces safety procedures IAW AR 385-10, the TSOP and commander's guidance.</p> <p>h. Enforces environmental stewardship procedures.</p> <p>2. FST supervises unit field sanitation activities. (STP 21-24-SMCT: 081-831-0102, STP 21-II-MQS: 03-8310.00-9000)</p> <p>a. Maintains field sanitation basic load IAW AR 40-5 and FM 21-10-1.</p> <p>b. Supervises distribution of field sanitation basic load items IAW AR 40-5 and FM 21-10-1.</p> <p>c. Tests unit water supply for required chlorine residual level IAW FM 21-10-1 and the TSOP.</p> <p>d. Monitors personnel to ensure use of personal protective measures against arthropods (skin , clothing and bed net repellent) and rodents IAW applicable directives and commander's guidance.</p> <p>e. Conducts rodent surveys, as required.</p> <p>f. Monitors personnel for employment of correct hygiene measures</p> <p>g. Monitors waste facilities and procedures for compliance with AR 40-5, FM 21-10-1 and the TSOP.</p> <p>h. Inspects latrines and urinals IAW FM 21-10-1 and the TSOP.</p> <p>i. Inspects liquid and solid waste disposal facilities to ensure compliance with AR 40-5, FM 21-10-1, and the TSOP.</p> <p>j. Inspects hand-washing devices IAW FM 21-10-1 and the TSOP.</p> <p>k. Inspects transport, storage, preparation, and service of food for compliance with FM 21-10-1, and the TSOP.</p> <p>l. Provides advice, recommendations, and training requirements to the commander.</p> <p>m. Enforces safety procedures IAW AR 385-10, the TSOP and commander's guidance.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
n. Enforces environmental stewardship procedures. 3. Unit elements employ field sanitation measures. (STP 21-I-MQS: 03-8310.00-3021, 03-8310.00-3022, 03-8310.00-3023, 04-8310.00-3017, 04-8310.00-3019) a. Maintain prescribed load of water purification materials IAW AR 40-5, FM 21-10 and the TSOP. b. Prepare nonpotable water for personal use IAW FM 21-10 and the TSOP. c. Consume only water designated as potable. d. Maintain latrines and hand washing facilities IAW FM 21-10 and the TSOP. e. Employ preventive measures against cold and heat injuries. f. Employ personal hygiene measures. g. Employ preventive measures against arthropod and rodent infestation, to include using skin, clothing and bednet repellent. h. Report field sanitation deficiencies to field sanitation team. i. Employ safety procedures IAW AR 385-10, the TSOP and commander's guidance. j. Employ environmental stewardship procedures. k. Report field sanitation deficiencies to FST.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-24-SMCT	081-831-0102	SUPERVISE UNIT PREVENTIVE MEDICINE AND FIELD SANITATION PROCEDURES



**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-II-MQS	03-8310.00-9000	SUPERVISE UNIT PREVENTIVE MEDICINE AND FIELD SANITATION PROCEDURES
STP 21-I-MQS	03-8310.00-3021	PROTECT YOURSELF AGAINST BITING INSECTS
	03-8310.00-3022	PROTECT YOURSELF AGAINST DIARRHEA AND DYSENTERY
	03-8310.00-3023	PRACTICE PERSONAL HYGIENE TO MAINTAIN FITNESS
	04-8310.00-3017	PROTECT YOURSELF AGAINST COLD
	04-8310.00-3018	GIVE FIRST AID FOR FROSTBITE
	04-8310.00-3019	PROTECT YOURSELF AGAINST HEAT

**OPFOR TASKS AND STANDARDS**

**NONE:**



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>c. Approves the use of controlled exchange when required repair parts are not available.</li> <li>d. Approves repairs using BDAR procedures when established repair procedures cannot be used.</li> <li>e. Checks Materiel Condition Status Report for accuracy and completeness.</li> <li>f. Identifies current or anticipated maintenance problems to minimize their impact on unit readiness.</li> <li>g. Coordinates resolution of maintenance problems with higher HQ staff element..</li> <li>h. Prepares Materiel Condition Status Reports IAW AR 220-1 and AR 700-138.</li> <li>i. Forwards Materiel Condition Status Reports to the higher HQ staff element.</li> </ul> <p>*2. Section leaders/NCOs supervise operator maintenance. (STP 21-II-MQS: 03-5101.00-0283, STP 9-63B35-SM-TG: 091-309-0637, 091-409-0617, 091-409-0657, 551-721-3334)</p> <ul style="list-style-type: none"> <li>a. Monitor performance of PMCS for compliance with appropriate TM and commander's guidance.</li> <li>b. Inspect vehicles, weapons, and equipment to ensure compliance with TM and commander's guidance.</li> <li>c. Coordinate maintenance assistance with the maintenance section.</li> <li>d. Monitor repair parts supply for element's equipment to ensure spare parts are ordered.</li> <li>e. Request approval for BDAR through the motor sergeant.</li> <li>f. Maintain maintenance status of all vehicles, weapons, and equipment.</li> <li>g. Provide input for Materiel Condition Status Report to the commander.</li> </ul> <p>3. Unit personnel perform operator maintenance.</p> <ul style="list-style-type: none"> <li>a. Perform PMCS IAW appropriate TM(s).</li> <li>b. Notify supervisor of maintenance problems beyond operator's capabilities.</li> <li>c. Request approval for BDAR through element leader when established repair procedures cannot be used.</li> <li>d. Perform BDAR IAW appropriate BDAR manual.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Assist unit maintenance personnel with repairs and services.</p> <p>*4. Motor sergeant supervises maintenance personnel. (STP 9-63B35-SM-TG: 091-309-0639, 091-409-0657)</p> <p>a. Organizes maintenance personnel to efficiently perform unit maintenance activities.</p> <p>b. Supervises TAMMS and PLL procedures for completeness and accuracy.</p> <p>c. Supervises repair and inspection procedures to ensure compliance with appropriate references.</p> <p>d. Request BDAR approval from unit commander when established repair procedures cannot be performed.</p> <p>e. Supervises BDAR operations to ensure procedures are carried out IAW appropriate BDAR manuals.</p> <p>f. Request approval from commander to use controlled exchange when required repair parts are not available.</p> <p>g. Monitors use of controlled exchange for compliance with commander's guidance.</p> <p>h. Notifies element leaders upon completion of repairs.</p> <p>i. Supervises recovery operations to ensure correct recovery and safety procedures are used.</p> <p>j. Supervise AOAP procedures to ensure testing of oil samples is done at required intervals.</p> <p>k. Coordinates maintenance status with element leaders and NCOs.</p> <p>l. Provides unit maintenance status to the commander.</p> <p>5. Unit maintenance personnel repair organic equipment.</p> <p>a. Diagnose faults on inoperative equipment.</p> <p>b. Request required repair parts from PLL clerk to complete repairs.</p> <p>c. Repair equipment IAW applicable TMs.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Request approval for BDAR through motor sergeant when established repair procedures cannot be performed.</p> <p>e. Perform BDAR IAW appropriate BDAR manual.</p> <p>f. Request approval for controlled exchange through motor sergeant when required repair parts are not available.</p> <p>g. Perform controlled exchange.</p> <p>h. Perform final inspection to ensure quality control of repairs.</p> <p>i. Employ safety procedures to minimize accidents.</p> <p>j. Notify element of work completion.</p> <p>6. Unit maintenance personnel conduct transactions with support maintenance.</p> <p>a. Identify category of repair as DS or higher.</p> <p>b. Correct unit-level deficiencies.</p> <p>c. Prepare required documentation for submission to support maintenance.</p> <p>d. Evacuate equipment to support maintenance facilities.</p> <p>e. Verify completion of repairs.</p> <p>f. Pick up equipment upon completion of repairs.</p> <p>7. Unit maintenance personnel conduct vehicle recovery operations. STP 9-63B35-SM-TG: 091-309-0637, : 091-309-0639</p> <p>a. Verify location of disabled vehicle(s).</p> <p>b. Identify route to disabled vehicle with maximum usable cover and concealment.</p> <p>c. Coordinate with the higher HQ staff element direct and indirect fire support along route.</p> <p>d. Move to disabled vehicle using selected route.</p> <p>e. Maintain security while en route to recovery site.</p> <p>f. Establish local security at recovery site.</p> <p>g. Remove casualties from vehicle without causing further injuries IAW FM 21-11.</p> <p>h. Treat casualties.</p> <p>NOTE: See 63-2-0003 for detailed treatment procedures.</p> <p>i. Evacuate casualties, if required.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>NOTE: See task 63-2-R316 for detailed casualty evacuation procedures.</p> <p>j. Recover vehicle to a concealed location.</p> <p>NOTE: If recovery of vehicle is not feasible, camouflage vehicle on-site for future recovery or repair.</p> <p>k. Perform battle damage assessment to determine if repairs are required or feasible.</p> <p>l. Perform repairs on site.</p> <p>m. Recover nonrepairable equipment to unit maintenance area.</p> <p>n. Request disposition of unrecoverable equipment from the commander.</p> <p>o. Conduct salvage operations to remove all usable equipment.</p> <p>p. Prepare vehicle for destruction IAW TSOP.</p> <p>q. Destroy vehicle on order from commander or designated representative.</p> <p>8. Unit maintenance personnel perform administrative and support functions.</p> <p>a. Maintain PLL IAW applicable TMs.</p> <p>b. Request repair parts for unit equipment.</p> <p>c. Control unserviceable reparable items.</p> <p>d. Maintain document register(s) IAW applicable references.</p> <p>e. Maintain maintenance control records IAW applicable references.</p> <p>f. Operate automated data computer IAW appropriate TMs.</p> <p>g. Maintain technical publications for all organic equipment.</p> <p>h. Maintain power generators IAW applicable TMs.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-II-MQS	01-4965.90-0001	SUPERVISE UNIT MAINTENANCE OPERATIONS
	03-4976.90-0501	PREPARE A MATERIEL CONDITION STATUS REPORT
	03-5101.00-0283	SUPERVISE THE MAINTENANCE OF UNIT PRESCRIBED LOAD LIST
STP 9-63B35-SM-TG	091-309-0633	PREPARE MATERIEL CONDITION STATUS REPORT (DA FORM 2406)
	091-309-0637	RECON TERRAIN/ROUTE (DS/GS)
	091-309-0639	SUPERVISE PERSONNEL IN RECOVERY AND EVACUATION OPERATIONS
	091-309-0663	INSPECT UNIT LEVEL DEADLINING PARTS REPORT (DA FORM 5410) (SAMS)
	091-409-0617	DIRECT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)
	091-409-0637	INSPECT MATERIEL CONDITION STATUS REPORT (DA FORM 2406)
	091-409-0657	SUPERVISE INSPECTION OF PRESCRIBED LOAD LIST (PLL) (DA FORM 2063-R)
	551-721-3334	SUPERVISE PREVENTIVE MAINTENANCE CHECKS AND SERVICES

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENTS:** COMPANY  
 PROVIDER PLT

**TASK:** CONDUCT CONTINUOUS FP OPERATIONS (42-2-0268)  
 (FM 42-424) (FM 10-27-2) (FM 42-414)  
 (FM 10-67-1) (FM 3-4) (TB MED 577)  
 (TM 10-5419-200-12) (FM 3-5)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The FP unit is established on site and is conducting continuous FP operations. Required equipment and supplies are available. Tenant unit has occupied the FP facility. The FP unit may be assigned to a TAACOM or COSCOM and attached to a HHD, S&S Battalion, or to a HHC, CSG. Higher HQ TSOP and OPORD and the unit TSOP are available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** FP operations are conducted IAW the unit TSOP and higher HQ schedules, order, and procedures.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander/leaders supervise FP operations. (STP 10-92ABDII-MQS: 03-5103.00-0081, 03-5103.00-0102, 03-5103.00-0107) a. Notify platoon of tenant unit schedules. b. Monitor operations for compliance with TSOP. c. Monitor FP site security for compliance with defense plan. d. Coordinate with higher HQ staff element for required support. e. Forward records and reports to higher HQ. f. Supervise FP site defense. g. In-brief tenant units upon arrival on internal operations, FP support, and defense requirements. h. Coordinate MWR, AAFES, medical, and ministry support. i. Enforce safety procedures. j. Enforce environmental stewardship procedures.		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>2. Support Operations Section provides contracting, engineer, and preventive medicine support for FP operations.</p> <ul style="list-style-type: none"> <li>a. Monitors contractual delivery of materiel and labor.</li> <li>b. Monitors provision of engineer support.</li> <li>c. Coordinates for added contractual, engineer, or preventive medicine support.</li> <li>d. Tests potable water and performs other environmental tests IAW TB MED 577.</li> <li>e. Employs safety procedures.</li> <li>f. Employs environmental stewardship procedures.</li> </ul> <p>*3. Section leaders supervise FP section operations. (STP 10-57E14-SM-TG: 101-514-3104, 101-514-3109); (STP 10-77F15-SM-TG: 101-519-3156, 101-519-3002, 101-519-3215, 101-519-3307, 101-519-3310, 101-519-3312); (STP 10-92G25-SM-TG: 101-524-4100, 101-524-4101, 101-524-4102, 101-524-4103, 101-524-4106, 101-524-4109, 101-524-4110, 101-524-4130, 101-524-4131, 101-524-4132, 101-524-4133, 101-524-4134, 101-524-4135, 101-524-4139); (STP 10-77W14-SM-TG: 101-540-3002, 101-540-3024)</p> <ul style="list-style-type: none"> <li>a. Inspect operations for compliance with TSOP.</li> <li>b. Coordinate with platoon sergeant for supplies and equipment.</li> <li>c. Submit military and nonmilitary personnel status report to platoon sergeant.</li> <li>d. Oversee performance of nonmilitary personnel.</li> <li>e. Train nonmilitary personnel on FP operations and maintenance, as required.</li> <li>f. Monitor section operations.</li> <li>g. Supervise PMCS.</li> <li>h. Monitor health and welfare of section.</li> <li>i. Monitor internal security for compliance with site defense plan.</li> <li>j. Enforce safety procedures.</li> <li>k. Enforce environmental stewardship procedures.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>4. Facilities Support Section provides facilities support. (STP 9-51R12-SM-TG: 051-246-1120); (STP 9-52C12-SM: 091-181-5201, 091-181-5202, 091-181-5203, 091-181-5204, 091-181-5205, 091-181-5206, 091-181-5207, 091-181-5208); (STP 9-52C3-SM-TG: 091-381-0105, 091-381-0106, 091-381-0112, 091-381-0118, 091-381-0124, 091-381-0126, 091-381-0132, 091-381-0133, 091-309-0601, 091-309-0602, 091-309-0603, 091-309-0609) (STP 9-52D12-SM: 091-109-0001, 091-109-0003, 091-109-0005, 091-109-0009, 091-109-0014, 091-109-0015, 091-182-0101, 091-182-0102, 091-182-0301, 091-182-0501, 091-182-0601, 091-182-0602, 091-182-0603, 091-182-0606, 091-182-0609, 091-182-0610, 091-182-2901, 091-182-2902, 091-182-4301, 091-182-0101)</p> <ul style="list-style-type: none"> <li>a. Monitors electric power levels.</li> <li>b. Inspects power feeder/service cables for proper installation and serviceability.</li> <li>c. Inspects PDISE-M100s for proper connections, operations, and serviceability.</li> <li>d. Operates power generation system. (Execute Drill 42-2-D0016, Operate and Maintain a Power Generation Cluster for a FP Module.)</li> <li>e. Maintains power generation system. (Execute Drill 42-2- D0016, Operate and Maintain a Power Generation Cluster for a FP Module.)</li> <li>f. Operates floodlights. (Execute Drill 42-2-D0020, Set Up, Operate, and Maintain a Portable Floodlight Set for a FP Module.)</li> <li>g. Maintains floodlights. (Execute Drill 42-2-D0020, Set Up, Operate, and Maintain a Portable Floodlight Set for a FP Module.)</li> <li>h. Maintains heating, air conditioning, and refrigeration equipment.</li> <li>i. Monitors PMCS on TEMPERs.</li> <li>j. Repairs pipes, plumbing fixtures, and equipment.</li> <li>k. Reports utility deficiencies to Support Operations Section.</li> <li>l. Employs safety procedures.</li> <li>m. Employs environmental stewardship procedures.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

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#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 9-51R12-SM-TG	051-246-1120	ISOLATE MALFUNCTION IN ELECTRICAL CIRCUITS
STP 9-52D12-SM	091-109-0001	MAINTAIN TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE)
	091-109-0003	MAINTAIN ASSIGNED TOOL KITS
	091-109-0005	PREPARE EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET (DA FORM 2404)
	091-109-0009	PREPARE MAINTENANCE REQUEST (DA FORM 2407/5504)
	091-109-0014	PERFORM OPERATOR MAINTENANCE AND TROUBLESHOOTING OF COMMUNICATIONS SYSTEMS
	091-109-0015	PERFORM OPERATOR MAINTENANCE AND TROUBLESHOOTING OF SECONDARY ARMAMENT SYSTEMS
	091-182-0101	MAINTAIN DIESEL ENGINE LUBRICATION SYSTEM
	091-182-0102	REPAIR DIESEL ENGINE LUBRICATION SYSTEM
	091-182-0301	MAINTAIN DIESEL ENGINE FUEL SYSTEM
	091-182-0501	MAINTAIN DIESEL ENGINE COOLING SYSTEM
	091-182-0601	MAINTAIN ENGINE/GENERATOR ELECTRICAL SYSTEMS
	091-182-0602	REPAIR ENGINE/GENERATOR ELECTRICAL SYSTEMS
	091-182-0603	MAINTAIN DIESEL ENGINE CONTROL PANELS AND INSTRUMENTS

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	091-182-0606	MAINTAIN ENGINE/GENERATOR ELECTRICAL SYSTEM
	091-182-0609	MAINTAIN ENGINE ASPIRATION SYSTEM
	091-182-6101	MAINTAIN THE MAIN GENERATOR
	091-182-0610	REPAIR ENGINE ASPIRATION SYSTEM
	091-182-2901	MAINTAIN POWER GENERATION EQUIPMENT
	091-182-2902	REPAIR POWER GENERATION EQUIPMENT
	091-182-4301	MAINTAIN ENGINE HYDRAULIC SYSTEM
STP 9-52C12-SM	091-181-5201	MAINTAIN AIR CONDITIONER ELECTRICAL SYSTEM
	091-181-5202	REPAIR AIR CONDITIONER ELECTRICAL SYSTEM
	091-181-5203	MAINTAIN AIR CONDITIONER VAPOR SYSTEM
	091-181-5204	REPAIR AIR CONDITIONER VAPOR SYSTEM
	091-181-5205	MAINTAIN REFRIGERATION UNIT ELECTRICAL SYSTEM
	091-181-5206	REPAIR REFRIGERATION UNIT ELECTRICAL SYSTEM
	091-181-5207	MAINTAIN REFRIGERATION UNIT VAPOR SYSTEM
	091-181-5208	REPAIR REFRIGERATION UNIT VAPOR SYSTEM
STP 9-52C3-SM-TG	091-381-0105	SUPERVISE THE MAINTENANCE AND REPAIR OF AIR CONDITIONING SYSTEMS
	091-381-0106	SUPERVISE THE MAINTENANCE AND REPAIR OF REFRIGERATION SYSTEMS
	091-381-0112	SUPERVISE THE MAINTENANCE AND REPAIR OF LAUNDRY AND BATH UNITS
	091-381-0118	SUPERVISE THE MAINTENANCE AND REPAIR OF PETROLEUM, OIL, AND LUBRICATION EQUIPMENT
	091-381-0124	INSPECT AND TROUBLESHOOT PETROLEUM, OIL, AND LUBRICATION EQUIPMENT

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	091-381-0126	INSPECT AND TROUBLESHOOT LAUNDRY AND BATH UNITS
	091-381-0132	INSPECT AND TROUBLESHOOT AIR CONDITIONER UNITS
	091-381-0133	INSPECT AND TROUBLESHOOT REFRIGERATION UNITS
	091-309-0601	PLAN WORKFLOW
	091-309-0602	IMPLEMENT A SHOP SAFETY PROGRAM
	091-309-0603	ORGANIZE AND DEPLOY MAINTENANCE SUPPORT TEAMS
	091-309-0609	MAINTAIN PUBLICATIONS LIBRARY
STP 10-57E14-SM-TG	101-514-3104	SUPERVISE SHOWER SETUP AND OPERATIONS
	101-514-3109	SUPERVISE LAUNDRY SETUP AND OPERATIONS
STP 10-77F15-SM-TG	101-519-3156	DIRECT A PETROLEUM PILFERAGE CONTROL PROGRAM
	101-519-3215	DIRECT THE ASSEMBLY, OPERATION, PMCS, AND DISASSEMBLY OF THE FORWARD AREA REFUELING EQUIPMENT (FARE)
	101-519-3302	DIRECT UNIT MAINTENANCE WITHIN THE ARMY MAINTENANCE MANAGEMENT SYSTEM (TAMMS) ON ASSIGNED EQUIPMENT
	101-510-3307	DIRECT SAMPLING AND GAGING PROCEDURES
	101-519-3310	IMPLEMENT A PETROLEUM FIRE AND SAFETY PROGRAM
	101-519-3312	IMPLEMENT A PETROLEUM ENVIRONMENTAL STEWARDSHIP PROGRAM
STP 10-92G25-SM-TG	101-524-4100	REVIEW AND ENSURE ACCURACY OF ACCOUNTING RECORDS
	101-524-4101	ASSIGN PERSONNEL TO DUTY POSITIONS
	101-524-4102	DEVELOP THE ON-THE-JOB TRAINING (OJT) PROGRAM
	101-524-4103	DEVELOP AND INITIATE PHYSICAL SECURITY PROGRAM

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	101-524-4106	PLAN AND IMPLEMENT MENUS AND PROCEDURES TO ENSURE THE SERVING OF NUTRITIONALLY BALANCED MEALS
	101-524-4109	IMPLEMENT AND MONITOR HEADCOUNT PROCEDURES
	101-524-4110	EVALUATE PREPARATION, COOKING, AND SERVING OF FOOD PRODUCTS
	101-524-4130	PREPARE DOCUMENTATION FOR LOST, DAMAGED, OR DESTROYED SUBSISTENCE ITEMS
	101-524-4131	DEVELOP STANDING OPERATING PROCEDURES (SOP) FOR DINING FACILITIES AND FIELD KITCHENS
	101-524-4132	EVALUATE SUBSISTENCE PROTECTION AND DECONTAMINATION PROCEDURES
	101-524-4133	REVIEW HAND RECEIPT (DA FORM 2062) AND PREPARE REQUEST FOR ISSUE AND TURN-IN (DA FORM 3161)
	101-524-4134	CONSULT WITH PREVENTIVE MEDICINE ACTIVITY
	101-524-4135	DEVELOP AND INITIATE SAFETY, ENERGY, AND FIRE PREVENTION PROGRAMS
	101-524-4139	EVALUATE PERFORMANCE DOCUMENTATION OF CONTRACTED DINING FACILITY ATTENDANTS
STP 10-77W14-SM-TG	101-540-3002	ANALYZE WATER ANALYSIS TEST RESULTS
	101-540-3024	ANALYZE ENTRIES ON WATER REPORTS/LOGS/FORMS
STP 10-92ABDII-MQS	03-5103.00-0081	SUPERVISE THE RECEIPT, STORAGE, AND DISTRIBUTION OF PETROLEUM PRODUCTS
	03-5103.00-0102	SUPERVISE WATER PURIFICATION, STORAGE, AND DISTRIBUTION
	03-5105.00-0107	SUPERVISE FIELD FEEDING OPERATIONS

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENTS:** COMPANY  
 PROVIDER PLT  
 6 LAUNDRY/SHOWER SECS

**TASK:** CONDUCT FP LAUNDRY AND SHOWER OPERATIONS (42-2-0269)  
 (FM 10-27-2) (FM 3-4) (FM 3-5)  
 (FM 42-414) (FM 42-424) (TM 10-5419-200-12)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The FP unit is established on site and is conducting continuous FP operations. The Laundry and Shower Section are set up at the FP site. The CBL, CL, and showers are in place and operational. Required operational supplies and TMs are available. Tenant unit personnel have occupied the FP facility and require laundry, shower, and sanitation support. Operators perform PMCS on their equipment. Preventive medicine support is available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Section provides laundry, shower, and sanitation support to tenant units IAW the TSOP and schedules provided by higher HQ. Section performs continuous PMCS on equipment as required by the appropriate TMs. At MOPP4, performance degradation factors increase the time to perform the task.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Section leaders supervise CBL, CL, and shower operations. (STP 10-57E14-SM-TG: 101-514-3109, 101-514-3110) a. Inspect section's operations for compliance with procedures in TSOP and appropriate TMs. b. Monitor PMCS on CBL, CL, and shower. c. Implement status reports for equipment, personnel, and operations, as required. d. Coordinate with Support Operations Section for graywater and blackwater collection and/or disposal. e. Supervise the disposition of contaminated clothing and textiles.		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Establish laundry schedules for tenant unit.  g. Establish shower and CL gender procedures.  h. Forward records and reports to platoon HQ.  i. Enforce safety procedures.  j. Enforce environmental stewardship procedures.</p> <p>2. Laundry and Shower Section provides laundry service. (STP 10-57E14-SM-TG: 101-514-1107, 101-514-1110, 101-514-1113, 101-514-1156, 101-514-2103, 101-514-2108, 101-514-2111, 101-514-2113, 101-514-3112)  a. Processes clothing.  b. Sorts items by color and type of fabric.  c. Launders clothes.  d. Performs PMCS IAW TM (number to be determined [CBL]), T.O. 35E35-3-1 (Shave Stand), T.O. 35E35-4-1 (Shower).  e. Inspects laundered items for serviceability.  f. Packages laundry for pick up.  g. Employs safety procedures.  h. Employs environmental stewardship procedures.</p> <p>3. Laundry and Shower Section provides shower service. (STP 10-57E14-SM-TG: 101-514-1156)  a. Enforces shower schedule.  b. Operates FP shower subsystem.  c. Performs PMCS on FP shower subsystem. (Execute Drill 42-2- D0008, Set Up, Maintain, and Operate the Shower.)  d. Maintains clean shower site IAW TSOP.  e. Maintains adequate shower supplies, including towels.  f. Inspects FP shower subsystem for proper operation.  g. Employs safety procedures.  h. Employs environmental stewardship procedures.</p> <p>4. Laundry and Shower Section provides CL service.  a. Monitors the operation of the CL.  b. Performs PMCS of the CL. (Execute Drill 42-2-D0006, Set Up and Maintain the Containerized Latrine [CL].)</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
c. Monitors cleaning and resupply of the CL site IAW TSOP. d. Employs safety procedures. e. Employs environmental stewardship procedures.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 10-57E14-SM-TG	101-514-1106	RECEIVE LAUNDRY TURN-INS
	101-514-1107	MARK INDIVIDUAL BUNDLES OF LAUNDRY
	101-514-1113	PROCESS FINISHED LAUNDRY
	101-514-1156	OPERATE THE SHOWER UNIT'S WATER HEATER
	101-514-2103	PREPARE DA FORM 4765-R (LAUNDRY ACTIVITY RECORD)
	101-514-2108	SUPERVISE THE USE OF WASHING FORMULAS, SOAPS, AND DETERGENTS
	101-514-2111	SUPERVISE OPERATOR AND PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON LAUNDRY EQUIPMENT
	101-514-2113	DIRECT LAUNDRY OPERATIONS
	101-514-3109	SUPERVISE LAUNDRY SETUP AND OPERATIONS
	101-514-3110	SUPERVISE PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON LAUNDRY AND SHOWER EQUIPMENT
	101-514-3112	ESTABLISH LAUNDRY TURN-IN WITH SUPPORTED UNITS

ARTEP 42-424-30-MTP

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENTS:** 6 PETR DISTRIB SECS  
 PROVIDER PLT  
 COMPANY

**TASK:** CONDUCT BULK FUEL SUPPORT FOR FP (42-2-0270)  
 (FM 10-67-1) (TM 10-5419-200-12) (FM 10-67)  
 (FM 3-4) (FM 3-5) (FM 42-424)  
 (TM 10-4930-238-12&P)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The unit is established on site and is conducting continuous FP operations. The Petroleum Distribution Section has set up the FP bulk fuel storage and distribution subsystem and it is operational. Tenant unit personnel have occupied the FP site. Operators perform PMCS on their equipment. The FP unit may be assigned to a TAACOM or COSCOM and attached to a HHD, S&S Battalion or to a HHC, CSG. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Section provides bulk fuel support to FP operations IAW the TSOP and user requirements. Section coordinates for adequate and timely resupply of fuel to support continuous operations. At MOPP4, performance degradation factors increase the time to perform the task.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Leaders supervise petroleum operations. (STP 10-77F15-SM-TG: 101-519-3302, 101-519-3307, 101-519-3310, 101-519-3312, 101-519-3156) a. Inspect section's set up and operations IAW TSOP and appropriate TMs. b. Monitor PMCS on fuel pumps, filter/separator, fuel lines and nozzles, and fabric storage tanks. c. Direct bulk fuel storage and supply operations. d. Maintain fuel accountability records. e. Monitor pilferage control for compliance with TSOP.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Coordinate bulk fuel resupply with platoon HQ.</p> <p>g. Direct petroleum fuel sampling for filter effectiveness.</p> <p>h. Forward records and reports to platoon HQ.</p> <p>i. Enforce safety procedures</p> <p>j. Enforce environmental stewardship procedures.</p> <p>2. Petroleum Distribution Section receives bulk fuel. (STP 77F15-SM-TG: 101-519-1412, 101-519-1413, 101-519-1414, 101-519-1415, 101-519-2315, 101-519-2311, 101-519-2401, 101-519-2404, 101-519-2406)</p> <p>a. Operates fuel pump and filter/separator.</p> <p>b. Gauges petroleum tank vehicles.</p> <p>c. Unloads petroleum tank vehicles.</p> <p>d. Contains oil or fuel spills.</p> <p>e. Cleans up oil or fuel spills.</p> <p>f. Provides feeder data to section leader.</p> <p>g. Employs safety procedures.</p> <p>h. Employs environmental stewardship procedures.</p> <p>3. Petroleum Distribution Section stores bulk fuel for FP module. (STP 77F15-SM-TG: 101-519-1304, 101-519-1413, 101-519-1414, 101-519-1416, 101-519-2304, 101-519-2311, 101-519-2315, 101-519-2311, 101-519-2403, 101-519-2404, 101-519-2406)</p> <p>a. Operates bulk fuel storage and distribution subsystem. (Execute Drill 42-2-D0011, Operate and Maintain the Force Provider Bulk Fuel Storage and Distribution Subsystem for a FP Module.)</p> <p>b. Performs PMCS IAW TM. (Execute Drill 42-2-D0011, Operate and Maintain the Force Provider Bulk Fuel Storage and Distribution Subsystem for a FP Module.)</p> <p>c. Contains oil or fuel spills.</p> <p>d. Cleans up oil or fuel spills.</p> <p>e. Maintains a hazardous waste site for storage of contaminates.</p> <p>f. Employs safety procedures.</p> <p>g. Employs environmental stewardship procedures.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>4. Petroleum Distribution Section distributes bulk fuel. (STP 77F15-SM: 101-519-1304, 101-519-1413, 101-519-1414, 101-519-1416, 101-519-2304, 101-519-2311, 101-519-2315, 101-519-2404, 101-519-2406, 101-519-3215)</p> <p>a. Operates bulk fuel storage and distribution subsystem. (Execute Drill 42-2-D0011, Operate and Maintain the Force Provider Bulk Fuel Storage and Distribution Subsystem for a FP Module.)</p> <p>b. Performs PMCS IAW TM. (Execute Drill 42-2-D0011, Operate and Maintain the Force Provider Bulk Fuel Storage and Distribution Subsystem for a FP Module.)</p> <p>c. Prepares appropriate usage/issuance reports.</p> <p>d. Employs safety procedures.</p> <p>e. Employs environmental stewardship procedures.</p> <p>5. Petroleum Distribution Section performs quality surveillance functions. (STP 77F15-SM-TG: 101-519-1403, 101-519-1406, 101-519-2401, 101-519-2403, 101-519-2404)</p> <p>a. Samples fuels for quality surveillance.</p> <p>b. Samples fuels for filter effectiveness.</p> <p>c. Collects petroleum samples for testing.</p> <p>d. Maintains petroleum sampling logs.</p> <p>e. Inspects petroleum storage tanks and bladders for serviceability.</p> <p>f. Employs safety procedures.</p> <p>g. Employs environmental stewardship procedures.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 10-77F15-SM-TG	101-519-1304	ASSEMBLE, OPERATE, PERFORM PMCS, AND DISASSEMBLE THE FORWARD AREA REFUELING EQUIPMENT (FARE) SYSTEM
	101-519-1403	SAMPLE PETROLEUM FUELS
	101-519-1406	PREPARE AND COMPLETE DA FORMS 4818, 4193, AND 5464-R (PETROLEUM PUMP STATION AND PIPELINE REPORTS)
	101-519-1412	PREPARE THE DA FORM 3643 AND 3644 (MONTHLY ABSTRACT OF PETROLEUM PRODUCTS AND OPERATING SUPPLIES)
	101-519-1413	EMPLOY ENVIRONEMNTAL STEWARDSHIP MEASURES
	101-519-1414	LOAD AND DISPENSE PRODUCTS FROM PETROLEUM TANK VEHICLES
	101-519-1415	OPERATE PUMPS AND FILTER SEPARATORS
	101-519-1416	ASSEMBLE, OPERATE, PERFORM PMCW, AND RETRIEVE THE ASSAULT HOSELINE
	101-519-2304	SUPERVISE THE ASSEMBLY, OPERATION, PMCS, AND DISASSEMBLY OF THE FORWARD AREA REFUELING EQUIPMENT (FARE)
	101-519-2311	SUPERVISE OPERATOR LOADING AND DISPENSING OF PRODUCTS FROM ASSIGNED VEHICLES
	101-519-2315	SUPERVISE THE USE OF PETROLEUM FIRE FIGHTING EQUIPMENT AND PROCEDURES
	101-519-2401	SUPERVISE ENVIRONMENTAL STEWARDSHIP MEASURES
	101-519-2403	SUPERVISE A PETRULEUM PLFERAGE CONTROL PROGRAM
	101-519-2404	SUPERVISE SAMPLING AND GUAGING PROCEDURES
	101-519-2406	SUPERVISE PUMP AND FILTER SEPARATOR OPERATIONS
	101-519-3156	DIRECT A PETROLEUM PILFERAGE CONTROL PROGRAM

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	101-519-3302	DIRECT UNIT MAINTENANCE WITHIN THE ARMY MAINTENANCE MANAGEMENT SYSTEM (TAMMS) ON ASSIGNED EQUIPMENT
	101-519-3307	DIRECT SAMPLING AND GUAGING PROCEDURES
	101-519-3310	IMPLEMENT A PETROLEUM FIRE AND SAFETY PROGRAM
	101-519-3312	IMPLEMENT A PETROLEUM ENVIRONMENTAL STEWARDSHIP PROGRAM
	101-519-3215	DIRECT THE ASSEMBLY, OPERATION, PMCS, AND DISASSEMBLY OF THE FORWARD AREA REFUELING EQUIPMENT (FARE)

**OPFOR TASKS AND STANDARDS****NONE:**



**ELEMENTS:** COMPANY  
 PROVIDER PLT  
 6 FOOD SVC SECTIONS

**TASK:** CONDUCT FOOD SERVICE SUPPORT FOR A FP MODULE  
 (42-2-0271)  
 (FM 10-23) (TM 10-7360-211-13&P) (FM 21-10)  
 (FM 42-424) (TM 10-5419-200-12) (TM 10-7360-208-13&P)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The FP unit is established on site and is conducting continuous FP operations. The Food Service Section has set up the electric kitchen, dining, food preparation, and sanitation components and they are operational. Sufficient rations, water, and power are available to support food service operations. Unit strength reports are available. Disposal facilities for solid and liquid waste have been prepared. Tenant unit personnel have occupied the FP site and require food service support. TSOP is available. This task should not be trained in MOPP4.

**TASK STANDARDS:** Section provides food service support to tenant unit and organic personnel IAW the TSOP and the commander's guidance, and maintains equipment in operational and hygienic condition.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Food Operations Sergeant plans food service support. (STP 10-92G25-SM-TG: 101-524-4100, 101-524-4101, 101-524-4102, 101-524-4103, 101-524-4106, 101-524-4109, 101-524-4110, 101-524-4131, 101-524-4132, 101-524-4133, 101-524-4134, 101-524-4135, 101-524-4139 ) a. Verifies strength of tenant units. b. Requests required amount of subsistence. c. Prepares personnel work schedules. d. Assigns duties to all food service personnel. e. Prepares production schedule as required.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Coordinates distribution of food to remote areas.</p> <p>2. Food Operations Sergeant supervises kitchen operations. (STP 10-92G25-SM-TG: 101-524-4100, 101-524-4101, 101-524-4102, 101-524-4103, 101-524-4106, 101-524-4109, 101-524-4110, 101-524-4131, 101-524-4132, 101-524-4133, 101-524-4134, 101-524-4135, 101-524-4139)</p> <p>a. Establishes operational hours as prescribed by the feeding plan and commander's guidance or both.</p> <p>b. Assigns work schedules consistent with available personnel and meal schedules.</p> <p>c. Monitors equipment operation, maintenance, and safety for compliance with appropriate manuals and TSOP.</p> <p>d. Coordinates additional supply requests with unit supply facility.</p> <p>e. Forwards status reports on food service personnel and equipment status reports to unit CP.</p> <p>f. Performs periodic inspections of personnel and equipment for proper operations and personal hygiene.</p> <p>g. Monitors preventive medicine measures for compliance with field sanitation policies and the TSOP.</p> <p>h. Supervises decontamination of equipment, supplies, and personnel.</p> <p>i. Enforces safety procedures.</p> <p>j. Enforces environmental stewardship measures.</p> <p>3. Food service personnel pick up and store subsistence items. (STP 10-92G1-SM-TG: 101-524-1205, 101-524-1206, 101-524-1263) (STP 10-92G25-SM-TG: 101-524-3268, 101-524-3281)</p> <p>a. Inspect vehicle for cleanliness and proper dunnage.</p> <p>b. Inspect subsistence items for condition and quantity.</p> <p>c. Prepare shortages, overages, and unsatisfactory subsistence listings.</p> <p>d. Sign required documentation.</p> <p>e. Transport subsistence items from Class I supply point to FP food service subsystem.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Store subsistence items IAW security measures and appropriate directives.</p> <p>g. Inspect reefer for proper operation and temperature.</p> <p>h. Decontaminate packaged or canned items after NBC attack.</p> <p>i. Employ safety procedures.</p> <p>j. Employ environmental stewardship procedures.</p> <p>4. Food service personnel prepare meals. (STP 10-92G1-SM-TG: 101-524-1102, 101-524-1151, 101-524-1152, 101-524-1153, 101-524-1161, 101-524-1162, 101-524-1163, 101-524-1164, 101-524-1165, 101-524-1169, 101-524-1170, 101-524-1171, 101-524-1255, 101-524-1260, 101-524-1263, 101-524-1264, 101-524-1505, 101-524-1506, 101-524-1507, 101-524-1509, 101-524-1510, 101-524-1512) (STP 10-92G25-SM-TG 101-524-2165, 101-524-2204)</p> <p>a. Inspect kitchen, serving, food preparation, and sanitation equipment for proper operation.</p> <p>b. Employ personnel hygiene measures.</p> <p>c. Employ preliminary food preparation procedures.</p> <p>d. Employ field sanitation measures.</p> <p>e. Prepare menu items according to the production schedule.</p> <p>f. Prepare food for transport to remote sites..</p> <p>g. Inspect all serving line containers and insulated containers to insure they are preheated/prechilled.</p> <p>h. Inspect dining facility for cleanliness.</p> <p>i. Inspect insulated food containers and beverage dispensers to ensure that food is properly packed for remote feeding.</p> <p>j. Ensure that all items needed to support on site and remote feeding operations are assembled and available for troop use when needed.</p> <p>k. Operate food service subsystem.</p> <p>l. Perform PMCS on food service subsystem IAW appropriate TM and commercial manual.</p> <p>m. Employ safety procedures.</p> <p>n. Employ environmental stewardship procedures.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>5. Food service personnel provide meals to tenant unit representative (1SG/Supply Sergeant) for remote site feeding. (STP 10-92G1-SM-TG: 101-524-1255, 101-524-1264)</p> <ul style="list-style-type: none"> <li>a. Verify headcount with unit representative.</li> <li>b. Issue prepared food in insulated food containers.</li> <li>c. Issue beverages in beverage dispensers.</li> <li>d. Issue sanitized serving utensils, plates, cups, flatware, and condiments to support the meal.</li> <li>e. Employ safety procedures.</li> <li>f. Employ environmental stewardship procedures.</li> </ul> <p>6. Food service personnel/unit personnel serve meals. (STP 10-92G1-SM-TG: 101-524-1356) (STP 10-92G25-SM-TG: 101-524-2165)</p> <ul style="list-style-type: none"> <li>a. Employ personal hygiene measures.</li> <li>b. Set up serving line with required serving utensils, meal items, and condiments.</li> <li>c. Ensure that adequate trays, plates, cups, and eating utensils are available to meet the expected headcount.</li> <li>d. Inspect mess kits (if used) to ensure they are sanitized prior to serving.</li> <li>e. Employ portion control.</li> <li>f. Replenish food items.</li> <li>g. Maintain food at proper serving temperature.</li> <li>h. Destroy exposed food after NBC attack.</li> <li>i. Employ safety measures.</li> <li>j. Employ environmental stewardship measures.</li> </ul> <p>7. Food service personnel maintain equipment. (STP 10-92G1-SM-TG: 101-524-1102, 101-524-1260, 101-524-1504, STP 10-92G25-SM-TG: 101-524-2163)</p> <ul style="list-style-type: none"> <li>a. Perform PMCS on food service subsystem. (Execute Drill 42-2 -D0013, Set Up and Maintain the Food Service Subsystem for a FP Module.)</li> <li>b. Maintain temperature of wash and rinse on wash line.</li> <li>c. Clean cooking equipment.</li> <li>d. Sanitize cooking equipment.</li> <li>e. Store clean equipment to allow air-drying.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
f. Employ safety procedures. g. Employ environmental stewardship measures. 8. Food service personnel perform waste disposal. (STP 10-92G1-SM-TG: 101-524-1102, 101-524-1260, STP 10-92G25-SM-TG: 101-524-2163) a. Initiate effective trash management procedures. b. Perform liquid waste disposal. c. Perform solid waste disposal. d. Clean vehicles thoroughly with prescribed cleaning agents. e. Employ field sanitation measures. f. Employ safety measures. g. Employ environmental stewardship measures.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 10-92G1-SM-TG	101-524-1102	MAINTAIN SAFETY STANDARDS
	101-524-1151	PERFORM PRELIMINARY FOOD PREPARATION PROCEDURES
	101-524-1152	PREPARE AND COOK MEAT, POULTRY, AND SEAFOOD
	101-524-1153	PREPARE AND COOK VEGETABLES
	101-524-1161	PREPARE AND BAKE BREAD PRODUCTS
	101-524-1162	PREPARE AND COOK EGG PRODUCTS
	101-524-1163	PREPARE AND COOK CEREAL, RICE, OR PASTA PRODUCTS
	101-524-1164	PREPARE BEVERAGE PRODUCTS
	101-524-1165	PREPARE AND/OR COOK SANDWICHES

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	101-524-1169	PREPARE OR COOK SALADS AND SALAD DRESSINGS
	101-524-1170	PREPARE AND COOK SOUPS, SAUCES, AND GRAVIES
	101-524-1171	PREPARE DESSERTS AND PASTRIES
	101-524-1205	STORE SUBSISTENCE ITEMS
	101-524-1206	CHECK SUBSISTENCE SUPPLIES FOR QUANTITY AND CONDITION
	101-524-1255	USE AND MAINTAIN THE INSULATED FOOD CONTAINER
	101-524-1260	PERFORM CLEANING AND SANITATION SERVICES AT A FIELD KITCHEN
	101-524-1263	STORE, PREPARE, AND SERVE T RATIONS AND B RATIONS
	101-524-1264	PREPARE MEALS FOR REMOTE SITE FEEDING
	101-524-1356	SET UP SERVING LINES AND SERVE FOOD IN A DINING FACILITY
	101-524-1504	OPERATE AND MAINTAIN THE MIXING MACHINE
	101-524-1505	OPERATE AND MAINTAIN THE HEAVY-DUTY RANGE
	101-524-1506	OPERATE AND MAINTAIN THE CONVENTIONAL OR CONVECTION OVEN
	101-524-1507	OPERATE AND MAINTAIN THE COFFEE URN
	101-524-1509	OPERATE AND MAINTAIN THE GRIDDLE
	101-524-1510	OPERATE AND MAINTAIN THE MEAT SLICING MACHINE
	101-524-1512	PERFORM SANITATION SERVICES IN A DINING FACILITY
STP 10-92G25-SM-TG	101-524-2163	DIRECT PERSONNEL OPERATING AND MAINTAINING THE FIELD KITCHEN EQUIPMENT
	101-524-2165	DIRECT PERSONNEL PREPARING AND SERVING MEALS IN A DINING FACILITY
	101-524-2204	DIRECT PERSONNEL IN PERFORMING SANITATION SERVICES IN A DINING FACILITY

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	101-524-3268	SUPERVISE THE RECEIPT AND STORAGE OF SUBSISTENCE ITEMS
	101-524-3281	DIRECT PERSONNEL IN THE PROTECTION AND DECONTAMINATION OF SUBSISTENCE ITEMS IN A NUCLEAR, BIOLOGICAL, OR CHEMICAL (NBC) ENVIRONMENT
	101-524-4100	REVIEW AND ENSURE ACCURACY OF ACCOUNTING RECORDS
	101-524-4101	ASSIGN PERSONNEL TO DUTY POSITIONS
	101-524-4102	DEVELOP THE ON-THE-JOB TRAINING (OJT) PROGRAM
	101-524-4103	DEVELOP AND INITIATE PHYSICAL SECURITY PROGRAM
	101-524-4106	PLAN AND IMPLEMENT MENUS AND PROCEDURES TO ENSURE THE SERVING OF NUTRITIONALLY BALANCED MEALS
	101-524-4109	IMPLEMENT AND MONITOR HEADCOUNT PROCEDURES
	101-524-4110	EVALUATE PREPARATION, COOKING, AND SERVING OF FOOD PRODUCTS
	101-524-4131	DEVELOP STANDING OPERATING PROCEDURES (SOP) FOR DINING FACILITIES AND FIELD KITCHENS
	101-524-4132	EVALUATE SUBSISTENCE PROTECTION AND DECONTAMINATION PROCEDURES
	101-524-4133	REVIEW HAND RECEIPT (DA FORM 2062) AND PREPARE REQUEST FOR ISSUE AND TURN-IN (DA FORM 3161)
	101-524-4134	CONSULT WITH PREVENTIVE MEDICINE ACTIVITY
	101-524-4135	DEVELOP AND INITIATE SAFETY, ENERGY, AND FIRE PREVENTION PROGRAMS
	101-524-4139	EVALUATE PERFORMANCE DOCUMENTATION OF CONTRACTED DINING FACILITY ATTENDANTS

**OPFOR TASKS AND STANDARDS**

**NONE:**



**ELEMENTS:** 6 WATER DISTRIB SECS  
 PROVIDER PLT  
 COMPANY

**TASK:** CONDUCT WATER SUPPORT OPERATIONS FOR A FP MODULE  
 (42-2-0272)  
 (FM 10-52-1) (FM 10-52) (FM 3-4)  
 (FM 3-5) (FM 42-424) (TB Med 577)  
 (TM 10-5419-200-12)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The FP unit is established on site and is conducting continuous FP operations. The Water Distribution Section has set up the potable water storage and distribution components and they are operational. Tenant unit is billeted in FP module and requires potable water support. If ambient temperature is below 32°F, cold weather kit is in place and operational. Sufficient potable water and power are available to support water storage/distribution and chilled water operations. Graywater disposal facilities are available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Section provides potable water storage and distribution in support of FP operations and IAW commander's guidance. At MOPP4, performance degradation factors increase water support operations time.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Section leaders supervise potable water storage and distribution activities. (STP 10-77W14-SM-TG: 101-540-3002, 101-540-3021, 101-540-3024) a. Inspect water supply for compliance with TB MED 577 and TSOP. b. Inspect operational condition of assigned equipment IAW TM 10-5419-200-12. c. Supervise PMCS. d. Coordinate receipt of contractual water with Support Operations Section. e. Direct potable water storage and distribution operations.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Enforce field sanitation practices.</p> <p>g. Forward records and reports to platoon HQ.</p> <p>h. Establish water quality test schedules IAW TB MED 577.</p> <p>i. Ensure water quality program complies with test schedules and TB MED 577.</p> <p>j. Inspect test reports for compliance with TB MED 577 and test schedules.</p> <p>k. Forward test results to platoon HQ.</p> <p>l. Report unacceptable residual chlorine levels or evidence of NBC agents immediately to platoon HQ.</p> <p>m. Coordinate with platoon HQ to requisition FP cold weather kit if ambient temperature will be below 32°F.</p> <p>n. Enforce safety procedures.</p> <p>o. Enforce environmental stewardship procedures.</p> <p>2. Water Distribution Section receives potable water. (STP 77W14-SM-TG: 091-109-7003, 101-540-1067, 101-540-2004, 101-540-2017, 101-540-2027, 101-540-3002)</p> <p>a. Prepares organic flat bed semitrailer and collapsible tank assembly for operation IAW applicable TMs, if necessary.</p> <p>b. Prepares potable water collapsible tanks for receipt of water from commercial/municipal or water supply point delivery, as applicable.</p> <p>c. Records quantity of water received.</p> <p>d. Tests water quality IAW TB MED 577.</p> <p>e. Reports test results to Section Leader.</p> <p>f. Maintains appropriate chlorine levels IAW TM MED 577 and applicable TMs.</p> <p>g. Employs safety procedures.</p> <p>h. Employs environmental stewardship procedures.</p> <p>3. Section personnel store and distribute potable water. (STP 77W14-SM-TG: 091-109-7003, 101-540-1065, 101-540-1069, 101-540-2027)</p> <p>a. Inspect potable water storage tanks and hoses for leaks, breaks, deterioration, proper installation, and serviceability.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>b. Assist FP sections in the proper connection of potable water supply hoses.</li> <li>c. Store potable water IAW TB MED 577.</li> <li>d. Perform periodic residual chlorine tests of product water upon receipt, issue, and during distribution.</li> <li>e. Report unacceptable residual chlorine levels IAW TB MED 577 and evidence of NBC agents immediately to the Section Leader.</li> <li>f. Discontinue operations immediately when residual chlorine level cannot be made to meet TB MED 577 standards or evidence of NBC agents is present.</li> <li>g. Conduct FP potable water storage and distribution operations (with or without cold weather kit). (Execute Drill 42-2-D0018, Set Up, Operate, and Maintain a Potable Water Distribution and Storage Site.)</li> <li>h. Maintain potable water storage and distribution subsystem. (Execute Drill 42-2-D0018, Set Up, Operate, and Maintain a Potable Water Distribution and Storage Site.)</li> <li>i. Operate water distribution points.</li> <li>j. Forward daily issue reports to Section Leader.</li> <li>k. Employ safety procedures.</li> <li>l. Employ environmental stewardship procedures.</li> </ul> <p>4. Section personnel provide chilled water support.</p> <ul style="list-style-type: none"> <li>a. Inspect water tank trailers with chillers for leaks, deterioration, and serviceability.</li> <li>b. Maintain cleanliness of water tank trailers.</li> <li>c. Refill water tank trailers, as required.</li> <li>d. Provide chilled water support.</li> <li>e. Maintain water tank trailers.</li> <li>f. Employ safety procedures.</li> <li>g. Employ environmental stewardship procedures.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 10-77W14-SM-TG	091-109-7003	OPERATE/PERFORM PMCS ON THE 60-KW DIESEL GENERATOR
	101-540-1065	CONDUCT WATER ANALYSIS TESTING
	101-540-1067	MAINTAIN, ASSEMBLE/DISASSEMBLE THE SEMITRAILER MOUNTED FABRIC TANK (SMFT)
	101-540-1069	COMPLETE ENTRIES ON WATER REPORTS/LOGS/FORMS
	101-540-2004	SUPERVISE WATER ANALYSIS TESTING
	101-540-2017	SUPERVISE THE OPERATION OF THE SEMITRAILER MOUNTED FABRIC TANK (SMFT)
	101-540-2027	SUPERVISE THE OPERATION/PMCS OF THE 60-KW DIESEL GENERATOR
	101-540-2030	SUPERVISE COMPLETION OF WATER REPORTS/LOGS/FORMS
	101-540-3002	ANALYZE WATER ANALYSIS TEST RESULTS
	101-540-3021	MONITOR WATER DISTRIBUTION/STORAGE OPERATIONS
	101-540-3024	ANALYZE ENTRIES ON WATER REPORTS/LOGS/FORMS

#### OPFOR TASKS AND STANDARDS

NONE:

**ELEMENT:** COMPANY

**TASK:** PREPARE FP UNIT FOR LEVEL II/III THREAT (42-2-0273)  
 (FM 7-10) (FM 21-75) (FM 3-4)  
 (FM 3-5) (FM 42-424) (FM 54-30)  
 (FM 54-40)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The unit is notified of a company-sized threat unit operating in the rear area. The higher HQ has ordered a defensive posture level increase and has moved the protective posture to MOPP level 2. Defense plans are prepared. Fighting positions, obstacles, and warning devices are emplaced or constructed. Tenant unit has been integrated into the site defense. Higher HQ TSOP and OPORD are available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Unit is completely prepared to engage threat as prescribed in the TSOP and OPORD. At MOPP4, performance degradation factors significantly increase defensive posture preparation time.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders direct preparation for threat engagement. <ul style="list-style-type: none"> <li>a. Plot threat force locations on the situation map as SPOTREPs are received.</li> <li>b. Disseminate current tactical situation to all subordinate elements.</li> <li>c. Direct mustering of internal response forces at predesignated rally point(s).</li> <li>d. Direct increase in defensive position manning levels.</li> <li>e. Shift internal defense forces to Level II perimeter positions.</li> <li>f. Coordinate defense preparations with adjacent units.</li> <li>g. Direct preliminary loading of nonessential equipment and supplies.</li> </ul>		

<b>TASK STEPS AND PERFORMANCE MEASURES</b>	<b>GO</b>	<b>NO-GO</b>
h. Direct positioning of vehicles for immediate exit.  2. Unit performs preengagement activities. (STP 21-1-SMCT: 031-503-1015, 071-331-0815, STP 21-I-MQS: 04-3306.01-0007) a. Occupies fighting positions (designated soldiers only). b. Employs MOPP2, as a minimum. c. Moves supplies to predetermined positions within the nearest cluster. d. Loads all organic nonessential equipment and supplies. e. Positions vehicles for rapid dispersion. f. Maintains surveillance of assigned sector(s). g. Maintains NBC surveillance. h. Maintains strict light and noise discipline.		

<b>TASK PERFORMANCE / EVALUATION SUMMARY BLOCK</b>							
<b>ITERATION</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>M</b>	<b>TOTAL</b>
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### **SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-1-SMCT	031-503-1015	PROTECT YOURSELF FROM NBC INJURY/CONTAMINATION WITH MISSION-ORIENTED PROTECTIVE POSTURE (MOPP) GEAR
	071-331-0815	PRACTICE NOISE, LIGHT, AND LITTER DISCIPLINE
STP 21-I-MQS	04-3306.01-0007	PRACTICE NOISE, LIGHT, AND LITTER DISCIPLINE

#### **OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** DEFEND FP UNIT AREA (42-2-0274)  
 (FM 7-10) (FM 21-75) (FM 3-3)  
 (FM 3-4) (FM 3-5) (FM 42-424)  
 (FM 54-30) (FM 54-40)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** OP reports a large threat element outside the unit's defensive sector. The unit has completed defensive preparations. Communications are established with higher HQ. Tenant unit has been integrated into the site defense. Pre-planned fire support coordination has been established to engage attacking element with indirect fire far outside the defensive perimeter. The BCOC has tasked the tenant and FP units to assist in directing artillery fire and CAS in its assigned area of defense. Higher HQ staff element has directed all but "priority" CSS to be discontinued and all available personnel be assigned to defensive perimeter duties. Chemical agents have been employed by threat forces in past engagements. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Threat force is repelled or delayed until the unit is relieved by MP or TCF.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders direct reaction to threat elements. (STP 21-1-SMCT: 031-503-1004, 031-503-1012, 031-503-1018, 031-503-1025, 031-503-1028, STP 21-24-SMCT: 031-503-3005, 031-503-3008, 071-430-0002, 071-430-0006, STP 21-II-MQS: 01-3301.02-0011, 04-5030.00-2007, 04-5030.00-2019) a. Direct suspension of support activities. b. Direct employment of maximum defensive level. c. Recall all OP personnel, if not detected by threat forces. d. Maintain map surveillance of all threat activity in the unit's sector.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Forward SPOTREPs to BCOC.</p> <p>f. Forward SHELLREPs to BCOC.</p> <p>g. Maintain communications with the BCOC.</p> <p>h. Direct unit to repel and/or delay penetration of threat forces into area by employing fire and maneuver.</p> <p>i. Maintain current situation map with all known friendly and threat locations.</p> <p>2. Unit reacts to threat. (STP 21-1-SMCT: 071-311-2007, 071-325-4407, 181-906-1505, 071-326-0502, STP 21-1-MQS: 04-3306.00-0002)</p> <p>a. Sounds attack alarm.</p> <p>b. Occupies defensive positions.</p> <p>c. Forwards SALUTE report to CP.</p> <p>d. Engages threat with organic weapons without compromising positions.</p> <p>e. Conducts tactical fire and maneuver to repel and/or delay penetration into CP defense.</p> <p>f. Forwards SITREP to CP.</p> <p>g. Treats casualties with life-threatening wounds or injuries first.</p> <p>h. Replaces injured key personnel.</p> <p>i. Replaces weapons that are destroyed during the engagement.</p> <p>3. Unit reacts to indirect fire. (STP 21-1-SMCT: 071-326-0510, STP 21-I-MQS: 04-3306.01-0005)</p> <p>a. Sounds alarm.</p> <p>b. Seeks overhead cover protection of fighting position.</p> <p>c. Dons protective mask within 9 seconds (with hood, within 15 seconds).</p> <p>d. Forwards SHELLREP to unit CP.</p> <p>e. Conducts standard unmasking procedures, if chemical detector kits or detector paper is not available.</p> <p>*4. Commander and leaders coordinate indirect fire support. (STP 21-24-SMCT: 061-283-6003)</p> <p>a. Coordinate preplanned fires with the BCOC or fire support element.</p> <p>b. Establish communications with fire support operations center.</p> <p>c. Request fire support using proper procedures and terminology.</p> <p>d. Adjust fires on target, as necessary.</p>		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
e. Terminate fire-mission. f. Report effects of fires to BCOC. *5. Commander and leaders direct CAS. a. Coordinate CAS mission through the BCOC. b. Coordinate communications with strike leader through the BCOC. c. Prepare unit area for CAS strikes. d. Identify friendly positions by use of colored smoke. e. Identify targets to strike leader. f. Adjust air strikes on target(s). g. Terminate CAS mission. h. Report strike effects to BCOC. i. Forward follow-up SITREP to BCOC.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO"/"NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-1-SMCT	031-503-1004	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M17-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1012	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/CONTAMINATION USING YOUR M24 OR M25-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1018	REACT TO A NUCLEAR HAZARD

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	031-503-1025	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M40-SERIES PROTECTIVE MASK WITH HOOD
	031-503-1028	PROTECT YOURSELF FROM CHEMICAL AND BIOLOGICAL INJURY/ CONTAMINATION USING YOUR M42 PROTECTIVE MASK WITH HOOD
	071-311-2007	ENGAGE TARGETS WITH AN M16A1 OR M16A2 RIFLE
	071-325-4407	EMPLOY HAND GRENADES
	071-326-0502	MOVE UNDER DIRECT FIRE
	071-326-0510	REACT TO INDIRECT FIRE WHILE DISMOUNTED
	181-906-1505	CONDUCT COMBAT OPERATIONS ACCORDING TO THE LAW OF WAR
STP 21-24-SMCT	031-503-3005	PREPARE AND SUBMIT NBC 1 REPORTS
	031-503-3008	IMPLEMENT MISSION-ORIENTED PROTECTIVE POSTURE
	071-430-0002	CONDUCT A DEFENSE BY A SQUAD
	071-430-0006	CONDUCT A DEFENSE BY A PLATOON
	061-283-6003	ADJUST INDIRECT FIRE
STP 21-I-MQS	04-3306.01-0002	MOVE UNDER DIRECT FIRE
	04-3306.01-0005	REACT TO INDIRECT FIRE
STP 21-II-MQS	01-3301.02-0011	DEFEND A COMPANY POSITION
	04-5030.00-2019	CONTROL UNIT RADIATION EXPOSURE
	04-5030.00-2007	SUPERVISE UNIT RESPONSE TO NUCLEAR ATTACK OR RADIOLOGICAL HAZARD

**OPFOR TASKS AND STANDARDS**

**TASK:** CONDUCT AIR ATTACKS (63-OPFOR-1006)

**CONDITION:** OPFOR elements in the rear area have forwarded the positions of enemy support sites and/or the locations of road

march elements to OPFOR HQs. OPFOR aircraft have been dispatched to attack enemy installations or convoys.

**STANDARD:** 1. Locate command and control site(s) or convoys. 2. Conduct attack runs on designated target(s). 3. Destroy enemy equipment, supplies, vehicles, and personnel.

**TASK:** ATTACK (63-OPFOR-1010)

**CONDITION:** Enemy rear area CSS base has been located by OPFOR element. PIR and other intelligence requirements have been obtained by OPFOR patrols. OPFOR element has automatic and anti-armor weapons, and light mortars. OPFOR element is the size of approximately two platoons.

**STANDARD:** 1. Develop an attack plan. 2. Initiate attack using a scheme of maneuver that exploits enemy flanks, gaps, and identified weaknesses. 3. Use covered and concealed routes to approach enemy forces flanks, gaps, or weakly held areas. 4. Employ indirect fire to support attack. 5. Penetrate enemy defenses. 6. Destroy all equipment and supplies. 7. Inflict heavy casualties. 8. Isolate the CSS base by blocking reinforcements. 9. Force enemy units to displace. 10. Withdraw before CSS base is reinforced with tactical combat forces.

**TASK:** MAINTAIN CONTACT (63-OPFOR-1011)

**CONDITION:** OPFOR element is tactically engaged with enemy base defense forces. Enemy forces are withdrawing under pressure.

**STANDARD:** 1. Engage enemy forces decisively. 2. Advance own unit or forces as enemy withdraws. 3. Inflict casualties.

**ELEMENT:** COMPANY

**TASK:** PERFORM FP AREA DAMAGE CONTROL FUNCTIONS (42-2-0275)  
 (FM 7-10) (FM 3-3) (FM 3-4)  
 (FM 3-5) (FM 42-424) (FM 54-30)  
 (FM 54-40)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The unit is relieved of a threat encounter or threat forces have completely withdrawn from the area. The attack has caused heavy damage to the unit area. The higher HQ Control and Assessment CP has been established and is manned by control and assessment team personnel. Assistance is provided to supporting elements as required. Higher HQ TSOP and OPORD are available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** All mission-hindering debris and safety hazards are cleared and marked. ADC is conducted IAW the higher HQ TSOP and OPORD. ADC resources are not expended to remove or repair materials or structures that have no impact on mission accomplishment. At MOPP4, performance degradation factors minimally increase ADC activities completion times.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders supervise unit ADC activities. a. Identify damage to CP area. b. Forward ADC SITREP to Control and Assessment CP. c. Identify ADC policies and procedures by reviewing appropriate annex of the TSOP and higher HQ RD rear operations annex. d. Identify danger areas. e. Supervise unit restoration activities. f. Coordinate additional support requirements with Control and Assessment CP. g. Coordinate dispatch of ADC teams with Control and Assessment CP.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>h. Coordinate ADC actions with tenant unit, if present.</p> <p>i. Enforce safety procedures.</p> <p>j. Enforce environmental stewardship procedures.</p> <p>*2. Commander and leaders organize unit ADC teams.</p> <p>a. Identify required team members and equipment IAW the higher HQ OPOD and TSOP.</p> <p>b. Dispatch control and assessment team personnel and equipment to Control and Assessment CP.</p> <p>c. Organize decontamination squad(s) and light rescue squad(s) as prescribed by TSOP and higher HQ staff element guidance.</p> <p>d. Brief decontamination and rescue squads.</p> <p>e. Dispatch decontamination and rescue squads as directed by Control and Assessment CP.</p> <p>3. Unit performs restoration activities.</p> <p>a. Establishes barrier and/or checkpoints that deny access to danger areas such as those containing unexploded ordnance, POL fires, damaged structures, etc.</p> <p>b. Treats casualties.</p> <p>NOTE: See task 63-2-0003 for detailed treatment procedures.</p> <p>c. Transports casualties.</p> <p>NOTE: See task 63-2-R316 for detailed casualty transportation procedures.</p> <p>d. Relocates major FP unit items of equipment and supplies to safe areas.</p> <p>e. Conducts fire fighting operations until all threatening fires are extinguished.</p> <p>f. Employs NBC defense measures.</p> <p>g. Removes rubble, debris, and inoperative unit vehicles and equipment (mission essential only).</p> <p>h. Reports locations of fires and unexploded ordnance to control and assessment team.</p> <p>i. Employs safety procedures.</p> <p>j. Employs environmental stewardship protection measures.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### OPFOR TASKS AND STANDARDS

NONE:

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT WITHDRAWAL UNDER FIRE (42-2-0276)  
 (FM 7-8) (FM 21-75) (FM 3-4)  
 (FM 3-5) (FM 42-424) (FM 54-30)  
 (FM 54-40)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The BCOC/higher HQ directs the FP unit to occupy its supplementary fighting positions. The commander has made the decision to move the FP unit from its current site. The unit is currently engaging threat elements along its defensive sector. Execution times are established for relocation and the commencement of indirect fires to cover withdrawal operations. The unit is required to furnish internal smoke screening in addition to pre-planned smoke-screen fires from support artillery. The tenant unit may or may not be occupying the FP site.

**NOTE:** This task applies only to FP unit equipment and not to FP module's equipment or subsystems. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Supplementary positions are occupied and unit is prepared to engage threat.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders supervise disengagement under fire. (STP 21-I-MQS: 04-3306.01-0001) a. Identify disengagement method to be used. b. Designate movement element (first element). c. Designate base of fire element (second element). d. Brief element leaders on disengagement phases and procedures. e. Monitor execution of disengagement for compliance with commander's directives. f. Forward completion report to the BCOC/higher HQ.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
2. Unit performs fire and movement to rear. (STP 21-1-SMCT: 071-311-2007, 071-325-4407, 071-326-0502, STP 21-1-MQS: 04-3306.01-0002) <ul style="list-style-type: none"> <li>a. Coordinates for execution of fire and movement among elements (all elements).</li> <li>b. Employs smoke grenades that provide a screen to cover disengagement.</li> <li>c. Lays down a base of fire with all available weapons (second element).</li> <li>d. Moves from primary to supplementary fighting positions (first element).</li> <li>e. Lays down a base of fire with all available weapons (first element).</li> <li>f. Moves from primary to supplementary fighting positions (second element).</li> <li>g. Reestablishes sectors of fire within 10 minutes of move.</li> <li>h. Forwards completion report to the CP.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-I-MQS	04-3306.01-0001	CONTROL MOVEMENT TECHNIQUES
	04-3306.01-0002	MOVE UNDER DIRECT FIRE
STP 21-1-SMCT	071-311-2007	ENGAGE TARGETS WITH AN M16A1 OR M16A2 RIFLE
	071-325-4407	EMPLOY HAND GRENADES
	071-326-0502	MOVE UNDER DIRECT FIRE



**OPFOR TASKS AND STANDARDS**

**TASK: ATTACK (63-OPFOR-1010)**

**CONDITION:** Enemy rear area CSS base has been located by OPFOR element. PIR and other intelligence requirements have been obtained by OPFOR patrols. OPFOR element has automatic and anti-armor weapons, and light mortars. OPFOR element is the size of approximately two platoons.

**STANDARD:** 1. Develop an attack plan. 2. Initiate attack using a scheme of maneuver that exploits enemy flanks, gaps, and identified weaknesses. 3. Use covered and concealed routes to approach enemy forces flanks, gaps, or weakly held areas. 4. Employ indirect fire to support attack. 5. Penetrate enemy defenses. 6. Destroy all equipment and supplies. 7. Inflict heavy casualties. 8. Isolate the CSS base by blocking reinforcements. 9. Force enemy units to displace. 10. Withdraw before CSS base is reinforced with tactical combat forces.

**TASK: MAINTAIN CONTACT (63-OPFOR-1011)**

**CONDITION:** OPFOR element is tactically engaged with enemy base defense forces. Enemy forces are withdrawing under pressure.

**STANDARD:** 1. Engage enemy forces decisively. 2. Advance own unit or forces as enemy withdraws. 3. Inflict casualties.

**ELEMENT:** COMPANY

**TASK:** CONDUCT FP UNIT HASTY DISPLACEMENT (42-2-0277)  
 (FM 7-10) (FM 3-3) (FM 3-4)  
 (FM 3-5) (FM 42-424) (FM 54-30)  
 (FM 54-40)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Unit is directed by the BCOC/higher HQ to displace the CP to a new location. Threat force contact is estimated to occur within a specified period of time. Pre-engagement activities have been completed. Threat force may arrive before displacement is completed. Indirect fire and smoke support has been coordinated to cover displacement, if required. The commander has designated a small rear security party and vehicles necessary for their transportation. Initial displacement preparations were made during defense build-up. Destruction of supplies, documents, and equipment has been coordinated with the BCOC/higher HQ.

**NOTE:** FP module's subsystem equipment is not included in this task. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Unit relocates within time specified in the order. Under MOPP4, displacement times are increased threefold.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders organize unit for hasty displacement. a. Assemble soldiers at designated area. b. Brief hasty displacement procedures to soldiers. c. Assign elements tasks and responsibilities. d. Designate vehicles to transport casualties. e. Coordinate with BCOC for possible aeromedical evacuation. f. Coordinate for indirect fire and smoke support with BCOC. g. Brief rear security party.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>h. Brief location of new assembly area and designated route.</p> <p>2. Unit prepares for hasty displacement.</p> <p>a. Dismantles selected tentage, antennas, and other essential unit organic equipment.</p> <p>NOTE: This performance measure is executed emphasizing speed rather than standard procedures.</p> <p>b. Loads equipment IAW commander's guidance.</p> <p>c. Positions vehicles for departure on notice.</p> <p>d. Maintains local security while awaiting orders to move.</p> <p>3. Unit destroys non-medical supplies, equipment, and documents.</p> <p>a. Destroys documents IAW TSOP.</p> <p>b. Destroys supplies IAW appropriate TM and TSOP.</p> <p>c. Renders equipment inoperative IAW appropriate TM.</p> <p>4. Unit departs area.</p> <p>a. Conducts orderly departure from area without excessive noises.</p> <p>b. Moves elements to new assembly area via prescribed route.</p> <p>5. Rear Security Party provides security for unit displacement.</p> <p>a. Occupies fighting positions.</p> <p>b. Exits area as soon as last unit has departed.</p> <p>NOTE: If threat elements are in the area and must be engaged, delete existing subparagraph "b" above and insert the following performance measures:</p> <p>c. Performs disengagement under fire to supplementary positions.</p> <p>d. Exits area by available means.</p>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### OPFOR TASKS AND STANDARDS

**TASK:** MAINTAIN CONTACT (63-OPFOR-1011)

**CONDITION:** OPFOR element is tactically engaged with enemy base defense forces. Enemy forces are withdrawing under pressure.

**STANDARD:** 1. Engage enemy forces decisively. 2. Advance own unit or forces as enemy withdraws. 3. Inflict casualties.

**ELEMENT:** COMPANY

**TASK:** REORGANIZE FP UNIT DEFENSE (42-2-0278)  
 (FM 7-10) (FM 21-75) (FM 3-4)  
 (FM 3-5) (FM 42-424) (FM 54-30)  
 (FM 54-40)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Contact with attacking threat elements is broken. Threat has withdrawn from immediate area. The unit maintains a high state of readiness. Further threat assaults can occur. The unit sustains casualties and damage to defensive positions. FP operations have ceased due to the attack. Tenant unit may or may not be present. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Unit defenses are reorganized within the time prescribed by commander. At MOPP4, performance degradation factors increase defense reorganization completion times.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders supervise reorganization of unit defenses. (STP 21-24-SMCT: 071-430-0004, 071-430-0008, STP 21-11-MQS: 03-0170.01-1005) a. Identify status of personnel, weapons, and equipment. b. Fill key leadership positions. c. Reassign personnel to weapon systems most critical to unit defense. d. Supervise distribution or redistribution of ammunition. e. Request ammunition resupply from BCOC/higher HQ staff personnel. f. Reassign fighting positions and sectors of fire. g. Supervise replacement and/or reconstruction of fighting positions, camouflage, and obstacles. h. Prepare updated unit defense sketch.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
i. Forward sketch to the BCOC/higher HQ. j. Forward personnel, weapons, and equipment status report to the BCOC/ higher HQ. k. Coordinate reorganization of the defense with tenant unit, if present.  2. Unit performs defensive reorganization activities. (STP 21-1-SMCT: 071-326-5703, 071-331-0815, STP 21-24-SMCT: 071-326-5704) a. Mans all critical weapon systems. b. Redistributes ammunition to all fighting positions. c. Reports ammunition status to CP. d. Occupies newly assigned fighting positions. e. Establishes new sectors of fire. f. Performs PMCS on assigned weapons. g. Reconstructs fighting positions. h. Reconstructs obstacles and warning devices. i. Replaces damaged camouflage. j. Reports all threat activities to CP. k. Treats casualties.  NOTE: See task 63-2-0003 for detailed treatment procedures. l. Evacuates casualties. NOTE: See task 63-2-R316 for detailed casualty evacuation procedures.		
m. Reports all casualties to CP.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### SUPPORTING INDIVIDUAL TASKS

References	Task Number	Task Title
STP 21-1-SMCT	071-326-5703	CONSTRUCT INDIVIDUAL FIGHTING POSITIONS

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	071-331-0815	PRACTICE NOISE, LIGHT, AND LITTER DISCIPLINE
STP 21-24-SMCT	071-430-0004	REORGANIZE A SQUAD FOLLOWING ENEMY CONTACT WHILE IN THE DEFENSE
	071-326-5704	SUPERVISE CONSTRUCTION OF A FIGHTING POSITION
	071-430-0008	REORGANIZE A PLATOON FOLLOWING ENEMY CONTACT WHILE IN THE DEFENSE
STP 21-II-MQS	03-0170.01-1005	PERFORM WARTIME STRENGTH ACCOUNTING AT UNIT LEVEL

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** EXECUTE FP UNIT BATTLE HANDOVER (42-2-0279)  
 (FM 7-10) (FM 3-5) (FM 42-424)  
 (FM 3-4) (FM 54-40) (FM 71-2)  
 (FM 54-30) (FM 3-3) (FM 7-20)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** A FRAGO from the BCOC/higher HQ directs the unit to prepare to hand the current engagement over to the TCF or MP area security element. TCF or MP units are located in an assembly area awaiting deployment. Contact with the enemy is broken. Indirect fire and smoke have been coordinated and are used to cover disengagement and handover operations. The unit is required to assist elements in their assigned area. TCF or MP assume responsibility for defensive operations until unit defense is released again to the commander. Tenant unit may or may not be present. BCOC/Higher HQ TSOP and OPORD are available. Some iterations of this task should be performed in MOPP4.

**TASK STANDARDS:** Battle handover operations are conducted IAW the TSOP and current FRAGO and are undetected by threat. At MOPP4, battle handover operations are significantly degraded.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders supervise battle handover assistance. a. Coordinate with BCOC location of battle handover line and contact points in the unit's assigned area. b. Coordinate with BCOC for information on indirect fire and smoke support. c. Disseminate battle handover information to subordinate elements. d. Redeploy troops to assist in handover. e. Maintain communication with TCF or MP elements.		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
f. Exchange tactical information with TCF or MP element counterpart. g. Forward handover completion report to BCOC.  2. Unit provides battle handover assistance. a. Establishes contact points. b. Establishes overwatch positions. c. Marks TCF or MP unit routes. d. Guides TCF or MP units along specified routes. e. Provides overwatch for TCF or MP. f. Forwards handover completion report to CP.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### OPFOR TASKS AND STANDARDS

**TASK:** MAINTAIN CONTACT (63-OPFOR-1011)

**CONDITION:** OPFOR element is tactically engaged with enemy base defense forces. Enemy forces are withdrawing under pressure.

**STANDARD:** 1. Engage enemy forces decisively. 2. Advance own unit or forces as enemy withdraws. 3. Inflict casualties.

**TASK:** ATTACK (63-OPFOR-1010)

**CONDITION:** Enemy rear area CSS base has been located by OPFOR element. PIR and other intelligence requirements have been obtained by OPFOR patrols. OPFOR element has automatic and anti-armor weapons, and light mortars. OPFOR element is the size of approximately two platoons.

**STANDARD:** 1. Develop an attack plan. 2. Initiate attack using a scheme of maneuver that exploits enemy flanks, gaps, and identified weaknesses. 3. Use covered and concealed routes to

approach enemy forces flanks, gaps, or weakly held areas. 4. Employ indirect fire to support attack. 5. Penetrate enemy defenses. 6. Destroy all equipment and supplies. 7. Inflict heavy casualties. 8. Isolate the CSS base by blocking reinforcements. 9. Force enemy units to displace. 10. Withdraw before CSS base is reinforced with tactical combat forces.

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT REDEPLOYMENT PERSONNEL AND ADMINISTRATIVE ACTIONS (42-2-0280)  
 (FM 100-17) (FM 42-424) (FM 55-10)  
 (FM 55-65)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company receives a warning order to redeploy to home station. The company is located in the TAA. Some personnel and administrative actions are initiated in the TAA and completed in the RAA. The higher HQ staff element has provided a POM processing schedule to the commander. The higher HQ staff element has coordinated for ASG contact team support. Transportation to move the company to POM facilities is available. The Redeployment Movement Plan is available. The company has a trained officer and NCO appointed as UMO/NCO. Preparation activities for redeployment are performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**TASK STANDARDS:** Redeployment POM activities are accomplished IAW Redeployment Movement Plan, higher HQ staff element POM processing schedule, and commander's guidance.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs personnel and administrative POM activities. a. Coordinates with higher HQ staff personnel to identify personnel and administrative requirements for redeployment. b. Designates advance party representatives and SPOE Team. c. Briefs company leaders on personnel and administrative requirements for redeployment. d. Provides personnel and administrative processing schedule to company HQ.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Directs the company HQ to develop a company personnel and administrative processing schedule.</p> <p>f. Forwards list of personnel unable to redeploy to higher HQ staff personnel.</p> <p>g. Directs personnel to complete personnel and administrative requirements for redeployment.</p> <p>h. Approves award and decoration recommendations.</p> <p>i. Coordinates with higher HQ staff element for personnel and administrative support, as required.</p> <p>j. Specifies timing and synchronization of LOGCAP personnel departure.</p> <p>k. Briefs higher HQ staff personnel on status of personnel and administrative actions.</p> <p>l. Enforces safety procedures.</p> <p>m. Enforces environmental stewardship procedures.</p> <p>2. Company HQ supervises redeployment personnel and administrative actions.</p> <p>a. Develops company personnel and administrative processing schedule based on the Redeployment Movement Plan, higher HQ staff element POM processing, and commander's guidance.</p> <p>b. Distributes company personnel and administrative processing schedule to platoons and sections.</p> <p>c. Distributes company personnel and administrative processing schedule to platoons and sections.</p> <p>d. Prepares passenger manifest.</p> <p>e. Processes recommendations for decorations and awards IAW commander's instructions.</p> <p>f. Coordinates with the higher HQ staff element for personnel and administrative support, as required.</p> <p>g. Briefs commander on personnel and administrative actions, as required.</p> <p>*3. Company leaders supervise personnel and administrative actions.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
a. Direct personnel to complete personnel and administrative actions, as required. b. Monitor personnel and administrative processing to ensure personnel complete actions IAW schedule. c. Submit performance reports, award and decoration recommendations, and other personnel actions to the commander for approval/certification, as required. d. Coordinate with company HQ for personnel and administrative support, as required. e. Submit records and reports to company HQ IAW the Redeployment Movement Plan and commander's instructions. f. Brief commander on personnel and administrative actions. g. Brief personnel on personnel and administrative requirements.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT REDEPLOYMENT TRAINING ACTIVITIES  
 (42-2-0281)  
 (FM 55-65) (AR 220-10) (FM 100-17)  
 (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company is preparing for redeployment to home station. Sufficient time exists for the company to conduct redeployment training. Training support is available to train company personnel in customs, USDA, and other redeployment requirements. Training is conducted in the TAA and/or RAA. The commander has designated a training officer and NCO. The Redeployment Movement Plan, higher HQ Redeployment OPORD, and training records are available. The company has a trained officer and an NCO appointed as UMO/NCO. Redeployment training activities are performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**TASK STANDARDS:** Redeployment training is accomplished IAW the training schedule and commander's guidance.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs redeployment training activities. (STP 21-II-MQS: 01-8951.00-8959) a. Identifies redeployment training requirements by reviewing the Redeployment Movement Plan and higher HQ Redeployment OPORD and in coordination with higher HQ staff personnel. b. Directs training officer to develop a company training schedule. c. Designates personnel to receive redeployment training. d. Briefs higher HQ staff personnel on status of redeployment training.  *2. Training Officer/NCO supervises redeployment training activities.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
a. Develops training schedule based on Redeployment OPORD higher HQ staff guidance, and commander's guidance. b. Coordinates with higher HQ staff personnel for training support, as required. c. Provides training schedule to higher HQ staff elements and company leaders as appropriate. d. Briefs commander on status of redeployment training.  *3. Company leaders perform redeployment training activities. a. Coordinate with UMO/NCO for required training support. b. Conduct training IAW training schedule if required. c. Monitor training to ensure appropriate training is provided IAW training schedule. d. Annotate training results on individual and team training records.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**SUPPORTING INDIVIDUAL TASKS**

References	Task Number	Task Title
STP 21-II-MQS	01-8951.00-8959	CONDUCT TRAINING AT COMPANY LEVEL

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT REDEPLOYMENT ACTIVITIES (42-2-0282)  
 (AR 700-84) (AR 220-10) (FM 100-17)  
 (FM 42-424) (FM 55-65)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company is preparing for redeployment to home station. Vehicles, equipment, and supplies are available for reconstitution of units redeploying. Redeployment supply activities are accomplished in the TAA and RAA. The TSOP, Redeployment Movement Plan, and higher HQ Redeployment OPORD are available. The company is redeploying as part of a higher HQ redeployment. Redeployment supply activities are performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**NOTE:** This task applies only to FP unit organic equipment and not to FP module equipment or subsystems. This task may be performed manually or using the appropriate automated system.

**TASK STANDARDS:** Redeployment supply activities are accomplished IAW the Redeployment Movement Plan, TSOP, higher HQ Redeployment OPORD, and commander's guidance.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs redeployment supply activities. a. Identifies vehicles and equipment to be left in-country. b. Identifies vehicles and equipment required to reconstitute the company before or after redeployment. c. Coordinates with higher HQ staff personnel for issue of vehicles, equipment, and supplies required to reconstitute the company.		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Identifies supplies and equipment needed to redeploy to home station by reviewing the Redeployment Movement Plan, Redeployment OPORD, and coordination with the higher HQ staff personnel.</p> <p>e. Directs company leaders to turn in vehicles, ammunition, supplies, and equipment to be left in-country.</p> <p>f. Directs company leaders to provide supply and equipment requests to Supply Sergeant.</p> <p>g. Directs Supply Sergeant to turn in excess supplies and equipment IAW TSOP and higher HQ staff personnel instructions.</p> <p>h. Inspects area and facilities to ensure excess vehicles, equipment, and supplies have been turned in.</p> <p>i. Briefs higher HQ staff personnel on supply status as required.</p> <p>j. Enforces safety procedures.</p> <p>k. Enforces environmental stewardship procedures.</p> <p>2. Platoons and sections perform redeployment supply activities.</p> <p>a. Identify shortages of vehicles, supplies, and equipment by conducting inventories and reviewing DEL.</p> <p>b. Submit requests for vehicles, supplies, and equipment to supply sergeant IAW TSOP and commander's instructions.</p> <p>c. Employ safety procedures.</p> <p>d. Employ environmental stewardship procedures.</p> <p>3. Company HQ provides supply support.</p> <p>a. Provides a copy of the AUDEL to platoons and sections, as required.</p> <p>b. Submits request for supplies and equipment to higher HQ staff personnel IAW TSOP.</p> <p>c. Coordinates with higher HQ staff personnel to resolve or cancel outstanding requisitions.</p> <p>d. Coordinates with commander or higher HQ staff personnel for transportation and MHE support to turn in, pick up, issue, and/or pack ammunition, equipment, and supplies if necessary.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
e. Inspects issued vehicles and equipment for serviceability and completeness. f. Issues vehicles, equipment, and supplies to appropriate platoons/sections IAW TSOP and commander's instructions. g. Secures unissued supplies and equipment IAW TSOP. h. Turns in equipment, supplies, and hazardous material to designated facility as appropriate. i. Briefs commander on supply status. j. Employs safety procedures. k. Employs environmental stewardship procedures.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### OPFOR TASKS AND STANDARDS

NONE:



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Coordinates with higher HQ staff personnel for maintenance support, as required.</p> <p>g. Prioritizes repair of vehicles and equipment.</p> <p>h. Enforces safety procedures.</p> <p>i. Enforces environmental stewardship procedures.</p> <p>*2. Motor Officer and/or Motor Sergeant supervises redeployment maintenance activities. (STP 21-II-MQS: 03-5101.00-0283)</p> <p>a. Identifies unit operational readiness levels by reviewing vehicle and equipment status reports, PMCS, and redeployment maintenance checks.</p> <p>b. Prepares MCSR IAW AR 220-1 and AR 700-138.</p> <p>c. Submits current MCSR to commander.</p> <p>d. Submits request for controlled exchanges to commander for approval.</p> <p>e. Designates maintenance personnel to assist MSTs IAW Maintenance SOP, higher HQ staff personnel, and commander's instructions.</p> <p>f. Directs calibration of tools, if required.</p> <p>g. Verifies PLL inventory by conducting spot checks.</p> <p>h. Verifies completion of repairs by reviewing maintenance records.</p> <p>i. Coordinates with higher HQ staff personnel to identify status of vehicles and equipment in support maintenance.</p> <p>j. Coordinates with higher HQ staff personnel for disposition instructions for nonrepairable vehicles.</p> <p>k. Briefs the commander on maintenance status of vehicles and equipment, as required.</p> <p>l. Enforces safety procedures.</p> <p>m. Enforces environmental stewardship procedures.</p> <p>3. Company HQ performs organizational maintenance activities.</p> <p>a. Calibrates tools, as required.</p> <p>b. Inspects equipment IAW appropriate operator and organizational maintenance TMs.</p> <p>c. Records all deficiencies on equipment inspection worksheets.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Corrects unit-level maintenance deficiencies.</p> <p>e. Forwards requests for DS maintenance to supporting maintenance facility.</p> <p>f. Requests required repair parts from PLL Clerk.</p> <p>g. Repairs equipment IAW applicable TM(s).</p> <p>h. Requests approval for controlled exchange through Motor Officer or Sergeant when required repair parts are not available.</p> <p>i. Performs controlled exchange IAW Motor Officer's or Sergeant's instructions.</p> <p>j. Performs final inspection to ensure quality control of repairs.</p> <p>k. Conducts inventory of PLL to confirm shortages IAW PLL listing.</p> <p>l. Submits request for PLL replenishment to higher HQ staff personnel, as required.</p> <p>m. Performs technical inspections of replacement equipment IAW appropriate TMs and manufacturer's instructions.</p> <p>n. Releases equipment to appropriate platoon or section.</p> <p>o. Employs safety procedures.</p> <p>p. Enforces environmental stewardship procedures.</p> <p>4. Company HQ conducts transactions with MSTs.</p> <p>a. Identifies vehicles and equipment that require MST support.</p> <p>b. Prepares required documentation for submission to MST.</p> <p>c. Delivers vehicles and equipment to MST.</p> <p>d. Picks up equipment from MST upon notification repairs are completed.</p> <p>e. Notifies owning element to pick up vehicles and equipment.</p> <p>*5. Company leaders supervise redeployment operator maintenance activities.</p> <p>a. Monitor performance of PMCS and redeployment maintenance for compliance with the Redeployment Movement Plan, Maintenance SOP, appropriate TM, and commander's guidance.</p>		

<b>TASK STEPS AND PERFORMANCE MEASURES</b>	<b>GO</b>	<b>NO-GO</b>
b. Inspect vehicles, weapons, and equipment to ensure compliance with Maintenance SOP, appropriate TMs, and commander's guidance. c. Provide input for MCSR to motor officer, as required. d. Enforce safety procedures. e. Enforce environmental stewardship procedures.  6. Company performs redeployment operator maintenance. a. Performs PMCS IAW appropriate TM(s). b. Notifies supervisor of maintenance problems beyond operator's capabilities.  c. Employs safety procedures. d. Employs environmental stewardship procedures.		

<b>TASK PERFORMANCE / EVALUATION SUMMARY BLOCK</b>							
<b>ITERATION</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>M</b>	<b>TOTAL</b>
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### **SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 21-II-MQS	01-4965.90-0001	SUPERVISE UNIT MAINTENANCE OPERATIONS
	03-4976.90-0501	PREPARE A MATERIEL CONDITION STATUS REPORT
	03-5101.00-0283	SUPERVISE THE MAINTENANCE OF UNIT PRESCRIBED LOAD LIST

#### **OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PREPARE FP UNIT VEHICLES AND EQUIPMENT FOR REDEPLOYMENT (42-2-0284)  
 (FM 55-65) (AR 220-10) (FM 100-17)  
 (FM 42-424) (FM 55-10) (FM 55-12)  
 (FM 55-9)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company receives a movement directive to redeploy to home station. Preparation of vehicles and equipment for redeployment is performed in the TAA and/or RAA and A/SPOE UMA. A rail head is available. All personnel are present and have been trained on requirements for preparing vehicles and equipment for redeployment. Packing and Crating, Weighing and Loading, Vehicle and Equipment Cleaning, and Rail Loading Teams have been designated and trained. Transportation support, rail cars, weighing scales, packing materials, MHE, shipping containers, inserts, pallets and other equipment preparation and loading materials are available. The Movement Directive, Redeployment Movement Plan and higher HQ Redeployment OPORD are available. The company has a trained officer and an NCO appointed as UMO/NCO. The company is redeploying as part of a higher HQ redeployment. Equipment preparation is performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**NOTE:** This task applies only to FP unit equipment and not to FP module's equipment or subsystems.

**TASK STANDARDS:** Vehicles and equipment are prepared for redeployment and loaded for movement to A/SPOE IAW the Redeployment Movement Plan and commander's guidance.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs vehicle and equipment preparation activities. a. Identifies equipment and supplies to be redeployed based on movement directive, AUEL, Movement Plan, commander's guidance.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>b. Identifies personnel, equipment, and vehicles scheduled to move to the A/SPOE by road or rail by reviewing Movement Plan and higher HQ staff personnel guidance.</p> <p>c. Designates a UMA and container packing area.</p> <p>d. Coordinates with higher HQ staff personnel for USDA and customs contact team support.</p> <p>e. Coordinates with higher HQ staff personnel for transportation support to A/SPOE if necessary.</p> <p>f. Inspects area to ensure all excess vehicles, equipment and supplies have been turned in.</p> <p>g. Notifies higher HQ staff personnel when vehicles and containers are loaded and ready to move.</p> <p>h. Enforces safety procedures.</p> <p>i. Enforces environmental stewardship procedures.</p> <p>2. UMO/NCO supervises vehicle and equipment preparation activities.</p> <p>a. Coordinates with TAMCA/MCT TC-ACCIS site for AUEL, military shipping labels, and documents.</p> <p>NOTE: If the unit did not deploy with a DEL produced by TC-ACCIS, an AUEL will be generated based on the unit property book and vehicle and secondary load lists.</p> <p>b. Updates AUEL to reflect vehicles, equipment, and supplies to be redeployed based on physical inventory, operational status, and commander's guidance.</p> <p>c. Updates AUEL to reflect actual weights based on results of weighing.</p> <p>d. Inputs updated AUEL into the TAMCA/MCT TC-ACCIS station.</p> <p>NOTE: When verified by the UMO, this updated AUEL becomes the DEL produced by TC-ACCIS.</p> <p>e. Provides TAMCA/MCT and/or higher HQ staff personnel with information on oversize and overweight vehicles, equipment, and cargo requiring special handling as required.</p>		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Coordinates with TC-ACCIS site for DEL, BBPCT material requirements lists, vehicle/rail loading plans and schedules, special hauling permit requests, military shipping labels, and convoy clearance requests produced by TC-ACCIS.</p> <p>g. Coordinates with higher HQ staff personnel for packing materials, weighing scales, MHE, containers, inserts, pallets, and other equipment preparation and loading materials as required.</p> <p>h. Coordinates with USDA and customs contact team leaders for vehicle and equipment packing, loading, and cleaning instructions.</p> <p>i. Provides company leaders with a vehicle and equipment cleaning schedule.</p> <p>j. Provides company leaders with redeployment forms, shipping labels, and documents as required.</p> <p>k. Coordinates container pick-up with higher HQ staff personnel.</p> <p>l. Provides special instructions to Packing and Crating Teams if necessary.</p> <p>m. Provides container packing schedule to company leaders and Customs Contact Team.</p> <p>n. Identifies transportation support requirements by reviewing Redeployment Movement Plan and current vehicle status reports.</p> <p>o. Coordinates with higher HQ staff personnel for movement of vehicles and equipment to rail loading site.</p> <p>p. Provides rail loading plan to Rail Loading Team Chief.</p> <p>q. Coordinates with higher HQ staff personnel or TAMCA/MCT officials for port call message and verification of Redeployment Movement Plan A/SPOE requirements and procedures.</p> <p>r. Briefs commander on status of preparation of vehicles and equipment for deployment.</p> <p>*3. Company leaders supervise preparation of platoons for deployment.</p> <p>a. Verify adequate space has been allowed for personnel items and secondary loads by reviewing loading plans.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>b. Revise loading plans as required.</li> <li>c. Monitor packing and loading for compliance with the Redeployment Movement Plan and UMO/NCO and Customs officials' instructions.</li> <li>d. Direct personnel to deliver vehicles and equipment to the vehicle and equipment cleaning site IAW UMO/NCO's instructions.</li> <li>e. Monitor vehicle and equipment cleaning operations to ensure vehicles and equipment are cleaned IAW the Redeployment Movement Plan and USDA officials' instructions.</li> <li>f. Inspect area to ensure all equipment to be redeployed has been packed and/or loaded.</li> <li>g. Inspect area to ensure all excess vehicles, equipment, and supplies have been turned in.</li> <li>h. Inspect internal loads to ensure loads are secure and in compliance with loading plans.</li> <li>i. Notify UMO/NCO of any load plan revisions.</li> <li>j. Enforce safety procedures.</li> <li>k. Enforce environmental stewardship procedures.</li> </ul> <p>*4. UMO/NCO maintains an up-to-date AUEL.</p> <ul style="list-style-type: none"> <li>a. Conducts physical inventory of vehicles and equipment to be redeployed to verify accuracy of AUEL.</li> <li>b. Revises AUEL as required.</li> <li>c. Submits AUEL changes to TAMCA/MCT TC-ACCIS Site if necessary.</li> </ul> <p>5. Packing and Crating Teams prepare equipment for redeployment.</p> <ul style="list-style-type: none"> <li>a. Pack containers IAW loading plans, AUEL, and UMO/NCO and USDA and customs officials' instructions.</li> <li>b. Pack hazardous materials IAW the Redeployment Movement Plan and UMO/NCO and USDA and customs officials' instructions.</li> <li>c. Prepare container packing lists and shipping documents IAW FM 55-65 and UMO/NCO's instructions.</li> <li>d. Distribute container packing lists and shipping documents IAW FM 55-65 and UMO/NCO and USDA and customs officials' instructions.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Mark containers IAW the Redeployment Movement Plan, FM 55-65 and UMO/NCO and USDA and customs officials' instructions.</p> <p>f. Assist container pick-up crew in loading operations as required.</p> <p>g. Employ safety procedures.</p> <p>h. Employ environmental stewardship procedures.</p> <p>6. Vehicle and Equipment Cleaning Team cleans vehicles and equipment for redeployment.</p> <p>a. Guides vehicles into cleaning site as directed by cleaning site officials.</p> <p>b. Cleans vehicles and equipment IAW Redeployment Movement Plan and USDA officials' instructions.</p> <p>c. Reports completion of vehicle and equipment cleaning operations to UMO/NCO.</p> <p>d. Employs safety procedures.</p> <p>e. Employs environmental stewardship procedures.</p> <p>7. Company prepares vehicles, equipment and personal gear for redeployment.</p> <p>a. Turns in excess vehicles, equipment, and supplies to Supply Sergeant.</p> <p>b. Packs personal gear IAW Movement Plan and customs officials' instructions.</p> <p>c. Marks and/or tags personal gear and equipment IAW the Redeployment Movement Plan and UMO/NCOs and customs officials' instructions.</p> <p>d. Moves equipment to be packed in containers to the container packing area IAW UMO/NCO's instructions.</p> <p>e. Loads vehicles IAW the Redeployment Movement Plan, loading plans and UMO/NCO and customs officials' instructions.</p> <p>f. Delivers vehicles and equipment to the vehicle and equipment cleaning site as directed.</p> <p>g. Moves vehicles to UMA as directed.</p> <p>h. Employs safety procedures.</p> <p>i. Employs environmental stewardship procedures.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>8. Weighing and Marking Team weighs and marks vehicles for deployment.</p> <ul style="list-style-type: none"> <li>a. Sets up weighing and marking area in designated area IAW commander's instructions.</li> <li>b. Guides vehicles onto scales as they arrive.</li> <li>c. Identifies vehicle gross weight.</li> <li>d. Identifies vehicle axle weights (air movement only).</li> <li>e. Computes vehicle center of gravity based on axle weights (air movement only).</li> <li>f. Marks center of gravity on vehicles IAW FM 55-12, and UMO/NCO's instructions (air movement only).</li> <li>g. Reports gross weights for each deploying vehicle to UMO/NCO.</li> <li>h. Disestablishes weighing and marking area.</li> <li>i. Returns vehicle weighing scales IAW owning facility or UMO/NCO's instructions.</li> <li>j. Employs safety procedures.</li> <li>k. Employs environmental stewardship procedures.</li> </ul> <p>9. Company prepares vehicles and equipment for movement to A/SPOE.</p> <ul style="list-style-type: none"> <li>a. Stages vehicles for convoy to A/SPOE or rail loading site IAW UMO/NCO's instructions.</li> <li>b. Corrects loading deficiencies IAW loading plan if necessary.</li> <li>c. Recomputes center of gravity if necessary (air movement only).</li> <li>d. Remarks center of gravity on vehicles if necessary (air movement only).</li> <li>e. Marks vehicles for movement to A/SPOE IAW FM 55-30 and UMO/NCO and USDA and customs officials' instructions.</li> <li>f. Places military shipping labels on vehicles and equipment IAW UMO/NCO's instructions.</li> <li>g. Moves designated vehicles and equipment to the rail loading site IAW Movement Plan and UMO/NCO's instructions.</li> <li>h. Prepares convoy for movement to A/SPOE.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>NOTE: Depending on tactical situation, see task steps two through five of task 42-2-0227 (nontactical move) or task 42-2-0234 (tactical move) for detailed convoy preparation procedures.</p> <ul style="list-style-type: none"> <li>i. Notifies UMO/NCO that vehicles are ready to cross SP for convoy to A/SPOE.</li> <li>j. Employs safety procedures.</li> <li>k. Employs environmental stewardship procedures.</li> </ul> <p>*10. Rail Loading Team Chief supervises rail loading activities.</p> <ul style="list-style-type: none"> <li>a. Coordinates with UMO/NCO for rail loading plans.</li> <li>b. Coordinates with UMO/NCO to identify special rail loading requirements.</li> <li>c. Verifies the presence of rail guards by conducting roll call, if required.</li> <li>d. Verifies the presence of manifested vehicles and equipment by conducting physical inventory.</li> <li>e. Provides cargo manifest to conductor.</li> <li>f. Notifies commander when rail loading is complete.</li> <li>g. Enforces safety procedures.</li> <li>h. Enforces environmental stewardship procedures.</li> </ul> <p>11. Rail Loading Team performs rail loading.</p> <ul style="list-style-type: none"> <li>a. Stages vehicles IAW rail loading plan.</li> <li>b. Loads vehicles and equipment on railcars IAW rail loading plan and UMO/NCO's instructions.</li> <li>c. Secures vehicles and equipment IAW rail loading plan and UMO/NCO's instructions.</li> <li>d. Notifies Rail Loading Team Chief when rail loading is complete.</li> <li>e. Employs safety procedures.</li> <li>f. Employs environmental stewardship procedures.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### OPFOR TASKS AND STANDARDS

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT AERIAL PORT OF EMBARKATION ACTIVITIES FOR REDEVELOPMENT (42-2-0285)

(FM 55-12) (AR 220-10) (FM 100-17)  
 (FM 42-424) (FM 55-10) (FM 55-65)  
 (TM 38-250)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company arrives at the APOE MA for aerial redeployment. The higher HQ has an advance party at the APOE to assist in coordinating APOE activities. Transportation support is available. The Redeployment Movement Plan and port-call message are available. The company has a trained officer and an NCO appointed as UMO/NCO. APOE activities are performed day or night under all environmental conditions unless terminated by the DACG. This task should not be trained in MOPP4.

**NOTE:** This task applies only to FP unit equipment and not to FP module's equipment or subsystems.

**TASK STANDARDS:** APOE activities are performed IAW the Redeployment Movement Plan and DACG officials' instructions.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs APOE activities. <ul style="list-style-type: none"> <li>a. Notifies higher HQ advance party OIC and/or DACG representative that the company has arrived at the APOE.</li> <li>b. Coordinates with higher HQ staff personnel, ATMCT, DACG and/or SUPCOM supporting unit officials to verify APOE movement schedules, procedures and requirements.</li> <li>c. Briefs company on APOE duties and responsibilities.</li> <li>d. Directs company to conduct final preparation of vehicles and equipment IAW the Redeployment Movement Plan and FM 55-12.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>e. Conducts acceptance inspection of vehicles and equipment with DACG officials at the alert holding area.</p> <p>f. Directs company to correct deficiencies noted during acceptance inspection.</p> <p>g. Transfers custody of equipment and cargo to DACG officials IAW FM 55-12 and FM 55-65.</p> <p>h. Briefs the higher HQ staff personnel or designated representative on status of APOE activities.</p> <p>i. Enforces safety procedures.</p> <p>j. Enforces environmental stewardship procedures.</p> <p>*2. UMO/NCO supervises APOE activities.</p> <p>a. Coordinates with higher HQ staff personnel and/or DACG officials for transportation, maintenance, logistics and other support, as required.</p> <p>b. Coordinates with higher HQ staff representative, ATMCT or DACG to verify APOE movement schedules, procedures and requirements.</p> <p>c. Coordinates with higher HQ staff representative, Site Coordinator and/or DACG representative for equipment cleaning support, if necessary.</p> <p>d. Coordinates with DACG to verify loading sequence of vehicles and equipment.</p> <p>e. Designates personnel to verify weight and center of gravity marks, if required.</p> <p>f. Briefs designated personnel on weight and center of gravity marks verification requirements.</p> <p>g. Verifies that deficiencies noted during DACG acceptance inspection have been corrected.</p> <p>h. Verifies the presence of all manifested personnel by conducting roll call.</p> <p>i. Provides verified personnel and cargo manifest to DACG at the alert holding area.</p> <p>j. Enforces safety procedures.</p> <p>k. Enforces environmental stewardship procedures.</p> <p>3. Company performs APOE MA activities.</p>		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>a. Performs after-operations PMCS IAW appropriate TMs.</p> <p>b. Notifies supervisor of maintenance problems beyond operator's capability to repair.</p> <p>c. Conducts final preparation of vehicles and equipment IAW FM 55-12 and UMO/NCO's instructions.</p> <p>d. Adjusts vehicle fuel levels IAW TM 38-250 and DACG officials' instructions.</p> <p>e. Turns in excess fuel and POL products IAW UMO/NCO's instructions.</p> <p>f. Corrects deficiencies on vehicles, cargo and personal gear IAW company leaders' instructions.</p> <p>g. Corrects deficiencies on placement of placards, labels and certification documents on hazardous material IAW UMO/NCO, company leaders' and customs and USDA officials' instructions, if necessary.</p> <p>h. Moves vehicles and equipment to APOE cleaning site or alert holding area, as directed.</p> <p>i. Employs safety procedures.</p> <p>j. Employs environmental stewardship procedures.</p> <p>4. Company processes vehicles and equipment through the APOE cleaning site.</p> <p>a. Delivers vehicles to APOE cleaning site IAW UMO/NCO's instructions.</p> <p>b. Performs vehicle cleaning IAW DACG officials' instructions.</p> <p>c. Returns vehicles and equipment to unit area IAW company leaders' instructions.</p> <p>d. Employs safety procedures.</p> <p>e. Employs environmental stewardship procedures.</p> <p>*5. Company leaders supervise final preparation of vehicles, equipment, cargo and personal gear for redeployment.</p> <p>a. Inspect shipping documents, markings, customs labels and decontamination tags on vehicles, equipment, cargo and personal gear for compliance with the Redeployment Movement Plan and UMO/NCO's instructions.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>b. Monitor customs inspection to ensure deficiencies are corrected.</li> <li>c. Inspect vehicles and cargo to ensure deficiencies noted during acceptance inspection have been corrected.</li> <li>d. Coordinate with the UMO/NCO for assistance in correcting shipping documentation and maintenance deficiencies, as required.</li> <li>e. Enforce safety procedures.</li> <li>f. Enforce environmental stewardship procedures.</li> </ul> <p>6. Company performs APOE alert holding area activities.</p> <ul style="list-style-type: none"> <li>a. Drives vehicles to call forward area, as directed.</li> <li>b. Boards transportation to terminal, as directed.</li> <li>c. Employs safety procedures.</li> <li>d. Employs environmental stewardship procedures.</li> </ul> <p>7. Company performs APOE passenger activities.</p> <ul style="list-style-type: none"> <li>a. Reports to designated location for safety and antiterrorism briefing, security screen, and customs inspection IAW UMO/NCO's instructions.</li> <li>b. Remains in quarantined area IAW DACG officials' instructions.</li> <li>c. Boards aircraft IAW loadmaster's instructions.</li> <li>d. Employs safety procedures.</li> <li>e. Employs environmental stewardship procedures.</li> </ul>		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT SEA PORT OF EMBARKATION ACTIVITIES FOR REDEPLOYMENT (42-2-0286)  
 (FM 55-65) (AR 220-10) (FM 100-17)  
 (FM 42-424) (FM 55-12)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company's wheeled-vehicle convoy crosses the RP in the SPOE MA. The commander has designated a company SPOE Team and SPOE Team OIC. The higher HQ has an advance party at the SPOE to assist in coordinating SPOE activities. Commercial support is not available. The commander or SPOE Team OIC has notified higher HQ and PSA officials of the company's arrival. PSA officials have requested company vehicle operators' assistance in offloading vehicles deployed to the SPOE by rail. The rail head is located in the SPOE AO. Transportation, maintenance, logistics, and equipment cleaning support is available. A SPOE sterile area has been designated. The Redeployment Movement Plan and Redeployment OPORD are available. The company has a trained officer and NCO appointed as UMO/NCO. The company is redeploying as part of a higher HQ deployment. SPOE activities are performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**NOTE:** This task applies only to FP unit equipment and not to FP module's equipment or subsystems.

**TASK STANDARDS:** SPOE activities are performed IAW the Redeployment Movement Plan and higher HQ staff and PSA officials' instructions.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander or SPOE Team OIC directs SPOE activities. a. Directs team to perform after-operation PMCS checks of vehicles. b. Identifies transportation requirements for return to unit area.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>c. Coordinates with supporting SUPCOM unit for transportation, maintenance, and logistics support, as required.</p> <p>d. Coordinates with PSA officials to verify SPOE movement schedules, procedures, and requirements.</p> <p>e. Briefs team leaders on SPOE movement schedules, procedures and requirements.</p> <p>f. Directs team to offload and inspect equipment arriving by rail.</p> <p>g. Coordinates with PSA to identify number of supercargoes authorized and POC for supercargoes.</p> <p>h. Inspects supercargoes to ensure they are prepared for redeployment, to include proper orders and equipment.</p> <p>i. Briefs supercargoes on boarding schedule, responsibilities and POC during sea movement.</p> <p>j. Conducts acceptance inspection of vehicles, equipment and cargo with PSA officials.</p> <p>k. Directs team to correct deficiencies noted during PSA acceptance inspection.</p> <p>l. Transfers custody of vehicles, equipment, and cargo to SPOE officials.</p> <p>m. Briefs the higher HQ staff personnel on status of SPOE activities.</p> <p>n. Enforces safety procedures.</p> <p>o. Enforces environmental stewardship procedures.</p> <p>2. Supercargoes (if required) perform SPOE activities.</p> <p>a. Report to port commander's representative IAW commander's instructions.</p> <p>b. Perform SPOE activities IAW port commander's instructions.</p> <p>c. Coordinate with vessel POC for instructions on responsibilities and accommodations.</p> <p>d. Report to the customs inspection site IAW port commander's instructions.</p> <p>e. Load baggage IAW instructions from vessel POC.</p> <p>f. Board ship IAW instructions from vessel POC.</p> <p>*3.UMO/NCO coordinates SPOE activities.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>a. Coordinates with PSA officials to verify loading sequence of vehicles and equipment.</p> <p>b. Monitors PSA acceptance inspection of vehicles and cargo to identify deficiencies.</p> <p>c. Coordinates with maintenance support POC for disposition of excess fuel and POL products and maintenance support, as necessary.</p> <p>d. Coordinates with PSA officials for vehicle cleaning support and location of SPOE sterile area.</p> <p>e. Inspects shipping documents and labels, markings, customs labels and decontamination tags on vehicles and equipment for compliance with TAMCA/MCT, customs and USDA officials' instructions.</p> <p>f. Coordinates with TAMCA/MCT, USDA and/or customs officials to correct deficiencies in shipping documents and labels, customs labels, and decontamination tags.</p> <p>g. Briefs commander and/or SPOE Team OIC on status of SPOE activities.</p> <p>*4. UMO/NCO coordinates rail offloading.</p> <p>a. Coordinates with PSA officials for rail offloading schedule and requirements.</p> <p>b. Designates personnel to assist in rail offloading activities.</p> <p>c. Briefs designated personnel on schedule and requirements.</p> <p>d. Supervises rail offloading activities.</p> <p>e. Assumes custody of equipment by signing appropriate shipping documents.</p> <p>f. Notifies SPOE Team Leaders that equipment has arrived in the MA.</p> <p>g. Briefs commander and/or SPOE Team OIC on status of rail offloading activities.</p> <p>h. Enforces safety procedures.</p> <p>i. Enforces environmental stewardship procedures.</p> <p>5. SPOE Team performs rail offloading operations.</p> <p>a. Reports to the rail head IAW UMO/NCO's instructions.</p> <p>b. Offloads equipment from railcars IAW PSA officials' instructions.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>c. Moves equipment to SPOE MA IAW PSA officials' instructions.</p> <p>d. Employs safety procedures.</p> <p>e. Employs environmental stewardship procedures.</p> <p>6. SPOE Team performs SPOE MA maintenance.</p> <p>a. Performs after-operations PMCS IAW the Redeployment Movement Plan and appropriate TMs.</p> <p>b. Notifies supervisor of maintenance problems beyond operator's capability.</p> <p>c. Conducts final preparation of vehicles and equipment IAW the Redeployment Movement Plan, FM 55-12 and FM 55-65.</p> <p>d. Adjusts vehicle fuel levels IAW port call message and PSA officials and UMO/NCO's instructions.</p> <p>e. Verifies placement of placards, labels, and certification documents on hazardous material IAW PSA officials and UMO/NCO's instructions.</p> <p>f. Corrects deficiencies on vehicles, cargo, and personal gear IAW SPOE Team leaders' instructions.</p> <p>g. Moves to SPOE vehicle and equipment cleaning site, as directed.</p> <p>h. Employs safety procedures.</p> <p>i. Employs environmental stewardship procedures.</p> <p>7. SPOE Team performs USDA cleaning activities.</p> <p>a. Performs vehicle cleaning IAW instructions from cleaning site personnel.</p> <p>b. Corrects USDA inspection deficiencies IAW USDA officials' instructions.</p> <p>c. Moves cleaned vehicles and equipment to designated sterile area IAW company leaders' instructions.</p> <p>*8. SPOE Team leaders supervise final preparation of vehicles, equipment, cargo, and personal gear for redeployment.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>a. Inspect military shipping labels, markings, customs labels and decontamination tags on vehicles and equipment for compliance with UMO/NCO's instructions.</p> <p>b. Monitor customs inspection to ensure deficiencies are corrected.</p> <p>c. Inspect vehicles and cargo to ensure deficiencies noted during acceptance inspection have been corrected.</p> <p>d. Coordinate maintenance assistance with Commander and/or SPOE Team OIC.</p> <p>e. Enforce safety procedures.</p> <p>f. Enforce environmental stewardship procedures.</p> <p>9. SPOE Team performs final preparation of vehicles, equipment, cargo and personal gear for redeployment.</p> <p>a. Moves vehicles and equipment to SPOE SA, as directed.</p> <p>b. Stages vehicles for loading IAW UMO/NCO and PSA officials' instructions.</p> <p>c. Corrects deficiencies in shipping documents, markings, customs labels, and decontamination tags on vehicles and equipment IAW UMO/NCO and PSA officials' instructions.</p> <p>d. Corrects deficiencies noted during customs inspection.</p> <p>e. Drives vehicles to call forward area, as directed by PSA officials.</p> <p>f. Employs safety procedures.</p> <p>g. Employs environmental stewardship procedures.</p> <p>*10. UMO and NCO update transportation documentation.</p> <p>a. Verify DEL by conducting physical inspection of equipment.</p> <p>b. Update DEL, as required.</p> <p>c. Verify the presence of supercargoes by conducting roll call.</p> <p>d. Update supercargo manifest, as required.</p> <p>e. Provide changes to DEL and supercargo manifest to PSA officials, as required.</p> <p>11. SPOE Team returns to unit area.</p>		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
a. Assembles personnel for return to company area IAW commander or SPOE Team OIC's instructions. b. Reports to transportation loading area IAW SPOE Team OIC's instructions. c. Loads baggage on vehicles IAW SPOE Team OIC's instructions. d. Boards transportation to return to company IAW SPOE Team OIC's instructions.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**OPFOR TASKS AND STANDARDS**

**NONE:**

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT HOME STATION ACTIVITIES (42-2-0287)  
 (FM 55-65) (FM 100-17) (FM 42-424)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** The company main body arrives at home station. The higher HQ main body has arrived and the higher HQ is operational. Company main body arrives at home station prior to equipment arrival at SPOD. The company receives notification of ship arrival schedule from the ITO or TAMCA/MCT. The Redeployment Movement Plan is available. Home station activities are performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**NOTE:** This task applies only to FP unit equipment and not to FP module's equipment or subsystems.

**TASK STANDARDS:** Home station activities are accomplished IAW the Redeployment Movement Plan and commander's instructions.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs home station activities. <ul style="list-style-type: none"> <li>a. Coordinates with higher HQ staff personnel to identify requirements prior to arrival of equipment.</li> <li>b. Directs personnel to complete redeployment requirements based on the Redeployment Movement Plan and higher HQ staff personnel instructions.</li> <li>c. Coordinates with higher HQ staff personnel, ITO or TAMCA/MCT to identify company's requirements for returning equipment at the SPOD.</li> <li>d. Designates an Equipment Reception Team to receive vehicles and equipment at SPOD.</li> <li>e. Directs personnel to inventory, clean and inspect vehicles, equipment, weapons and personal gear, as it is redeployed to home station.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Coordinates with higher HQ staff personnel for procedures to turn-in float and replacement equipment.</p> <p>g. Coordinates with higher HQ staff for guidance on reception activities.</p> <p>h. Approves after-action reports.</p> <p>i. Briefs company on reception activities.</p> <p>j. Enforces safety procedures.</p> <p>k. Enforces environmental stewardship procedures.</p> <p>2. UMO/NCO performs home station activities.</p> <p>a. Coordinates with ITO or TAMCA/MCT for transportation support.</p> <p>b. Briefs Equipment Reception Team Leader on SPOD requirements.</p> <p>c. Verifies that all DEL listed vehicles and equipment have been redeployed, by conducting physical inventory.</p> <p>d. Notifies commander of discrepancies in DEL, if necessary.</p> <p>e. Updates AUDEL, as required.</p> <p>3. Company HQ performs home station personnel and administrative actions.</p> <p>a. Debriefs personnel IAW commander's instructions.</p> <p>b. Coordinates reception activities IAW commander's guidance.</p> <p>c. Consolidates company after-action reports.</p> <p>d. Prepares after-action reports IAW the Redeployment Movement Plan and commander's instructions.</p> <p>e. Submits after-action reports to commander for approval.</p> <p>f. Distributes after-action reports IAW the Redeployment Movement Plan and commander's instructions.</p> <p>g. Maintains after-action reports and records IAW the Redeployment Movement Plan and commander's instructions.</p> <p>4. Company HQ performs home station supply activities.</p> <p>a. Turns in float and replacement equipment IAW commander's instructions.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>b. Inspects weapons, basic loads and CTA items for accountability and serviceability.</p> <p>*5. Company leaders supervise home station activities.</p> <p>a. Inspect vehicles, equipment, weapons and personal gear for accountability, compliance with the Redeployment Movement Plan, Maintenance SOP, and commander's instructions.</p> <p>b. Direct personnel to correct deficiencies in vehicles, equipment, weapons, and personal gear, as required.</p> <p>c. Submit after-action reports to company HQ IAW commander's instructions.</p> <p>d. Enforce safety procedures.</p> <p>e. Enforce environmental stewardship procedures.</p> <p>*6. Equipment Reception Team Leader performs home station equipment reception activities.</p> <p>a. Coordinates with UMO/NCO, ITO or TAMCA/MCT for transportation support to SPOD.</p> <p>b. Briefs Equipment Reception Team on equipment reception schedule and requirements.</p> <p>c. Supervises movement to SPOD IAW UMO/NCO's instructions.</p> <p>d. Enforces safety procedures.</p> <p>e. Enforces environmental stewardship procedures.</p> <p>7. Company performs home station activities.</p> <p>a. Completes redeployment personnel and administrative requirements based on the Redeployment Movement Plan and commander's instructions.</p> <p>b. Inventories, cleans and inspects vehicles, equipment, weapons and personal gear, IAW the Redeployment Movement Plan, Maintenance SOP and commander's instructions.</p> <p>c. Employs safety procedures.</p> <p>d. Employs environmental stewardship procedures.</p>		

<b>TASK PERFORMANCE / EVALUATION SUMMARY BLOCK</b>							
<b>ITERATION</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>M</b>	<b>TOTAL</b>
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**OPFOR TASKS AND STANDARDS**

NONE :

**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT AERIAL PORT DEBARKATION ACTIVITIES FOR REDEPLOYMENT (42-2-0288)  
 (FM 55-65) (FM 100-17) (FM 42-424)  
 (FM 55-10)

**ITERATION:** 1 2 3 4 5 M  
 (Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
 (Circle)

**CONDITIONS:** Aircraft carrying main body lands at the APOD. The higher HQ has an advance party at the APOD to assist in coordinating APOD activities. Representatives from the higher HQ advance party, supporting installation and AACG meet the aircraft. AACG officials request that company personnel assist in offloading the aircraft. The AACG has designated a holding area and an MA for the company to complete APOD activities. Transportation is available to move the company to the MA and home station. The Redeployment Movement Plan is available. APOD activities are performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**NOTE:** This task applies only to FP unit equipment and not to FP module's equipment or subsystems.

**TASK STANDARDS:** APOD activities are performed IAW the Redeployment Movement Plan and AACG officials and commander's instructions.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander coordinates arrival of personnel. a. Coordinates with higher HQ advance party and AACG officials upon arrival for USDA and customs inspections, location of holding and marshaling areas, maintenance support, movement support, security and other special APOD requirements. b. Assembles company in holding area. c. Coordinates with higher HQ staff personnel to verify movement to home station arrangements.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>d. Briefs company leaders on APOD requirements and movement arrangements.</p> <p>e. Briefs higher HQ staff personnel party OIC on APOD activities, as required.</p> <p>*2. UMO/NCO coordinates APOD activities.</p> <p>a. Coordinates with AACG for offloading and movement schedules.</p> <p>b. Briefs company leaders on offloading and movement schedules.</p> <p>c. Provides AACG, supporting installation officials and higher HQ staff personnel representative a copy of DEL.</p> <p>d. Coordinates with higher HQ staff personnel representatives for convoy routes, maps and timetable for road move to home station.</p> <p>e. Coordinates with higher HQ staff personnel representatives for fuel and supplies for road move to home station.</p> <p>f. Briefs higher HQ staff personnel on APOD activities.</p> <p>*3. Company leaders supervise APOD activities.</p> <p>a. Inspect personnel and weapons for accountability as they exit aircraft.</p> <p>b. Brief personnel on APOD requirements based on commander's instructions.</p> <p>c. Monitor USDA and customs inspections to ensure personnel comply with USDA and customs officials' instructions.</p> <p>d. Designate personnel to assist in offloading aircraft, as required.</p> <p>e. Inspect personnel and personal gear at the holding area and MA to ensure all personnel have arrived with required personal gear.</p> <p>f. Brief commander on APOD activities.</p> <p>g. Enforce safety procedures.</p> <p>h. Enforce environmental stewardship procedures.</p> <p>4. Company performs APOD activities.</p> <p>a. Disembarks aircraft IAW loadmaster's instructions.</p> <p>b. Assembles in APOD holding area, as directed.</p> <p>c. Performs offloading activities IAW AACG officials and loadmaster's instructions.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
d. Moves to APOD MA IAW commander's instructions. e. Inspects vehicles and equipment to ensure all equipment is offloaded and serviceable. f. Notifies company leaders of vehicle and/or equipment deficiencies that can not be corrected. g. Reconfigures vehicles and cargo for road movement, if necessary. h. Prepares convoy for movement to home station, if necessary. NOTE: See task steps two through five of task 42-2-0227 for detailed convoy preparation procedures. i. Loads baggage on transportation for movement to home station, as directed. j. Boards transportation for movement to home station, as directed. k. Employs safety procedures. l. Employs environmental stewardship procedures.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

**OPFOR TASKS AND STANDARDS**

**NONE:**



**ELEMENT:** COMPANY

**TASK:** PERFORM FP UNIT SEA PORT OF DEBARKATION ACTIVITIES FOR REDEPLOYMENT (42-2-0289)

(FM 55-65)

(FM 100-17)

(FM 42-424)

(FM 55-10)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** Company equipment and supercargoes have arrived at the SPOD. The commander has designated an Equipment Reception Team and is located with the Equipment Reception Team in the SPOD holding area. The Equipment Reception Team has been trained and briefed on duties and responsibilities. The Redeployment Movement Plan is available. Higher HQ staff element is located in the SPOD to assist in coordinating SPOD activities. Transportation support is available. The PSA has coordinated for ship offloading and designated an area for equipment to be inventoried and inspected as it is offloaded. Rail and road MAs have been designated to prepare vehicles and equipment for movement. Sufficient railcars and vehicles are available to move the company to home station. POD activities are performed day or night under all environmental conditions. This task should not be trained in MOPP4.

**NOTE:** If SPOD is a military seaport, the commander may designate a Rail Loading Team Chief and Rail Loading Team to perform rail loading activities. This task applies only to FP unit equipment and not to FP module's equipment or subsystems.

**TASK STANDARDS:** SPOD activities are performed IAW the Redeployment Movement Plan and PSA officials and commander's guidance.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander directs SPOD activities. a. Coordinates with higher HQ staff element and PSA officials upon arrival for USDA and customs inspections, location of holding and marshaling areas, maintenance support, movement, security and other special APOD requirements.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>b. Assembles Equipment Reception Team in holding area.</li> <li>c. Conducts acceptance inspection with PSA officials.</li> <li>d. Notifies higher HQ staff element OIC and higher HQ logistics staff representative of missing or damaged equipment.</li> <li>e. Assumes custody of equipment and cargo IAW higher HQ staff representatives' and PSA officials' instructions.</li> <li>f. Coordinates with higher HQ staff personnel to verify movement to home station arrangements.</li> <li>g. Verifies arrival, morale and welfare of supercargoes, if used.</li> <li>h. Directs Equipment Reception Team to proceed to convoy marshaling area, IAW higher HQ staff instructions.</li> <li>i. Monitors preparation of equipment for road convoy to ensure compliance with TSOP.</li> <li>j. Briefs Equipment Reception Team leaders on SPOD requirements.</li> <li>k. Briefs higher HQ staff element OIC on SPOD activities, as required.</li> <li>l. Enforces safety procedures.</li> <li>m. Enforces environmental stewardship procedures.</li> </ul> <p>*2. UMO/NCO supervises SPOD activities.</p> <ul style="list-style-type: none"> <li>a. Coordinates with higher HQ staff representative to identify offloading schedules, location of holding and MAs and other SPOD information, as required.</li> <li>b. Briefs personnel on offloading schedules, location of MAs and USDA, customs, and other special SPOD requirements.</li> <li>c. Coordinates with higher HQ staff representative and/or PSA officials to identify loading plans, schedules and sites for rail movement, if required.</li> <li>d. Provides rail loading plans to Rail Loading Team Chief, if required.</li> <li>e. Monitors rail loading procedures to ensure compliance with PSA officials' instructions, if required.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>f. Monitors preparation of equipment for road convoy to ensure compliance with Movement Plan.</p> <p>g. Coordinates with higher HQ staff representatives for convoy routes, maps and timetable for road move to home station.</p> <p>h. Coordinates with higher HQ staff representatives for fuel and supplies for road move to home station.</p> <p>i. Briefs Equipment Reception Team on convoy requirements.</p> <p>j. Briefs commander on SPOD activities.</p> <p>k. Enforces safety procedures.</p> <p>l. Enforces environmental stewardship procedures.</p> <p>3. Supercargoes (if employed) perform SPOD activities.</p> <p>a. Disembark ship IAW vessel POC's instructions.</p> <p>b. Report to customs inspection site IAW vessel POC's instructions.</p> <p>c. Report to commander upon completion of customs inspection.</p> <p>4. Equipment Reception Team performs SPOD activities.</p> <p>a. Inspects equipment to ensure all equipment is offloaded and serviceable.</p> <p>b. Notifies UMO/NCO of deficiencies that can not be corrected.</p> <p>c. Moves vehicles to USDA and customs inspection site(s) IAW UMO/NCO's instructions.</p> <p>d. Moves vehicles to rail loading site, if required.</p> <p>e. Performs rail loading activities, if required.</p> <p>NOTE: See task steps 10 and 11 of task 42-2-0284 for detailed rail loading procedures.</p> <p>f. Moves vehicles and cargo to convoy MA.</p> <p>g. Reconfigures vehicles and cargo for road movement, as appropriate.</p> <p>h. Fuels vehicles for convoy to home station, if appropriate.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
i. Prepares convoy for movement to home station, if necessary. NOTE: See task steps two through five of task 42-2-0226 for detailed convoy preparation procedures. j. Notifies commander when Equipment Reception Team is prepared to move. k. Employs safety procedures. l. Employs environmental stewardship procedures.		

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### OPFOR TASKS AND STANDARDS

NONE:

**ELEMENTS:** PROVIDER PLT  
COMPANY

**TASK:** PREPARE SUBSYSTEMS OF A FP MODULE FOR REDEPLOYMENT  
(42-2-0290)  
(FM 42-424) (TM 10-5419-200-12)

**ITERATION:** 1 2 3 4 5 M  
(Circle)

**COMMANDER/LEADER ASSESSMENT:** T P U  
(Circle)

**CONDITIONS:** The FP unit is assigned to a TAACOM or COSCOM, and may be attached to a HHD, Supply and Service Battalion, or to a HHC, Corps Support Group. Transportation and engineer support are available. The unit is employed in a theater of operations and is to be redeployed to CONUS. The unit has disposition instructions on the actions to be taken with various FP module components. The unit is under the command and control of a higher echelon element. Section leaders provide personnel and equipment status reports. The base support elements provide required redeployment support. The mission is conducted in all environmental conditions. This task should not be trained in MOPP4.

**TASK STANDARDS:** All subsystems and components are cleaned, inspected, and inventoried against the inventory lists in TM 10-5419-200-12. Unserviceable items are reported to unit maintenance and identified by tagging. The FP module's subsystems will be ready for movement by the time specified in the higher HQ movement order. All FP components are accounted for or property relief actions initiated to clear hand receipt.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Commander and leaders supervise dismantling/inventorying/repacking of FP unit's operational site. (STP 21-II-MQS: 03-3751.02-5800) a. Designate schedule for break down of FP subsystems and components.		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<ul style="list-style-type: none"> <li>b. Coordinate priority of support to FP sections to support break down operations, based on current situation, with the Support Operations, Water Distribution, and Facilities Support Sections as appropriate.</li> <li>c. Direct communications checks with company net station IAW company TSOP and current communications instructions.</li> <li>d. Coordinate continuous supply and maintenance support during dismantling.</li> <li>e. Direct continuous NBC monitoring and security of site and equipment during break down operations.</li> <li>f. Inspect FP module break down for compliance with company TSOP and environmental laws or requirements.</li> <li>g. Enforce safety procedures.</li> <li>h. Enforce environmental stewardship procedures.</li> </ul> <p>2. FP platoon personnel break down tenant billeting and support facilities.</p> <ul style="list-style-type: none"> <li>a. Dismantle billets TEMPERs. (Execute Drill 42-2-D0003, <i>Dismantle the Four-Section TEMPER.</i>)</li> <li>b. Inventory equipment.</li> <li>c. Inspect for damage.</li> <li>d. Tag unserviceable items.</li> <li>e. Repack equipment.</li> <li>f. Report damage and missing items to platoon HQ.</li> <li>g. Dismantle administration TEMPER. (Execute Drill 42-2-D0003, <i>Dismantle the Four-Section TEMPER.</i>)</li> <li>h. Dismantle MWR, medical, chaplain, and PX TEMPERs. (Execute Drill 42-2-D0003, <i>Dismantle the Four-Section TEMPER.</i>)</li> <li>i. Dismantle, inventory, and return MWR equipment and supplies to storage.</li> <li>j. Close down outdoor recreation area.</li> <li>k. Dismantle unit motor pool and storage areas, secure, inventory, and repack equipment.</li> <li>l. Dismantle wire communications lines from tenant administration area to FP administration area.</li> <li>m. Employ safety procedures.</li> </ul>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>n. Employs environmental stewardship procedures.</p> <p>3. Laundry and Shower Section breaks down laundry, latrine, and shower subsystems. (STP 10-57E14-SM-TG: 101-514-1117, 101-514-1156, 101-514-2111)</p> <p>a. Dismantles TEMPERS for the laundry and the shower. (Execute Drill 42-2-D0003, <i>Dismantle the Four-Section TEMPER.</i>)</p> <p>b. Dismantles Containerized Batch Laundry (CBL). (Execute Drill 42-2-D0005, <i>Dismantle the Containerize Batch Laundry [CBL].</i>)</p> <p>c. Dismantles Containerized Latrine (CL). (Execute Drill 42-2-D0007, <i>Dismantle the Containerized Latrine[CL].</i>)</p> <p>d. Dismantles shower. (Execute Drill 42-2-D0009, <i>Dismantle the Shower.</i>)</p> <p>e. Inventories equipment.</p> <p>f. Inspects for damage.</p> <p>g. Tags unserviceable items.</p> <p>h. Repacks equipment.</p> <p>i. Reports damage and missing items to platoon HQ.</p> <p>j. Employs safety procedures.</p> <p>k. Employs environmental stewardship procedures.</p> <p>4. Petroleum Distribution Section dismantles bulk fuel storage and distribution subsystem. (STP 10-77F15-SM-TG: 101-519-1304, 101-519-1413, 101-519-2304, 101-519-2401, 101-519-2403)</p> <p>a. Dismantles bulk fuel storage and distribution subsystem. (Execute Drill 42-2-D0012, <i>Dismantle the Bulk Fuel Storage and Distribution System for a FP Module.</i>)</p> <p>b. Inventories equipment.</p> <p>c. Inspects for damage.</p> <p>d. Tags unserviceable items.</p> <p>e. Repacks equipment.</p> <p>f. Reports damage and missing items to platoon HQ.</p> <p>g. Removes and disposes of contaminated fuel, filters, POL products, and other hazardous waste IAW theater policy.</p> <p>h. Coordinates with support operations section to have berms leveled.</p> <p>i. Employs safety procedures.</p>		

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>j. Employs environmental stewardship procedures.</p> <p>5. Food Service Section dismantles food service subsystem. (STP 10-92G1-SM: 101-524-1260, 101-524-2201)</p> <p>a. Dismantles the food service subsystem to include kitchen, dining equipment, sanitation center, and walk-in refrigerators. (Execute Drill 42-2-D0014, <i>Dismantle the Food Service Subsystem for a FP Module.</i>)</p> <p>b. Inventories equipment.</p> <p>c. Inspects for damage.</p> <p>d. Tags unserviceable items.</p> <p>e. Repacks equipment.</p> <p>f. Reports damage and missing items to platoon HQ.</p> <p>g. Disposes of or turns in remaining food supplies IAW theater policy.</p> <p>h. Employs safety procedures.</p> <p>i. Employs environmental stewardship procedures.</p> <p>6. Water Distribution Section breaks down potable water support. (STP 10-77W14-SM-TG: 101-540-1056, 091-190-7003, 101-540-2027)</p> <p>a. Dismantles the TEMPER (only if cold weather kit is in operation). (Execute Drill 42-2-D0003, <i>Dismantle the Four-Section TEMPER.</i>)</p> <p>b. Dismantles the potable water distribution and storage sites (includes water trailers with chillers). (Execute Drill 42-2-D0019, <i>Dismantle a Potable Water Distribution and Storage Site.</i>)</p> <p>c. Inventories equipment.</p> <p>d. Inspects for damage.</p> <p>e. Tags unserviceable items.</p> <p>f. Prepares equipment for storage IAW TM 746-10, General Packaging Instructions for Field Units, 16 Apr 1993.</p> <p>g. Repacks equipment.</p> <p>h. Reports damage and missing items to platoon HQ.</p> <p>i. Employs safety procedures.</p> <p>j. Employs environmental stewardship procedures.</p> <p>7. Facilities Support Section breaks down power generation cluster.</p>		



TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
<p>a. Dismantles generator power grid to include floodlight sets. (Execute Drill 42-2-D0017, <i>Dismantle a Power Generation Cluster for a FP Module</i> and Drill 42-2-D0021, <i>Dismantle a Portable Floodlight Set for a FP Module</i>.)</p> <p>b. Disposes of any remaining fuel or other hazardous waste.</p> <p>c. Inventories equipment.</p> <p>d. Inspects for damage.</p> <p>e. Tags unserviceable items.</p> <p>f. Repacks equipment.</p> <p>g. Reports damage and missing items to platoon HQ.</p> <p>h. Employs safety procedures.</p> <p>i. Employs environmental stewardship program procedures.</p> <p>8. Unit Maintenance Section and Platoon Maintenance Teams break down maintenance support facility. (STP 9-52C3-SM-TG: 091-309-0612)</p> <p>a. Dismantle maintenance support facility IAW TSOP.</p> <p>b. Inventory equipment.</p> <p>c. Inspect for damage.</p> <p>d. Tag unserviceable items.</p> <p>e. Repack equipment.</p> <p>f. Report damage and missing items to platoon HQ.</p> <p>g. Employ safety procedures.</p> <p>h. Employ environmental stewardship procedures.</p> <p>9. FP platoon breaks down operator billeting and administrative area.</p> <p>a. Dismantles billeting and administrative TEMPERS. (Execute Drill 42-2-D0003, <i>Dismantle the Four-Section TEMPER</i>.)</p> <p>b. Clears traffic patterns and FP unit vehicle parking areas of trash and residue.</p> <p>c. Inventories equipment.</p> <p>d. Inspects for damage.</p> <p>e. Tags unserviceable items.</p> <p>f. Repacks equipment.</p> <p>g. Reports damage and missing items to platoon HQ.</p> <p>h. Maintains communications with higher HQ and tenant support area using radio or wire.</p>		

<b>TASK STEPS AND PERFORMANCE MEASURES</b>	<b>GO</b>	<b>NO-GO</b>
i. Forwards property accountability information to company HQ. j. Employs safety procedures. k. Employs environmental stewardship procedures. *10. Commander clears hand receipt for FP module(s). (STP 21-II-MQS: 03-5101.00-0006) a. Turns in FP module(s) to appropriate higher HQ supply element. b. Reports any shortages. c. Consolidates shortage lists for company HQ. d. Clears subordinates hand receipts. e. Initiates property relief for missing or damaged property. f. Adjusts property book to reflect module turn in.		

<b>TASK PERFORMANCE / EVALUATION SUMMARY BLOCK</b>							
<b>ITERATION</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>M</b>	<b>TOTAL</b>
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO" / "NO-GO"							

"\*" indicates a leader task step.

#### **SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
STP 9-52C-SM-TG	091-309-0612	SUPERVISE PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)
STP 10-57E14-SM-TG	101-514-1156	OPERATE THE SHOWER UNIT'S WATER HEATER
	101-514-2111	SUPERVISE OPERATOR AND PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON LAUNDRY EQUIPMENT
	101-514-1117	
STP 10-77F15-SM-TG	101-519-1304	ASSEMBLE, OPERATE, PERFORM PMCS, AND DISASSEMBLE THE FORWARD AREA REFUELING EQUIPMENT (FARE) SYSTEM

**SUPPORTING INDIVIDUAL TASKS**

<b>References</b>	<b>Task Number</b>	<b>Task Title</b>
	101-519-2304	SUPERVISE THE ASSEMBLY, OPERATION, PMCS, AND DISASSEMBLY OF THE FORWARD AREA REFUELING EQUIPMENT (FARE)
	101-519-1413	EMPLOY ENVIRONMENTAL STEWARDSHIP MEASURES
	101-519-2401	SUPERVISE ENVIRONMENTAL STEWARDSHIP MEASURES
	110-519-2403	SUPERVISE A PETROLEUM PILFERAGE CONTROL PROGRAM
STP 10-92G1-SM	101-524-1260	PERFORM CLEANING AND SANITATION SERVICES AT A FIELD KITCHEN
	101-524-2201	DIRECT PERSONNEL IN CLEANING AND SANITIZING DINING AND COOKING UTENSILS IN A DINING FACILITY
STP 10-77W14-SM-TG	101-540-1056	OPERATE/PERFORM PMCS ON THE 125-GPM GAS/DIESEL DRIVEN PUMP
	091-109-7003	OPERATE/PERFORM PMCS ON THE 60-KW DIESEL GENERATOR
	101-540-2027	SUPERVISE THE OPERATION/PMCS OF THE 60-KW DIESEL GENERATOR
STP 21-II-MQS	03-3751.02-5800	DEVELOP UNIT PHYSICAL SECURITY AND CRIME PREVENTION STANDING OPERATING PROCEDURES

**OPFOR TASKS AND STANDARDS**

**NONE:**

## Chapter 6

### External Evaluations

**6-1. INTRODUCTION.** An external evaluation is conducted to evaluate the unit's ability to perform its missions. This chapter is a guide for preparing an external evaluation. Using units may modify this evaluation, based on METT-T and other considerations as deemed appropriate by the commander. Selected T&EOs in Chapter 5 are used for evaluation which involves the total unit and employs a realistic OPFOR. At the end of the evaluation, the commander can identify the strengths and weaknesses of his unit. These strengths and weaknesses are the basis for future training and resource allocations.

**6-2. PREPARING THE EVALUATION.** The commander must standardize evaluation procedures to accurately measure the unit's capabilities.

a. Preparing the Evaluation Instrument. The sample evaluation scenario in Table 6-1 contains the missions as well as the appropriate tasks necessary to develop the scenario and execute the evaluation. Selective tailoring is required, because it is not possible to evaluate every task. The following procedures are suggested for developing the evaluation.

(1) Identify the missions for evaluating each echelon or element, using Table 2-1. Record the selected missions in the UPW, Figure 6-1.

(2) List each mission on a separate Task Summary Sheet, Figure 6-2.

(3) Select the tasks for the evaluation of every mission. List the selected tasks on the Task Summary Sheets which are used for recording the results of the evaluation.

(4) Compile the selected missions and tasks in the order they logically occur in the detailed scenario. Group the selected missions and tasks in parts for continuous operations, Table 6-1, sample evaluation scenario. Parts can be interrupted at logical points to assess casualties and conduct in process AARs.

(5) Develop a graphic scenario, Figure 6-3, to support the evaluations execution.

b. Forecasting and Requisitioning Resources. Adequate training ammunition, equipment and supplies must be forecasted and requisitioned. Table 6-2 is a consolidated list of support requirements for this evaluation. It is based on experiences with the scenario in Table 6-1. The evaluating headquarters will prepare its own consolidated support requirements.

**Table 6-1. Sample evaluation scenario**

EVENT	ACTION	ESTIMATED TIME	TIME FRAME
1.	Administrative preparations	As required	Pre-start
<b>PART 1 (Day 1 &amp; 2)</b>			
2.	Deployment alert notification	10 min	0600
3.	Verify deployment notification	10 min	0610
4.	Initiate recall plan	40 min	0620
5.	Brief key personnel	30 min	0700
6.	Update movement, deployment, and marshalling area plans	2 hr	0730
7.	Conduct POM processing	2 hr	0930
8.	AAR	1 hr	1030
9.	Assemble deployment teams	30 min	1130
*10.	Perform deployment supply activities	2 hr	1200
*11.	Perform deployment maintenance activities	2 hr	1400
12.	Perform advance/quartering party activities	7 hr 30 min	1600
13.	AAR	1 hr	0600
*14.	Inspect vehicles and unit equipment	1 hr 30 min	0700
*15.	Conduct showdown inspections	1 hr 30 min	0830
*16.	Prepare vehicles and equipment	4 hr	1000
*17.	Load vehicles and equipment	3 hr	1400
18.	AAR	1 hr	1700
<b>PART 2 (Day 3)</b>			
19.	Receive movement order	10 min	0600
20.	Conduct nontactical road march	1 hr	0630
21.	Perform APOE/SPOE activities	2 hr	0730
22.	Perform APOD/SPOD activities	2 hr	0930
23.	Perform staging area activities	1 hr	1130

24. AAR

1 hr

1230

**Table 6-1. Sample evaluation scenario (continued)**

EVENT	ACTION	ESTIMATED TIME	TIME FRAME
<b>PART 2 (Day 3) (continued)</b>			
*25.	Conduct tactical road march	1 hr	1330
*26.	Defend march elements	1 hr	1430
27.	Secure operational area	1 hr	1530
28.	AAR	1 hr	1630
<b>Part-3 (Day 4-7)</b>			
29.	Plan site defense	4 hr	0600
30.	Perform CP set up activities	8 hr	1000
31.	AAR	1 hr	1800
32.	Perform module set up activities	72 hr	1900
33.	Set up site defense	4 hr	2100
<b>Part-4 (Day 8-9)</b>			
34.	Commander issues guidance	30 min	0600
35.	Conduct Force Provider support activities	24 hr	0630
36.	Defend against Level I threat activities	1 hr	1030
39.	AAR	1 hr	1800
<b>Part-5 (Day 10)</b>			
40.	Conduct NBC operations	30 min	0600
41.	Respond to NBC attack	1 hr	0630
42.	Force Provider support degradation	2 hr	0730
43.	AAR	1 hr	0930
44.	Defend against air attacks	30 min	1030
45.	Conduct restoration activities	1 hr	1100
46.	Receive notification of Level II/III threat	15 min	1200
47.	AAR	1 hr	1215
48.	Notify elements of Level II/III threat	15 min	1315
49.	Upgrade defensive positions	1 hr	1330
50.	Respond to threat attack	1 hr 30 min	1500
51.	AAR	1 hr	1630
52.	Reorganize defenses	30 min	1730
53.	Maintain contact	30 min	1800

**Table 6-1. Sample evaluation scenario (continued)**

ESTIMATED EVENT	TIME ACTION	TIME	FRAME
<b>Part-5 (Day 10) (continued)</b>			
54.	Handover the battle	30 min	1830
55.	AAR	1 hr	1900
56.	Conduct hasty displacement	30 min	2000
57.	Conduct ADC activities	1 hr 30 min	2030
58.	AAR	1 hr	2200
<b>Part-6 (Day 11-13)</b>			
59.	Receive redeployment order	10 min	0600
60.	Perform redeployment administrative activities	4 hr	0610
*61.	Perform redeployment supply activities	2 hr	1010
*62.	Perform redeployment maintenance activities	2 hr	1210
63.	Perform module dismantle activities	60 hr	1410
64.	AAR	1 hr	1800
*65.	Inspect vehicles and unit equipment	1 hr 30 min	0600
*66.	Conduct showdown inspection	1 hr 30 min	0730
*67.	Prepare vehicles and equipment	4 hr	0900
*68.	Load vehicles and equipment	3 hr	1300
69.	AAR	1 hr	1400
70.	Conduct tactical road march	1 hr	1500
71.	Defend march elements	1 hr	1600
72.	Perform APOE/SPOE activities	2 hr	1700
73.	AAR	1 hr	1800
74.	Perform APOD/SPOD activities	2 hr	2000
75.	Conduct nontactical road march	1 hr	2100
76.	Perform home station activities	1 hr	2200
77.	Final AAR	2 hr	0000
	Total Time	227 hr 20 min	

\* Events occur simultaneously and aren't included in total time.

c. Selecting and Preparing the Field Evaluation Site. Required size, type of terrain, OPFOR requirements, and administrative requirements are the basis for site selection. For this evaluation, an area of 72,846 Square meters was



selected. The OPFOR is positioned according to threat doctrine. The site must provide space for the administrative area required to support the evaluation.

d. Planning Indirect Fire Simulation. Because it greatly influences the outcome of battles, reaction to indirect fire is an important consideration of the evaluation. Indirect fire simulation requires considerable planning to achieve realism.

(1) The fire marker control system outlined in TC 25-6 is a recommended method of simulating indirect fire. Due to the amount of required resources, this method may be difficult to support.

(2) The commander may use the evaluation control headquarters method or the simulation without OPFOR method to evaluate the unit's ability to react to indirect fire. If the evaluation control headquarters method is used, the OPFOR will initiate a call for fire to the evaluation control headquarters which will simulate the tactical FDC. The control headquarters would then relay the delivery data to the OCs who would mark the impact of the round with artillery simulators and assess appropriate casualties. If an OPFOR is not used, the OC may ignite artillery simulators and observe the unit's reactions. The FM 25-series provide assessment and computation tables which may be used to determine casualties. Indirect fire simulation must be realistic and limited to what the unit could reasonably expect under combat conditions.

**UNIT PROFICIENCY WORKSHEET**

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**UNIT:** QUARTERMASTER FORCE PROVIDER COMPANY

**MISSION**

**EVALUATION**  
GO / NO GO

Conduct Strategic Deployment

Conduct Force Provider Operations

Defend Assigned Area

Conduct Strategic Redeployment

**OBSERVER CONTROLLER'S COMMENTS:**

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Observer Controller's Signature

**Figure 6-1. Sample unit proficiency worksheet**

**TASK SUMMARY SHEET**

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**MISSION:** Conduct Strategic Redeployment

<b>TASK TITLE</b>	<b>T&amp;EO NUMBER</b>	<b>EVALUATION GO / NO GO</b>
Perform FP Unit Redeployment Personnel and Administrative Actions	42-2-0280	_____
Perform FP Unit Redeployment Training Activities	42-2-0281	_____
Perform FP Unit Redeployment Supply Activities	42-2-0282	_____
Perform FP Unit Redeployment Maintenance Activities	42-2-0283	_____
Prepare FP Unit Vehicles and Equipment for Redeployment	42-2-0284	_____
Perform FP Unit Aerial Port of Embarkation Activities for Redeployment	42-2-0285	_____
Perform FP Unit Sea Port of Embarkation Activities for Redeployment	42-2-0286	_____
Perform FP Unit Home Station Activities	42-2-0287	_____
Perform FP Unit Aerial Port of Debarkation Activities for Redeployment	42-2-0288	_____
Perform FP Unit Sea Port of Debarkation Activities for Redeployment	42-2-0289	_____
Prepare Subsystems of a FP Module for Redeployment	42-2-0290	_____

\_\_\_\_\_  
Observer Controller's Signature

**NOTE:** A separate task summary sheet will be prepared for each mission evaluated. OC's comments may be placed on an enclosure to the task summary sheet.

**Figure 6-2. Sample task summary sheet**

**Table 6-2. Consolidated support requirements for  
STX C-4**

ITEM	QUANTITY
<u>AMMUNITION</u>	
None	
<u>EQUIPMENT</u>	
All organic equipment to include TOE and CTA authorized. Rail and aircraft load simulations.	
<u>FUEL</u>	
Use FM 101-10-1/2 to calculate fuel requirements.	
<u>NBC EQUIPMENT</u>	
None	
<u>RATIONS</u>	
None	
NOTE: The consolidated support requirements outlined for this STX are intended as suggestions. Local policies or constraints may not allow for providing the items.	

**Figure 6-3. Sample graphic scenario**

**6-3. SELECTING THE OBSERVER CONTROLLERS (OC).**

a. OCs must know the unit's missions, organization, equipment and employment. The senior OC should be at least equal in rank to the unit commander and have successfully performed in a specific or similar position.

b. The following are minimum rank and experience requirements for evaluators:

(1) Company OC will be an officer with company command experience.

(2) Platoon or section OCs will be a LT or a NCO with platoon or section experience.

(3) Recorder will be an officer or NCO at the evaluation control headquarters who receives "kill" information or results and time data from the OCs.

**6-4. TRAINING THE OBSERVER/CONTROLLERS.** OCs standardize administration of the evaluation by understanding the following functional areas:

a. Evaluation Design. Each part is designed to evaluate specific missions or tasks within the overall scenario. OCs must thoroughly understand the evaluation and correctly implement it.

b. Equipment. Each OC, regardless of position, must have full knowledge of the unit's weapons and vehicles.

c. Evaluation Control System. This system ensures that the evaluation is administered in a consistent and standardized manner and that the correct data is collected for the final evaluation. It includes the following elements:

(1) Rules of engagement.

(2) OC duties and responsibilities.

(3) Communication system.

(4) Evaluation data collection plan.

**6-5. RECORDING EXTERNAL EVALUATION INFORMATION.**

a. The evaluating headquarters develops the data recording instruments for the OCs. The Unit Data Sheet, Figure 6-4, documents demographic information which may reflect on a unit's performance. The Environmental Data Sheet, Figure 6-5, documents weather information in order to compare missions under differing environmental conditions. The Personnel and Equipment Loss Report, Figure 6-6, documents information that may affect the unit's degree of success during engagements with the OPFOR.

**UNIT DATA SHEET**

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1. UNIT DESIGNATION: \_\_\_\_\_

2. UNIT LEADERS: (Circle most correct answer.)

POSITION	RANK	TIME IN UNIT(MONTHS)				
		1-3	4-6	7-12	13-18	19 or more
COMMANDER	CPT/1LT					
1SGT	SFC/1SGT					
SUPPLY SGT	SSG/SGT					
SECTION SGT	SFC/SSG					
MOTOR SGT	SFC/SSG					

3. UNIT STRENGTH (excluding leaders): \_\_\_\_\_

4. EQUIPMENT SHORTAGES (Major items):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Figure 6-4. Sample unit data sheet**

**ENVIRONMENTAL DATA SHEET**

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PART NUMBER AND DESCRIPTION: \_\_\_\_\_

DATE/TIME PART STARTED: \_\_\_\_\_

DATE/TIME PART ENDED: \_\_\_\_\_

1. WEATHER CONDITIONS: (Circle appropriate description)

Clear Partly Cloudy Cloudy Hazy Raining Snowing Fog

Other (describe): \_\_\_\_\_

Temperature: \_\_\_\_\_

2. GROUND CONDITIONS: (Circle appropriate description)

Dry Wet Ice Snow Other: \_\_\_\_\_

3. LIGHT CONDITIONS: (Circle appropriate description)

A. Day Night

B. Moon Phase: None 1/4 1/2 3/4 Full

C. Average Range of Visibility Due to Light: \_\_\_\_\_

4. TERRAIN: (Circle appropriate description)

A. Flat Rolling Mountainous Jungle Desert Urban Arctic

Other (describe): \_\_\_\_\_

B. Top Soil Composition:

Sandy Rocky Clay Other: \_\_\_\_\_

C. Average Range of Visibility Due to Terrain: \_\_\_\_\_

5. REMARKS: \_\_\_\_\_

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**Figure 6-5. Sample environmental data sheet**



PERSONNEL AND EQUIPMENT LOSS REPORT

UNIT IDENTIFICATION: \_\_\_\_\_

Mission Title or Task Number	Date and Time Enemy Contact	Friendly KIA	Enemy KIA	Vehicles Destroyed
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
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_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

COMMENTS:

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**Figure 6-6. Sample personnel and equipment loss report**

b. The senior OC has the overall responsibility for preparation of the external evaluation. This evaluation is based on his own findings and his subordinate OCs' input. Subordinate OCs use the task evaluation criteria (T&EO from Chapter 5 and Task Summary Sheets) to determine overall proficiency in their particular areas. The senior OC compiles the external evaluation results as prescribed by the evaluating commander. Deviations from the task standard assessed by the company OC may be addressed in the senior OC comments portion of the UPW.

**6-6. SELECTING AND TRAINING THE OPFOR.** The selection and training of the OPFOR is crucial to the success of a standardized evaluation. The OPFOR provides one of the control measures that influences the conditions under which the evaluation is administered. The unit should face an opponent which realistically resembles the threat in strength, weapons, and skill.

a. Selection. Any qualified Skill Level 1 or 2 soldier can serve as OPFOR. Ideally, they should be a small cohesive unit under the control of their leader or commander.

b. Training. The OPFOR must understand the following five major areas:

- (1) Rules of engagement.
- (2) Threat small unit tactics.
- (3) Training scenarios.
- (4) OPFOR weapons and equipment, if available.

c. OPFOR Strength.

(1) Offense. The unit should outnumber the OPFOR three to one if an attack is to be successful. If the OPFOR is stronger than this ratio, only the most exceptional unit will be successful. They must be armed with weapons capable of defeating any of the unit's assets. As a general rule, the OPFOR should be strong enough to offer the unit a realistic challenge, but one that the unit can defeat when proper tactics are employed.

(2) Defense. The OPFOR, at a minimum, should have a three-to-one ratio of superiority, because anything less will not effectively challenge the unit when defending. The OPFOR should have sufficient weapons and ammunition to conduct a successful attack. They must be more than merely a series of targets to be destroyed. The OPFOR should be allowed to plan their own attack for each mission and not be forced into a preconstructed attack that all units will quickly defeat. Once the OPFOR establishes their plan, they must use the same plan for all other like units for that event in order to maintain the objectivity and standardization of the evaluation.

**6-7. CONDUCTING THE EVALUATION.** Evaluations are divided into three distinct areas. Each area requires a different degree of preparation and coordination.

a. Preevaluation.

(1) The senior OC and all other OCs must recon the evaluation area to know the unit's boundaries, disposition of the OPFOR, and the most likely avenues of approach throughout the field evaluation site's AO.

(2) The unit must prepare an OPORD and FRAGO to control the exercise. An order is prepared for each mission in the evaluation scenario. These can be prepared by using the skeleton orders contained in the STXs and FTXs in Chapter 4.

(3) Unit preparatory activities include loading vehicles, conducting inspections, and performing other logistic and administrative actions, as required.

(4) The OPFOR is placed in position and briefed while the unit is conducting its preparatory activities.

(5) In this evaluation scenario, the unit is issued a march order to move to an assembly area. When the assembly area has been occupied, the OPORD is issued. The OCs should make an equipment functions check after the unit occupies the assembly area and after the unit leaders have issued their instructions.

b. Evaluation.

(1) The evaluation team controls the evaluation in two ways. First, it uses measures established in both the movement order and in paragraphs 3 and 5 in the OPORD or FRAGO. Second, the team controls the evaluation through the team commander (simulated by the senior OC for this evaluation) on the team net. The team does not control in the traditional sense, instead it

accompanies the unit as observers. Only the senior OC has direct verbal contact with the unit commander. All other OCs do not speak to, aid, advise, point out positions, or in any way influence the unit's performance, except for a safety emergency. OCs are neutral throughout the evaluation.

(2) Once the senior OC issues the OPORD and movement order, the unit commander executes the events and actions prescribed in the first part of the evaluation scenario within the estimated time. From this point on, all successive parts begin with a FRAGO.

(3) The senior OC terminates a part when the unit has completed all the events and actions in a particular area or has suffered so many casualties or damage that the part cannot be completed. The OC must record the reasons for the termination in the margin of the OC's Task Summary Sheets and report his action to the evaluation control headquarters. In the sample evaluation scenario, the completion of each event or action is indicated by "conducting sustainment operations." During this period, the senior OC will direct the platoon to remain in position while "replacements" (personnel and equipment designated as killed or destroyed) are sent forward to reconstitute the unit. At this time, OC must perform the following actions:

(a) Record kills and assess damage to personnel and equipment

(b) Resolve all casualty data to determine the time, place, number, and cause of casualties. This information is reported to the recorder in the evaluation control headquarters.

(c) Debrief the unit to resolve questions. Afterwards, the senior OC directs the unit to continue its mission after it receives a FRAGO or OPORD for the next part.

(4) These guidelines should be followed by the OCs.

(a) Report major "kills" (vehicles, groups).

(b) Report major weapons fired. Together with reporting major kills, this is the best method for determining direct fire effectiveness. Both significant firings and hits are reported to the evaluation control headquarters.

(c) Enforce rules of engagement.

(d) Observe critical tactical events of time. OCs must spot and record any action that might have an effect on later performance or mission outcome.

(e) Record travel routes and unit's location.

(f) Inform OPFOR controllers of the unit's location, direction, and intent. This is necessary to enable OPFOR actions to be controlled in accordance with the desired sequence of events.

(g) Enforce safety.

(h) Terminate mission.

c. Post Evaluation. After the evaluation is terminated, the unit moves to an assembly area and performs the following actions:

(1) The unit OC debriefs subordinate OCs and compiles all data (evaluator packets) for the evaluation.

(2) The unit OC must complete the task summary sheets.

(3) The unit OC must turn in all completed OC packets (with the OC scoring system) to control headquarters for recording and analysis.

(4) The unit OC must conduct an AAR of the unit's performance.

(5) Each element OC should conduct an AAR of his element's performance.

#### **6-8. AFTER ACTION REVIEW.**

a. General. At the completion of each evaluation part, the AAR leader provides feedback to the unit in order to increase and reinforce learning.

b. Feedback. Because all members of the unit participate in an AAR, each member becomes a source of feedback. This provides a richer "data base" for key points. The AAR leader will draw information from each member which becomes an important part of the discussion. This information is the basis for discussing alternate courses of action.

c. Preparing the AAR. AAR preparation involves four steps:

(1) Review training orders and objectives. Training objectives are the focus of the discussion of the exercise results. The FRAGOs and OPORDs included in the exercise design implement these objectives. The OC should be familiar with the objectives, FRAGOs, and OPORDs so that he can note orders given by leaders of the evaluated unit and its subordinate elements that either implement these objectives or deviate from them.

(2) Observe the exercise. This is an active process. The emphasis is on noting those actions that make the difference between the unit's success or failure. The OC does not need to remain close to the unit leader, since more can be seen from high ground near the lead element's location or along the unit's route of march. Because unit orders identify important activities and checkpoints, the OC must be present when the commander issues the order. The OC should position himself where he can best observe anticipated critical events. Examples of critical events include

(a) Conducting advance/quartering party activities.

(b) Conducting a tactical road march.

(c) Setting up the CP area.

(d) Responding to an NBC attack.

(3) Select the site and assemble the participants. After the exercise, select a site for the AAR. If possible, hold the AAR where the majority of action occurred, where most of the critical events took place (normally where the OPFOR was positioned) or where the terrain can be observed. Usually, the OPFOR or unit objectives are suitable for assembling the players and conducting AARs.

(4) Debrief the OCs. While the units are moving to the selected site, the OCs should be debriefed. The senior OC must have a complete understanding of what happened in the exercise. The fourth step in AAR preparation is to obtain a detailed description of the exercise's events in the order in which they occurred.

(5) Review the events. After the senior OC has a sound understanding of what happened during the exercise, he reviews the events which are ranked in terms of their relevance to the training objectives and their contributions to the exercise outcome. He selects as many events as can be covered in

detail during the time allowed for the AAR and places them in chronological order.

d. Conducting the AAR. Conducting the AAR requires four steps:

(1) Organize the participants. When the OC/AAR leader assembles the participants, he groups them according to their organization in the exercise. Each subordinate element's OC is with the element for which he is responsible.

(2) State the training objectives. The AAR leader makes a brief statement of the training objectives for the exercise. These are described as specifically as possible. He states any additional teaching points that he intends to cover during the AAR. These should be limited to three or four key points in order to keep the AAR focused and prevent it from becoming excessively long.

(3) Lead the discussion. The AAR leader guides the discussion of the events in their order of occurrence. Diagrams help players visualize the exercise development. The AAR leader starts by sketching the main terrain features and, as the AAR proceeds, have the participants draw routes of advance, objectives, and locations of engagements. Each event is discussed in detail to make teaching points about the unit's performance during the event. In an effective AAR, the AAR leader should:

- (a) Avoid giving a critique or lecture.
- (b) Guide the discussion by asking leading questions.
- (c) Suggest the players describe what occurred in their own terms.
- (d) Suggest the players discuss not only what happened, but how it happened and how it could be done better
- (e) Focus the discussion to ensure that important tactical lessons are made explicit.
- (f) Relate events to subsequent results.
- (g) Avoid detailed examination of events not directly related to major training objectives.

(h) Encourage the participants to use diagrams to illustrate teaching points and to show routes, phase lines and objectives.

(i) Prohibit players from offering self-serving excuses for inappropriate tactical actions.

(4) Summarize key points. The AAR leader briefly summarizes teaching points in terms of training objectives covered in the AAR. After the summary, he can have a private conversation with the unit commander regarding his strengths and weaknesses, and what he can do to improve his performance and that of his unit. A good AAR ensures:

(a) Order and discipline are maintained.

(b) Training objectives are reviewed.

(c) Important events are addressed as they occurred and how the unit could have done them better. During the discussion, the leader avoids a detailed examination of events not directly related to the training objective.

(d) The chain of events is traced by the AAR leader so all participants understand the results of mistakes. One mistake is often the partial cause of another.

(e) Tactical events are clearly related to teaching points.

(f) Participants are listening and involved in the discussion.

(g) Summary and new training objectives are clear and concise.

(h) Sketches, diagrams, or terrain models are used to reinforce points made in the AAR.

e. Reference materials for conducting an AAR are FM 25-101 and TC 25-6.



## APPENDIX A

### Battlefield Operating Systems

**1. INTELLIGENCE.** That knowledge of the enemy, weather, and geographical features required by a commander in planning and conducting combat operations. It is derived from an analysis of information on the enemy's capabilities, intentions, vulnerabilities, and the environment.

a. Collect Information. To obtain information in any manner.

b. Process Information. To convert information into intelligence through collation, evaluation, analysis, integration, and interpretation.

c. Prepare Intelligence Reports. To develop and produce standard reports and IPB products for the commander's use to report intelligence or information, to task intelligence assets, or to receive information, intelligence orders, or instructions.

**2. MANEUVER.** The employment of forces on the battlefield through movement and direct fires in combination with fire support or fire potential, to achieve a position of advantage, in order to accomplish the mission. This includes direct fire systems (e.g., small arms, tank guns, and attack helicopter fires).

a. Move. To position or reposition forces (units and equipment) relative to the enemy to secure or retain positional advantage making full use of terrain and formation. It is the dynamic element of combat, the means of concentrating forces at the critical point to achieve the surprise, psychological shock, physical momentum, and moral dominance which enables smaller forces to defeat larger ones. Units supporting combat maneuver units are included since they are expected to go wherever the combat units go. Note: Movement of cargo, equipment, and personnel is covered under the Combat Service Support BOS.

b. Engage Enemy. To enter into conflict or combat on the ground with the enemy using direct fire or close combat. Note: Air targets are covered in the Air Defense BOS.

c. Control Terrain. To dominate an area to prevent enemy occupation of the position through fire, fire potential, or occupation of the terrain.

**3. FIRE SUPPORT.** The collection and coordinated use of target acquisition data, indirect fire weapons, armed aircraft (less attack helicopters) and other lethal and nonlethal means against ground targets in support of maneuver force operations. It includes artillery, mortar and other non-line-of-sight fires, naval gun fire, CAS, and electronic countermeasures.

a. Process Ground Targets. To select targets and match the appropriate response to them, taking account of operational requirements and capabilities.

b. Engage Ground Targets. To enter into conflict with the enemy using fire support systems.

c. Integrate Fire Support. To combine and coordinate all fire support means.

**4. MOBILITY AND SURVIVABILITY.** The capability of the force that permits freedom of movement, relative to the enemy, while retaining the ability to fulfill its primary mission. It also includes those measures the force takes to remain viable and functional by protection from the effects of enemy weapon systems and natural occurrences.

a. Provide Mobility. To provide freedom of movement for personnel and equipment on the battlefield without delays due to terrain or obstacles.

b. Provide Countermobility. To delay, channel, or stop offensive movement by the enemy in order to destroy his forces directly or indirectly by enhancing the effectiveness of friendly indirect and direct weapon system.

c. Enhance Survivability. To protect personnel, equipment, and supplies from enemy systems and natural occurrences while simultaneously deceiving the enemy.

**5. AIR DEFENSE.** All measures designed to nullify or reduce the effectiveness of attack by hostile aircraft or missiles after they are airborne.

a. Process Air Targets. To select targets and match the appropriate response to them, taking account of operational requirements and capabilities.

b. Attack Enemy Air Targets. To intercept, engage, destroy or neutralize enemy aircraft and missile in flight.

c. Deny Airspace. To prevent enemy use of airspace through fire potential or other means without direct attack of air targets (e.g., deliberate smoke, barrage balloons).

d. Integrate Air Defense Fires. To combine and coordinate all tactical air defense means.

**6. COMBAT SERVICE SUPPORT.** The support and assistance provided to sustain forces, primarily in the field of logistics, personnel services, and health services.

a. Arm. To provide munitions to weapons systems. This encompasses all type of ammunition to include mines and demolition munitions.

b. Fuel. To provide fuel and petroleum products (petroleum, oils, and lubricants) to weapon systems and other equipment.

c. Fix. To preserve the availability of weapon systems and equipment. It includes the provision of repair parts and end items at the right place and time, and all the actions taken before, during, and after battle to keep equipment operational.

d. Man the Force. To provide all support to the individual soldier as well as provide healthy, fit soldiers to units.

e. Distribute. To provide the various classes of supply to military units by employing transportation and supply services.

f. Provide Sustainment Engineering. To repair and construct facility and lines of communications.

g. Provide MP Support. To provide EPW collection, evacuation and internment; and to enforce military law and order.

**7. COMMAND AND CONTROL.** The exercise of authority and direction by a properly designated commander over assigned force in the accomplishment of the mission. Leaders perform C2 functions through an arrangement of personnel, equipment, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission.

a. Acquire and Communicate Information and Maintain Status. To gain possession of information on the mission, enemy forces, friendly troops, terrain, and weather, by or for the commander or his staff, to translate that information into usable form and to retain and disseminate it.

b. Assess Situation. To continuously evaluate information received through reports or the personal observations of the leader or commander to decide whether different actions are required from those that would result from the most recent orders issued.

c. Determine Actions. To conduct the continuous process of making estimates and decisions for assigned or projected tasks. This functions involves a detailed and systematic examination of all aspects of contemplated operations including deciding to alter planned or on-going actions. This function also includes the formulation of the commander's concept and intent.

d. Direct and Lead Subordinate Forces. To provide direction to subordinate forces so that they understand and contribute effectively and efficiently to the attainment of the commander's concept and intent. This function includes the preparation and completion of orders.

e. Employ Tactical C3CM. To integrate the use of operations security, tactical deception, tactical jamming, and physical destruction, supported by intelligence, to deny information, to influence, degrade, or destroy adversary tactical C3 capabilities and to protect friendly tactical C3 against such actions.

**APPENDIX B****List of STPs and Supporting Individual Tasks**

STP 9-51R12-SM-TG	Soldier's Manual and Trainer's Guide, MOS51R, Interior Electrician, Skill Levels 1/2 (15 Oct 88)
051-246-1111	Install Electrical Boxes
051-246-1119	Install Cable Systems
051-246-1120	Isolate Malfunction in Electrical Circuits
STP 9-52C12-SM	Soldier's Manual, MOS 52C, Utilities Equipment Repairer, Skill Levels 1/2 (30 Oct 89)
091-181-5201	Maintain Air Conditioner Electrical System
091-181-5202	Repair Air Conditioner Electrical System
091-181-5203	Maintain Air Conditioner Vapor System
091-181-5204	Repair Air Conditioner Vapor System
091-181-5205	Maintain Refrigeration Unit Electrical System
091-181-5206	Repair Refrigeration Unit Electrical System
091-181-5207	Maintain Refrigeration Unit Vapor System
091-181-5208	Repair Refrigeration Unit Vapor System
STP 9-52C3-SM-TG	Soldier's Manual and Trainer's Guide, MOS 52C, Utilities Equipment Repairer, Skill Level 3 (30 Oct 89)
091-381-0105	Supervise the Maintenance and Repair of Air Conditioning Systems

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091-381-0106	Supervise the Maintenance and Repair of Refrigeration Systems
091-381-0112	Supervise the Maintenance and Repair of Laundry and Bath Units
091-381-0118	Supervise the Maintenance and Repair of Petroleum, Oil, and Lubrication Equipment
091-381-0124	Inspect and Troubleshoot Petroleum, Oil, and Lubrication Equipment
091-381-0126	Inspect and Troubleshoot Laundry and Bath Units
091-381-0132	Inspect and Troubleshoot Air Conditioner Units
091-381-0133	Inspect and Troubleshoot Refrigeration Units
091-381-0602	Implement a Shop Safety Program
091-381-0611	Establish and Operate Maintenance Facilities
091-381-0612	Supervise Preventive Maintenance Checks and Services

STP 9-52D12-SM

Soldier's Manual, MOS 52D, Power Generation Equipment Repairer, Skill Levels 1/2 (30 Oct 89)

091-109-0001	Maintain Test, Measurement, and Diagnostic Equipment (TMDE)
091-109-0003	Maintain Assigned Tools/Kits
091-109-0005	Prepare Equipment Inspection and Maintenance Worksheet (DA Form 2404)
091-109-0009	Prepare Maintenance Request (DA Form 2407)

091-109-0014	Prepare Preventive Maintenance Schedule and Record (DD Form 314)
091-109-0015	Review/Annotate Preventive Maintenance Schedule and Record (DD Form 314)
091-182-0101	Maintain Diesel Engine Lubrication System
091-182-0102	Repair Diesel Engine Lubrication System
091-182-0301	Maintain Diesel Engine Fuel System
091-182-0501	Maintain Diesel Engine Cooling System
091-182-0601	Maintain Engine/Generator Electrical Systems
091-182-0602	Repair Engine/Generator Electrical Systems
091-182-0603	Maintain Diesel Engine Control Panels and Instruments
091-182-0606	Maintain Engine/Generator Speed Control System
091-182-0609	Maintain Engine Aspiration System
091-182-0610	Repair Engine Aspiration System
091-182-2901	Maintain Power Generation Equipment
091-182-2902	Repair Power Generation Equipment
091-182-4301	Maintain Engine Hydraulic System
STP 9-52D3-SM-TG	Soldier's Manual and Trainer's Guide, MOS 52D, Power Generation Equipment Repairer, Skill Level 3 (30 Oct 89)
091-382-0108	Inspect and Troubleshoot Generator Systems

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STP 9-63B12-SM Soldier's Manual, MOS 63B, Light Wheel Vehicle Mechanic, Skill Levels 1/2 (17 Sept 90)

091-179-0140 Locate Recovery Site

091-179-0180 Recover Disabled Wheeled Vehicle

091-179-0190 Recover Mired Wheeled Vehicle

091-179-0200 Recover an Overturned Vehicle

STP 9-63B35-SM-TG Soldier's Manual and Trainer's Guide, MOS 63B, Light Wheel Vehicle Mechanic, Skill Levels 3/4/5 (03 Oct 90)

091-309-0633 Prepare Material Condition Status Report (DA Form 2406)

091-309-0637 Recon Terrain/Route (DS/GS)

091-309-0639 Supervise Personnel in Recovery and Evacuation Operations

091-309-0663 Inspect Unit Level Deadlining Parts Report (DA Form 5410) (SAMS)

091-409-0617 Direct Preventive Maintenance Checks and Services (PMCS)

091-409-0637 Inspect Material Condition Status Report (DA Form 2406)

091-409-0657 Supervise Inspection of Prescribed Load List (PLL) (DA Form 2063-R)

551-721-3334 Supervise Preventive Maintenance Checks and Services

STP 10-57E14-SM-TG Soldier's Manual and Trainer's Guide, MOS 57E, Laundry and Bath Specialist, Skill Levels 1/2/3/4 (13 July 92)

101-514-1106 Receive Laundry Turn-Ins

101-514-1107 Mark Individual Bundles of Laundry



101-514-1110	Operate the Water Heater
101-514-1113	Process Finished Laundry
101-514-1156	Operate the Bath Unit's Water Heater
101-514-2101	Decontaminate Nuclear, Biological, and Chemical (NBC) Contaminated Clothing and Textiles
101-514-2103	Prepare DA Form 4765-R (Laundry Activity Record)
101-514-2108	Supervise the Use of Washing Formulas, Soaps and Detergents
101-514-2111	Supervise Operator and Preventive Maintenance Checks and Services (PMCS) on Laundry Equipment
101-514-2901	Select Laundry and Field Shower Operations Sites
101-514-3104	Supervise Clothing Exchange and Bath (CEB) Setup and Operations
101-514-3109	Supervise Laundry Setup and Operations
101-514-3110	Supervise Preventive Maintenance and Services (PMCS) on Laundry, Bath, and Delousing Equipment
101-514-3111	Supervise Decontamination Operations
101-514-3112	Establish Laundry Turn-In With Supported Units
STP 10-77F15-SM-TG	Soldier's Manual and Trainer's Guide, MOS 77F, Petroleum Supply Specialist, Skill Levels 1/2/3/4/5 (08 May 96)
101-519-1304	Assemble, Operate, Perform PMCS, and Disassemble the Forward Area Refueling Equipment (FARE) System
101-519-1403	Sample Petroleum Fuels

101-519-1406	Prepare or Complete DA Forms 4818, 4193, and 5464-R (Petroleum Pump Station and Pipeline Reports)
101-519-1412	Prepare the DA Form 3643 and 3644 (Monthly Abstract of Petroleum Products and Operating Supplies)
101-519-1413	Employ Environmental Stewardship Measures
101-519-1414	Load and Dispense Products from Petroleum Tank Vehicles
101-519-1415	Operate Pumps and Filter Separators
101-519-1416	Assemble, Operate, Perform PMCS, and Retrieve the Assault Hoseline
101-519-2304	Supervise the Assembly, Operation, PMCS, and Disassembly of the Forward Area Refueling Equipment (FARE)
101-519-2311	Supervise Operator Loading and Dispensing of Products from Assigned Vehicles
101-519-2315	Supervise the Use of Petroleum Firefighting Equipment and Procedures
101-519-2401	Supervise Environmental Stewardship Measures
101-519-2403	Supervise a Petroleum Pilferage Control Program
101-519-2404	Supervise Sampling and Gauging Procedures
101-519-2406	Supervise Pump and Filter Separator Operations
101-519-3156	Direct a Petroleum Pilferage Control Program

101-519-3302	Direct Unit Maintenance Within the Army Maintenance Management System (TAMMS) on Assigned Equipment
101-519-3307	Direct Sampling and Gauging Procedures
101-519-3310	Implement a Petroleum Fire and Safety Program
101-519-3312	Implement a Petroleum Environmental Stewardship Program
101-519-3215	Direct the Assembly, Operation, PMCS, and Disassembly of the Forward Area Refueling Equipment (FARE)
STP 10-77W14-SM-TG	Soldier's Manual and Trainer's Guide, MOS 77W, Water Treatment Specialist, Skill Levels 1/2/3/4 (12 Nov 93)
101-540-1051	Set Up, Operate, Perform PMCS/Dismantle the Forward Area Water Point Supply System (FAWPSS)
101-540-1056	Maintain, Assemble, and Disassemble the Semi-trailer Mounted Fabric Tank (SMFT)
101-540-1065	Conduct Water Analysis Testing
101-540-1067	Maintain, Assemble and Disassemble the Semi-Trailer Mounted Fabric Tank (SMFT)
101-540-1068	Maintain, Assemble/Disassemble the Potable Water Storage/distribution System (PWS-DS)
101-540-1069	Complete Entries on Water Reports/Logs/Forms
101-540-2004	Supervise Water Analysis Testing
101-540-2012	Supervise the Operation of the Forward Area Water Point Supply System (FAWPSS)
101-540-2017	Supervise the Operation of the Semi-Trailer Mounted Fabric Tank (SMFT)

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101-540-2018 Supervise the Operation of the Potable Water Storage and Distribution System (PWS/DS)

101-540-2030 Supervise Completion of Water Reports/Logs/Forms

101-540-3002 Analyze Water Analysis Test Results

101-540-3021 Monitor Water Distribution and Storage Operations

101-540-3024 Analyze Entries on Water Reports/Logs/Forms

STP 10-92ABDII-MQS Military Qualification Standards

03-5103.00-0081 Supervise the Receipt, Storage, and Distribution of Petroleum Products

03-5103.00-0102 Supervise Water Purification, Storage, and Distribution

03-5103.00-0107 Supervise Field Feeding Operations

STP 10-92Y1-SM Soldier's Manual, MOS 92Y, Unit Supply Specialist, Skill Level 1 (23 Feb 94)

101-521-1154 Receive Supplies and Equipment

101-521-1155 Issue Supplies and Equipment to Hand-Receipt Holders

101-521-1156 Store Selected Supplies and Equipment in Unit Storage Area

101-521-1163 Prepare and Maintain a Document Register

101-521-1201 Control Weapons and Ammunition in the Arms Room

101-521-1202 Maintain Key Control Register for Weapons Storage Area

101-521-1203 Issue and Receive Unit Weapons

101-521-1204	Perform Organizational Maintenance on Small Arms
STP 10-92Y24-SM-TG	Soldier's Manual and Trainer's Guide, MOS 92Y, Unit Supply Specialist, Skill Levels 2/3/4 (23 Feb 94)
101-521-2151	Prepare a Property Book
101-521-2152	Post Transactions to the Manual Property Book
101-521-2154	Determine Method of Obtaining Relief from Responsibility for Lost, Damaged, or Destroyed Property
101-521-2161	Request and Turn-In Ammunition
101-521-2202	Plan for the Storage of Supplies (Classes I, II, III, and V)
101-521-2252	Prepare Equipment Transfer, Loss, or Gain Report
101-521-3101	Account for Absentee Clothing, Equipment, and Personal Effects
101-521-3102	Dispose of Absentee Clothing, Equipment, and Personal Effects
101-521-3105	Direct the Control and Security of Weapons and Ammunition in Unit Storage Area
101-521-3107	Inspect Organizational Maintenance of Weapons
101-621-3251	Maintain Manual/Automated Hand Receipt
101-521-3252	Control and Supervise Property Administration in Unit Supported by Manual or Automated Systems
STP 10-94B1-SM	Soldier's Manual, MOS 94B, Food Service Specialist, Skill Level 1 (18 Mar 93)

101-524-1102	Maintain Safety Standards
101-524-1151	Perform Preliminary Food Preparation Procedures
101-524-1152	Prepare and Cook Meat, Poultry, and Seafood
101-524-1153	Prepare and Cook Vegetables
101-524-1161	Prepare and Bake Bread Products
101-524-1162	Prepare and Cook Egg Products
101-524-1163	Prepare and Cook Cereal, Rice, or Pasta Products
101-524-1164	Prepare Beverage Products
101-524-1165	Prepare and/or Cook Sandwiches
101-524-1169	Prepare or Cook Salads and Salad Dressings
101-524-1170	Prepare and/or Cook Soups, Sauces, and Gravies
101-524-1171	Prepare Desserts and Pastries
101-524-1205	Store Subsistence Items
101-524-1206	Check Subsistence Supplies for Quantity and Condition
101-524-1255	Use and Maintain the Insulating Food Container
101-524-1260	Perform Cleaning and Sanitation Services at a Field Kitchen
101-524-1263	Store, Prepare, and Serve T-Rations and B-Rations
101-524-1264	Prepare Meals for Remote Site Feeding

101-524-1356	Set Up Serving Lines and Serve Food in a Dining Facility
101-524-1504	Operate and Maintain the Mixing Machine
101-524-1505	Operate and Maintain the Heavy Duty Range
101-524-1506	Operate and Maintain the Conventional or Convection Oven
101-524-1507	Operate and Maintain the Coffee Urn
101-524-1509	Operate and Maintain the Griddle
101-524-1510	Operate and Maintain the Meat Slicing Machine
101-524-1512	Perform Sanitation Services in a Dining Facility
STP 10-94B25-SM-TG	Soldier's Manual and Trainer's Guide, MOS 94B, Food Service Specialist, Skill Level 2/3/4/5 (18 Mar 93)
101-524-2163	Direct Personnel Operating and Maintaining the Field Kitchen Equipment
101-524-2165	Direct Personnel Preparing and Serving Meals in a Dining Facility
101-524-2166	Direct Personnel Receiving and Storing Subsistence Items
101-524-2201	Direct Personnel in Cleaning and Sanitizing Dining and Cooking Utensils in a Dining Facility
101-524-2204	Direct Personnel in Performing Sanitation Services in a Dining Facility
101-524-3268	Supervise the Receipt and Storage of Subsistence Items

101-524-3281	Direct Personnel in the Protection and Decontamination of Subsistence Items in Nuclear, Biological, or Chemical (NBC) Environment
101-524-4100	Review and Ensure Accuracy of Accounting Records
101-524-4101	Assign Personnel to Duty Positions
101-524-4102	Develop the On-The-Job Training (OJT) Program
101-524-4103	Develop and Initiate a Physical Security Program
101-524-4106	Plan and Implement Menus and Procedures to Ensure the Serving of Nutritionally Balanced Meals
101-524-4109	Implement and Monitor Headcount Procedures
101-524-4110	Evaluate Preparation, Cooking, and Servicing of Food Products
101-524-4130	Prepare Documents for Lost, Damaged, or Destroyed Subsistence Items
101-524-4131	Develop Standing Operating Procedures (SOP) for Dining Facilities and Field Kitchens
101-524-4132	Evaluate Subsistence Protection and Decontamination Procedures
101-524-4133	Review Hand Receipt (DA Form 2062) and Prepare Request for Issue and Turn-In (DA Form 3161)
101-524-4134	Consult with Preventive Medicine Activity
101-524-4135	Develop and Implement Safety, Energy, and Fire Prevention Programs



101-524-4136	Request and Turn-In Subsistence Items under the Army Ration Credit System (ARCS)
101-524-4139	Evaluate Performance Documentation of Contracted Dining Facility Attendants
STP 21-1-SMCT	Soldier's Manual of Common Tasks, Skill Level 1 (01 Oct 94)
031-503-1004	Protect Yourself from Chemical and Biological Injury/Contamination Using Your M17-Series Protective Mask with Hood
031-503-1005	Maintain Your M17-Series Protective Mask with Hood
031-503-1007	Decontaminate Your Skin and Personal Equipment Using an M258A1 Decontamination Kit
031-503-1011	Maintain Your M24 or M25-Series Protective Mask with Hood
031-503-1012	Protect Yourself from Chemical and Biological Injury/Contamination Using Your M24 or M25-Series Protective Mask with Hood
031-503-1014	Identify Chemical Agents Using M8 Detector Paper
031-503-1015	Protect Yourself from NBC Injury/Contamination with Mission-Oriented Protective Posture (MOPP) Gear
031-503-1018	React to a Nuclear Hazard
031-503-1020	Detect Chemical Agents Using M9 Detector Paper
031-503-1023	Protect Yourself from NBC Injury/Contamination When Changing Mission-Oriented Protective Posture (MOPP) Gear

031-503-1025	Protect Yourself from Chemical and Biological Injury/Contamination Using Your M40-Series Protective Mask with Hood
031-503-1026	Maintain Your M40-Series Protective Mask with Hood
031-503-1028	Protect Yourself from Chemical and Biological Injury/Contamination Using Your M42 Protective Mask with Hood
071-311-2007	Engage Targets with an M16A1 or M16A2 Rifle
071-325-4407	Employ Hand Grenades
071-326-0502	Move Under Direct Fire
071-326-0503	Move Over, Through, or Around Obstacles (Except Minefields)
071-326-0510	React to Indirect Fire While Dismounted
071-326-0513	Select Temporary Fighting Positions
071-326-5703	Construct Individual Fighting Positions
071-326-5704	Supervise Construction of a Fighting Position
071-329-1005	Determine a Location on the Ground by Terrain Association
071-331-0801	Challenge Persons Entering Your Area
071-331-0815	Practice Noise, Light, and Litter Discipline
071-331-0852	Clear a Field of Fire
081-831-1000	Evaluate a Casualty
081-831-1003	Clear an Object from the Throat of a Conscious Casualty

081-831-1005	Prevent Shock
081-831-1007	Give First Aid for Burns
081-831-1008	Give First Aid for Heat Injuries
081-831-1009	Give First Aid for Frostbite
081-831-1016	Put on a Field or Pressure Dressing
081-831-1017	Put on a Tourniquet
081-831-1025	Apply a Dressing to an Open Abdominal Wound
081-831-1026	Apply a Dressing to an Open Chest Wound
081-831-1031	Administer First Aid to a Nerve Agent Casualty (Buddy-Aid)
081-831-1033	Apply a Dressing to an Open Head Wound
081-831-1034	Splint a Suspected Fracture
081-831-1040	Transport a Casualty Using a One-Man Carry
081-831-1041	Transport a Casualty Using a Two-Man Carry or an Improvised Litter.
081-831-1042	Perform Mouth-to-Mouth Resuscitation
101-515-1900	Perform Mortuary Affairs Operations
181-906-1505	Conduct Combat Operations According to the Law of War
441-091-1101	Perform Search and Scan Procedures
STP 21-24-SMCT	Soldier's Manual of Common Tasks, Skill Levels 2/3/4 (01 Oct 92)
031-503-2001	Use M256 or M256A1 Chemical Agent Detector Kit
031-503-2004	Prepare and Submit NBC 4 Reports

031-503-2012	Supervise the Fitting of Protective Masks
031-503-2013	Use and Perform Operator Maintenance on the IM 147 Series Radiacmeter
031-503-2020	Use and Perform Operator Maintenance on the IM93 or IM147 Dosimeter and PP1578-Series Charger
031-503-3002	Conduct Unmasking Procedures
031-503-3005	Prepare and Submit NBC 1 Reports
031-503-3006	Supervise Radiation Monitoring
031-503-3008	Implement Mission-Oriented Protective Posture
031-503-4002	Supervise Unit Preparation for NBC Attack
031-503-4003	Control Unit Radiation Exposure
061-283-6003	Adjust Indirect Fire
071-326-5704	Supervise Construction of a Fighting Position
071-326-5705	Establish an Observation Post
071-326-5770	Prepare a Platoon Sector Sketch
071-326-5775	Coordinate with an Adjacent Platoon
071-326-5805	Conduct a Route Reconnaissance Mission
071-331-0820	Analyze Terrain
071-332-5000	Prepare an Operations Overlay
071-430-0002	Conduct a Defense by a Squad
071-430-0003	Consolidate a Squad Following Enemy Contact While in the Defense

071-430-0004	Reorganize a Squad Following Enemy Contact While in the Defense
071-430-0006	Conduct a Defense by a Platoon
071-430-0007	Consolidate a Platoon Following Enemy Contact While in the Defense
071-430-0008	Reorganize a Platoon Following Enemy Contact While in the Defense
071-720-0015	Conduct an Area Reconnaissance by a Platoon
081-831-0101	Request Medical Evacuation
081-831-0102	Supervise Unit Preventive Medicine and Field Sanitation Procedures
113-573-8006	Use an Automated Signal Operation Instruction (SOI)
121-030-3534	Report Casualties
191-377-5250	Handle Enemy Personnel and Equipment
191-379-4450	Supervise Handling of Enemy Personnel and Equipment at Unit Level
301-337-6001	Process Captured Material
441-091-1040	Visually Identify Threat Aircraft
STP 21-I-MQS	Military Qualification Standards I Manual of Common Tasks (Precommissioning Requirements) (21 May 90)
01-5030.00-1009	React to Nuclear Hazard
01-5700.01-0001	Communicate on a Tactical Radio
01-5700.01-0002	Determine Call Signs, Frequencies, and Item Numbers
01-5700.01-0003	Employ a Numeral Cipher Authentication System

03-2830.00-6003	Adjust Indirect Fire
03-3711.04-0001	Report Information of Potential Intelligence Value
03-8310.00-3021	Protect Yourself Against Biting Insects
03-8310.00-3022	Protect Yourself Against Diarrhea and Dysentery
03-8310.00-3023	Practice Personal Hygiene to Maintain Fitness
03-9007.01-0020	Give Briefings
04-3303.01-0019	Use a Map Overlay
04-3304.01-0002	Conduct Inspection
04-3305.01-0005	Engage targets with an M16A1 or M16A2 Rifle
04-3306.01-0002	Move Under Direct Fire
04-3306.01-0005	React to Indirect Fire
04-3306.01-0006	Use Challenge and Password
04-3306.01-0007	Practice Noise, Light, and Litter Discipline
04-8310.00-3007	Evaluate a Casualty
04-8310.00-3008	Clear an Object from the Throat of a Conscious Casualty
04-8310.00-3009	Perform Mouth-to-Mouth Resuscitation
04-8310.00-3010	Put a Field or Pressure Dressing
04-8310.00-3011	Put on a Tourniquet
04-8310.00-3012	Prevent Shock
04-8310.00-3013	Splint a Suspected Fracture

04-8310.00-3014	Give First Aid for Burns
04-8310.00-3016	Administer First Aid to a Nerve Agent Casualty (Buddy-Aid)
04-8310.00-3017	Protect Yourself Against Cold
04-8310.00-3018	Give First Aid for Frostbite
04-8310.00-3019	Protect Yourself Against Heat
04-8310.00-3020	Give First Aid for Heat Injuries
04-8310.00-3024	Apply a Dressing to an Open Chest Wound
04-8310.00-3025	Apply a Dressing to an Open Head Wound
04-8310.00-3026	Apply a Dressing to an Open Abdominal Wound
04-8310.00-3027	Transport a Casualty Using a One-Man Carry
04-8310.00-3028	Transport a Casualty Using a Two-Man Carry or an Improvised Litter
031-503-1004	Protect Yourself from Chemical and Biological Injury/Contamination Using Your M17-Series Protective Mask with Hood
S1-5030.00-1010	The NBC Warning and Reporting System
S1-9080.00-0001	The Military Justice System
STP 21-II-MQS	Military Qualification Standards II Manual of Common Tasks for Lieutenants and Captains (31 Jan 91)
01-0401.20-0001	Direct Unit Air Defense
01-1940.00-1001	Supervise Construction of Obstacles
01-3301.02-0011	Defend a Company Position
01-4965.90-0001	Supervise Unit Maintenance Operations

01-5700.02-0001	Enforce Platoon and Company Communications Security Measures
01-5711.02-0001	Install Hot Loop with Telephone TA-312/PT
01-5767.02-0001	Conduct Electronic Counter-Counter Measures
01-5831.02-0003	Read a Message
01-7200.75-0100	Conduct Convoy Operations
01-7300.75-0500	Plan Convoy Operations
01-8951.00-8959	Conduct Training at Company Level
03-0001.00-0028	Develop a Physical Fitness Program at the Company or Battalion Level
03-0150.00-1008	Initiate a Recommendation for an Award
03-0170.01-1005	Perform Wartime Strength Accounting at Unit Level
03-3711.12-0001	Implement Operations Security
03-3711.12-0002	Protect Classified Information and Material
03-3711.13-0001	Process Captured Materiel
03-3751.01-0101	Supervise Processing of Captives at Unit Level
03-3751.02-5800	Develop Unit Physical Security and Crime Prevention Standing Operating Procedures
03-4976.90-0501	Prepare a Materiel Condition Status Report
03-4995.90-0010	Direct Vehicle and Equipment Recovery Operations
03-5105.00-0006	Conduct a Report of Survey



03-5101.00-0281	Direct the Preparation and Maintenance of Unit Supply Records
03-5101.00-0283	Supervise the Maintenance of Unit Prescribed Load List
03-5101.00-0284	Inspect Unit Supply Records
03-5105.00-0002	Direct Field Feeding Operations
03-8310.00-9000	Supervise Unit Preventive Medicine and Field Sanitation Procedures
03-8952.00-9050	Employ Directed Energy and Laser Protective Measures
03-9001.11-0002	Establish a Positive Command Climate
03-9003.02-0001	Manage Accident Risk in Unit Operations
03-9003.03-0001	Supervise the Management of Accident Risk in Unit Operations
03-9080.10-1002	Administer Military Justice at Platoon or Section Level
04-3303.02-0014	Prepare Platoon or Company Combat Orders
04-5030.00-2006	Supervise Unit Response to a Chemical or Biological Attack
04-5030.00-2007	Supervise Unit Response to Nuclear Attack or Radiological Hazard
04-5030.00-2019	Control Unit Radiation Exposure
04-5030.00-2008	Prepare and Submit Nuclear, Biological, or Chemical 1 Report
04-5030.00-2013	Implement Mission-Oriented Protective Posture Based on Threat or Direction
04-5030.00-2021	Conduct Unmasking Procedures

04-5030.00-2017	Prepare for Nuclear, Biological, or Chemical Attack
04-5030.00-2020	Supervise Nuclear, Biological, or Chemical Decontamination
04-5770.02-0002	Operate Communications Security Equipment VINSON
S3-8961.00-0001	Describe Rear Operations Doctrine
S3-8988.01-0001	Describe Regional and Special Threats
S3-9001.18-0002	Minimize Combat Stress
S3-9060.00-1000	Conduct Small Unit Combat Operations According to the Law of War
S4-5030.00-3003	Describe Nuclear, Biological, and Chemical Defense Concepts

**APPENDIX C**

**Combined Arms Training Strategy (CATS)**

This section will be added at a later date.

## APPENDIX D

### Drill Training

#### 1.1. GENERAL.

a. A unit's ability to accomplish its mission always depends on the ability of its soldiers to execute key actions instinctively by an immediate reaction to a situation or order. Drills are designed to focus on limited number of key actions that every like unit in the Army must master.

b. A crew drill is a collective action that a crew of a weapon or piece of equipment must perform to use the weapon or equipment successfully in combat or to preserve life. This action is a trained response of the weapon or equipment. It requires minimal leader orders to accomplish and is standard throughout the Army.

c. Drills have many advantages.

(1) They allow sections and platoon to perform critical tasks instantly because they have been practiced repetitively.

(2) They reduce the communications requirements because soldiers know what they have to do.

(3) They build teamwork.

(4) They save time, energy, and lives.

**1.2. TRAINING.** Drills may be trained using a talk-through, walk-through, and run-through method. Drill leaders must be a master of the drill to train soldiers to execute it. Periodically, the drill leaders should talk his soldiers through the drill—explaining each soldier's role and correcting any mistakes as they go through it slowly. Whenever possible, drill training should occur in an environment in which the drill would be executed during wartime. A good drill team executes the drill instantly and with precision.

**1.3. SAFETY.** During the conduct of a drill, all soldiers and leaders must be safety conscious. All observers and trainers have the responsibility to ensure that all training is conducted in a safe manner. Prior to the beginning of a drill, all personnel should be briefed on specific safety measures to be observed during the conduct of the exercise.

**CREW DRILL 42-2-D0001**

**Set Up the Four-Section Tent, Extendable, Modular, Personnel  
(TEMPER)**

**TASK:** Set up the four-section TEMPER.

**CONDITION:** The location for the TEMPER within the operational site for the Force Provider (FP) module has been selected, prepared and staked. The area is secured. All components of the TEMPER have been removed from the triple container (TRICON), laid out, and inventoried. All components are available, clean, and serviceable. TEMPER canvas and frame bundles are on site for the preselected tent configuration. A supervisor and a section of ten soldiers have been assigned to set up the TEMPER. Technical documentation, including all applicable technical manuals (TMs) and instructions supplied with the TEMPER components, is available.

**NOTE:** If the drill is to be followed by actual operation of the TEMPER, and the ambient temperature is to be less than +32° Fahrenheit (F), then the cold weather kit (CWK) must be installed with the TEMPER. See Section N of this drill.

**STANDARD:** The four-section TEMPER is erected in accordance with (IAW) TM 10-8340-224-13&P, *Operator's, Organization and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Tent, Extendable, Modular*, with no damage to the equipment or injury to personnel.

**SUPPORTING INDIVIDUAL TASKS:** To be determined (TBD).

**SETUP INSTRUCTIONS:**

a. Resources.

(1) TEMPER fabric components for a four-section TEMPER, including four liner sections, two endwall and two window/door section liners, two window and two endwall canvases, two fly roofs, three air conditioning/heating vent plenums, floor panels, and a vestibule with its floor and door panel, contained in four fabric wrapped bundles, marked "1 of 4," "2 of 4," etc.

(2) Four TEMPER frame bundles containing arches, purlins, headers, and extenders.

(3) Footlockers containing lighting and power components, staking and tie-down components, and measuring instruments.

(4) Environmental control unit (ECU).

(5) Staking and tie-down supplies.

(6) One five-ton fork lift. (One of the soldiers should be qualified to operate the fork lift. If none is qualified, a fork lift operator will be needed.)

(7) Ten soldiers plus a drill leader.

(8) CWK, if the ambient temperature is to be less than +32° F.

(9) Technical documentation, including all applicable TMs and instructions supplied with the TEMPER components.

b. Training Site. The site should be flat and open, and accessible by fork lift. The size of the drill site should be at least 100 feet by 200 feet.

c. Unit Instructions. The drill leader has made a reconnaissance of the area and ensured the site is suitable. The drill leader ensures that the required resources are available. The soldiers executing the drill should be brought to the site. Ten soldiers are required to set up the four-section TEMPER. Soldiers should be assigned individual numbers from 1 to 10 (Soldier 1, Soldier 2, etc.). Soldiers work in pairs in setting up the TEMPER. Assign pairs of soldiers to numbered teams (Team 1, Team 2, etc.) and a team to each of the five arches in the TEMPER. Some TEMPERs in the FP module have more than four-sections and will require more soldiers to set them up.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains the soldiers of a FP unit to set up a four-section TEMPER. The objectives trained during this drill are: (1) assemble the TEMPER frame; (2) install the liner; (3) install the canvas; (4) raise the TEMPER and install the accessories; (5) install electrical accessories; (6) secure the TEMPER with stakes and pins; (7) erect the vestibule; (8) install the double bump-through doors; (9) emplace the ECU, and (10) install the CWK. Assign each soldier a different number or team during subsequent drill iterations so each learns all the steps and standards for setting up the four-section TEMPER.

b. Environmental Stewardship. Brief all soldiers on the environmental stewardship requirements of executing this drill. The drill leader and soldiers avoid disturbing the soil, vegetation, and any ground water during set up of the TEMPER. Set up the TEMPER only in a well-drained area with firm soil underneath.

c. Safety. Follow all safety requirements in TM 10-8340-224-13&P. All personnel must use proper body mechanics when lifting components and when raising either side of the TEMPER. All frame bundles require at least two soldiers to carry them. All canvas bundles require at least four personnel to lift and

carry them. Footlockers and light cases also require a two-person carry. Do not drag components on the ground. Do not step or walk on components, except flooring, and keep fabric items out of the way during set up so that no one steps on them. The nonworking side of the TEMPER is always the side towards the wind (upwind). During windy conditions, control the fabric panels to avoid injury from flailing fabric or hitch clip pins. Do not hold the frame at any of the hinge joints. Raise the sides of the TEMPER evenly to avoid damage to the frame or injury to personnel. Soldiers must exercise care so they do not hit their heads on the electric lights during the set up. Ensure all electrical connections are made correctly to reduce the hazard of fire or electrical shock. Ensure electrical power is disconnected from the power source when working with cables or fixtures. Ensure that the electrical distribution box is snug against the header and locked in place. Ensure that the electrical distribution box stands are anchored at the base with metal pins for stability and as a ground.

d. Demonstration (optional). If other soldiers have successfully set up the four-section TEMPER, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening, and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did. A video, titled, *DEPMEDS - Tent, Extendable, Modular, Personnel (TEMPER)*, (TVT 8-202: running time, 50 minutes) is available to demonstrate the set up of a two-section TEMPER.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in setting up the four-section TEMPER. The drill leader can illustrate the steps with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should explain their role in the drill, including the standards for which they are responsible. If any misunderstanding exists, the drill leader should make corrections immediately. Because of the large number of individual steps in setting up a TEMPER, this drill is best trained in sections of steps. Once the teams have mastered all the steps within each of the sections of the drill, they should execute the entire drill.

#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader should conduct the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the crawl phase. The soldiers execute the

drill at a deliberate pace on the first iteration as the walk phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the run phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously. After the first iteration, it may be possible to "run," and may prove to be more efficient to execute the drill with soldiers organized into a frame assembly team, a fabric assembly team, and an electrical component team to accomplish tasks concurrently, especially where many tents must be set up.

b. The drill leader assigns specific duties to each team and team member. Teams 1 and 5 will erect the end sections of the TEMPER, and Teams 2, 3, and 4 will connect the inner sections together and assist Teams 1 and 5 when necessary. The drill leader assigns the even-numbered soldiers of each team to the nonworking side of the TEMPER, and assigns the odd-numbered soldiers of each team to the working side (see Figure D-1). The working side of the TEMPER is always the downwind side and will be raised first to avoid damage to equipment and injury to personnel by preventing the wind from getting under the TEMPER and flipping it over. Once the soldiers have partially raised the TEMPER, they install the lights and plenum inside. The soldiers raise the nonworking side after they have completed the interior work. The drill leader should supervise and instruct the teams as they proceed, ensuring that the teams are completing those steps that they can do simultaneously.

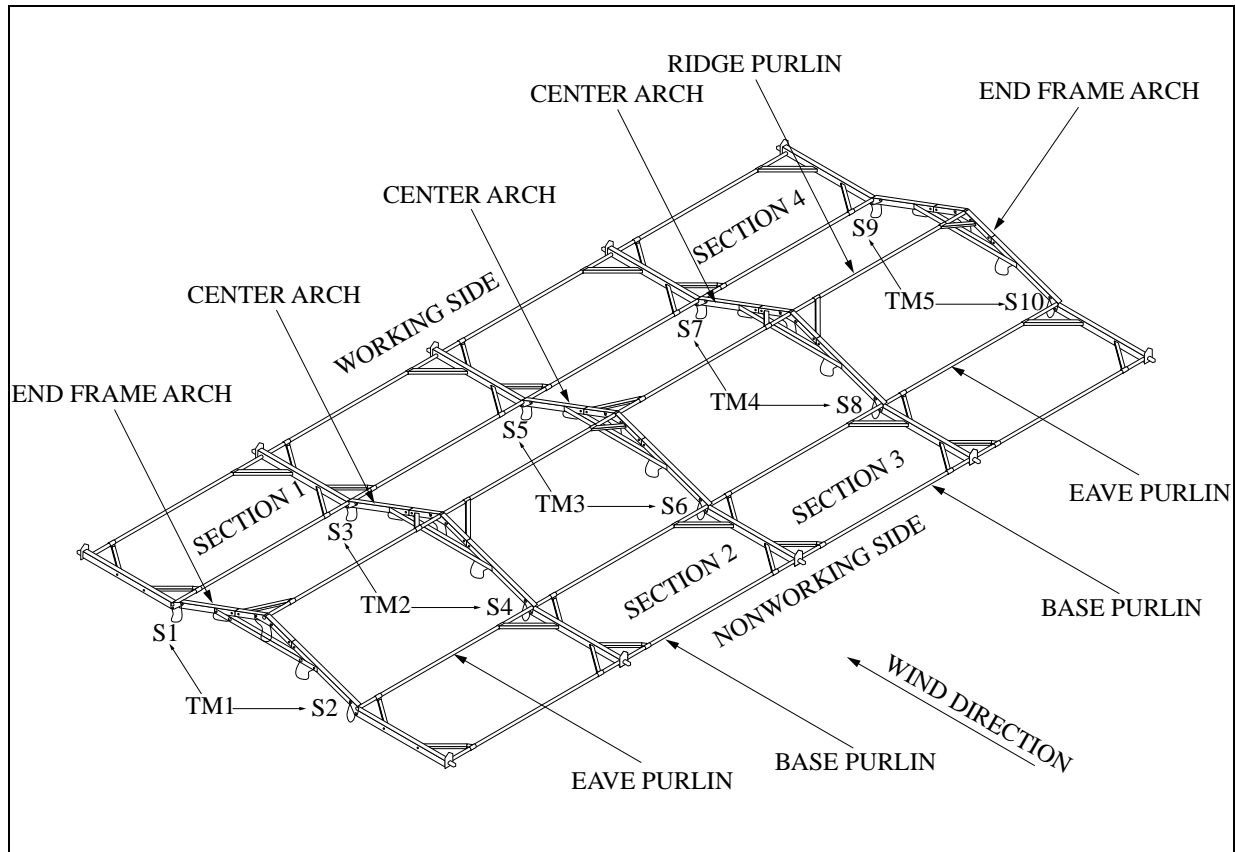
c. Initiating Cue. The drill leader gives the order to set up the four-section TEMPER.

Performance Measures:

*A. Assemble the TEMPER frame.*

**NOTE:** Soldiers 1 through 10 (S1 through S2) are assigned to two-soldier teams that are numbered 1 through 5 (TM1 through TM5). Each team is assigned a position at an arch of the TEMPER. Teams 1 and 5 are assigned to the end frame arches. Teams 2 through 4 are assigned to the center arches. See Figure D-1.

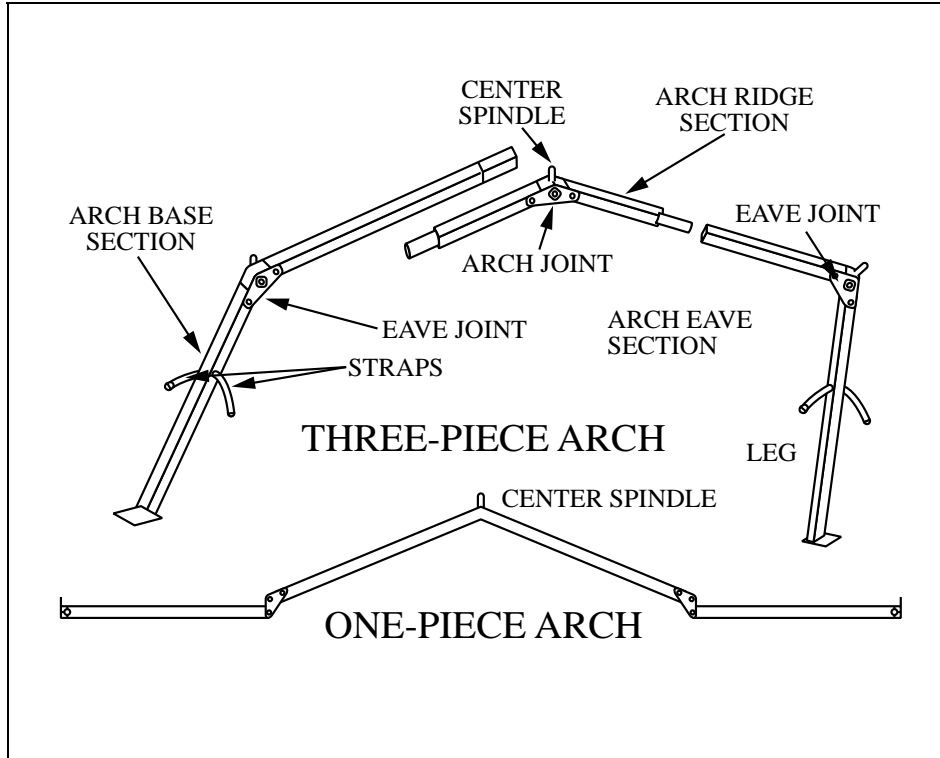




**Figure D-1. Soldier/team assignments and TEMPER frame components**

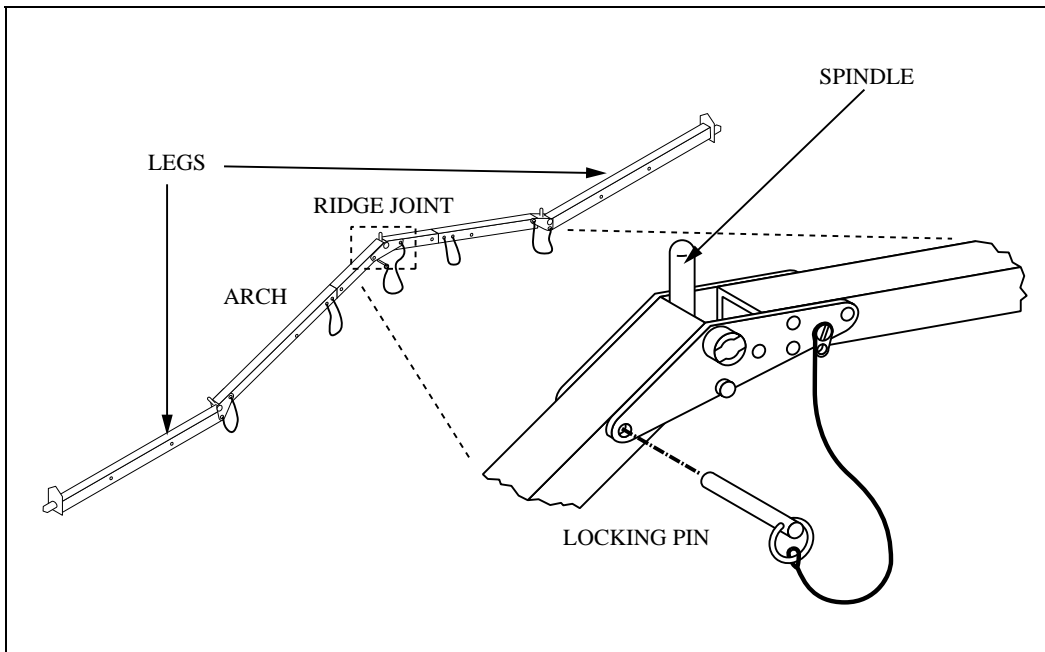
1. Teams 1 through 5 retrieve the fabric and frame bundles from the staging area and position them on the TEMPER's working side within a short distance of the area where they will set up the TEMPER. See Figure D-1
2. Teams 1 through 5 ensure that all frame components are present and then remove roof and side arch assemblies from the frame bundles, positioning them about eight feet apart and parallel with each other in the direction of construction. See Figure D-1.
3. Teams 1 through 5 unfold the arch components, and then insert the arch ridge section into the arch eave section by aligning the white lines on the top of each of these components and inserting the two together and locking them with lock pins. See Figure D-2.

**NOTE:** The TEMPER arch may come as a three-piece arch or as a one-piece arch. The one-piece arch has a one-piece arch ridge section with the legs of the arch permanently assembled to the arch ridge section. See Figure D-2.



**Figure D-2. TEMPER arches**

4. Even-numbered soldiers (S2, S4, S6, S8, and S10) turn the upper section of the roof arch so that the spindle is on top. See Figure D-3.

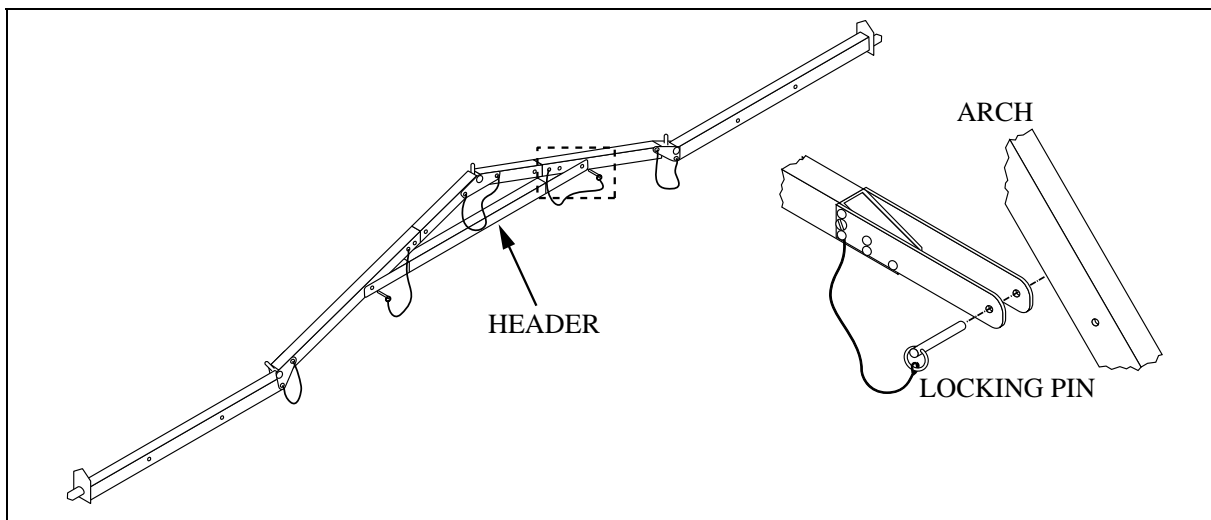


**Figure D-3. Ridge joint**

5. Odd-numbered soldiers (S1, S3, S5, S7, and S9) loosen straps, ensure the locking pins are hanging free, and spread out the center of the arch so that its to extend to the ground. See Figures D-2 and D-3.
6. Teams 2 through 4 lock the arch ridge in place with locking pins. See Figure D-3.
7. Teams 1 and 5 lock the arch ridge in place with locking pins, ensuring that the locking pins are inserted from the outside toward the inside to prevent damage to canvas components. See Figure D-3.

**WARNING:** WHEN HANDLING THE TEMPER FRAME, DO NOT TWIST AND TURN FRAME COMPONENTS. DAMAGE TO THE FRAME CAN RESULT.

8. Teams 1 through 5 retrieve one header bar from the frame bundle. See Figure D-4.



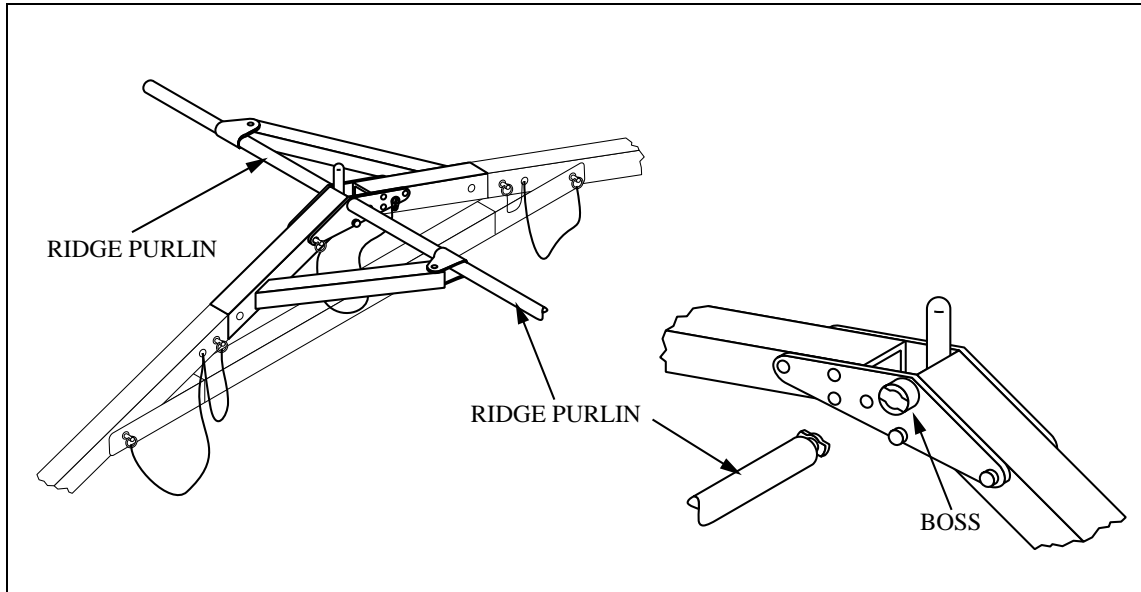
**Figure D-4. Header bar assembly**

9. Even-numbered soldiers place the flanges of the header underneath the TEMPER arch with the slanted angle of the header bar facing up. See Figure D-4.
10. Odd-numbered soldiers align the holes on the end of the header with the holes in the upper arch frame and insert one locking pin at a time, ensuring that the pins on the end frame header bars are inserted from the outside toward the inside. See Figure D-4.

**NOTE:** There are two types of purlins: regular purlins and door purlins. A regular purlin is a ridge, eave, or base purlin that

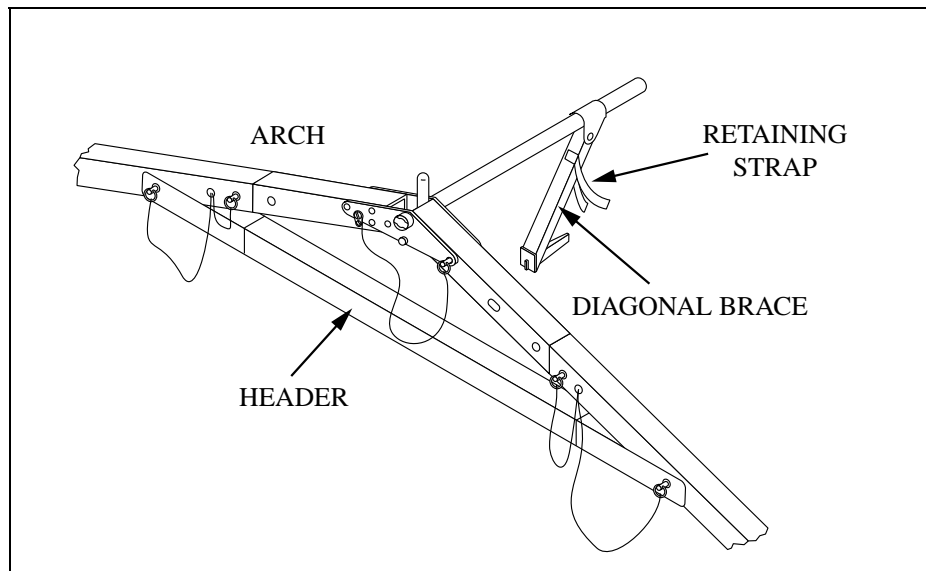
is round and connects the arch frames. A door purlin is a purlin with a flat section for the door sill that prevents personnel from tripping over the purlin when they enter the TEMPER.

11. Team 1 obtains a ridge purlin from the frame bundle and inserts the ridge purlin into the boss (open slot) at the peak of the arches in Section 1 with the diagonal braces facing up. See Figure D-5.



**Figure D-5. Installing the ridge purlins**

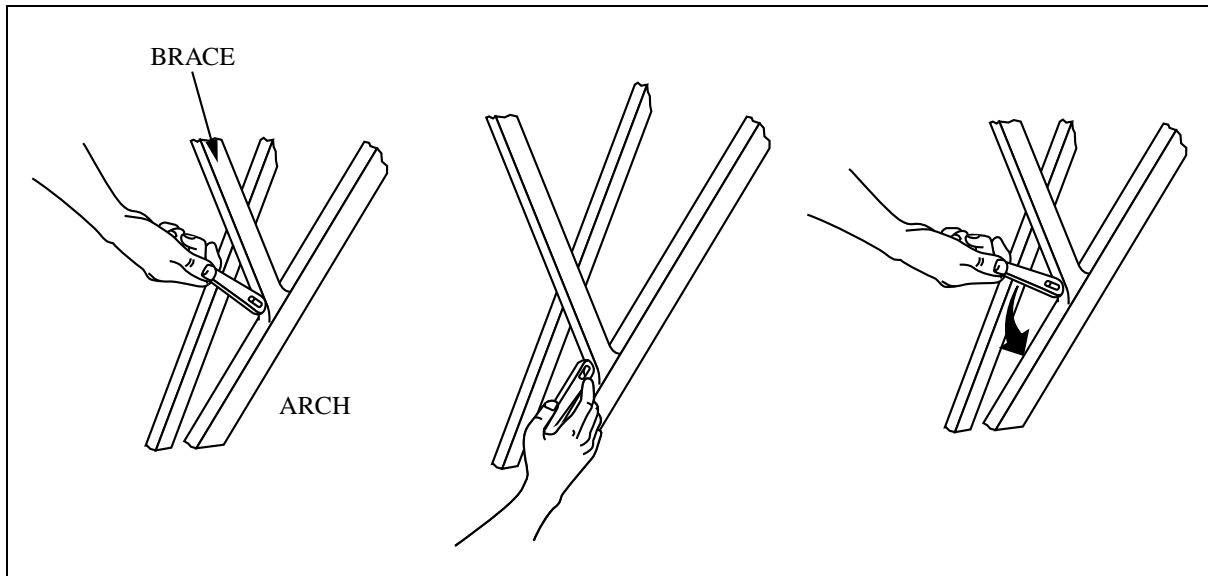
12. Soldier 1 unstraps the diagonal brace retaining strap on the purlin. See Figure D-6.



**Figure D-6. Diagonal brace and retaining strap**

13. Team 1 then locks the purlins into the arch bosses by rotating the purlin 90 degrees. See Figure D-5.
14. Soldier 2 grasps the diagonal brace and rotates it toward the arch. See Figure D-6.

**COACHING POINT:** If the handle does not lock easily, instruct the soldiers to rotate the handle 180 degrees and lock the handle toward the arch. Do not lock handle toward the diagonal brace. See Figure D-7.



**Figure D-7. Diagonal brace and locking tab handle**

15. Soldier 1 locks the ridge purlin into the arch bosses by doing the following:
  - a. Frees the two locking handles (found at each end of a diagonal brace) from the hook-and-pile retaining straps that retain them. See Figure D-6.
  - b. Rotates each handle away from the diagonal brace and inserts the tab on the end of the diagonal brace into the slot on the arch.
  - c. Rotates the tab handle down 90° to lock the tab into the arch and closes the hook and pile straps to keep them clean. See Figure D-7.
  - d. With the help of Soldier 2, installs both eave purlins between the first two arches to help in keeping the frame components correctly aligned. See Figure D-1.

**COACHING POINT:** Soldiers may install eave purlins on each section simultaneously. They keep sections aligned by sighting down the ridge purlin. Soldier install the eave purlins for

their section using only regular purlins, starting with Section 1. They install and lock all eave purlins in the same manner as the ridge purlins. Have soldiers install the door purlins where called for in TEMPERS within the FP containerized batch laundry, the morale, recreation, and welfare (MWR), and the food service subsystems. See the drills for these subsystems for locations of doors.

**NOTE:** The direction of the diagonal brace should be alternated left and right from section to section to strengthen the TEMPER frame once it is erected. See Figure D-1.

16. Teams 2 through 4 perform Steps 11 through 15, above, to install the ridge and eave purlins on the remaining TEMPER sections.
17. Teams 1 through 4 install base purlins (regular purlins or door purlins depending on the configuration of the TEMPER).
18. Teams 1 through 4 position all the diagonal braces on the eave and base or door purlins by unfastening their retaining straps, and rotating each brace toward the arch. See Figure D-6.

*B. Install the liners.*

**COACHING POINT:** Place canvas bundles containing fabric items (liners, endwalls, and windows) a short distance from the working side of the TEMPER frame. Keep them out of the way of the construction. Place the fabric items so their names are visible on top (i.e., liner, vestibule, etc.).

**NOTE:** During rainy weather, install the outside canvas before installing the liner. If conducting the drill in the rain, move to Section C at this time.

1. Teams 1 through 5 ensure all fabric components are present.
  - a. Check that each canvas bundle contains a fabric liner section, either a door or a window fabric, and a single ply fabric floor.

**NOTE:** Many newer TEMPERS have insulated floor panels in addition to the single-ply floor.

- b. Lay out the fabric bundles in the following order:
  - (1)Endwall fabric.
  - (2)Intermediate section fabric plenums.
  - (3)Fly fabric.

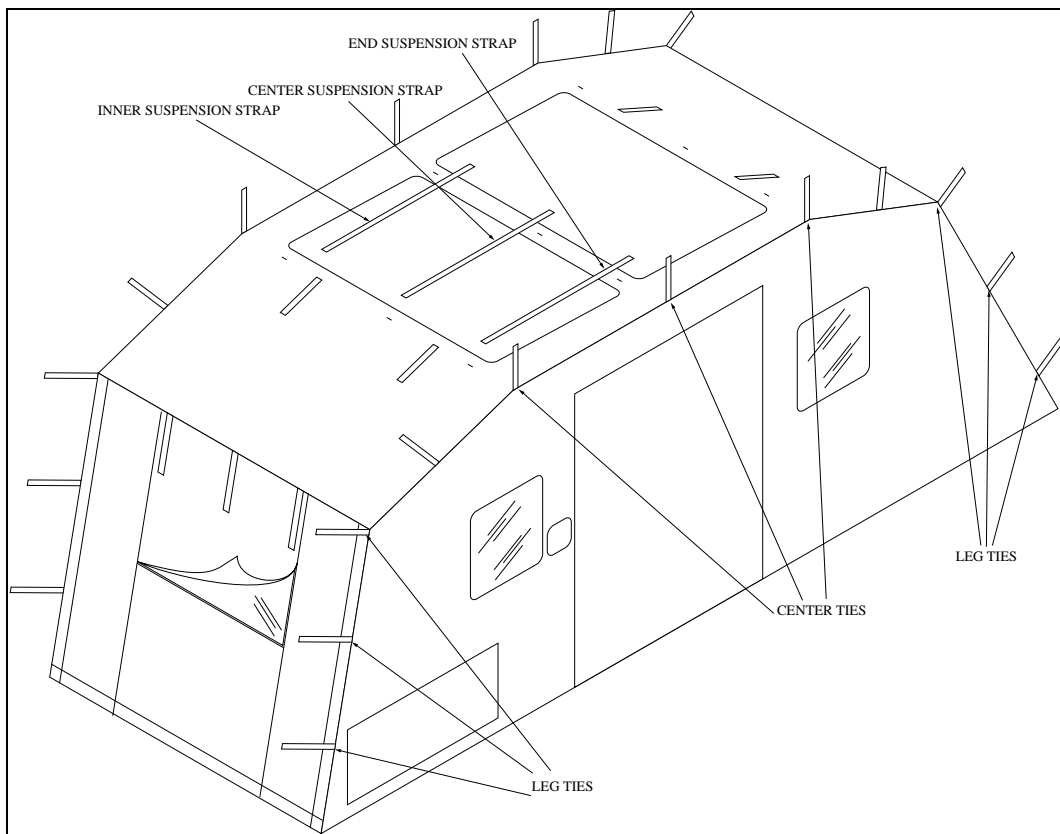
- (4)End section fabric liners.
- (5)Intermediate section fabric liners.
- (6)Endwall plenum fabric.

**NOTE:** The stovepipe openings on TEMPERS issued prior to May 1989 should be on only one side of the canvas and positioned so that the openings of the liner, roof, and fly sections align.

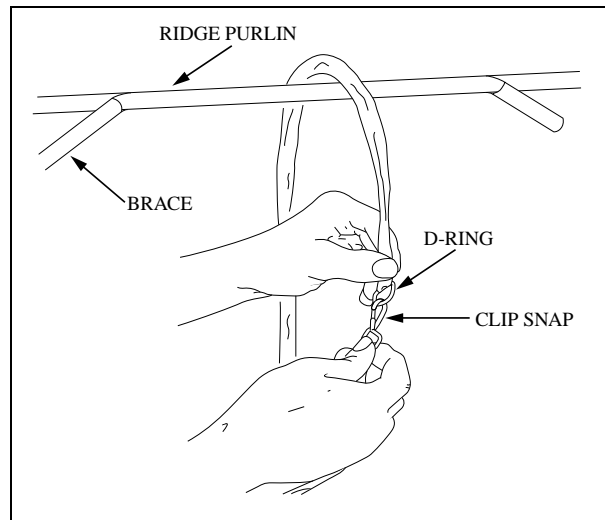
- 2. Teams 1 and 5 place the end section fabric liners on the ground under the ridge purlins of Sections 1 and 4, respectively. See Figure D-1.

**COACHING POINT:** Have the soldiers orient the end section fabric liners so that the endwall portion faces the end of the frame. Ensure that window flaps and suspension straps face up on all liners. Caution soldiers not to step on the liners.

- 3. Teams 1 through 5 hold the liners up at the center nylon suspension strap, pass the center strap over the center of the ridge purlin, and connect it using the clip snap and the D-ring. See Figures D-8 and D-9.

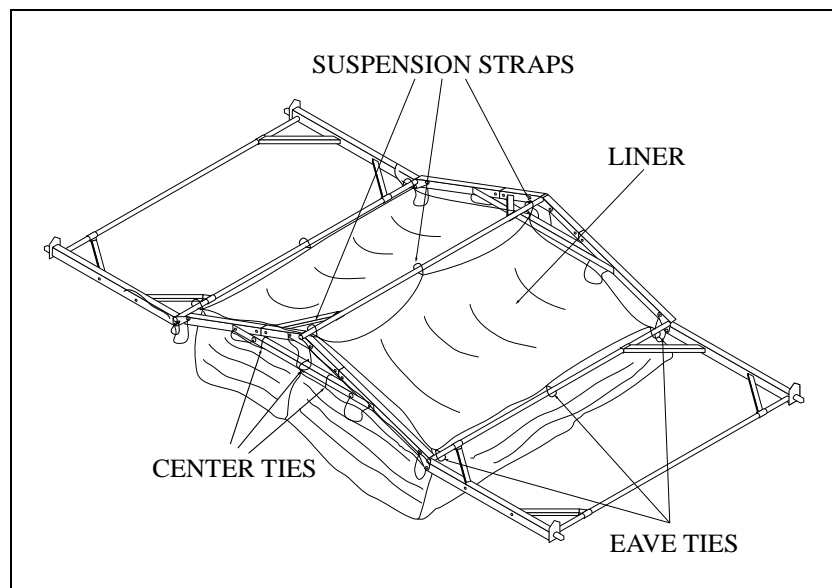


**Figure D-8. Location of nylon suspension straps on fabric liners**



**Figure D-9. Clip snap and D-ring**

4. Teams 1 through 5 loop the end suspension straps over the ridge purlins between the diagonal braces and the arch, and fasten the suspension straps using the clip snaps and D-rings. See Figures D-9 and D-10.



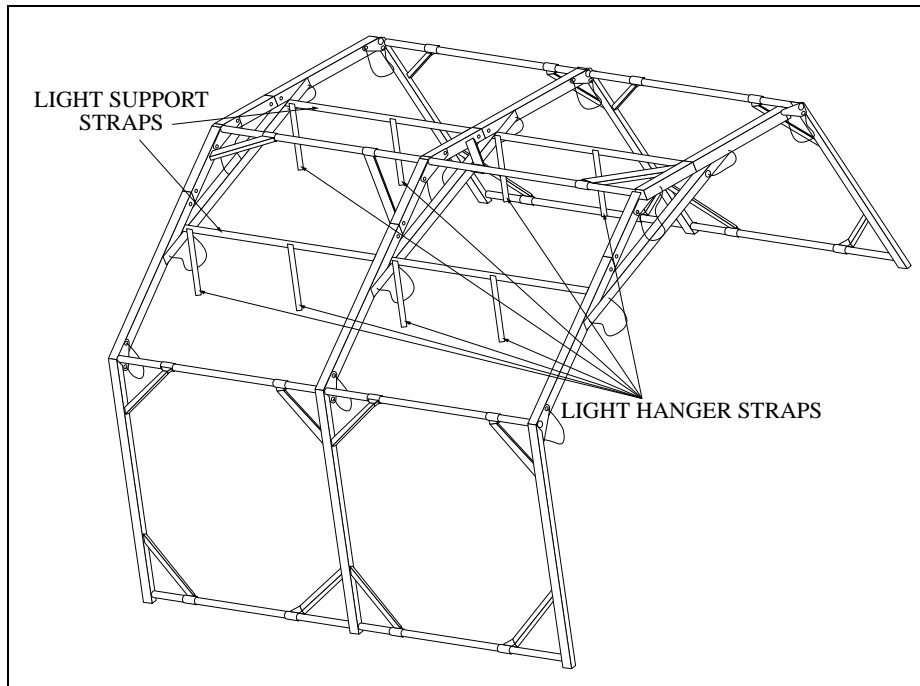
**Figure D-10. Suspending the liner sections from the ridge purlins**

5. Teams 1 and 5 fasten the liners to the end sections by doing the following:



- a. Fasten the three center liner ties on each end liner section to the end header bar of Sections 1 and 4 with bow knots, leaving at least two inches slack. See Figures D-1 and D-10.
  - b. Fasten the three center liner ties on the opposite end of the end liner section to the header bar of the center arch that joins Section 1 to Section 2 and Section 4 to Section 3 with bow knots, leaving at least two inches slack. See Figures D-1 and D-10.
  - c. Fasten the next two ties on either side of the three center ties to the end arches of Sections 1 and 4 just below the header bar with bow knots, leaving at least two inches slack. See Figures D-1 and D-8.
  - d. Fasten the next two ties on either side of the three center ties to the center arch that joins Section 1 to Section 2 and Section 4 to Section 3 just below the header bar with bow knots, leaving at least two inches slack. See Figures D-1 and D-8.
6. Teams 2 through 4 fasten the liners to the intermediate sections by doing the following:
- a. Fasten the three center liner ties on each intermediate liner section to the header bar of the center arch that joins Sections 1 and 2 and Sections 4 and 3 with bow knots, leaving at least two inches slack. See Figures D-1 and D-8.
  - b. Fasten the three center liner ties on the opposite end of the intermediate liner section to the header bar of the center arch that joins Sections 2 and 3 with bow knots, leaving at least two inches slack. See Figures D-1 and D-8.
  - c. Fasten the next two ties on either side of the three center ties to the center arches of Sections 2 and 3 just below the header bar with bow knots, leaving at least two inches slack. See Figures D-1 and D-8.
  - d. Repeat Substep c, above, for the two ties on the opposite end of the intermediate liner section.
7. Teams 1 through 5 push the liners under the eave purlins towards the ridge purlins to keep from stepping on the liner.
8. Teams 1 through 5 align and close the seams of the liners using hook-and-pile fasteners by doing the following:
- a. Close the seams on the working side from the ridge to where the last liner tie is fastened to the header bar.
  - b. Close the seams on the nonworking side from the ridge to the end of the last liner bow knot.

9. Even-numbered soldiers install the light support straps (packed in the fluorescent light storage case) by doing the following:
  - a. Loop the end of the strap under the header bars, then up and over the top of the bars. See Figure D-11.
  - b. Loop the end of the support strap over the top D-ring and then back through the D-ring and pull the strap taut.



**Figure D-11. Placement of light support straps**

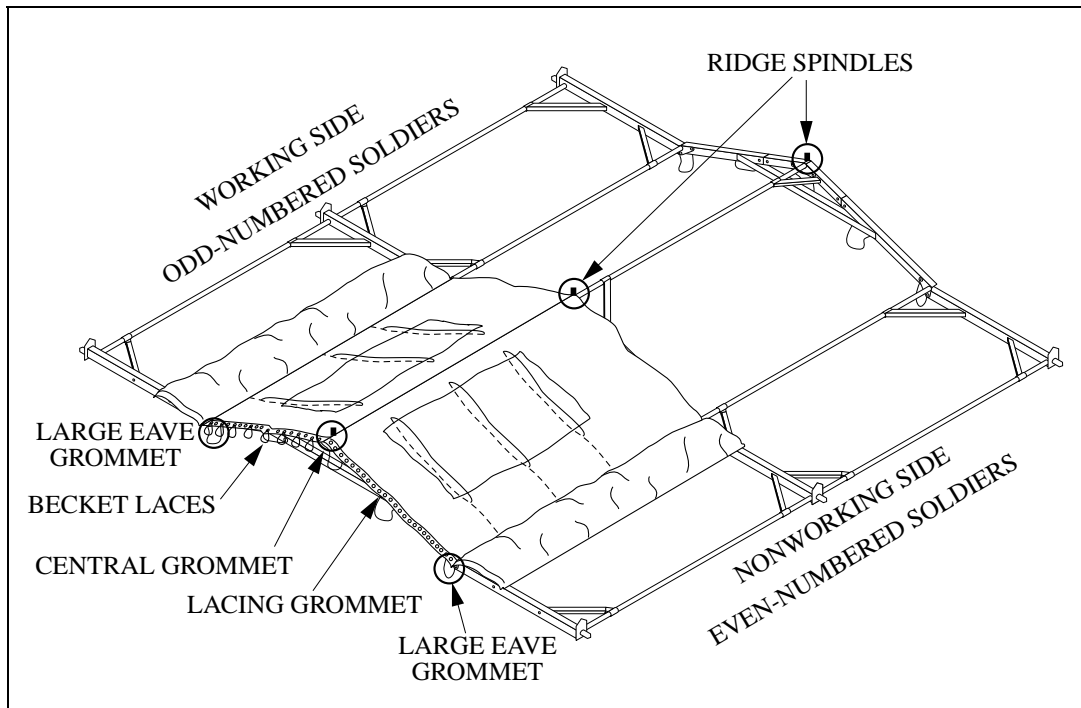
10. Odd-numbered team members insert the light support straps through the slits in the liner.
11. All team members pull the light support straps and liner support ties back to the corner of the header bars and the arches.

*C. Install the canvas.*

**COACHING POINT:** Ensure that the stove pipe shields on the canvas align with the stove pipe shields on the liner. Always place canvases edged with Becket lacing over the spindles first. Ensure that door canvases are used only where door purlins have been installed. Ensure that the stove pipe shields on the canvases are on top and placed over the stove shields on the liners.

1. Odd-numbered soldiers pass the canvas (door or window according to TEMPER configuration) over the ridge purlin to

the even-numbered soldiers on the nonworking side, placing the two large grommets at the center over the spindles at the ridge. See Figure D-12.



**Figure D-12. Canvas components**

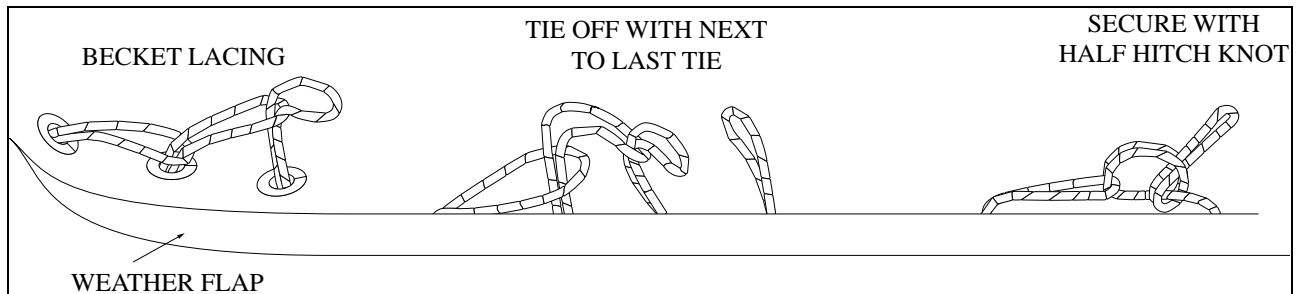
2. Even-numbered soldiers pull the canvas over the ridge purlin and down to the eave on the nonworking side.
3. Odd-numbered soldiers place the large grommet at the eave over the eave spindle only on those sides of the canvas with the Becket laces.

**COACHING POINT:** Do not place the grommet edge of the roof section over the spindle until the Becket lace edge of the endwall has been put in place. See Step 12, below.

4. Team 1 carries the endwall canvas to the first arch.
5. Team 1 ensures that the vestibule adapter on the endwall panel is facing out, places the large center grommet over the ridge spindle, and then places the remaining two large grommets over the eave spindles.

**COACHING POINT:** Ensure that teams pass all fabric components up and over the roof panel to keep the components clean and undamaged during assembly.

6. Team 2 places the remaining large grommets of the roof (door or window) canvas over the eave spindle.
7. Teams 1 and 2 Becket-lace the roof and endwall canvases together by doing the following:
  - a. Begin at the ridge of end arch and lace down to the eave on both the working and nonworking sides.
  - b. Insert the first lace at the ridge through the first grommet, and then insert the second lace through the second grommet and through the loop of the first lace. See Figure D-13.



**Figure D-13. Becket lacing**

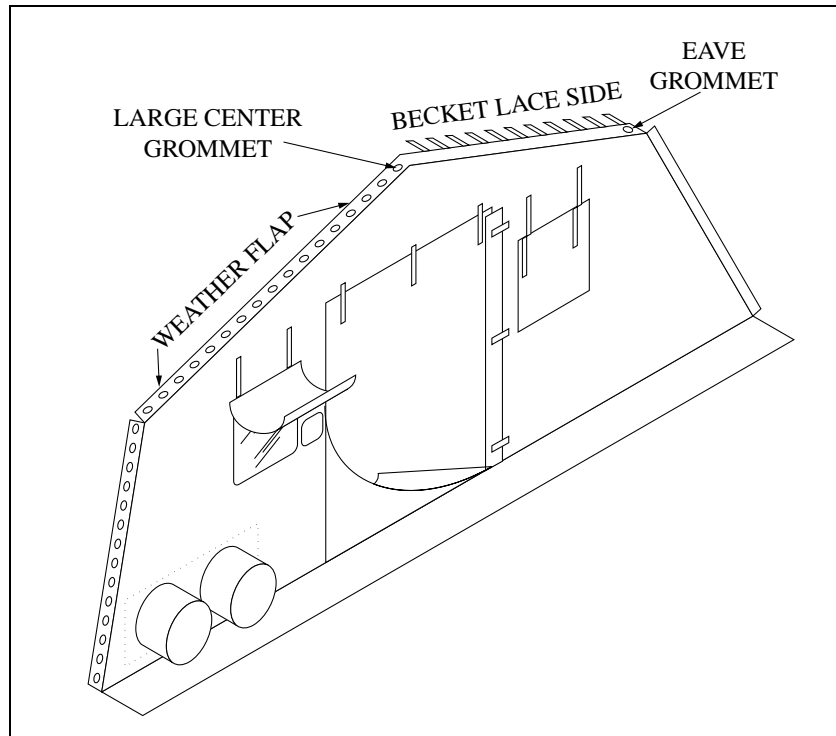
- c. Pull the second lace tight and continue to lace in this manner until reaching the last lace. See Figure D-13.
- d. Close the hook-and-pile fasteners along the way until reaching the next to the last lace.
- e. Insert the next to the last lace from the eave through the loop in the last lace. See Figure D-13.
- f. Pull the lace up toward the ridge and tie it off with a half hitch. See Figure D-13.

**COACHING POINT:** Ensure the soldiers place the large grommets at the eaves that have the Becket lacing over the eave spindles first.

8. Teams 1 through 5 place the remaining door/window and endwall canvases over the TEMPER frame, locating door canvases only where door purlins have been installed, and aligning any stove pipe shields on the same side as the stove pipe shields on the liners (if equipped).
9. Teams 1 through 5 close the seams on the nonworking side only by doing the following:
  - a. One soldier Becket-laces and closes the weather flap, using the hook-and-pile fasteners, from the ridge to the eave. See Figure D-13.

b. The other soldier closes the hook-and-pile fasteners of the liner along the same seam. See Figure D-13.

10. Odd-numbered soldiers obtain two endwall canvases from the canvas bundle and place them at the end openings of the frame. See Figure D-14.



**Figure D-14. Endwall canvas**

11. Odd-numbered soldiers open the endwall canvas and locate the large center grommet.

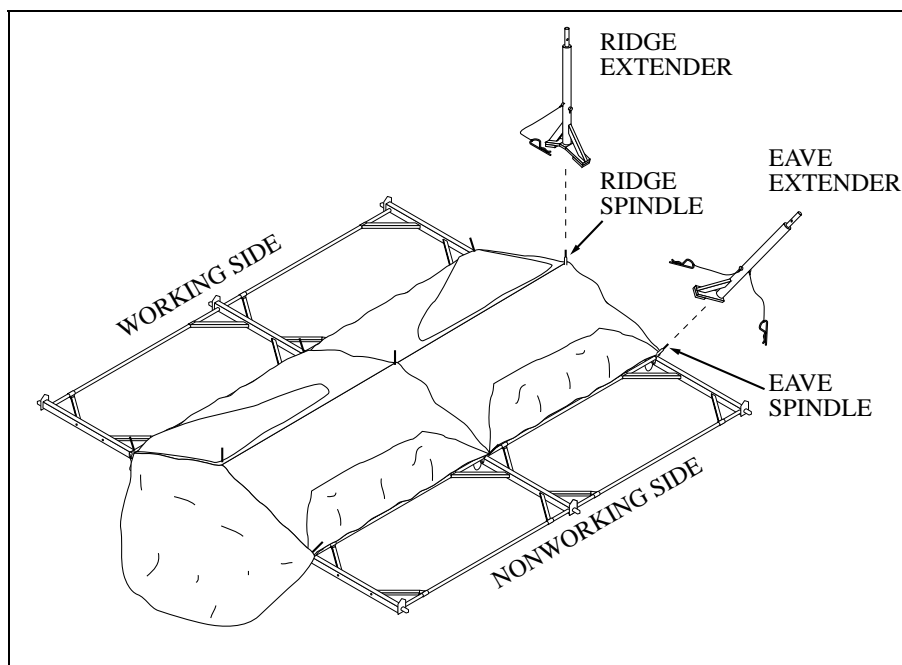
12. Teams 1 through 5 ensure that the vestibule adapter on the endwall canvas is facing out.

13. Even-numbered soldiers place the large center grommet at the peak of the endwall over the end ridge spindle.

14. Odd-numbered soldiers place the large eave grommet of the endwall canvas (Becket lace edge) over each end eave spindle, placing the adjacent grommet edge of the roof section over the same spindle.

**COACHING POINT:** When soldiers have completed the Becket lacing, have them tie off the lacing by pulling the next to the last lace back toward the ridge and tie it off with a half hitch knot. See Figure D-14.

15. Teams 1 through 5 Becket-lace the endwall canvas and the window canvas together from the ridge to the end of the header bar only, allowing access to the ridge later for installing the fly.
16. Teams 1 through 5 roll up the canvas walls and place them out of the way on the roof .
17. Odd-numbered soldiers retrieve the ridge extenders, install them over the ridge spindle, and lock them in place by aligning the holes and inserting the attached hitch clips through both the spindle and the bottom of the extender. See Figure D-15.



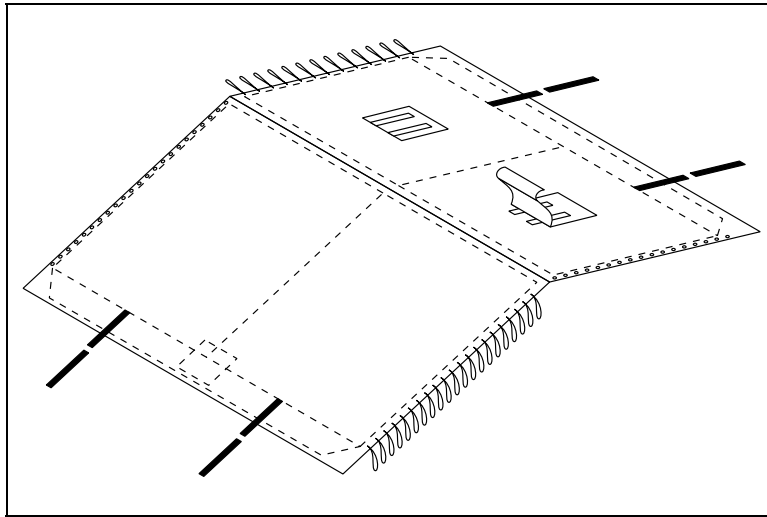
**Figure D-15. Ridge and eave extenders**

18. Teams 1 through 5 obtain the eave extenders from the base of the frame, place them over each eave spindle on both the nonworking and the working sides, and lock them in place by aligning the holes and inserting the attached hitch clips. See Figure D-15.

*D. Install the fly roof.*

**NOTE:** Each section of fly covers two TEMPER sections.

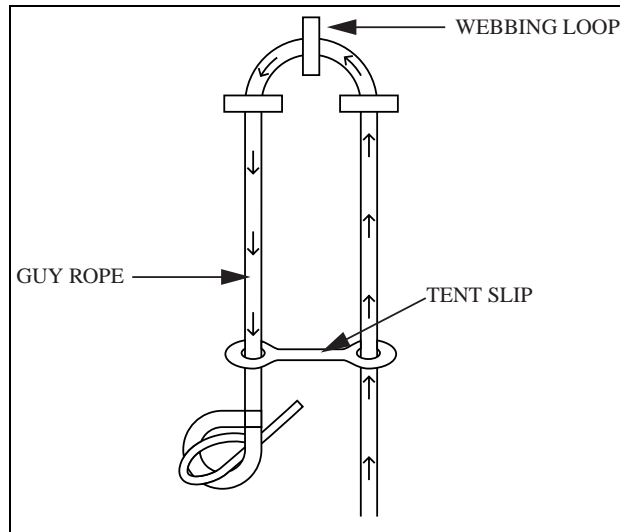
1. Teams 1 through 5 obtain fly roofs and spread them on the ground next to, and parallel with, the working side of the TEMPER, and align the large center grommets. See Figure D-16.



**Figure D-16. Fly roof**

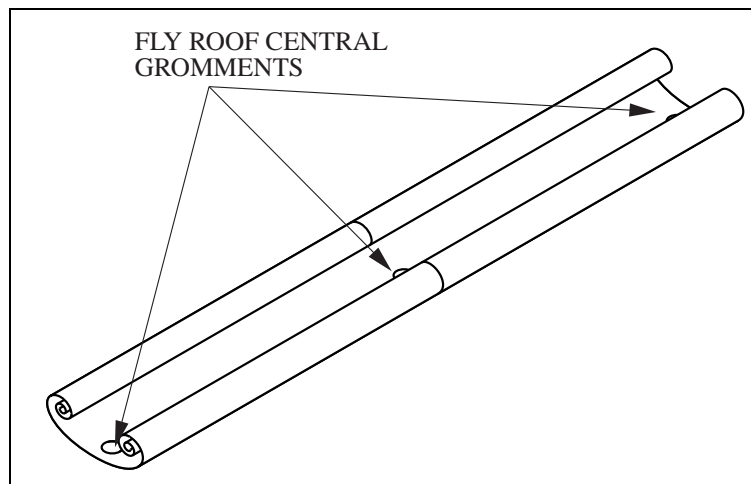
**COACHING POINT:** Ensure that the stove pipe shields on the fly align with the stove pipe shields on the roof (door, widow, or endwall) canvas.

2. Teams 1 through 5 Becket-lace two fly roofs together from the outside edges to the center, aligning and closing the hook-and-pile fasteners as they go.
3. Even-numbered soldiers thread one 19-foot guy rope, with tent slip, through each webbing loop on the fly roof.
4. Odd-numbered soldiers thread the guy rope through one side of the tent slip, through the webbing loops of the fly roof, then back through the other side of the tent slip, and tie a slip knot. See Figure D-17.



**Figure D-17. Threading the guy rope through the webbing loop and tent slip**

5. Odd-numbered soldiers throw the guy ropes and high-wind lines into the center of the fly roof.
6. Teams 1 through 5 roll both the working and the nonworking sides of the fly roof toward the large central grommets. See Figure D-18.



**Figure D-18. Rolled fly roof**

7. Teams 1 through 5 place the fly roof over the ridge by doing the following:
  - a. Lift and walk the fly roof up to the ridge of the working side of the TEMPER.
  - b. Place the center grommets of the fly roof near the ridge extender spindles.



- c. Team 1 or 5 places the grommet of one end of the fly over a spindle and continue working their way to the opposite end of the ridgeline.
  - d. Once all grommets are over the spindles, Team 1 or 5 places the hitch pin clips on the fly roof through the holes in the spindles.
8. Odd-numbered soldiers complete Becket-lacing the roof section canvases together to the eaves on the working and nonworking sides.
9. Even-numbered soldiers complete closing the liner seams and weather flaps using the hook-and-pile fasteners.
- COACHING POINT:** Ensure that teams place all lines, ropes, and canvas between the roof section and the fly roof on the nonworking side and then do the same on the working side so that they are out of the way while the TEMPER is being raised.
10. Teams 1 through 5 unroll the fly roof to the eave on the nonworking side, then unroll it to the eave of the working side, place the large eave grommets on the fly roof over all of the eave extender spindles on that side, and then secure the hitch pin clips in the eave extender holes.
11. Even-numbered soldiers thread each guy rope through one side of the tent slip, through the brace, and then around the pole of the eave extender on both the working and nonworking sides. See Figure D-19.

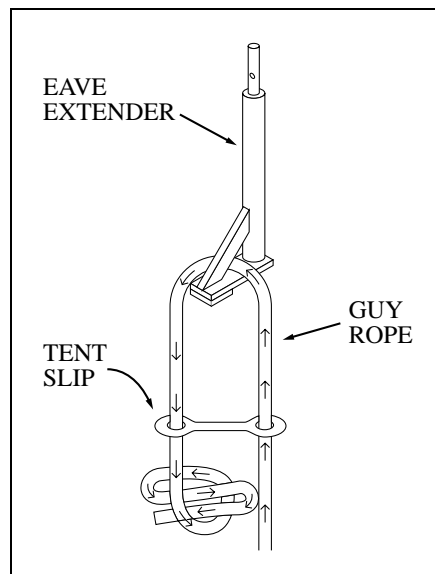


Figure D-19. Guy rope and extender

13. Teams 1 through 5 thread the guy rope back through the other side of the tent slip and tie a slip knot.
14. Teams 1 through 5 place the high-wind lines on top of the fly roof and ensure that the eave locking pins on the arch joints are hanging free.

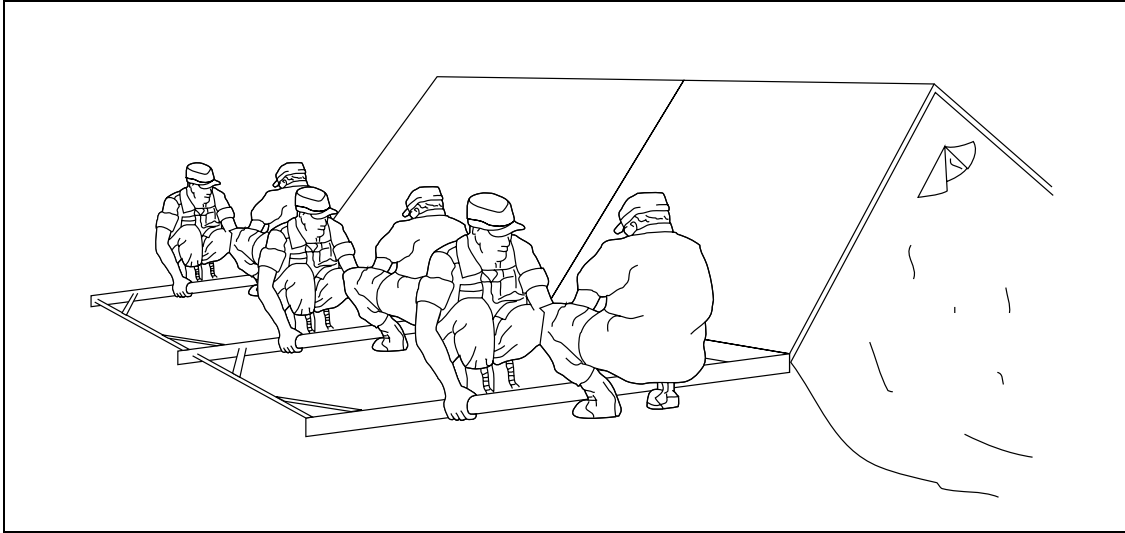
*E. Raise the TEMPER..*

**CAUTION:** PERSONNEL MUST KEEP THEIR HANDS OR FINGERS OUT OF THE EAVE JOINTS TO AVOID INJURY.

1. Teams 1 through 5 prepare to raise the working side of the TEMPER by doing the following:
  - a. Ensure that the canvas and tie straps are clear of the eave hinge joints.
  - b. Ensure that the eave joint locking pins are hanging free.
  - c. Caution all team members to keep their fingers away from the eave joints.
  - d. Remind all team members to use proper lifting techniques when raising the TEMPER.
  - e. Raise the working side of the TEMPER on the drill leader's command.

**COACHING POINT:** When lifting the TEMPER, soldiers should start in a correct squatting position and use their legs for the lifting power to avoid back injuries. Each pair of soldiers squat on opposite sides of the arch leg.

2. Teams 1 through 5 position themselves at the eave hinge of their assigned arch on the working side of the TEMPER with each soldier assuming a stable squatting position. See Figure D-20.

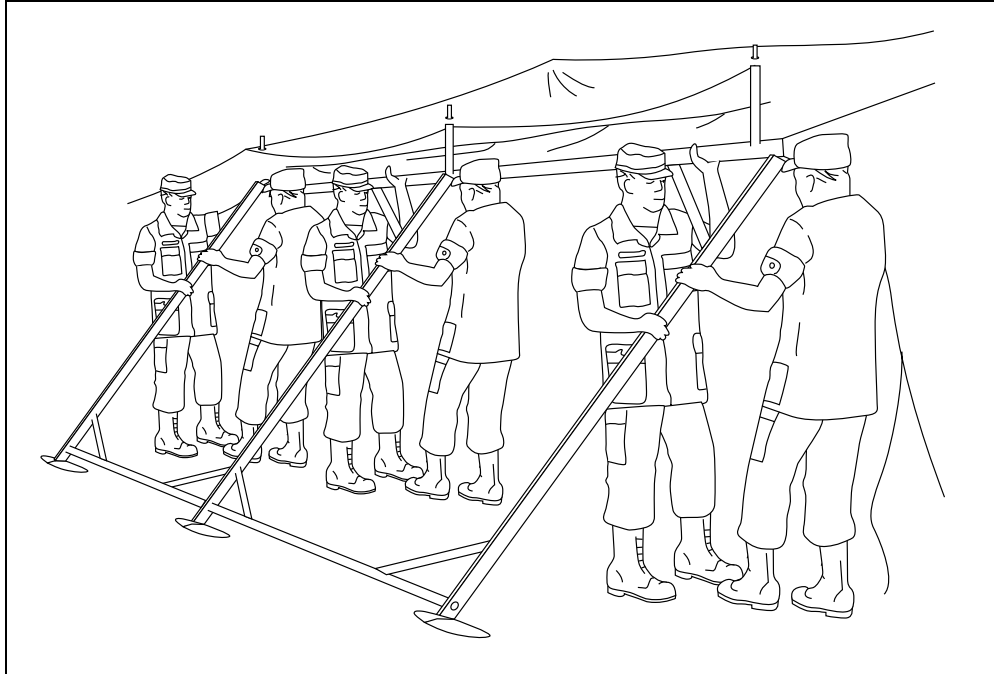


**Figure D-20. Stable squatting position**

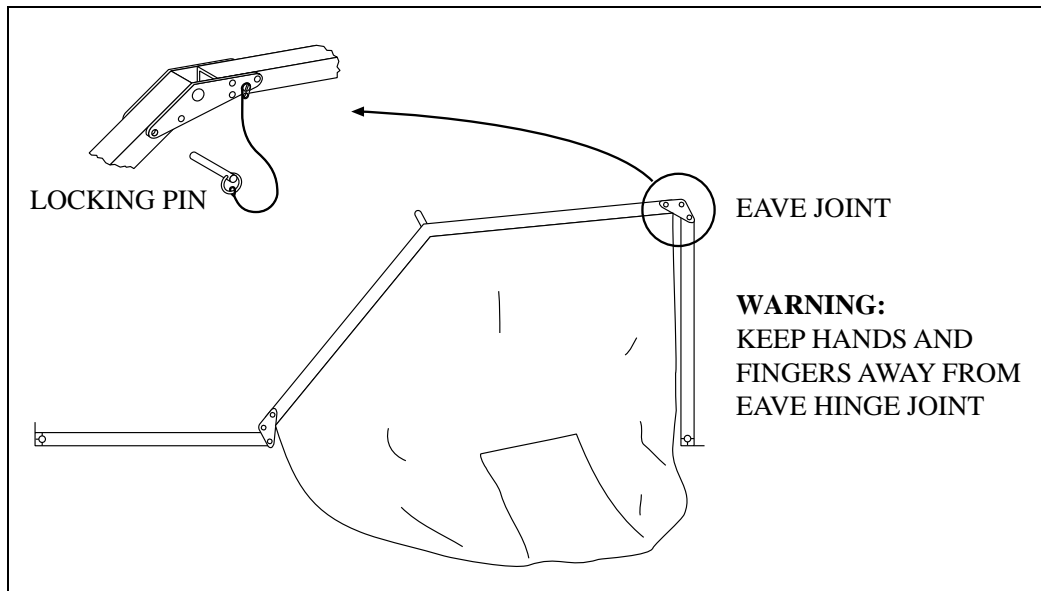
3. Soldiers of Teams 2, 3, and 4 (at the intermediate center arches) place one hand on the eave purlin, inside the diagonal brace, and the other on the arch leg.
4. Soldiers of Teams 1 and 5 (at the end frame arches) place both hands on the arch leg, one above the diagonal brace and the other below the brace.

**CAUTION:** TO MAINTAIN CONTROL OF THE TEMPER FRAME WHILE LIFTING, DO NOT LIFT THE BASE PURLINS OFF THE GROUND.

5. The drill leader gives both a preparatory command, "Prepare to Lift," and then, when everyone is ready, the command of execution, "Lift."
6. Teams 1 through 5 lift together to raise the eave purlins straight up to shoulder height and pull the hinged legs inward. See Figure D-21.
7. Teams 1 through 5 raise the eave purlins straight up to shoulder height and pull the hinged legs inward.
8. Even-numbered soldiers align the holes in the eave joints with the holes in the arch and insert the locking pin, from the outside in, to lock the eave joint in place. See Figure D-22.
9. Teams 1 through 5 align the holes in the eave joints with the holes in the arch and insert the locking pin, from the outside in, to lock the eave joint in place using the hook-and-pile fasteners.



**Figure D-21. Raising the TEMPER frame**



**Figure D-22. Eave hinge joint**

10. Teams 1 through 5 fasten the remaining liner eave ties to the eave purlins between the diagonal brace and the arch with bow knots, leaving at least two inches slack. See Figure D-10.

11. Teams 1 through 5 fasten the remaining liner end ties to the end arch legs with bow knots, leaving at least two inches slack. See Figure D-8.
12. Teams 1 through 5 fasten the liner sections together at the eaves using the hook-and-pile fasteners of the attached liner ties, and then complete sealing the liner sections together with the eaves using hook-and-pile fasteners.
13. Teams 1 through 5 roll up the liner sides, securing them to the liner roof with the two hook-and-pile fasteners.

*F. Install the accessories.*

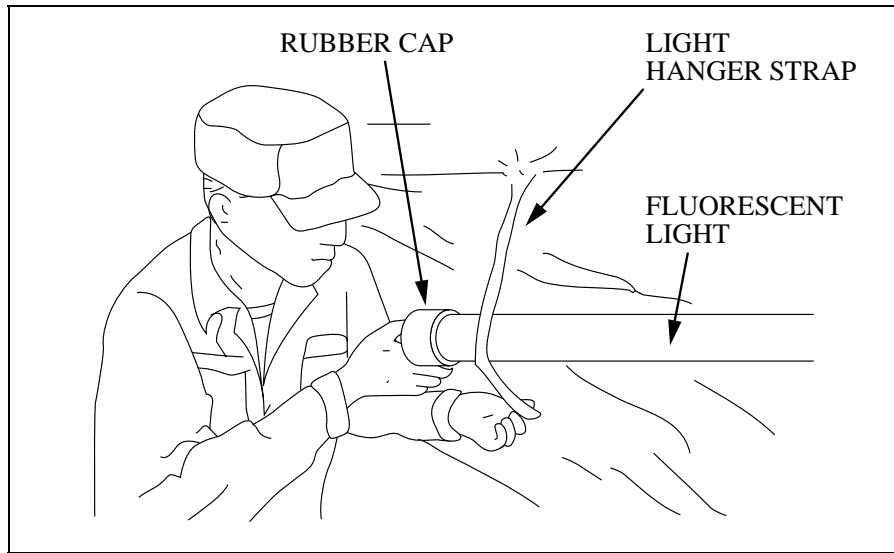
1. Even-numbered soldiers obtain two fiberglass cases (each containing four fluorescent lights), carry them to the working side of the TEMPER, and place one case at the base of the second arch and the other case at the base of the fourth arch.

**WARNING:** THE EXTERNAL POWER SOURCE MUST BE DISCONNECTED OR SHUT OFF WHEN WORKING WITH THE TEMPER'S ELECTRICAL CABLES OR FIXTURES.

**COACHING POINT:** In this drill, the power source is at the front door of the TEMPER, which is the right hand side and right corner as you face the working side of the tent.

**NOTE:** Soldiers hang the lights on the nonworking side beginning in Section 1. Lights must be mated as they are hung, with the male end toward the power source and the steel strips on the lights on top.

2. All team members hang the lights by wrapping the hanger straps around each end of the lights on the inside of the rubber caps. See Figure D-23.

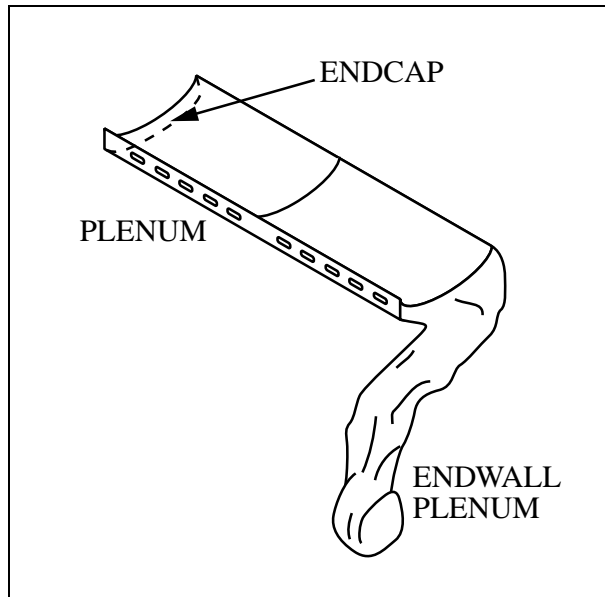


**Figure D-23. Hanging the fluorescent lights**

3. Teams 1 through 5 the hanger straps through the D-rings, then pull back and secure the ends with the hook-and-pile fasteners.
4. Teams 1 through 5 hang and secure the lights in Sections 2 through 4 on the nonworking side by following Steps 2 and 3, above.
5. Teams 1 through 5 connect the lights' male and female plugs together.
6. Odd-numbered soldiers obtain a short electrical extension cable from a footlocker and connect it to the male end of the fluorescent light cord.
7. Even-numbered soldiers thread the small end of the extension cable through the slot in the liner where the hanger strap is located, run it back toward the header bar, and then loop it around the header bar.

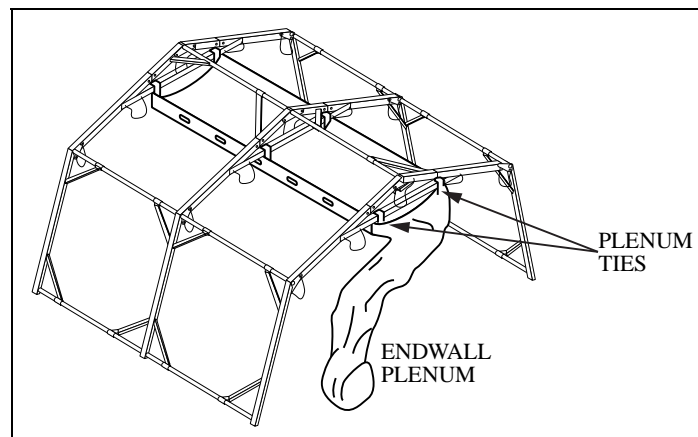
NOTE: The plenums serve as air ducts for the TEMPER.

8. Teams 1 through 5 obtain one plenum, one endwall plenum, and one end cap from the canvas bundle. See Figure D-24.



**Figure D-24. Layout of end cap, plenum, and endwall plenum**

9. All team members unfold the two plenums (see Figure D-24) on the ground along the working side of the TEMPER, with the endwall plenum on the right, and place the end cap on the regular plenum using the hook and pile straps.
10. All team members fasten the two plenums together using hook and pile fasteners.
11. All team members carry the plenums into the TEMPER and center them under the header bars.
12. All team members tie the plenums to the header bars through the slots (button holes) in the liner sections. See Figure D-25.



**Figure D-25. Installing the plenum**

13. All team members open the seams of the liners at the header bars and tie the plenum to the remaining header bars.
14. All team members close the hook and pile fasteners on the liner around the plenum ties.
15. Even-numbered team members remove the two remaining fluorescent lights from each of the two fiberglass cases and hang them on the working side, beginning in section one.
16. All team members hang the lights by wrapping the hanger straps around each end of the lights on the inside of the rubber caps. See Figure D-24.
17. All team members pull the hanger straps through the "D" rings, then pull back and secure the ends with the hook and pile fasteners.
18. All team members hang the lights in the remaining sections by repeating items 15, 16, and 17 immediately above.
19. All team members connect the lights together by connecting the male and female plugs together.
20. Even-numbered team members obtain the light extension cable from the storage container or footlocker and connect it to the male end of the light cord.
21. Odd-numbered team members thread the small end of the electrical cable through the slot in the liner where the hanger strap is located, pass the cable back to the header bar, and then loop the cable around the header bar.
22. Teams 1 through 5 prepare to raise the nonworking side of the TEMPER by doing the following:
  - a. Ensure that the canvas and tie straps are clear of the eave hinge joints.
  - b. Ensure that the eave joint locking pins are hanging free.
  - c. Caution all team members to keep their fingers away from the eave joints.
  - d. Remind all team members to use proper lifting techniques when raising the TEMPER.
  - e. Raise the nonworking side of the TEMPER on the drill leader's command.

**COACHING POINT:** When lifting the TEMPER, soldiers should start in a correct squatting position and use their legs for the



lifting power to avoid back injuries. Each pair of soldiers squat on opposite sides of the arch leg.

23. Teams 1 through 5 position themselves at the eave hinge of their assigned arch leg on the nonworking side of the TEMPER with each soldier assuming a stable squatting position. See Figure D-20.

24. Soldiers of Teams 2, 3, and 4 (at the intermediate center arches) place one hand on the eave purlin, inside the diagonal brace, and the other on the arch leg.

25. Soldiers of Teams 1 and 5 (at the end frame arches) place both hands on the arch leg, one above the diagonal brace and the other below the brace.

26. The drill leader gives both a preparatory command, "Prepare to Lift," and then, when everyone is ready, the command of execution, "Lift."

**CAUTION:** DO NOT LIFT THE BASE PURLINS OFF THE GROUND WHEN RAISING THE TEMPER. PLACE THE WEIGHT OF THE FRAME ON THE BASE PLATE OF THE ARCH.

26. Teams 1 through 5 lift together to raise the eave purlins straight up to shoulder height and pull the legs inward. See Figure D-21.

27. Teams 1 through 5 hold their assigned arch leg in place while letting the base purlin rest on the ground.

28. Even-numbered soldiers align the holes in the eave joints with the holes in the arch and insert the locking pin, from the outside in, to lock the eave joint in place. See Figure D-22.

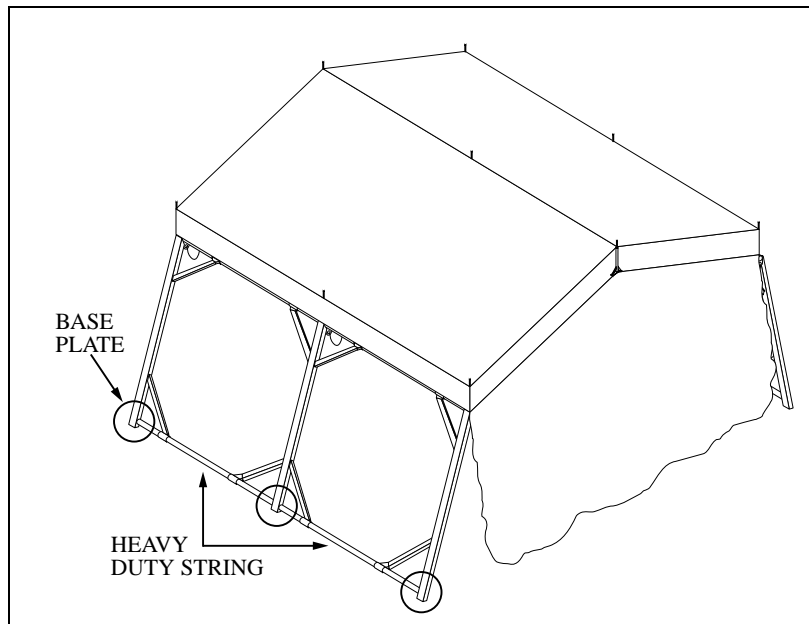
29. Teams 1 through 5 wrap the eave purling flap around the eave purlin and close it using the hook-and-pile fasteners.

30. Teams 1 through 5 complete installation of the liner by following Steps 10 through 13, above.

*G. Align the frame.*

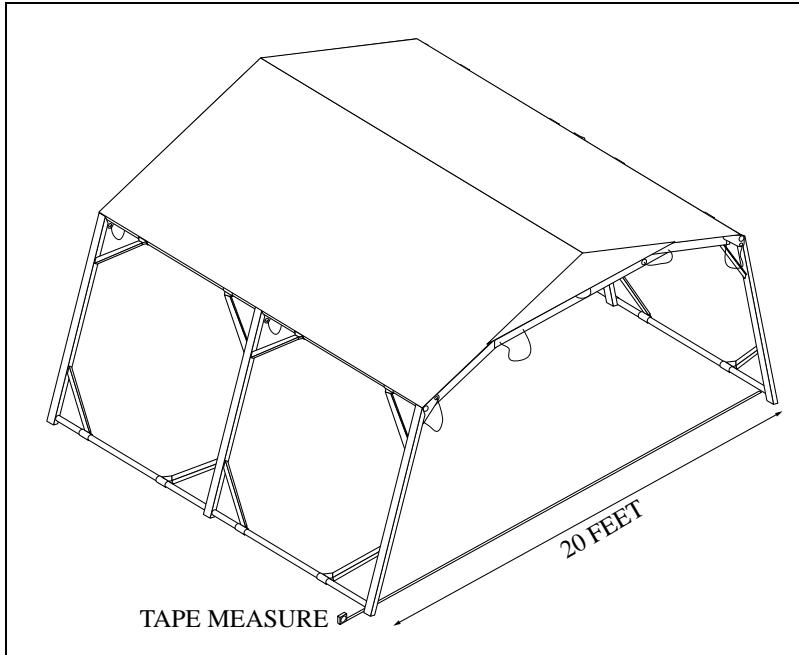
1. Odd-numbered soldiers obtain alignment and measuring equipment, a metal sledge hammer, and metal tent pins in preparation for aligning and securing the tent arch base plates.

2. Odd-numbered soldiers hold one end of the heavy duty aligning string over the center of the anchor hole on the end arch base plate on section one on the working side. See Figure D-26.



**Figure D-26. Aligning the TEMPER base plates**

3. Even-numbered soldiers place the opposite end of the string over the center of the anchor hole on the opposite end arch base plate on the working side, and pull the string tight to check that the arches are parallel.
4. Odd-numbered soldiers adjust the base plates of the interior arches on the working side so that the anchor holes of the base plates are under the aligning string. See Figure D-27.
5. Odd-number soldiers repeat the procedure in Step 4, above, for the base plates of the interior arches on the nonworking side. See Figure D-27.
6. Odd-numbered soldiers stretch the tape measure across the TEMPER floor to the center of the base purlin on the nonworking side. See Figure D-27.
7. Even-numbered soldiers adjust the base plates on the nonworking side so that they are 20 feet from the base plates on the working side. See Figure D-27.



**Figure D-27. Adjusting the width of the TEMPER**

**CAUTION:** WARN SOLDIERS NOT TO STRIKE THE BASE PLATE WITH THE SLEDGE HAMMER AS IT MAY CAUSE INJURY TO THEMSELVES OR DAMAGE TO THE PLATE.

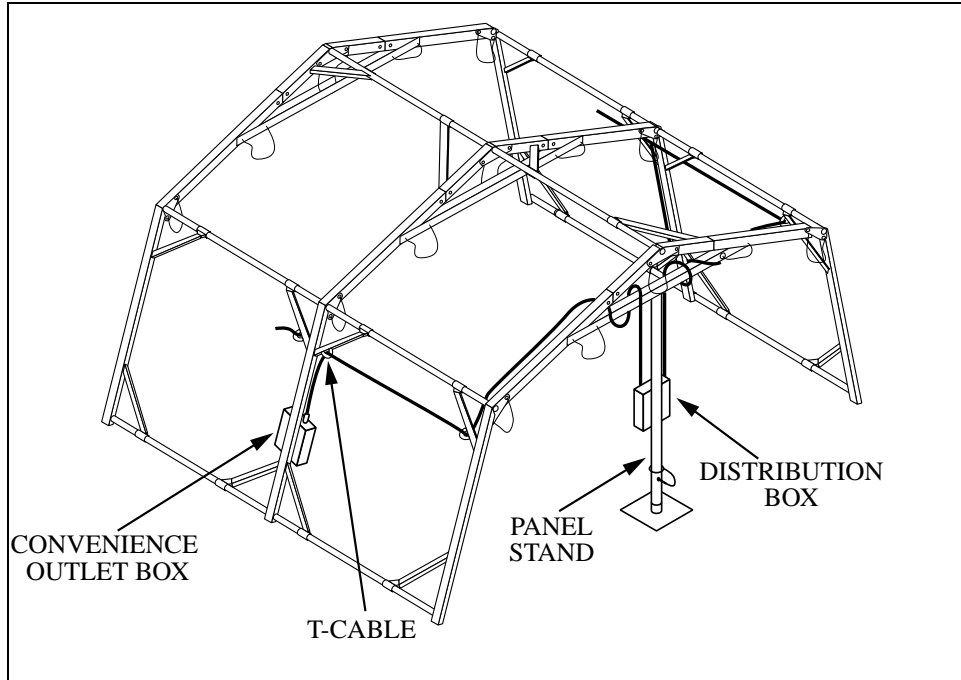
8. Once the 20 foot measurement and alignment is confirmed, Teams 1 through 5 anchor all base plates with the steel pins.

*H. Install the electrical system.*

1. Teams 1 through 5 obtain T-cables, convenience outlet boxes, electrical cables, and a distribution box from storage and place them inside the TEMPER.
2. Even-numbered soldiers attach the convenience outlet boxes to the center arch legs, just above the diagonal braces, using the hook and pile fasteners. See Figure D-28.
3. Odd-numbered soldiers secure the T-cable over the convenience outlet boxes using the hook-and-pile fasteners located on the eave purlin diagonal braces. See Figure D-28.

**NOTE:** If no straps are available, then wrap the T-cables around the eave purlins once or twice to hold them in place

4. Odd-numbered soldiers connect the T-cable to the convenience outlet box with the male end (the long end) facing the power source.



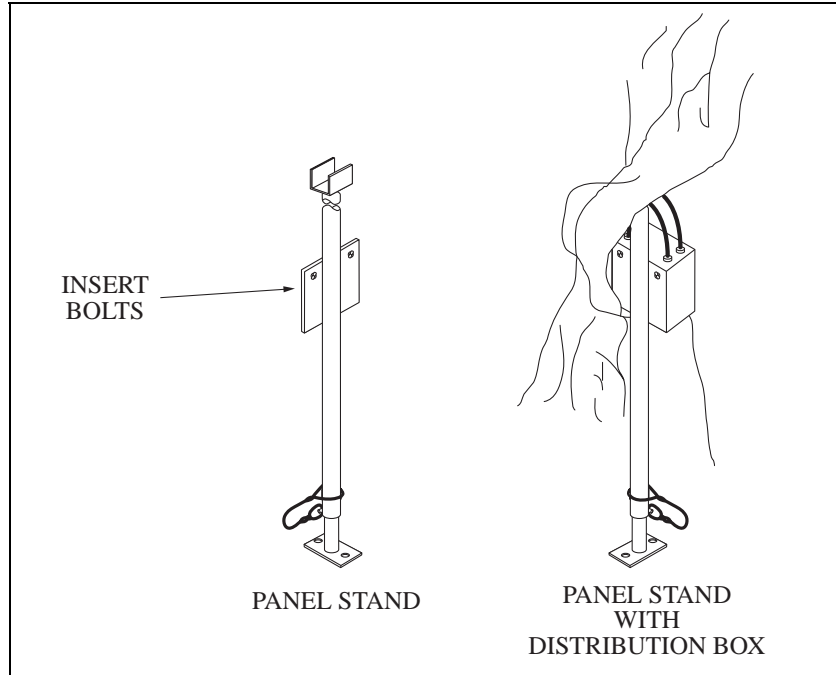
**Figure D-28. TEMPER electrical accessories**

**WARNING:** EACH ELECTRICAL CONNECTION AT THE T-CABLE AND THE CONVENIENCE OUTLET BOX MUST BE CORRECT AND SECURE. INCORRECT CONNECTIONS CAN CAUSE A FIRE, ELECTRICAL SHOCK, OR DAMAGE TO EQUIPMENT WHEN ELECTRICAL POWER IS TURNED ON.

**COACHING POINT:** Place all electrical cables between the TEMPER liner and frame.

5. Even-numbered soldiers connect one electrical extension cable to the long end of the T-cable.
6. Odd-numbered team members route the electrical extension cables along the eave purlin and secure it with the hook and pile fasteners located on the end arch diagonal brace.
7. Even-numbered team members wrap each electrical extension cable twice around the header bar and then run it down to the power distribution box opening in the endwall liner.
8. Odd-numbered team members connect the convenience outlet boxes and electrical extension cable protective caps to one each other.
9. Teams 1 through 5 place the power distribution box stand at the liner opening for the box at the end of Section 1 between the liner and the endwall section canvas. See Figure D-29.

10. Teams 1 through 5 hold the box stand in place and remove the hitch pins at the bottom of the stand.



**Figure D-29. Power distribution box and stand**

10. Teams 1 through 5 extend the flange end around the header bar, step on the base plate to make it flush with the ground, and insert the hitch pin and lock it in place.
11. Teams 1 through 5 anchor the base plate with two metal pins.
12. One soldier from each team obtains one power distribution box, inserts the bolts in the rear of the distribution box through the keyhole slots in the stand plate, and locks the box in place. See Figure D-29.

**WARNING:** EACH ELECTRICAL CONNECTION AT THE T-CABLE AND THE CONVENIENCE OUTLET BOX MUST BE CORRECT AND SECURE. INCORRECT CONNECTIONS CAN CAUSE A FIRE, ELECTRICAL SHOCK, OR DAMAGE TO EQUIPMENT WHEN ELECTRICAL POWER IS TURNED ON.

14. Odd-numbered soldiers connect the two electrical extension cables for the two rows of fluorescent lights to the distribution box's right and left light receptacles, respectively.
15. Even-numbered soldiers locate the two electrical extension cables connected to the two T-cables, and connect them to the distribution box right and left light receptacles, respectively.

**COACHING POINT:** Ensure the convenience outlet boxes remain exposed when completing the installation of the liner and exterior canvas, with approximately six inches of cable showing.

16. Teams 1 through 5 unroll the liner walls, fasten them to the arch and base purlins using the tie straps, and secure the liners to each other using the hook-and-pile fasteners and liner ties.

17. Teams 1 through 5 close the hook-and-pile fasteners around the power distribution box.

18. Even-numbered soldiers roll up the front-end door liner and secure it at the eave with tie straps.

19. Odd-numbered soldiers roll up the rear-end door liner and secure it at the eave with tie straps.

20. Even-numbered soldiers lower the canvas section walls and Becket-lace the section walls together from the eave purlin to the base purlin, beginning with the roof and endwall canvas in Section 1 on both sides and working toward the far end of Section 4.

21. Even-numbered soldiers close the weather flap at each joint using the hook-and-pile fasteners.

22. Teams 1 through 5 unzip the door on both endwall sections, roll the doors up, fasten them with ties located at the top of the sections, and secure the purlin flaps to the base purlins using the hook-and-pile fasteners.

23. Teams 1 through 5 pull the canvas apron under the base purlins and toward the center of the TEMPER.

24. Teams 1 through 5 tie off any heater/air conditioning tubes that will not be used and pull them to the outside of the TEMPER.

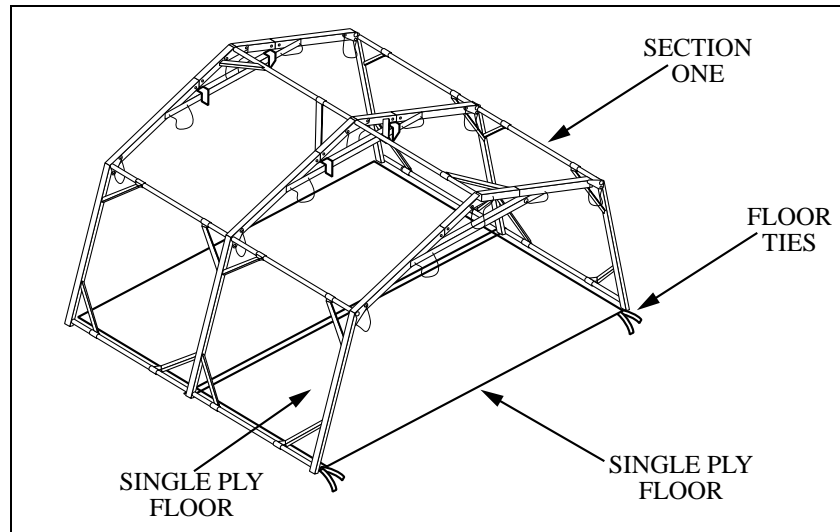
25. Teams 1 through 5 secure ties, flaps, and panels that will not be used, and roll flaps to the inside so water will not be trapped in them.

*I. Install the floor.*

1. Teams 1 through 5 obtain four floor sections from the canvas bundle and place two near each door.

2. Teams 1 through 5 lay the single-ply floor, starting in Section 1 and working toward Section 4 by running the floor from side to the side with the pile strip of the floor facing up. See Figure D-30.
3. Teams 1 through 5 fasten the floor to the base purlins, using the ties attached to the floor sections.

**NOTE:** Begin fastening the floor sections together using hook-and-pile fasteners from the center and work toward the base purlins.



**Figure D-30. TEMPER floor**

3. Teams 1 through 5 fasten the two floor sections together by aligning the hook-and-pile strip on the first floor section with the hook-and-pile strip on the second floor section and pressing the strips together.
4. Repeat Steps 3 and 4 for the floor sections in Sections 3 and 4.

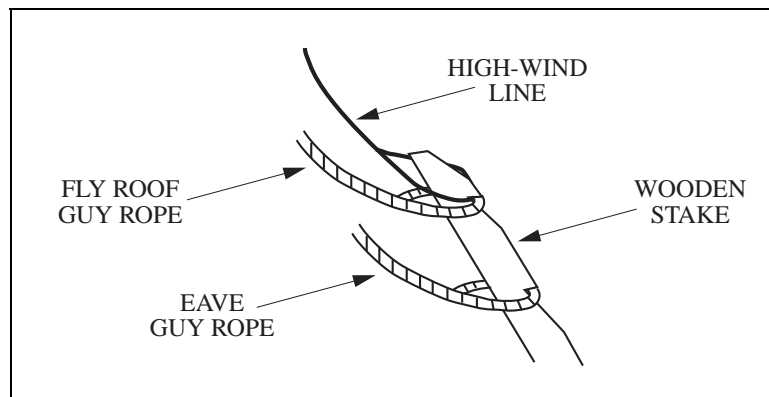
**COACHING POINT:** If the TEMPER is equipped with insulated floor panels, teams use the above procedures to install them over the single ply floor.

*J. Secure the TEMPER with pins and stakes.*

1. Team 3 lays a steel tent pin by each tent loop and a wooden stake at each arch leg, approximately ten feet from the TEMPER.
2. Team 2 tucks end canvas aprons under the subfloor.

**WARNING:** PERSONNEL DRIVING STEEL PINS SHOULD WEAR GLOVES, EYE PROTECTION, AND STEEL-TOED BOOTS FOR PROTECTION. SOLDIERS MUST USE CAUTION WHEN DRIVING PINS AROUND THE ROPE LOOPS AT THE BASE OF EACH PURLIN SO THEY DO NOT TO DAMAGE THE CANVAS OR PURLIN.

3. Team 1 uses the metal pins to stake each of the foot loops at the base of the TEMPER on both sides with the metal pins.
4. Team 4 drives the wooden stakes at approximately a 45-degree angle toward the tent, places the open loops of the guy ropes over the stakes, and tightens the ropes with the tent slips. See Figure D-31.



**Figure D-31. Guy ropes and high-wind line**

5. Team 3 places the open end of the high-wind lines over the wooden stakes and tightens them. See Figure D-31.
6. Teams 1 through 5 secure all unused equipment and empty canvas covers, and place them in the storage TRICON.

*K. Erect TEMPER Vestibule.*

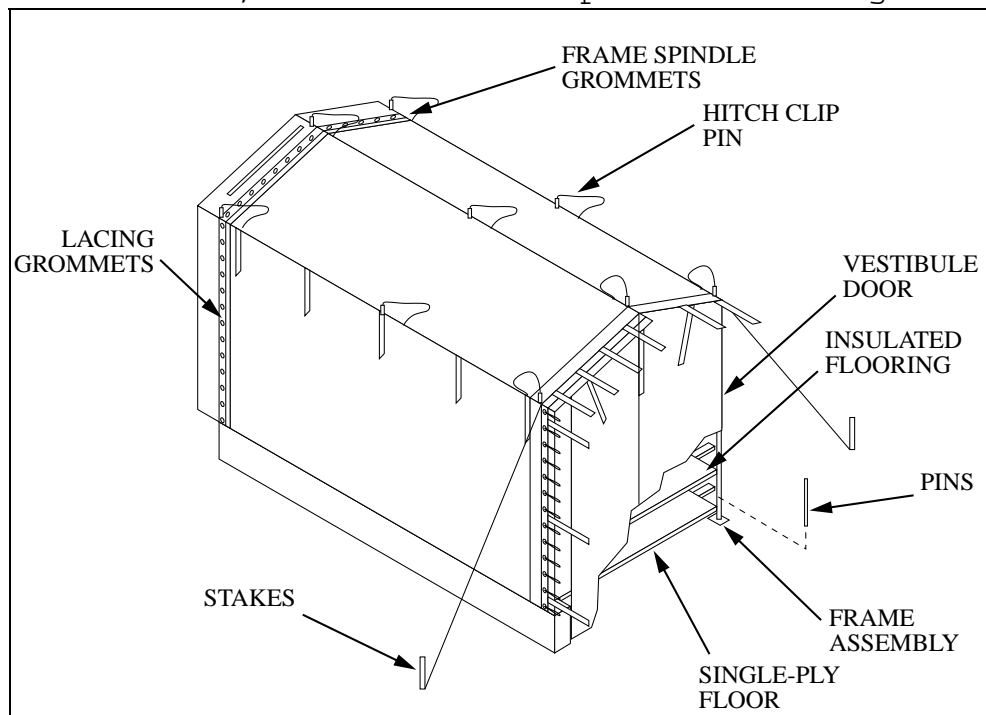
**COACHING POINT:** Detail Team 3 to install the environmental control unit (ECU). Release Teams 4 and 5 to perform other duties.

1. Team 1 unfastens and rolls up the TEMPER outside door, the screen door, and the liner door, and secures the rolled up doors with ties.
2. Teams 1 and 2 bring a vestibule, its frame assemblies, vestibule door, pins and pegs, and floor to the TEMPER. See Figure D-32.
3. Teams 1 and 2 assemble the three frames for the vestibule by inserting each header (top portion) into the top of the



upright poles, and then insert and lock the attached hitch clip pins through both poles. See Figure D-32.

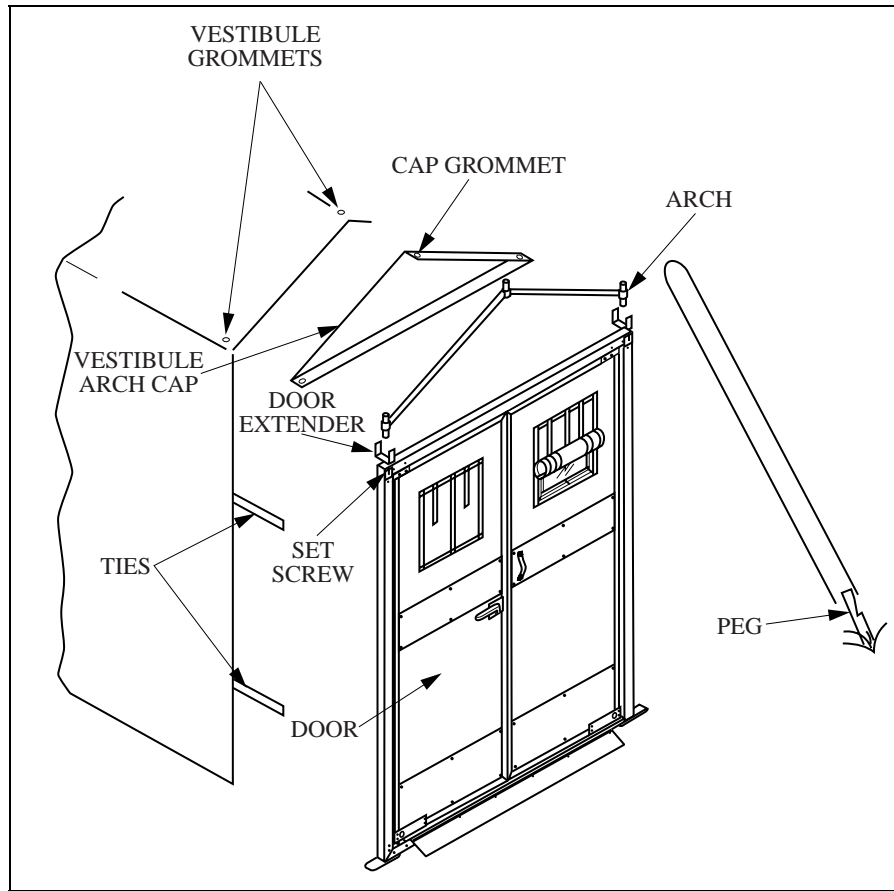
4. Team 1 places the vestibule frames inside the TEMPER with the header nearest the TEMPER door. See Figure D-32.
5. Team 2 holds one vestibule frame at an angle inside the TEMPER, and places the large center grommet of the TEMPER's vestibule adapter over the ridge spindle (uppermost spindle) of the vestibule frame. See Figure D-32.
6. Team 2 grasps the side of the canvas with the Becket laces and places the large grommet, at the eave on each side of the vestibule canvas, over each eave spindle. See Figure D-32.



**Figure D-32. TEMPER vestibule**

7. Team 1 Becket-laces the vestibule to the TEMPER vestibule adapter from the ridge to the eaves on both sides of the vestibule, fastening the hook-and-pile weather flap together as they proceed. See Figure D-32.
8. Teams 1 and 2 orient the vestibule canvas so that the attached hitch clip pins are on top. See Figure D-32.
9. Teams 1 and 2 insert the spindles of the middle (second) frame into the three large grommets at the middle of the vestibule canvas and then insert and lock the hitch clip pins.

10. Teams 1 and 2 extend the canvas outwards and stand the middle frame upright.
  11. Teams 1 and 2 install the door (third) vestibule frame and the door canvas, using the same procedures as for the first frame and the vestibule adapter.
  12. Teams 1 and 2 extend the canvas outward and stand the frame upright.
  13. Team 1 aligns the frame with the TEMPER door, and drives a steel pin through a hole in each foot plate on the door (third) frame of the vestibule.
  14. Team 2 drives a wooden stake about six feet away and at a 45-degree angle out from the vestibule door frame.
  15. Team 2 attaches a guy rope and tent slip to both eave spindles on the vestibule frame, between the hitch clip pins and the canvas, loops the rope around the stake, and then tightens the rope. See Figure D-32.
  16. Team 1 completes all Becket-lacing from the eaves down to the ground on the vestibule adapter and the vestibule door canvas.
  17. Team 2 installs guy ropes and tent slips from the eaves of both the vestibule adapter frames and the middle frame.
  18. Team 2 drives in wooden stakes six feet out from and in line with the middle frame, loops the guy ropes over the stakes, and then tightens the guy ropes.
- L. Install double bump-through doors in a vestibule.*
1. Team 2 removes the vestibule door if installed, and then removes the arch from the vestibule entrance. See Figure D-33.



**Figure D-33. Double bump-through doors**

2. Team 1 loosens the set screws on the top of the bump-through door frame and then removes the door extender from the top of the door frame. See Figure D-33.
3. Teams 1 and 2 insert the post of each end of the vestibule arch in the holes on each side of the tip of the bump-through door's frame and hold the door upright.
4. One soldier on each side tightens the set screws to hold the arch in place.
5. Team 1 locates the triangular vestibule arch cap and places the cap's grommets over the top of the arch spindles on top of the bump-through door.
6. Team 1 fastens the hook-and-pile fasteners of the arch cap to the top of the door frame.
7. Teams 1 and 2 place the door into position in the front of the vestibule, and fasten all the tie tapes on the vestibule to the frame of the door.

8. Team 2 installs guy lines under the hitch clip pins at the end of the vestibule on both sides.
9. Teams 1 and 2 close the weather flaps by sealing them around the double access door frame.

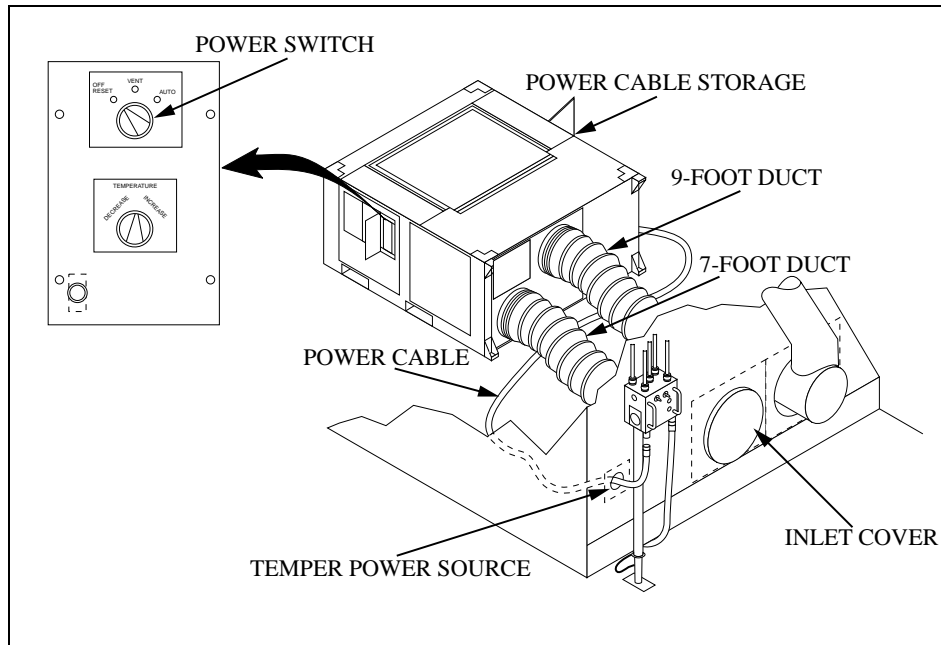
**COACHING POINT:** If the double bump-through doors will be installed on an end section, follow these steps:

- a. Unzip, roll up, and secure the end-section fabric door and screen.
- b. Position the bump-through doors in the doorway and lock them closed.
- c. Extend the door extender so it's flanges are up firmly against the header bar and secure the set screws.
- d. Fasten the hook and pile fasteners around the door.

*M. Emplace the ECU.*

**COACHING POINT:** Soldiers use a fork lift to move the ECU to the TEMPER because it weighs 960 pounds.

1. Team 3 prepares the site for the ECU by doing the following:
  - a. Locates the site within six feet of the TEMPER's ECU ducts.
  - b. Ensures the ground is smooth and flat.
  - c. Obtains pallets or other suitable dunnage on which to place the ECU.
2. Using a fork lift, Team 3 positions one ECU with the duct side towards the TEMPER, ensuring that the ducts' attachment is free of sharp bends or kinks that could restrict air flow. See Figure D-34.



**Figure D-34. Environmental control unit**

3. Team 3 opens the duct storage door by turning the captive screws counterclockwise, loosens the wing nuts on the duct storage racks, and removes both the nine-foot and the seven-foot air ducts.
  4. Team 3 installs the drain hoses by doing the following:
    - a. Removes the drain hoses from the ECU storage compartment door.
    - b. Installs the drain hoses to the condensate drain connections in the forklift opening nearest the air ducts.
    - c. Lays the hoses so that they point away, and down hill, from the ECU and the TEMPER.
  5. Team 3 removes the air ducts, returns the racks to the storage compartment (short rack first to clear the condenser fan), and secures the door.
- COACHING POINT:** Check the direction flow arrows on the flexible ducts. The seven-foot duct attaches to the inlet port of the ECU, and the nine-foot duct attaches to the discharge or outlet port of the ECU.
6. Team 3 connects both flexible ducts to the TEMPER by pulling the duct boots on the TEMPER to the outside, sliding the duct into the boot, and then pulling the draw string on the end of the boot tight around the flexible duct.

7. Team 3 connects the flexible ducts to the ECU by slipping the duct over the vent flange and tightening the worm screw around the flange.
8. Team 3 attaches the seven-foot duct to the inlet port (the lower of the two tubes), ensuring that the flow indicator arrow is pointing toward the ECU, without over tightening the securing screw.
9. Team 3 attaches the nine-foot duct to the outlet port (the upper of the two tubes), ensuring that the flow indicator arrow is pointing toward the TEMPER, without over tightening the securing screw.

**COACHING POINT:** Ensure that there are no loose items in the TEMPER near the inlet duct that may be sucked into the intake (seven-foot) duct and damage the ECU.

10. Team 3 opens the cover on the top of the ECU, exposing the heat exchanger fan.
11. Team 3 opens the covers on the back end of the ECU to expose the cooling coils and secures the covers in the open position.
12. Team 3 ensures that the ECU power switch is in the OFF-RESET position.
13. Team 3 opens the storage compartment, removes the power cable, and ensures the cable is positioned in the slot at the bottom of the storage compartment door before securing the door.
14. Team 3 ensures the power switch on the power distribution box inside the TEMPER is in the OFF position and attaches the power cable.

**COACHING POINT:** The ECU requires a five-hour warm-up period following initial installation. If the electrical power remains connected, the crankcase heater will stay hot and the compressor can be started at any time. However, if the power is disconnected, refrigerant gas will condense in cool crankcase oil in which case the oil must then be warmed again to prevent startup damage to the compressor.

**COACHING POINT:** Ensure that soldiers lay out service/feeder cables from the electrical power source to the point of use, and then connect back from the point of use to the power source. Ensure that soldiers carry the service/feeder cables and do not drag either the cables or connections through mud or sand.

**WARNING:** DUST CAPS MUST BE SECURED TO ONE ANOTHER AFTER SERVICE/FEEDER CABLE INSTALLATION TO AVOID LOSS OR DAMAGE OF THE DUST CAPS.

15. Team 3 lays out one 100-foot 60-amp service/feeder cable from the PDISE-M100 serving the TEMPER to the power distribution box in the TEMPER.

16. After checking that the ON-OFF switches on the TEMPER distribution boxes are set to OFF, Team 3 attaches the female end of the service/feeder cable to the distribution box in the TEMPER and the male end of the service/feeder cable to the PDISE-M100.

**WARNING:** PERSONNEL MUST CONFIRM THAT THE ECU FANS ARE TURNING IN THE RIGHT DIRECTION TO AVOID DAMAGE TO THE ECU.

17. Team 3 turns on the ECU and confirms that the fan-tower fan is blowing out, not in.

18. If the fan is pulling air into the ECU, Team 3 immediately shuts off the ECU and notifies the Facilities Support Section that the ECU is running backwards.

19. If the direction of air flow is correct, Team 3 adjusts the temperature setting on the ECU panel to maintain a comfortable temperature in the TEMPER.

**NOTE:** The ECU thermostat is automatically set to 65° F.

*N. Set Up the Cold Weather Kit for an operational Four-Section TEMPER..*

**COACHING POINT:** In temperatures of +32° F and below, soldiers must use the CWK equipment for each TEMPER. For TEMPERs such as billeting or food service, soldiers must install a subfloor (consisting of 4-foot by 8-foot platforms) that they obtain commercially.

**COACHING POINT:** Organize four soldiers into two teams (Team 1 and Team 2) to setup the CWK equipment for an operational four-section TEMPER.

1. Teams 1 and 2 install 20 sheets of subflooring for the four-section TEMPER, if designated for CWK, by doing the following:

**NOTE:** Do not perform Substeps a through c and f and g if the CWK is installed at the same time a TEMPER is being set up.

- a. Remove any equipment inside the TEMPER.
- b. Remove the floor mats.
- c. Loosen guy ropes over the stakes.
- d. Obtain 4-foot by 8-foot sheets of subflooring and position them underneath the TEMPER.

**NOTE:** Five sheets of subflooring must be laid for every section of a TEMPER.

- e. Secure the floor sections together to create a uniform surface.
- f. Reinstall the floor mats.
- g. Replace any equipment removed earlier.
- h. Drill holes in each subfloor section to accept the knobs on the bottom of the tent frames.
- i. Tighten loose guy ropes.

**NOTE:** For TEMPERs housing a 20,000-gallon fabric tank or 3,000-gallon tank, the subflooring is not required. Soldiers install a layer of extruded polystyrene instead.

**COACHING POINT:** An Army Space Heater (ASH), Model H120, provides heat in a four-section TEMPER in cold weather. Install a debris screen over the return duct when employing the ASH. Soldiers must remove the ECU to install the ASH, and return the ECU to the appropriate TRICON.

2. Teams 1 and 2 install the ASH at the vestibule end of the four-section TEMPER by doing the following:

- a. Team 1 removes the ECU by performing the steps in Section M, *Emplace the ECU*, in reverse order and repacks the ECU in the appropriate TRICON.

**NOTE:** Removing the ECU is not necessary if installing the CWK at the same time as setting up a TEMPER.

- b. Team 2 installs the ASH by following the instructions on its data plate, located on the side of the ASH, and IAW TM 9-4520-258-12.
- c. Team 1 installs the drum fill port adapter to the fuel drum for the ASH, and connects the fuel drum to the ASH.

3. If the tent uses water (either potable or graywater), Teams 1 and 2 perform the following steps:

- a. Team 1 removes all potable water and graywater hoses and replaces them with the appropriate size heat tracer hoses.



- b. Team 2 repositions the main hose through the water user tent and relocates all T-assemblies to the inside of the heated tent, to eliminate all dead sections of hoses that could freeze during periods of little or no water use.
  - c. Teams 1 and 2 mark all water and waste water hoses by placing 6-foot stakes ten feet apart and interconnecting them with colored engineer tape.
4. Team 1 marks all power cables by placing 6-foot stakes ten feet apart throughout the tent site and connecting them with colored engineer tape.
  5. Team 2 marks smaller components, such as electrical distribution boxes and hazard areas, such as culverts, by placing a sufficient number of 6-foot stakes to identify the area.

RUN-THROUGH: The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

PERFORM: When the soldiers can perform this drill according to the standards, their performance should be evaluated by the section leader.

**CREW DRILL 42-2-D0002**

**Operate and Maintain the Four-Section Tent, Extendable, Modular,  
Personnel (TEMPER)**

**TASK:** Operate and maintain the four-section TEMPER.

**CONDITION:** The TEMPER is erected within an operational Force Provider (FP) site. All components of the TEMPER are operable and electrical components connected to an electrical power source. A supervisor and two soldiers (occupants of the TEMPER) are available to operate and maintain the TEMPER. The area is secured. Technical documentation, including all applicable technical manuals (TMs) and instructions supplied with the TEMPER components, is available

**NOTE:** If the cold weather kit (CWK) is installed, the TEMPER may be equipped with an Army Space Heater (ASH) instead of the environmental control unit (ECU). The TEMPER will be provided with a snow rake and may have an insulated floor, depending on the intended use of the TEMPER.

**STANDARD:** The TEMPER is maintained, and its electrical components operated, IAW TM 10-8340-224-13&P, *Operator's, Organization and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Tent, Extendable, Modular*, in a safe and clean condition.

**SUPPORTING INDIVIDUAL TASKS:** To be determined (TBD).

**SETUP INSTRUCTIONS:**

a. Resources.

- (1) TEMPER with electrical components and ECU in place
- (2) Two soldiers plus a drill leader.
- (3) DA Form 2404, *Equipment Inspection and Maintenance Worksheet*, and a pen.
- (4) Broom, mop, and wringer pail with soap and water.
- (5) Lubricant in stick form.
- (6) Fire extinguisher.
- (7) Fluorescent light case with spare lamp.
- (8) CWK, if the ambient temperature is less than +32° Fahrenheit (F).
- (9) Technical documentation, including all applicable TMs and instructions supplied with the TEMPER components.

b. Training Site. A four-section TEMPER with an operational ECU and electrical power supply, set up in an area at least 100 feet by 200 feet.

c. Unit Instructions. The drill leader has made a reconnaissance of the site and ensured that the TEMPER and its components are operational. The drill leader ensures that required resources are available. The soldiers executing the drill should be brought to the site. Two soldiers are required to operate and maintain the TEMPER. Assign each soldier a number (Soldier 1 and Soldier 2). Some TEMPERs in FP have more than four sections and will require more personnel for maintenance and preventive maintenance checks and services (PMCS).

TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains soldiers to operate and maintain a four-section TEMPER. The objectives trained during this drill are: (1) inspect TEMPER components; (2) inspect, operate, and maintain the ECU; (3) maintain the inside of TEMPER; (4) maintain the outside of the TEMPER; and (5) maintain fluorescent lights. These activities are necessary to provide safe and efficient operation of the TEMPER for FP operations. Assign each soldier a different number during subsequent drill iterations so each learns all the steps and standards for operating and maintaining a TEMPER.

b. Environmental Stewardship. Brief all soldiers on the environmental stewardship requirements of executing this drill. The drill leader and soldiers will take measures to prevent leaks and spills of fuel, graywater or trash, to reduce the effects of any spills, and to clean up and dispose of contaminated soil and water, in accordance with current directives.

c. Safety. Follow all safety requirements in TM 10-8340-224-13&P. All personnel must use proper body mechanics when lifting. Soldiers must ensure electrical power is disconnected from the power source when working with TEMPER electrical cables or fixtures. Soldiers must ensure that the power distribution box is snug against the header and locked in place, and that the power distribution box stand is anchored at the base with metal pins.

d. Demonstration (optional). If other soldiers have successfully operated and maintained a TEMPER, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did. A video, titled,

*DEPMEDS - Tent, Extendable, Modular, Personnel (TEMPER)*, (TVT 8-202: running time, 50 minutes) is available to demonstrate the set up of a two-section TEMPER.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in operating and maintaining the four-section TEMPER. The drill leader can illustrate the steps with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should explain their role in the drill, including the standards for which they are responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. Conduct the drill slowly as a walk-through explanation at first, showing each action. Each soldier should carefully follow the performance measures. This is the crawl phase. The soldiers execute the drill at a deliberate pace on the first iteration as the walk phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the run phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

b. Initiating Cue. The drill leader gives the order to conduct before- and during- operations PMCS on the four-section TEMPER.

#### Performance Measures:

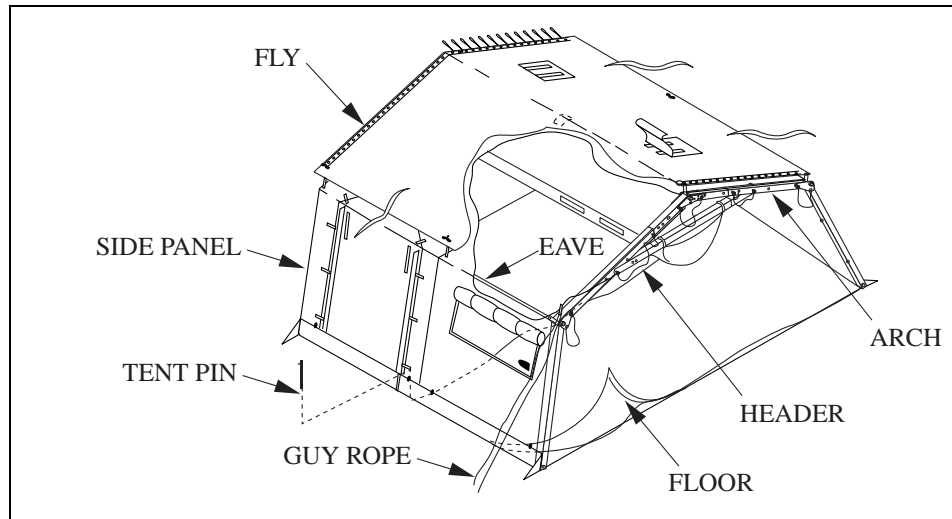
**WARNING:** TO AVOID DAMAGE TO THE COMPRESSOR, THE ECU MUST OPERATE FOR AT LEAST FIVE CONTINUOUS HOURS IN THE VENT MODE BEFORE BEING PLACED IN THE AUTOMATIC MODE WHEN FIRST PLACED INTO OPERATION.

**COACHING POINT:** Soldiers write any equipment deficiencies that they cannot immediately correct on a DA Form 2404. They turn in the completed DA Form 2404 to company or platoon headquarters, as appropriate.

1. Soldier 1 checks all fabric components for tears, punctures, rips, separated seams, and missing or damaged grommets IAW TM 10-8340-224-13&P. See Figure D-35.

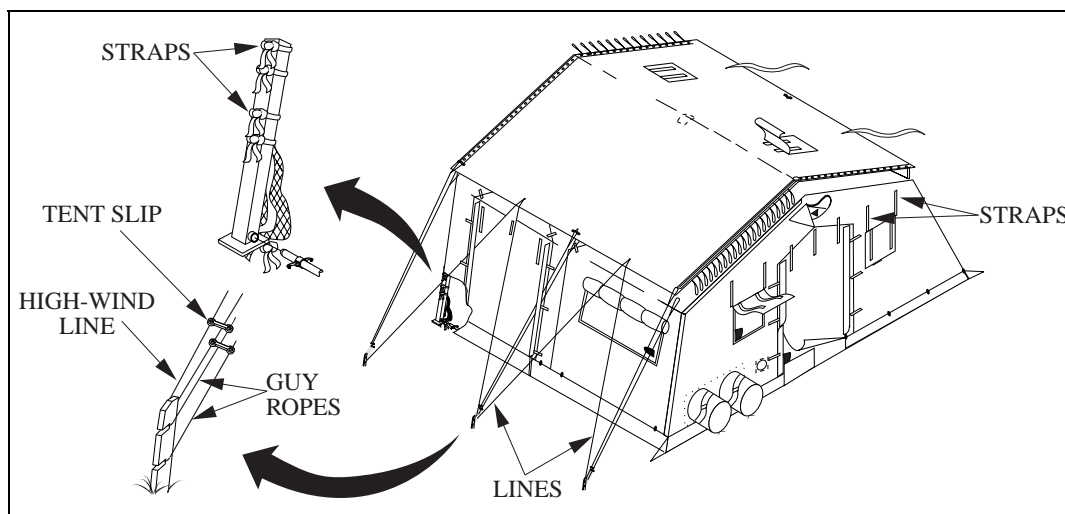
**WARNING:** IF THERE ARE MORE THAN FOUR INCHES OF SNOW ON THE TEMPER'S ROOF, REMOVE IT USING BROOMS OR SPECIAL SNOW RAKES

BEFORE PROCEEDING FURTHER IN THIS DRILL. FAILURE TO REMOVE THE SNOW COULD RESULT IN DAMAGE TO, OR FAILURE OF, THE TEMPER FRAME.



**Figure D-35. Components of a TEMPER**

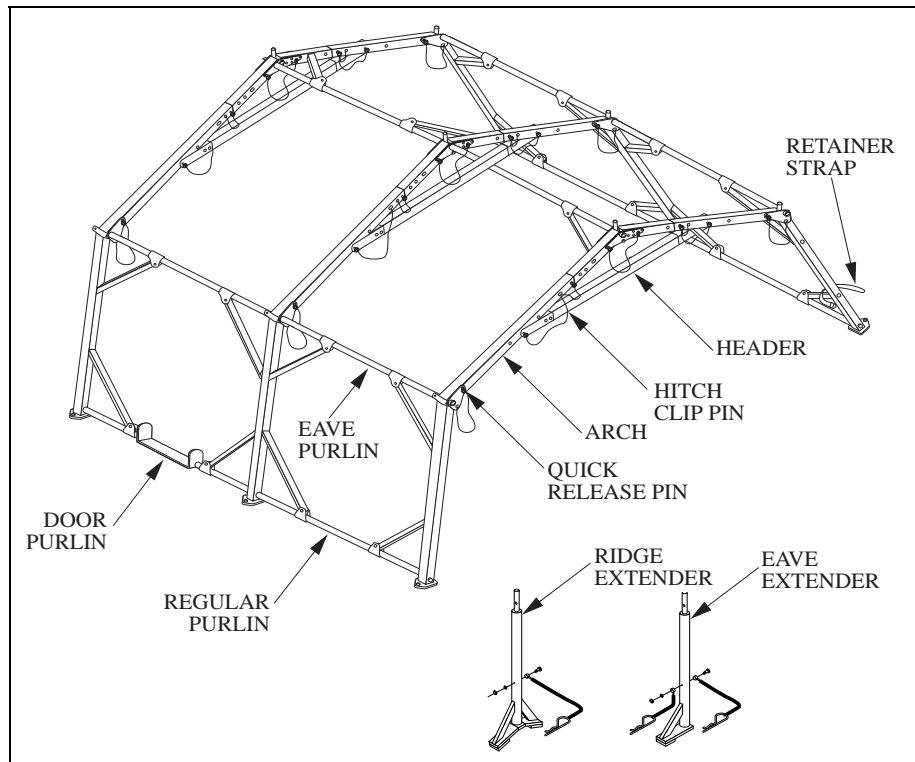
2. Soldier 2 checks slide fasteners and hook-and-pile fasteners for correct operation, cleanliness and alignment, cleaning any sticking slide fasteners of dirt and debris and applying stick lubricant, as needed.
3. Soldier 1 checks tent lines, tent ropes, tent line slips, and straps for fraying, and cuts. See Figure D-36.



**Figure D-36. TEMPER lines, slips, and straps**

4. Soldiers 1 and 2 check frame components for bent or damaged items, missing hitch clip pins, missing quick release pins,

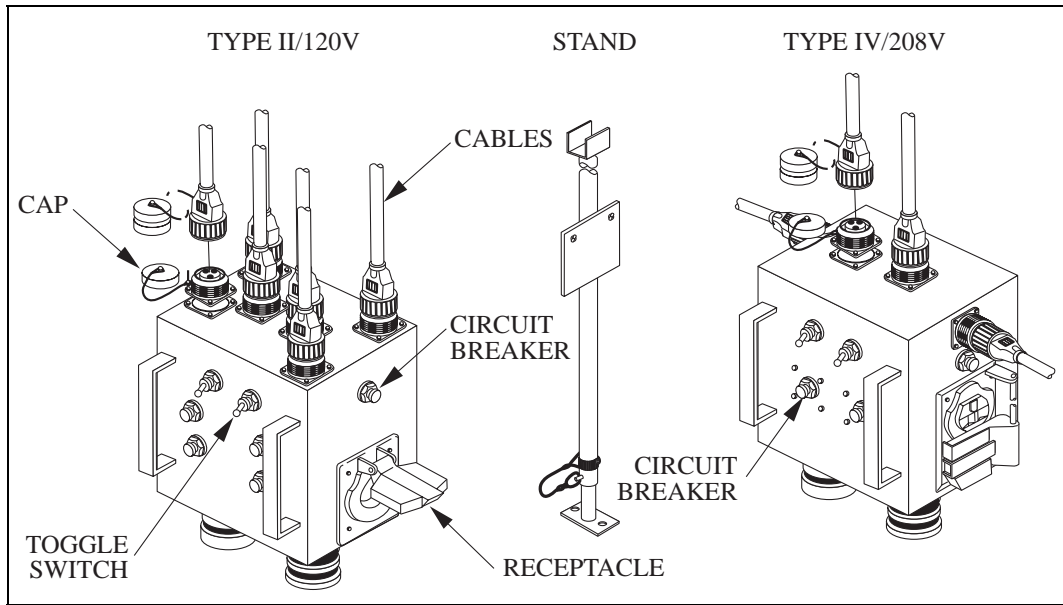
missing retaining straps, for free movement and proper operation of hinges, and for proper staking of the TEMPER. See Figure D-37.



**Figure D-37. TEMPER frame components**

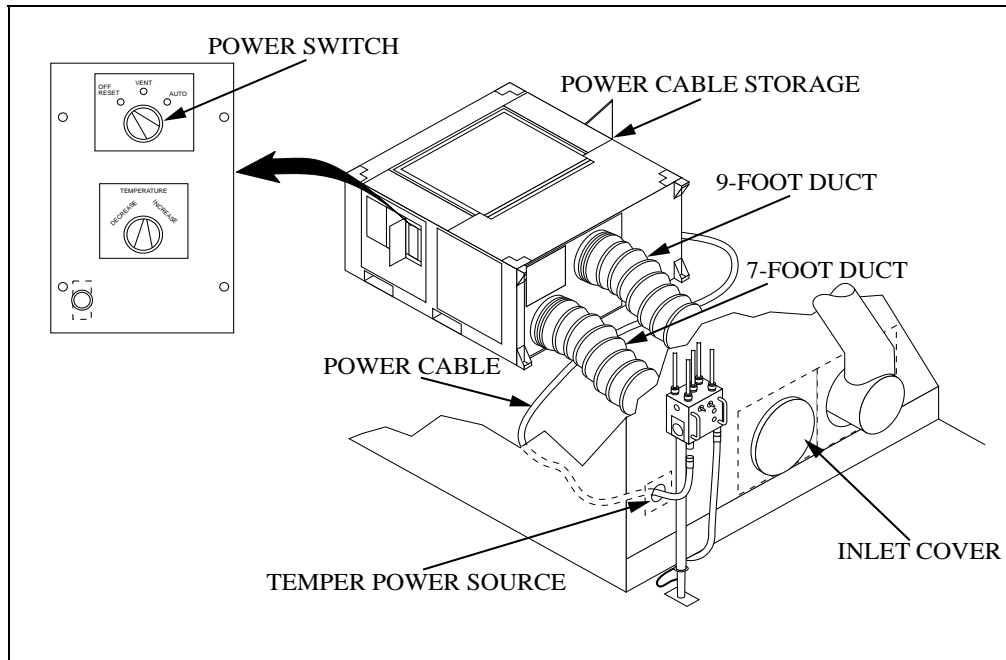
**WARNING:** THE DRILL LEADER MUST INSPECT ALL REPORTS OF DAMAGED ELECTRICAL COMPONENTS TO ENSURE SAFE OPERATION, AND REQUEST IMMEDIATE REPAIR BY THE FACILITIES SUPPORT SECTION, IF REQUIRED.

5. Soldier 1 checks the ECU power distribution box for damage to toggle switches and circuit breakers, for missing covers and dirt or corrosion in receptacles, and for frayed, damaged or missing cables. See Figure D-38.



**Figure D-38. Check electrical power components**

6. Soldier 1 checks the power distribution box stand for damaged or missing parts, including the base plate, quick release pin, and inner and outer tubes of the sliding stand. See Figure D-38.
7. Soldier 2 inspects the TEMPER's convenience outlets for damaged receptacles, frayed wires, and loose connections.
8. Soldier 2 inspects the TEMPER's light sets for loose cable connections, loose hanging straps, blown or missing fuses, and damaged ON-OFF switches.
9. Soldier 1 inspects the mounting of the ECU to ensure it keeps the unit out of the mud and water, and inspects all ECU covers, grills, and screens for loose mounting, obstructions, or shipping damage. See Figure D-39.
10. Soldier 1 checks the operator's controls on the side of the ECU to ensure that the unit is turned off and that the controls are intact and operational.



**Figure D-39. Inspect ECU before operations**

11. Soldier 2 checks that the ECU power cable is connected to the 208/230 volt receptacle on the TEMPER's power distribution box and that the circuit breaker is in the IN position.
12. Soldier 1 checks both flexible ducts for kinks, obstructions, and missing or damaged parts.
13. Soldier 2 ensures that ducts are in place inside the tent, and that there are no obstructions in either the output or input ducts.
14. Soldier 1 inspects electrical service/feeder cable to the PDISE-M100 for proper connection.
15. Soldier 2 checks that the ECU drains and drain hoses are open and carry the water away from the ECU.
16. Soldier 2 checks that the fan on the top of the ECU blows air up and out of the ECU by placing a hat or piece of paper on the fan cover.
17. If the fan pulls the object against the fan grill, Soldier 2 immediately shuts down the ECU and notifies Facilities Support Section that the ECU is running backwards.



**NOTE:** The ECU will automatically switch between cooling and heating as required to maintain the selected temperature in the TEMPER.

18. Soldier 1 waits for a 15-minute period after the ECU has been operating in the cooling (AUTOMATIC) mode and looks through the sight glass beneath the ECU's data plate.

**NOTE:** Occasional flashes of bubbles or of foam observed through the sight glass indicates normal operation for the ECU.

19. If continuous bubbles or a milky flow of fluid is observed, Soldier 1 shuts down the ECU and notifies Facilities Support Section of a low refrigerant charge in the ECU.

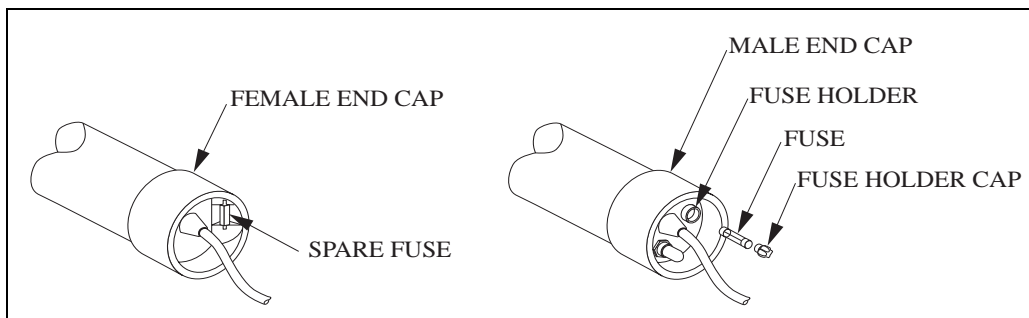
**COACHING POINT:** The mid-point on the ECU temperature control is preset at approximately 65° Ft. Allow the ECU adequate time to change the temperature in the TEMPER before making additional adjustments.

20. Soldier 1 adjusts the temperature on the ECU to a comfortable level.

**WARNING:** IF HEATING THE TEMPER WITH AN ASH, THEN FOLLOW THE OPERATING AND MAINTENANCE INSTRUCTIONS PROVIDED WITH THE ASH. BEFORE OPERATING THE HEATER, ENSURE THAT THE ELECTRICAL CONNECTIONS ARE CORRECT AND THAT THE ASH HAS ADEQUATE FUEL AVAILABLE.

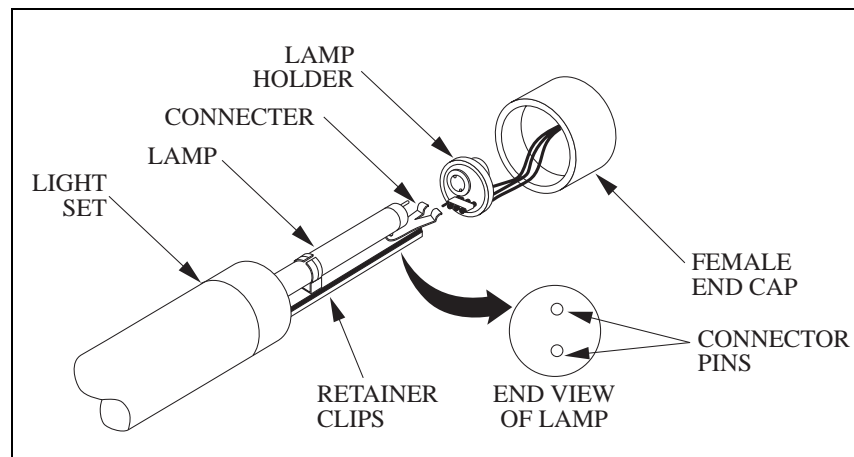
21. Soldiers 1 and 2 check the lights for proper operation and replace a burned-out fuse by doing the following:

- a. Turn off the light and disconnect the power cables and the hanger straps from the light set.
- b. Hold the light set with the male end cap up. See Figure D-40.



**Figure D-40. Replace a fuse in a light set**

- b. Push in and turn the fuseholder cap counterclockwise to remove the cap. See Figure D-40.
  - c. Remove the old fuse from the cap.
  - d. Remove the spare fuse located in the female end cap, install it into the fuseholder, and then secure the fuseholder cap. See Figure D-40.
  - e. Rehang the light set, reattach the power cables, and check the light set for proper operation.
22. Soldiers 1 and 2 check the lights for proper operation and replace a burned-out lamp by doing the following:
- a. Turn the light off and disconnect the lamp power cables. See Figure D-41.



**Figure D-41. Replace lamp in light set**

- b. Hold the disconnected light set in a steady position and pull the female end cap from the end of the light set. See Figure D-41.
  - c. Disconnect the lampholder by depressing the retainer connector. See Figure D-41.
  - d. Pull the lamp out of the light set. See Figure D-41.
  - e. Retrieve a spare lamp from the light-set case.
  - f. Hold the light set steady while pushing the new lamp through the retainer clips into the light set, while keeping the lamp connector pins in a vertical position. See Figure D-41.
  - g. Install the lampholder and the female end cap.
  - h. Rehang the light set, reconnect the light set to the power cables, and check for proper operation.
23. Soldier 1 removes any debris pulled up against the debris screen on the inlet duct of the ECU (or the ASH, if the CWK is being used).

24. Soldier 2 checks the charge status and inspection date of the fire extinguisher.
25. Soldier 1 removes any trash collected from the TEMPER to the designated trash collection site.
26. Soldiers 1 and 2 maintain the cleanliness of the inside of the TEMPER by sweeping the fabric floor clean of any dirt and debris, and then mopping it with soapy water.
27. Soldiers 1 and 2 remove any remaining soap or suds by mopping with clear water, and then air dry the floor.
28. Soldiers 1 and 2 maintain the cleanliness of the outside of the TEMPER by removing any dirt and debris and carrying it to the designated trash collection site, and by scrubbing the fabric with a bristle brush, using mild soap and water.

THE DRILL LEADER DIRECTS THE SOLDIERS TO MAINTAIN A TEMPER THAT HAS AN INSTALLED CWK.

29. Soldiers 1 and 2 follow Steps 1 through 28, above, with the following modifications:

**CAUTION:** SNOW MUST BE REMOVED FROM THE TEMPER ROOFS TO PREVENT THE ROOF FROM COLLAPSING. SNOW MUST NOT BE ALLOWED TO BUILD UP MORE THAN HALF THE DISTANCE FROM THE GROUND TO THE WINDOW BOTTOM ON THE SIDES OF THE TENT TO PREVENT THE FABRIC WALLS FROM COLLAPSING INWARD.

- a. Soldiers 1 and 2 remove snow from the TEMPER roofs, using standard commercial snow rakes.
- b. Soldiers 1 and 2 remove snow from the base of the TEMPER, using standard commercial snow shovels.
- c. Soldiers 1 and 2 perform pre-operation checks on the ASH IAW its TM and technical instructions.

**NOTE:** The ASH must be refueled every 12 hours.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

**PERFORM:** When the soldiers can perform this drill according to the standards, their performance should be evaluated by the section leader.

**CREW DRILL 42-2-D0003****Dismantle the Four-Section Tent, Extendable, Modular, Personnel  
(TEMPER)**

TASK: Dismantle a four-section TEMPER.

CONDITION: The TEMPER is set up in a Force Provider (FP) operational site. The area is secured. Instructions have been received to cease FP operations and prepare redeployment. All components of the TEMPER have been inventoried and inspected for serviceability. Unserviceable components have been tagged and reported to the FP company or platoon higher HQ. After-operation preventive maintenance checks and services (PMCS) have been completed. The TEMPER has been emptied of all materials (such as cots and chairs) that are not part of the TEMPER. A supervisor and ten soldiers have been assigned to dismantle the four-section TEMPER. Technical documentation, including all applicable technical manuals (TMs) and commercial instructions supplied with the TEMPER and components, is available.

**NOTE:** If the cold weather kit (CWK) was installed for operations when the ambient temperature was less than +32° Fahrenheit (F), then it must be dismantled with the TEMPER. If the CWK is employed, the TEMPER may be equipped with an Army Space Heater (ASH) instead of the environmental control unit (ECU). The TEMPER may also have an insulated floor, depending on the function of the TEMPER. This drill will address only the disassembly of the ECU. A data plate on the ASH itself provides disassembly instructions for the ASH.

STANDARD: The TEMPER is dismantled IAW TM 10-8340-224-13&P, *Operator's, Organization and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Tent, Extendable, Modular*, without injury to personnel or damage to equipment, and returned to proper storage configuration in a clean and dry condition.

SUPPORTING INDIVIDUAL TASKS: To be determined (TBD).

## SETUP INSTRUCTIONS:

## a. Resources.

- (1) One set up four-section TEMPER with vestibule, bump-through door, and ECU in place.
- (2) TEMPER frame and canvas bundle covers.
- (3) Footlockers for lighting and power components and tie-down components.

(4) One five-ton fork lift. (One of the soldiers should be qualified to operate the fork lift. If none is qualified, a fork lift operator will be needed.)

(5) Ten soldiers plus a drill leader.

(6) CWK, if the ambient temperature is to be less than +32° F.

(7) Technical documentation, including all applicable TMs and commercial instructions supplied with the TEMPER and components.

b. Training Site. The site should be flat and open, and accessible by fork lift. The size of the drill site should be at least 100 feet by 200 feet.

c. Unit Instructions. The drill leader has made a reconnaissance of the area and ensured that the required resources are available. The soldiers executing the drill should be brought to the site. Ten soldiers are required to dismantle the four-section TEMPER. Soldiers should be assigned individual numbers from 1 to 10 (Soldier 1, Soldier 2, etc.). Soldiers work in pairs in dismantling the TEMPER. Assign pairs of soldiers to numbered teams (Team 1, Team 2, etc.) and a team to each of the five arches in the TEMPER. Some TEMPERs in the FP module have more than four sections and will require more soldiers to dismantle.

TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains the soldiers of a FP unit to dismantle a four-section TEMPER. The objectives trained in this drill are to remove the ECU and dismantle the TEMPER. Assign each soldier a different number or team during subsequent drill iterations so each learns all the steps and standards for dismantling the four-section TEMPER.

b. Environmental Stewardship. Brief all soldiers on the environmental stewardship requirements of executing this drill. Drill leaders and soldiers will take all necessary measures to prevent contamination of soil or water, and will not leave behind trash or disused equipment. Soldiers will take all necessary steps to remove or reduce the effects of damage to the soil, water, or vegetation when the unit ceases operations and the departs the area.

c. Safety. Follow all safety requirements in TM 10-8340-224-13&P. All personnel must use proper body mechanics when lifting components and when lowering either side of the TEMPER. All frame bundles require at least two soldiers to carry them. All canvas bundles require at least four personnel to lift and

move them. Footlockers and light cases also require a two person carry. Do not drag components on the ground. Do not step or walk on components, except flooring, and keep fabric items out of the way during dismantling so that no one steps on them. During windy conditions, control the fabric panels to avoid injury from flailing fabric or hitch clip pins. Ensure that the fabric components are not caught or pinched in frame joints or hinges during disassembly. Do not hold the frame at any of the eave joint hinges or ridge parts of the arch. Lower the sides of the TEMPER evenly to avoid damage to the frame or injury to personnel. Ensure electrical power is disconnected from the power source when working with cables or fixtures.

c. Demonstration (optional). If other soldiers have successfully dismantled the four-section TEMPER, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening, and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did. A video, titled, *DEPMEDS - Tent, Extendable, Modular, Personnel (TEMPER)*, (TVT 8-202: running time, 50 minutes), is available to demonstrate the set up of a two-section TEMPER.

d. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in dismantling the four-section TEMPER. The drill leader can illustrate the steps with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. If any misunderstanding exists, the drill leader should make corrections immediately. Because of the large number of individual steps in dismantling the TEMPER, his drill is best trained in sections of steps. Once the teams have mastered all the steps within each of the sections of the drill, they should execute the entire drill.

#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader should conduct the drill slowly as a walk-through explanation at first, showing each action, and each soldier carefully follow the performance measures. This is the crawl phase. The soldiers execute the drill at a deliberate pace on the first iteration as the walk phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the run phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously. After the first iteration, it may be possible to "run," and may prove to be more efficient to execute the drill

with soldiers organized into a frame disassembly team, a fabric disassembly team, and an electrical disassembly team to accomplish tasks concurrently and speed up the process, especially where many tents must be disassembled. If a large number of TEMPERs require disassembly, and as soldiers gain in proficiency, teams may move from TEMPER to TEMPER doing a partial disassembly on a specific component until all work is done except actually lowering the TEMPER frames and removing the canvas. This method may make better use of available time and personnel.

b. The drill leader assigns specific duties to each team and team member. Teams 1 and 5 will disassemble the end sections of the TEMPER, and Teams 2, 3, and 4 will disconnect the inner sections and assist Teams 1 and 5 when necessary. The drill leader assigns the even-numbered soldiers of each team to the working side of the TEMPER. The drill leader should supervise and instruct the teams as they proceed through the drill, ensuring that the teams are completing those steps that they can do simultaneously.

c. Initiating Cue. The drill leader gives the order to dismantle the four-section TEMPER.

Performance Measures:

**NOTE:** If the CWK is installed in the TEMPER, then begin with Section A. If the CWK is not installed, then begin with Section B.

*A. Dismantle the CWK in the four-section TEMPER.*

**COACHING POINT:** Soldiers must remove the ASH before disassembling the TEMPER. Ensure soldiers follow all safety precautions when removing the ASH and follow environmental guidelines in handling and disposing of the diesel fuel used by the ASH.

1. Team 1 removes the ASH IAW the instructions on its data plate.
2. Teams 1 through 5 follow the performance measures outlined in Sections B through M, below, to dismantle the TEMPER, but with the following modifications:
  - a. Soldiers 1 through 5 remove the snow from the TEMPER roofs and from the base using standard commercial snow rakes.
  - b. Soldiers 6 through 10 remove extruded polystyrene from the TEMPER, if installed.
  - c. Soldiers 1 through 5 remove the marking stakes identifying power cables, small components, and culverts.

- d. Soldiers 6 through 10 remove the heat tracer hoses, if installed on potable or graywater hoses.
- e. Soldiers 1 through 5 remove the marking stakes and colored engineer tape identifying all water and waste water hoses, if installed.
- f. Soldiers 6 through 10 dispose of subfloor sections IAW with the unit TSOP and current directives.

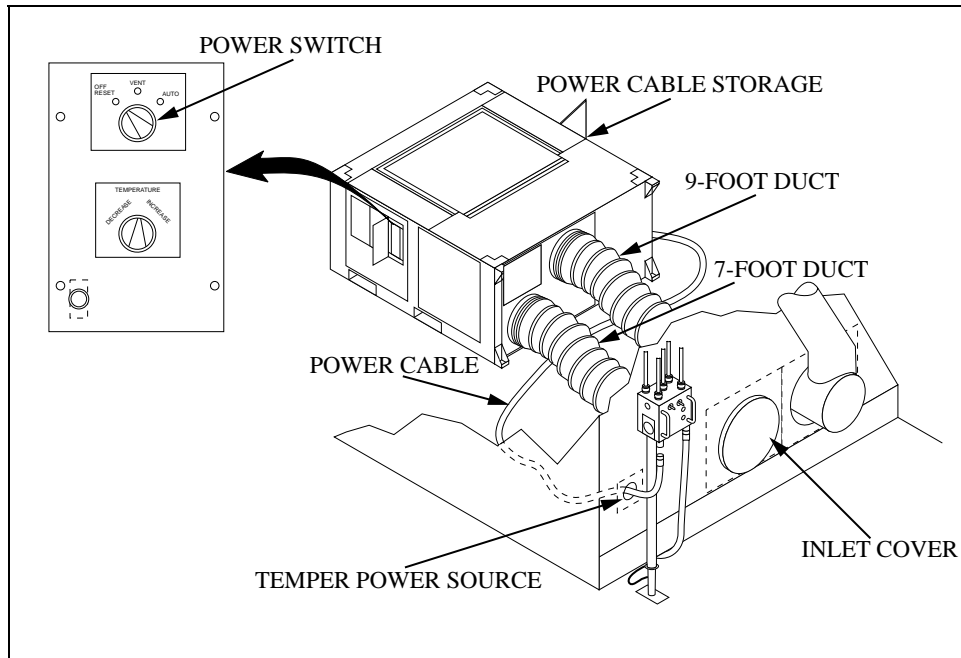
*B. Remove the ECU.*

**NOTE:** To make the best use of available time, Team 1 dismantles the ECU, Teams 2 and 3 dismantle the double bump-through door, and Teams 4 and 5 dismantle the vestibule.

**WARNING:** BEFORE EXECUTING ANY DISASSEMBLY STEPS, ENSURE THAT THE POWER TO THE TEMPER IS OFF AND DISCONNECTED AT THE SERVICING PDISE-M100.

1. Team 1 ensures that the electrical power is off from the ECU by doing the following:
  - a. Places the switch on the ECU to the OFF-RESET position. See Figure D-42.
  - b. Places the toggle switches on the power distribution box in the TEMPER to the OFF position.
  - c. Ensures that the circuit breaker switch on the PDISE-M100 providing power to the TEMPER is in the OFF position.
2. Team 1 disconnects the 100-foot 60-amp service/feeder cable from the PDISE-M100 and the power distribution box in the TEMPER, and cleans the cable of any dirt or debris.
3. Team 1 cleans the ECU power cable and its connectors of any dirt and debris, and places the cable in its storage compartment in the ECU.
4. Team 1 ensures that the ECU intakes, grills, and storage compartments are free of any dirt or debris.

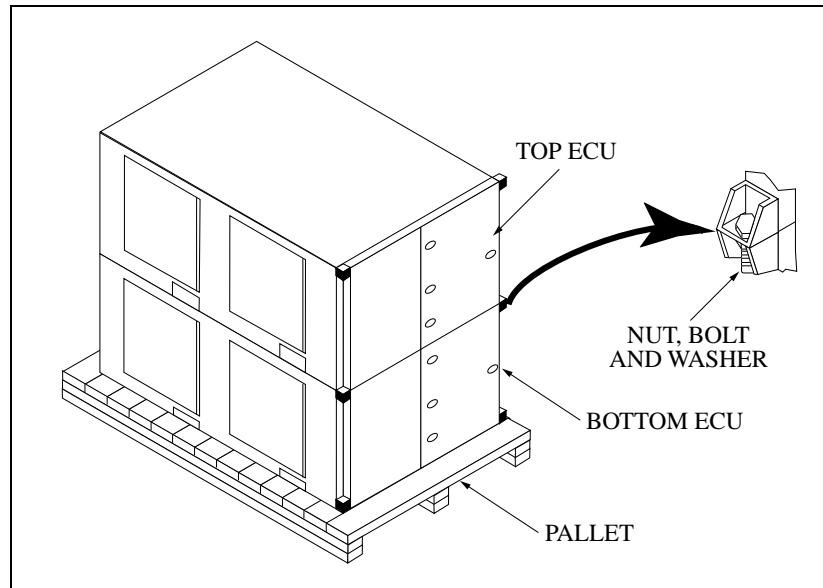




**Figure D-42. Environmental control unit**

5. Team 1 removes the water drain hoses from the ECU condensate drain ducts, cleans the drain hoses of any dirt and water, and places the clean hoses in their storage locations in the door of the ECU.
6. Team 1 disconnects the flexible ducts from the flanges on the ECU by loosening the band clamps.
7. Team 1 detaches the seven-foot duct from the TEMPER ECU inlet (the lower of the two tubes). See Figure D-42.
8. Team 1 detaches the nine-foot duct from the TEMPER ECU outlet (or upper) port.
9. Team 1 opens the ECU's duct storage compartment and places both ducts onto their duct storage racks.
10. Team 1 ensures all cables and hoses have been disconnected and stored, and then secures all doors and covers on the ECU.
11. Team 1 identifies one nearby ECU that is still attached to its shipping pallet and removes the four mounting bolts and nuts from each top corner of the ECU. See Figure D-43.

**COACHING POINT:** Soldiers use a fork lift to move the ECU from the TEMPER because each ECU weighs 960 pounds.



**Figure D-43. Two ECUs secured together**

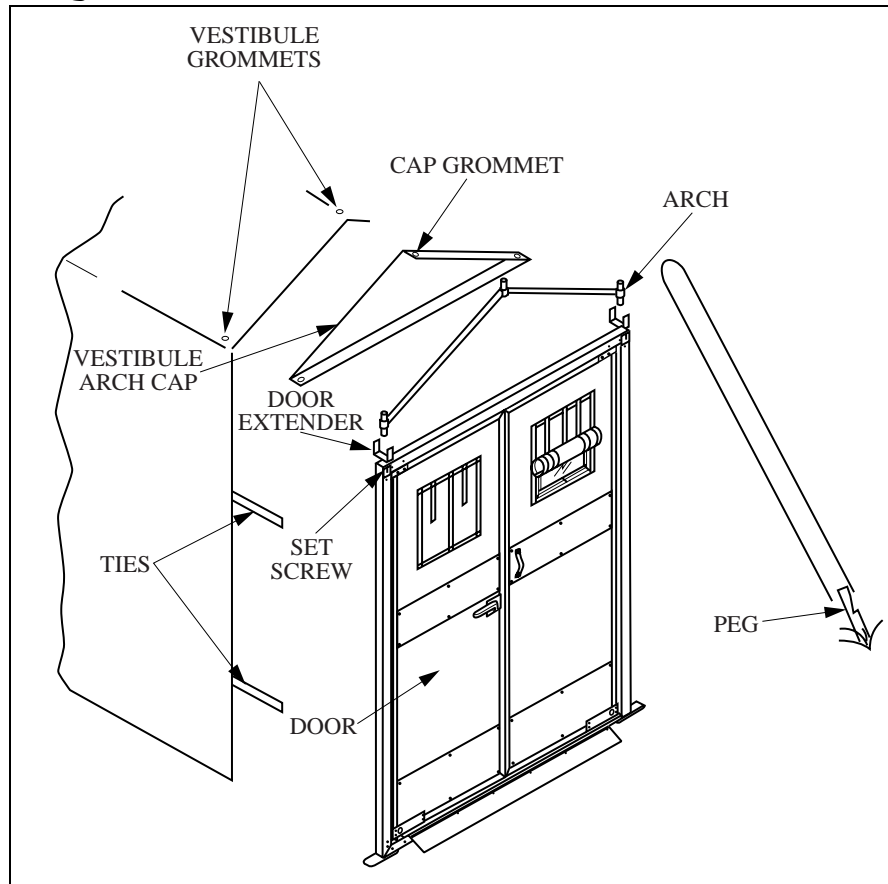
12. A Team 1 soldier guides the fork lift to the site of the ECU and has the fork lift place the ECU on top of the other palletized ECU, ensuring the ECUs are aligned in the same direction. See Figure D-43.
13. Two Team 1 soldiers secure the two stacked ECUs together with the nuts and bolts. See Figure D-43.
14. Team 1 soldiers guide the fork lift with the two stacked ECUs to the staging area for repacking.

*C. Remove the Double Bump-Through Doors.*

**NOTE:** Several TEMPERS in a FP module use double bump-through doors in their vestibules.

1. Teams 2 and 3 open the weather flaps around the double access door frame. See Figure D-44.
2. Team 2 removes guy ropes from under the hitch clip pins at the end of the vestibule on both sides.
3. Teams 2 and 3 untie all the tie tapes on the vestibule from the frame of the door and remove the door from its position in the vestibule.
4. Team 2 unfastens the hook-and-pile fasteners of the arch cap to the top of the door frame.

5. Team 3 removes the triangular vestibule arch cap from the cap's grommets over the top of the arch spindles on top of the bump-through door.

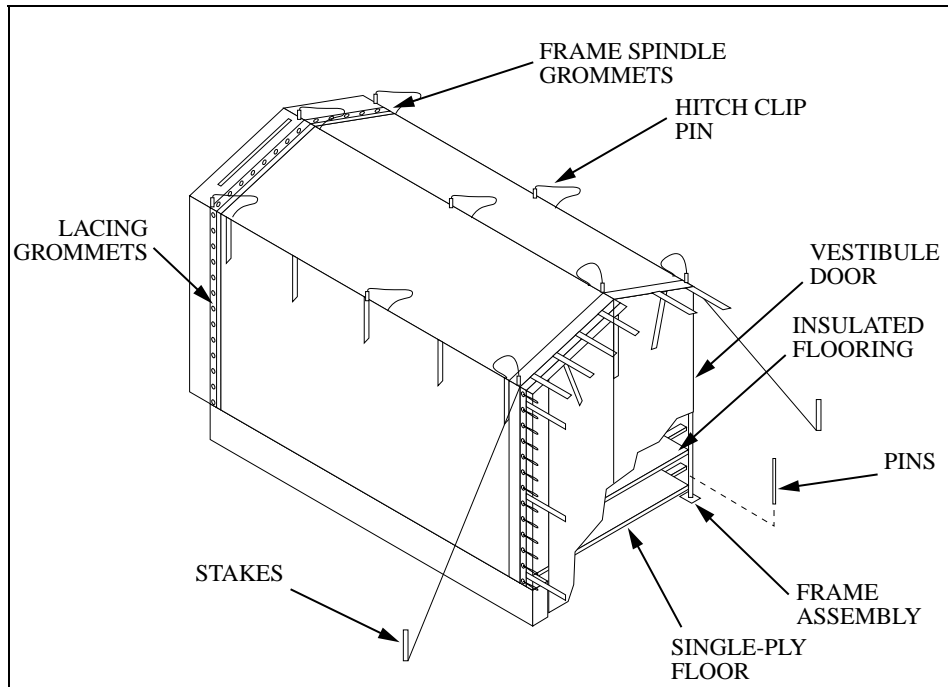


**Figure D-44. Double bump-through doors**

6. One Team 3 soldier on each side loosens the set screws that held the arch in place.
7. Teams 2 and 3 pull out the post of each end of the vestibule arch from the holes on each side of the tip of the bump-through door's frame, and then remove the door.
8. Team 2 loosens the set screws on the top of the bump-through door frame and then removes the door extenders from the top of the door frame.
9. Team 2 removes the frame and the arch for the double bump-through doors from the vestibule entrance.
10. Teams 2 and 3 clean the door components before placing them near the storage/shipping container.

*D. Dismantle the TEMPER vestibule.*

1. Team 4 obtains the canvas and frame component bundle covers and places them near the working side of the TEMPER.
2. Team 5 removes the vestibule floor, cleans it, and places it next to the appropriate canvas bundle cover. See Figure D-45.



**Figure D-45. TEMPER vestibule**

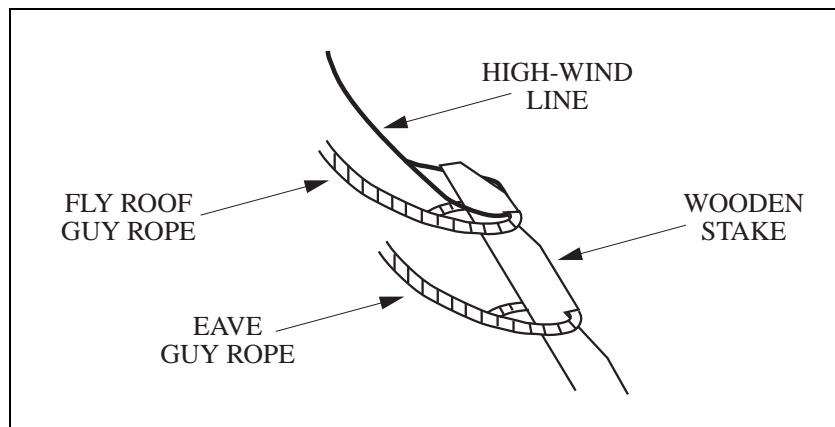
3. Team 4 ensures that all remaining vestibule components are cleaned of any dirt or debris.
4. Team 4 removes the vestibule door from the outside entrance of the vestibule by removing the hitch clip pins over the entry way frame, unfastening the weather flap, unlacing the Becket lacing from the bottom up on both sides, and lifting the door-top grommets up and over the spindles. See Figure D-45.
5. Team 4 folds the door so that the vestibule label is up and places the folded vestibule next to the appropriate canvas bundle cover.
6. Team 5 holds the vestibule frame upright while Team 4 releases the tension on all guy ropes and removes all wooden stakes, ropes, and metal tent pins that support the vestibule. See Figure D-45.
7. Team 5 cleans the stakes, ropes, and pins, and places them by the appropriate canvas bundle.

8. Team 5 holds the vestibule frame assembly upright while Team 4 removes all hitch clip pins and tie tapes from the three vestibule frame assemblies. See Figure D-45.
9. Team 5 lowers the outside entrance end vestibule frame assembly to the ground.
10. Team 4 lowers the center vestibule frame assembly.
11. Teams 4 and 5 remove frame components from the vestibule canvas and place the frame components back in the appropriate frame components cover.
12. Team 5 removes the vestibule frame assembly from the TEMPER endwall panel and places it with the other vestibule frame assemblies.
13. Team 4 opens the weather flap over the vestibule Becket lacing to the TEMPER endwall panel, and unfastens the lacing from the bottom up on both sides of the vestibule.
14. Team 4 removes the vestibule from the TEMPER endwall, folds the vestibule canvas so the label side is out, and places the vestibule canvas near the appropriate canvas bundle cover.

*E. Remove the TEMPER's Pins and Stakes.*

**WARNING:** TEAM MEMBERS REMOVING STEEL PINS SHOULD WEAR GLOVES AND EYE PROTECTION. USE CAUTION WHEN REMOVING PINS AROUND THE ROPE LOOPS AT THE BASE OF THE PURLINS TO AVOID DAMAGE TO THE CANVAS OR PURLINS.

1. Team 2 releases the tension on all guy ropes except on one at each tent corner, and then releases the tension on all high-wind lines. See Figure D-46.



**Figure D-46. Guy ropes and high-wind line**

2. Team 2 removes all ropes and high-wind lines from the stakes, except for one guy rope to each corner stake, and cleans the lines of any dirt and debris.

**NOTE:** The corner ropes will be removed after the TEMPER has been lowered to the ground.

3. Team 3 removes all wooden stakes, except for the corner stakes, and all metal pins from arch bases, door purlins (if used), and power distribution box stands, cleans the stakes and pins of dirt and mud, and removes loose rust from metal pins.
4. Team 3 place all stakes, pins, ropes, and lines in the appropriate shipping container.

*F. Remove the Electrical System.*

1. Even-numbered soldiers unfasten all Becket lacing on the side and end canvas panels up to the eaves between side panels and the lacing between the side and end panels.
2. Odd-numbered soldiers unfasten all the liner and floor tie tapes from the base purlins and the side arch assemblies, and unfasten the hook-and-pile fasteners on the liners up to the eave purlins.

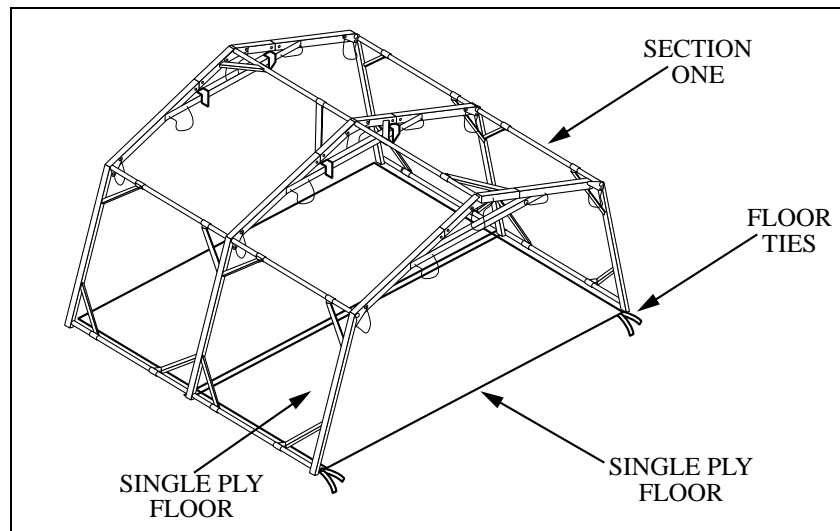
**WARNING:** BE SURE ELECTRICAL POWER IS DISCONNECTED OR SHUT OFF BEFORE WHEN WORKING WITH ELECTRICAL CABLES OR FIXTURES.

3. Team 1 disconnects all the electrical cables from the power distribution box, removes the distribution box from the power control stand, and then removes the stand and the power distribution box from the TEMPER.
4. Teams 2 through 5 disconnect and then remove the remaining electrical components (to include cables and convenience outlets) from the TEMPER.
5. Teams 1 through 5 clean the disconnected electrical components of any dirt or debris, replace their dust caps, and return the cleaned electrical system components to the appropriate storage containers.

*G. Lower the Frame on the Working Side.*

**NOTE:** The working side will always be the downwind side of the TEMPER to prevent strong winds from getting under the TEMPER and flipping it over.

1. Teams 1 through 5 close and secure all windows and doors on all canvas components.
2. Teams 1 through 5 use dry brushes and damp sponges to clean the interior and exterior surfaces of the liners and all canvas components, as necessary, and ensure all components air dry completely before disassembly.
3. Teams 1 through 5 unfasten any remaining Becket laces and hook-and-pile fasteners on all fabric panels on the side of the TEMPER (door and window canvases) from the base to the eave purlins.
4. Teams 1 through 5 lift the side panels and fold them up between the roof and the fly to keep them out of the way.
5. Teams 1 through 5 remove all insulated floor panels and then untie the single ply floor panels from the base purlins. See Figure D-47.



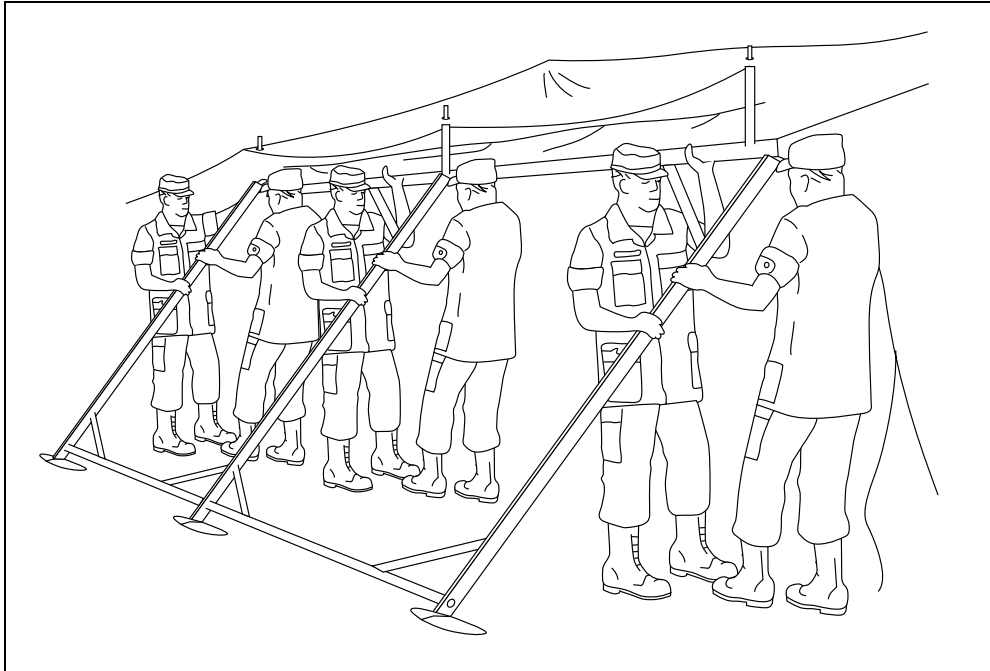
**Figure D-47. TEMPER floor**

6. Teams 1 through 5 remove all floor panels from the TEMPER, clean them with hot, soapy water, and allow them to air dry.

**WARNING:** FRAME ASSEMBLY HINGES CAN PINCH OR CRUSH HANDS AND FINGERS. KEEP HANDS AND FINGERS AWAY FROM FRAME ASSEMBLY RIDGES AND EAVES.

**COACHING POINT:** Ensure all soldiers avoid folding wall fabric into frame joints. The tent fabric may rip or tear if it is caught in a joint.

7. Teams 1 through 5 prepare to lower the working side of the TEMPER by doing the following.:
  - a. Ensure that the canvas and tie straps will not interfere with the hinges.
  - b. Keep their fingers away from the hinges.
  - c. Assume a stable standing position with a pair of soldiers on either side of their assigned arch on the working side. See Figure D-48.
  - d. On command, lower the TEMPER side using their legs for the lowering power to avoid back injuries.
8. The drill leader commands, "Prepare to lift," and then, "Lift frame and remove pins."



**Figure D-48. Lowering the TEMPER frame**

**COACHING POINT:** If the teams cannot easily remove the quick release pins, direct the soldiers to remove any remaining tension on the guy ropes.

9. On the command, "Lift frame and remove pins," all soldiers lift the frame just enough to permit one of the pair of soldiers to pull out the quick-release pin while the other soldiers hold the arch erect.



10. The soldier removing the pin announces, "Pin out," when the quick-release pin has been removed.
11. Teams 1 through 5 lower the frame to the ground while keeping it upright.
12. Even-numbered soldiers from Teams 2 through 5 relieve the tension on the four remaining guy ropes.

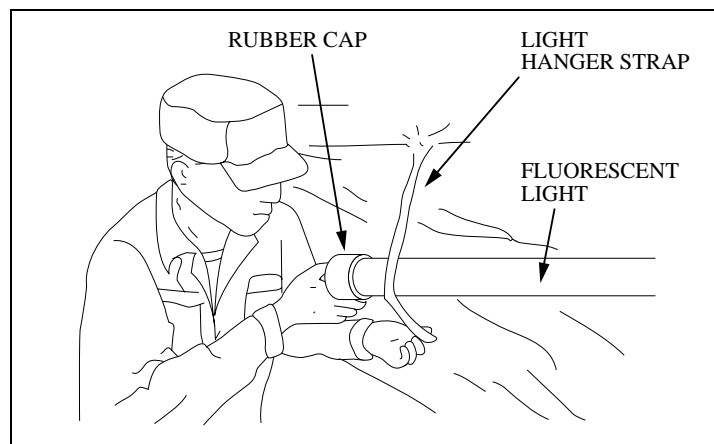
**COACHING POINT:** To avoid damage to the components, ensure that the teams do not twist or turn the frame.

13. All soldiers remain at their assigned arch and stand clear of the tent space while placing one hand on the arch frame below the eave joint and the other hand on the eave purlin. See Figure D-48.
14. When all soldiers are in position, the drill leader commands, "Prepare to Lower," followed by the command, "Lower."
15. On the command, "Lower," all soldiers swing the frame side out and lower it to the ground.

**NOTE:** The drill leader may add personnel to the drill crew to better control the lowering of the TEMPER, especially when lowering TEMPERS with more than four sections.

#### *H. Remove the Accessories.*

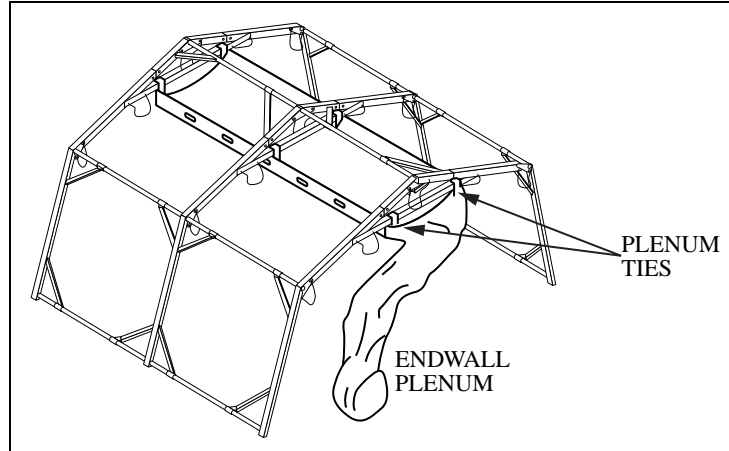
1. Team 1 removes the lights in Section 1 on the nonworking side while Teams 2 through 5 remove the lights to the end of the nonworking side. See Figure D-49.



**Figure D-49. Removing the fluorescent lights**

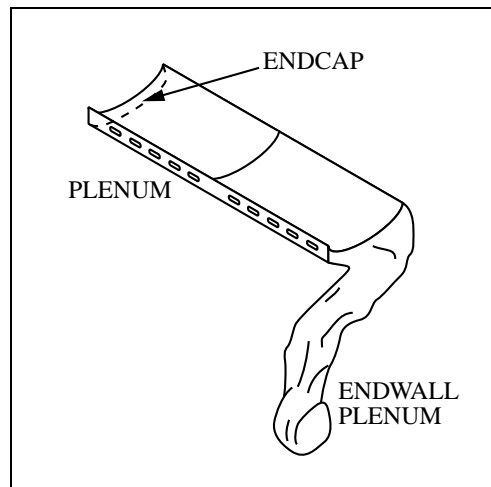
2. Teams 1 through 5 remove the lights in Sections 1 through 4 on the working side.

3. Teams 1 through 5 place the lights into their fiberglass storage cases and close the cases.
4. Teams 1 through 5 open the seams of the liners at the header bars and untie the plenum from the header bars. See Figure D-50.



**Figure D-50. Removing the plenum**

5. Teams 1 through 5 unfasten the hook-and-pile fasteners from the liner around the plenum ties.
6. Teams 1 through 5 unfasten the two plenums by opening the hook-and-pile fasteners. See Figure D-51.



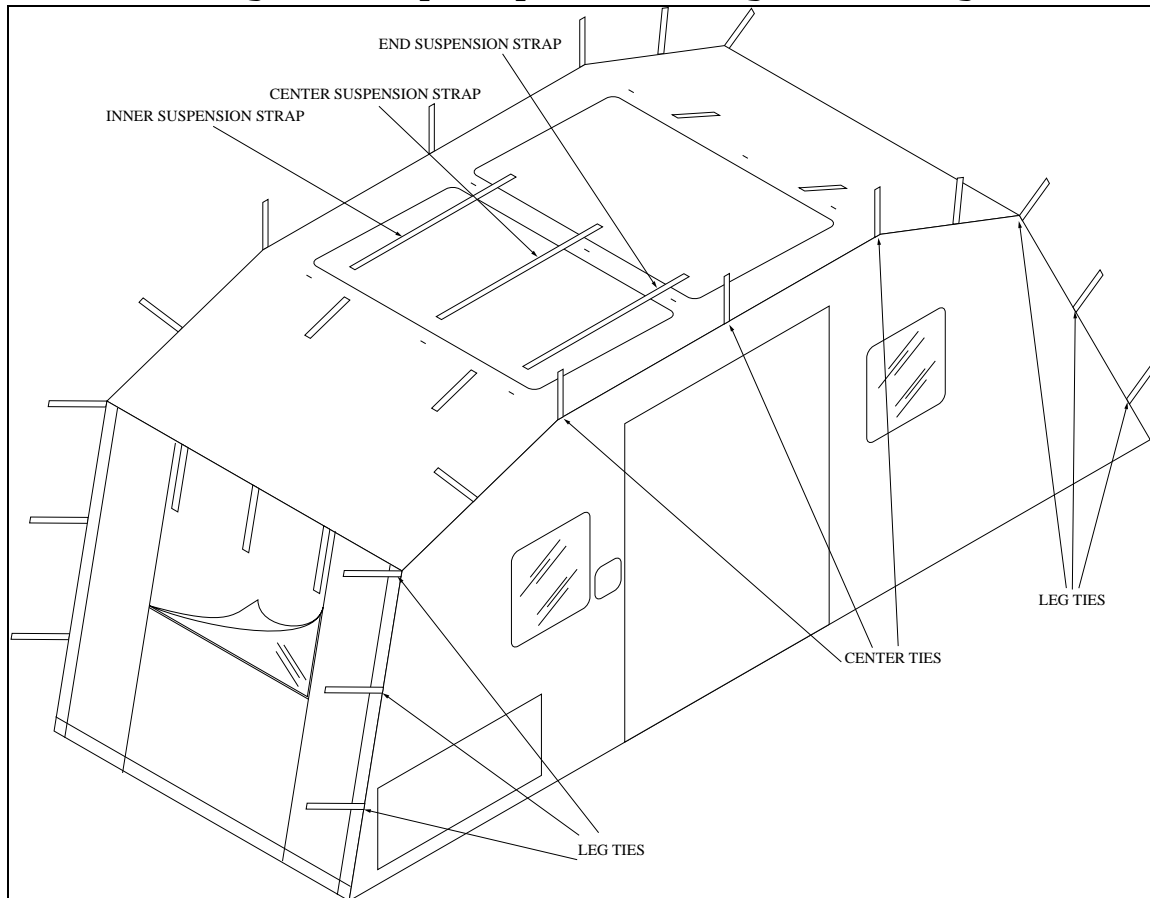
**Figure D-51. Layout of end cap, plenum, and endwall plenum**

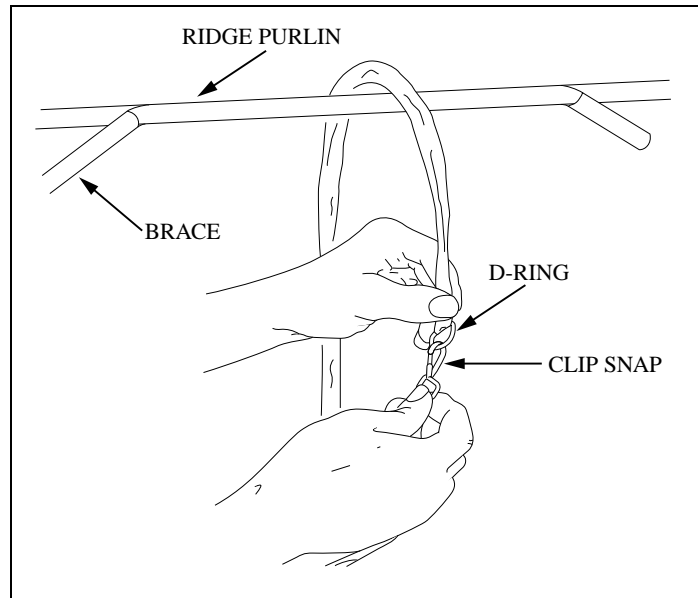
7. Teams 1 through 5 untie the plenums from the header bars through the slots (button holes) in the liner sections.

8. Teams 1 through 5 carry the plenums out of the TEMPER, fold them, and place them near the appropriate canvas bundle cover.

I. *Remove the Liner.*

1. Teams 1 through 5 open the seam of the two endwall liners on the nonworking side from the ridge to the end of the last liner bow knot. See Figure D-52.
2. Even-numbered soldiers untie one liner tie on all arches just below the header bar on the nonworking side, then untie a liner tie on all arches just below the header bar on the working side, and then untie all liner ties between header and eave purlins on the end arches.
3. Odd-numbered soldiers locate the three center liner ties positioned on each end of the liner sections, untie them from the header bar at each end of each section, and then untie any remaining liner ties. See Figure D-52.
4. Teams 1 through 5 remove the end suspension straps from over the ridge purlins between the diagonal braces and the arch by unfastening the clip snaps and D-rings. See Figure D-53.

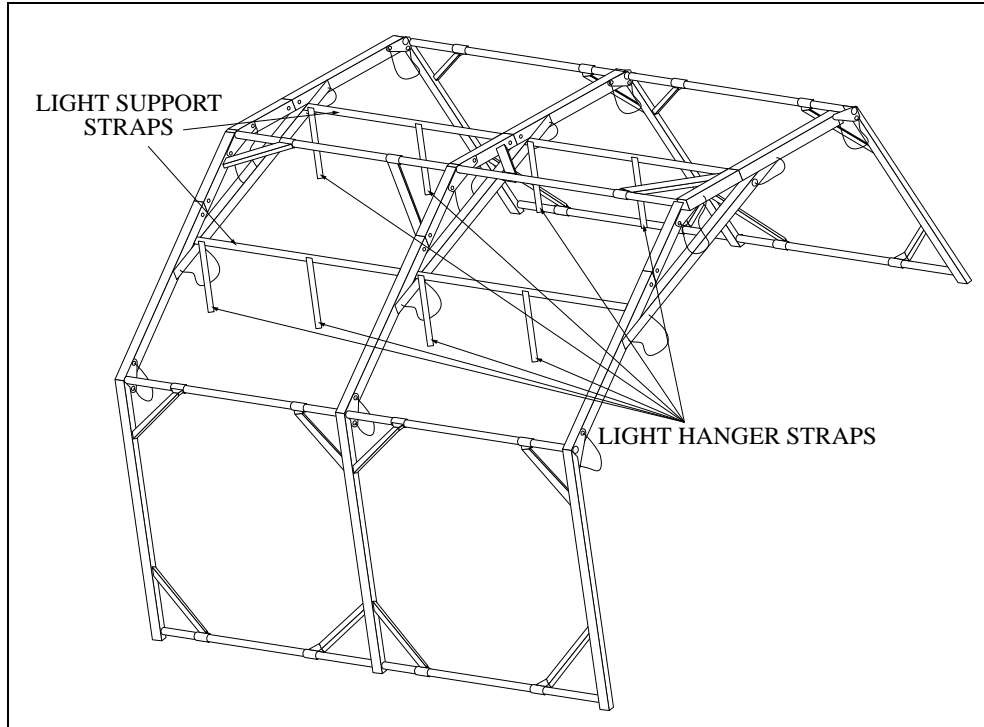


**Figure D-52. End section liner****Figure D-53. The clip snap and D-ring**

5. Teams 1 through 5 remove the liners, fold them so the data plate and component name are visible, and position them next to the appropriate bundle cover.

*J. Remove the Light Support Strap Assemblies.*

1. Teams 1 through 5 unfasten the light support straps from each end of the header bar in each TEMPER section. See Figure D-54.



**Figure D-54. Light support straps and light hanger straps**

2. Even-numbered soldiers return the eight light support straps to the fiberglass light set cases.

*K. Lower the Nonworking Side and Remove the Canvas.*

**NOTE:** The nonworking side will always be the upwind side of the TEMPER.

1. Odd-numbered soldiers zip-up and close the doors on both endwall sections, roll the doors down, and secure them.
2. Even-numbered soldiers unfasten the hook-and-pile weather flap at each joint.
3. Even-numbered soldiers untie the Becket lace tie-offs and then unfasten the Becket lace from the ridge purlin to the header joint on the end panels.
4. Teams 1 through 5 disconnect all the flaps holding the canvas to the eave and base purlins.
5. Odd-numbered soldiers from Teams 2, 3, and 4 unfasten the Becket lace from the eave purlin to the ridge purlin on all center sections.

6. Teams 1 through 5 prepare to lower the nonworking side of the TEMPER by doing the following.:
  - a. Ensure that the canvas and tie straps will not interfere with the hinges.
  - b. Keep their fingers away from the hinges.
  - c. Assume a stable standing position with a pair of soldiers on either side of their assigned arch on the nonworking side. See Figure D-48.
  - d. On command, lower the TEMPER side using their legs for the lowering power to avoid back injuries.
7. The drill leader commands, "Prepare to lift," and then, "Lift frame and remove pins."

**COACHING POINT:** If the teams cannot easily remove the quick release pins, direct the soldiers to remove any remaining tension on the guy ropes.

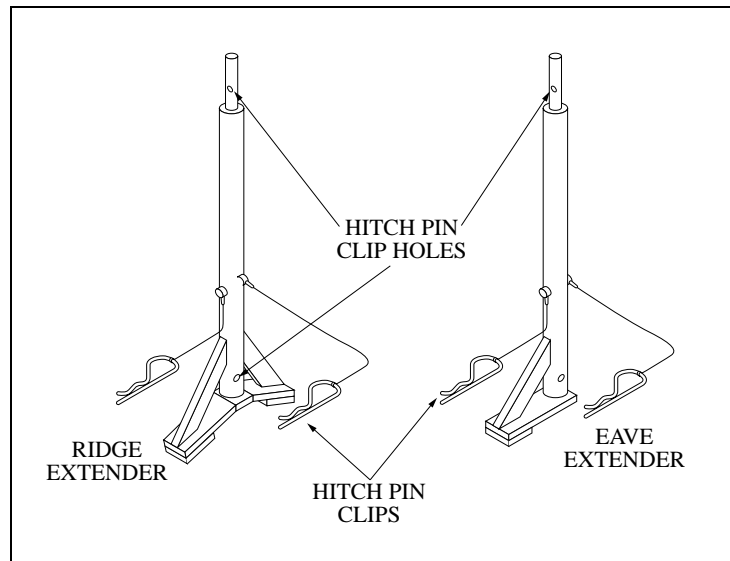
8. On the command, "Lift frame and remove pins," all soldiers lift the frame just enough to permit one of the pair of soldiers to pull out the quick-release pin while the other soldiers hold the arch erect.
9. The soldier removing the pin announces, "Pin out," when the quick-release pin has been removed.
10. Teams 1 through 5 lower the frame to the ground while keeping it upright.
11. Even-numbered soldiers from Teams 2 through 5 relieve the tension on the four remaining guy ropes.

**COACHING POINT:** To avoid damage to the components, ensure that the teams do not twist or turn the frame.

12. All soldiers remain at their assigned arch and stand clear of the tent space while placing one hand on the arch frame below the eave joint and the other hand on the eave purlin. See Figure D-48.
13. When all soldiers are in position, the drill leader commands, "Prepare to Lower," followed by the command, "Lower."
14. On the command, "Lower," all soldiers swing the frame side out and lower it to the ground.

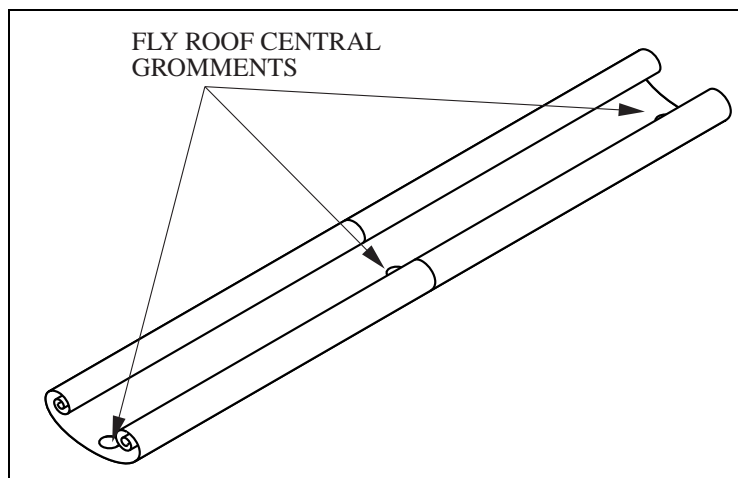
**NOTE:** The drill leader may add personnel to the drill crew to better control the lowering of the TEMPER, especially when lowering TEMPERS with more than four sections.

15. Even-numbered soldiers disconnect the hitch clip pins holding the fly in place. See Figure D-55.



**Figure D-55. Eave and ridge extenders**

16. Teams 1 through 5 remove the fly from the eave extenders and lay the fly on the canvas underneath.
17. Teams 1 through 5 remove the hitch clip pins holding the eave extenders in place and then remove the eave extenders, the guy ropes and high-wind lines, placing all items near the appropriate frame component cover.
18. All team members roll the fly inward toward the ridge extenders from both the working and the nonworking sides. See Figure D-56.

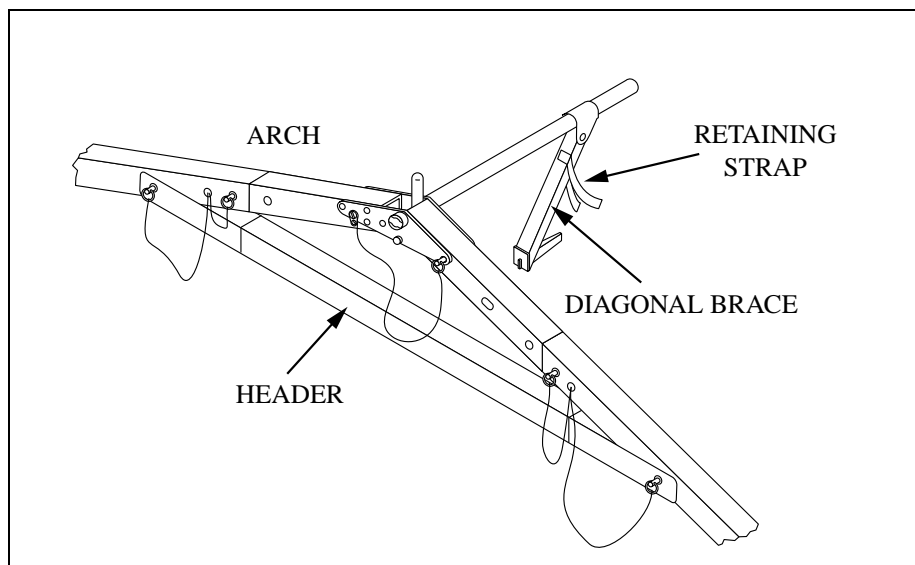


**Figure D-56. Fly roof**

19. Teams 1, 3, and 5 remove the hitch pin clips on the fly roof from the holes in the spindles and lift the center grommets of the fly roof off the ridge extender spindles.
20. Even-numbered soldiers from Teams 1, 3, and 5 place the ridge extenders next to the appropriate frame component cover.
21. Even-numbered soldiers from Teams 1, 3, and 5 remove the guy ropes and slips from the fly roof and return them to the appropriate storage container.
22. Teams 1 through 5 move the fly roof away from the TEMPER and fold it into storage configuration, following the procedures printed on the fly roof's data plate.
23. Teams 1 and 5 remove the two endwall canvases, fold them so the data plate is visible, and return them to the correct canvas bundle cover.
24. Teams 2, 3, and 4 remove the center canvases, fold them so the data plate is visible, and return them to the correct canvas bundle cover.

*L. Dismantle the Frame.*

1. Even-numbered soldiers brace their assigned arch to prevent it from falling during disassembly.
2. Odd-numbered soldiers disconnect each ridge purlin diagonal brace, fold the brace against the purlin, and secure the brace using the retaining strap. See Figure D-57.





**Figure D-57. Ridge arch and diagonal brace**

**WARNING:** POSITION ONE SOLDIER AT EACH RIDGE ARCH TO HOLD THE ARCH UPRIGHT DURING FRAME DISASSEMBLY TO PREVENT THE FRAME FROM FALLING AND INJURING PERSONNEL OR DAMAGING EQUIPMENT.

3. Even-numbered soldiers rotate and remove the remaining purlins in the same manner as the ridge purlin.
4. Teams 1 through 5 remove the header for their assigned arch by pulling the quick-release pins and then carry the header to the appropriate frame bundle cover.
5. Teams 1 through 5 dismantle and fold their assigned roof arch and return all frame components to the appropriate frame bundle cover.

*M. Inventory and Store the Components.*

1. Teams 1, 2, and 3 return all fabric components to the canvas wrappers so that the component labels are visible, and retie the bundles by following the instructions on each wrapper.
2. Teams 4 and 5 return all frame components to the frame wrappers and retie the frame bundles.
3. Teams 1 through 5 carry the TEMPER frame and fabric bundles to the staging area for repacking.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

**PERFORM:** When the soldiers can perform this drill according to the standards, their performance should be evaluated by the section leader.

**CREW DRILL 42-2-D0004****Set Up and Maintain the Containerized Batch Laundry (CBL)**

**TASK:** Set up and maintain the CBL.

**CONDITIONS:** The Force Provider (FP) company or platoon has occupied an operational site for a FP module. The site has been prepared in accordance with (IAW) the site plan and is secure. The potable water distribution and power generation subsystems have been set up and are operational. The containers for the CBL subsystem have arrived at the site and have been positioned IAW the staking plan. The precise location of the CBL International Standards Organization (ISO) containers has been staked out. The laundry NCO has ensured that all components are present, clean, and serviceable, and has reported all shortages and unserviceable components to company or platoon HQ. Two soldiers have been assigned to set up one of the two CBL subsystem sites. Eight additional soldiers are available to assist in erecting the four-section tent, extendable, modular, personnel (TEMPER), positioning the M80 water heater, and installing the CBL exhaust fan. After these actions are completed, these additional soldiers are released. Technical documentation, including all applicable technical manuals (TMs) and commercial instructions supplied with the CBL subsystem and components, is available.

**NOTE:** Use of the 3,000-gallon collapsible fabric water tank and the electric water pump is optional. The set up and initial operational checks of the 3,000-gallon tank and electric water pump are not covered in this drill.

**STANDARD:** The CBL subsystem is set up IAW TM 10-3510-223-13&P, *Operator, Unit and Direct Support Maintenance Manual including Repair Parts and Special Tools List for the Containerized Batch Laundry (CBL)*. Set up and the initial operation and checks are accomplished IAW the above references so that laundry operations satisfy tenant unit requirements.

**SUPPORTING INDIVIDUAL TASK:** Prior to conducting the drill, the drill leader should be proficient in Soldier Training Publication (STP) task 101-514-2113, *Direct Laundry Operations*, found in STP 10-57E14-SM-TG.

**SETUP INSTRUCTIONS:**

## a. Resources.

- (1) One complete CBL subsystem (CBL ISO container and laundry tent kits type 2A and 2B).
- (2) One general mechanic's automotive tool kit.
- (3) One carpenter's tool kit.

(4) Two 55-gallon fuel drums and a fill adapter assembly, pump filter, suction fitting, and return fitting from Petroleum Distribution Section.

(5) One environmental control unit (ECU).

(6) Five-ton fork lift to position CBL components. (One of the soldiers should be qualified to operate the fork lift. If none is qualified, a fork lift operator will be needed.)

(7) Two Laundry Specialists and an additional eight soldiers to assist in setting up the CBL.

(8) Technical documentation, including all applicable TMs and commercial instructions supplied with the CBL subsystem components and equipment.

b. Training Site. Position the CBL in the center of a 50-by 75-foot level area that is accessible by the fork lift and allows sufficient space to extend the potable water hoses, graywater hoses, and electrical cables.

c. Unit Instructions. The Laundry/Shower Section soldiers should be brought to the CBL subsystem ISO and triple containers (TRICONS). The drill leader has made a reconnaissance of the area and ensured that all equipment is present and operational, and that the site meets CBL requirements. Designate the ten soldiers selected to set up the shower by number (i.e., Soldier 1, Soldier 2, Soldier 3, Soldier 4, etc.). Release Soldiers 5 through 10 after the TEMPER has been set up. Release Soldiers 3 and 4 after the exhaust fan has been installed.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains two soldiers of the Laundry/Shower Section to set up the CBL correctly, conduct the initial operation and checks, and maintain the CBL IAW the pertinent technical publications. Assign each soldier a different number during subsequent drill iterations so each learns all the steps and standards for setting up the CBL, performing the initial operations and checks, maintaining the CBL, and operating the CBL.

b. Environmental Stewardship. Brief all soldiers on the safety and environmental stewardship requirements for executing this drill. Graywater and fuel spills pose a direct threat to the environment and human health. Take all preventative measures to protect the environment during set up, maintenance, and operations. The drill leader and soldiers will take immediate action to reduce the effect of spills and leaks, and to clean up and dispose of contaminated soil and water IAW current directives.

c. Safety. Prior to applying electrical power to the CBL, the drill leader, supervisor, or a qualified electrician will inspect the subsystem to ensure it is properly grounded. Wear leather gloves and eye protection when driving the grounding rod into the earth. Ensure all circuit breakers are OFF prior to powering the CBL subsystem initially. Ensure water hoses, power cables, or fuel lines do not come in contact or cross over each other. If water lines must cross, potable water hoses must cross over graywater hoses to avoid possible potable water contamination. Do not lay power cables across access or service roads. If power cables must cross water hoses, ensure the power cables cross over top of the water hoses. Only a qualified technician will connect the subsystem's electrical pigtailed to the power source or power distribution system. Be alert to symptoms of carbon monoxide poisoning when operating the M80 water heater. Avoid skin contact with graywater. Consider graywater as hazardous waste (HW) and use protection when performing any operation or maintenance involving graywater.

d. Demonstration (optional). If other soldiers from the Shower/Laundry Section have successfully set up the CBL subsystem, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening, and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in setting up and maintaining the CBL subsystem. The drill leader can illustrate the steps with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should explain their role in the drill, including the standards for which they are responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

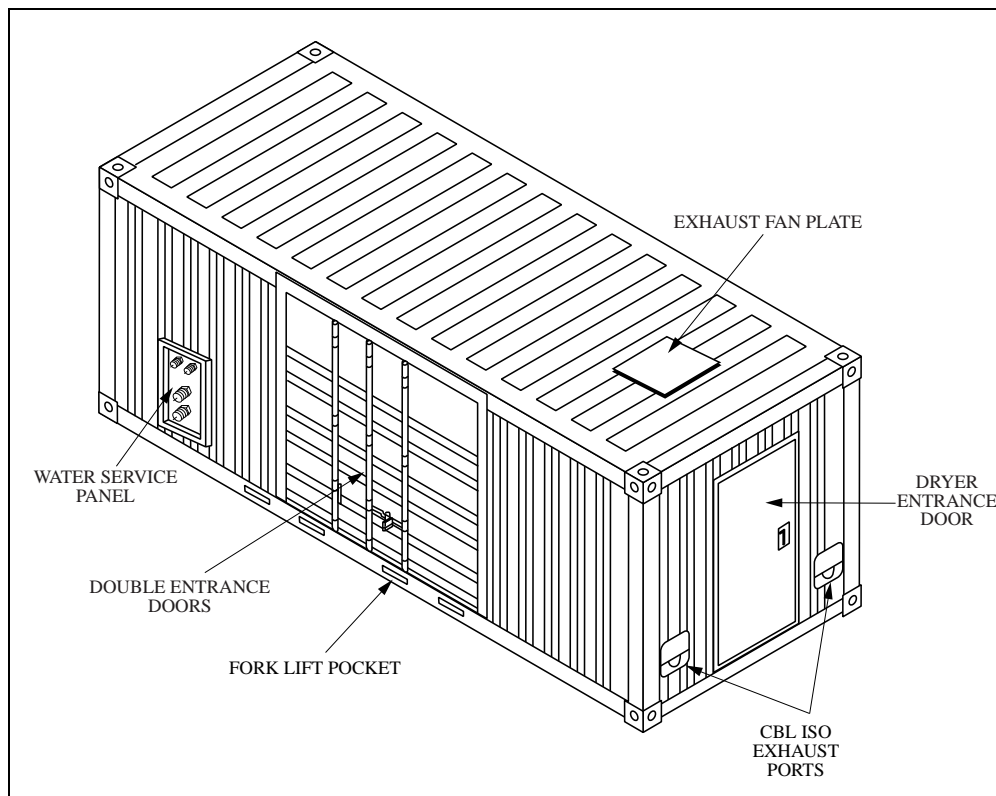
#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader conducts the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a deliberate pace on the first iteration as the "walk" phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

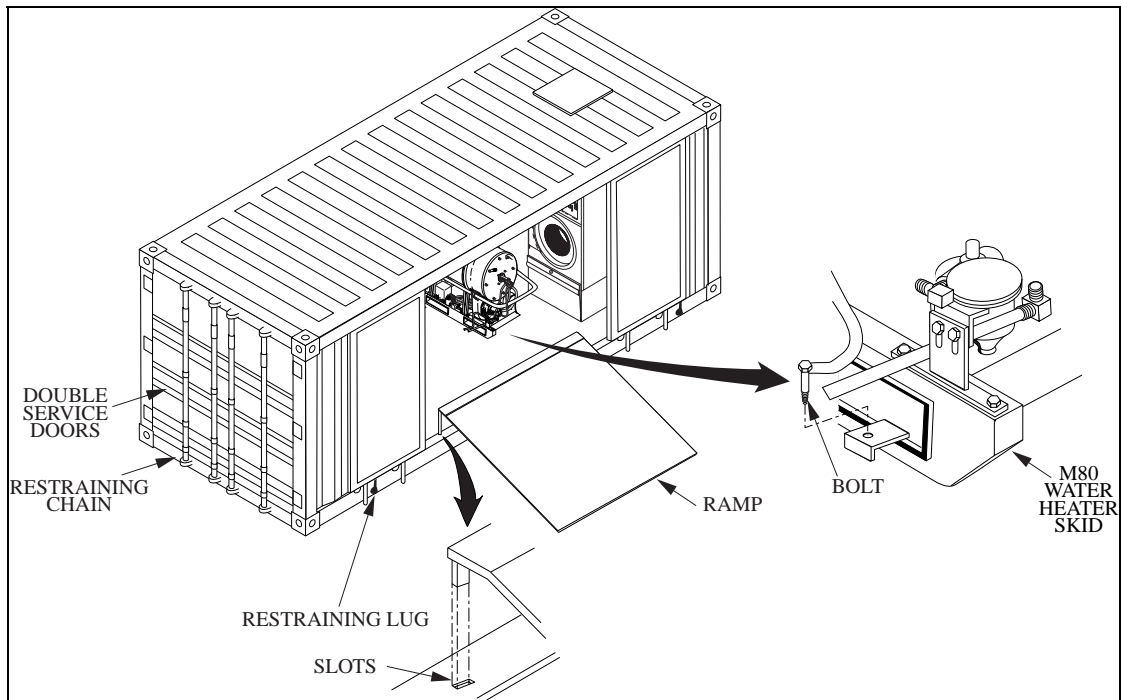
b. Initiating Cue. The drill leader gives order to set up and maintain the CBL subsystem.

Performance Measures:

1. Soldiers 1 and 2 check the CBL ISO for level crosswise and lengthwise using a carpenter's level.
2. If the ISO must be leveled, use a fork lift to raise the CBL ISO and Soldiers 1 and 2 place flat stones, blocks, or lumber under the low corner(s) of the CBL ISO to level it lengthwise and crosswise.
3. Soldiers 1 and 2 unlatch the double entrance doors, swing them open, and secure the doors with the restraining chains. See Figures D-1 and D-2.
4. Soldiers 1 and 2 unlatch the double service doors at the end of the CBL ISO, swing them open, and secure the doors with the restraining chains. See Figure D-2.
5. Soldiers 1 and 2 remove all items other than the M80 water heater from the CBL ISO and place them at the washer end of the CBL ISO.



**Figure D-1. CBL ISO in stored configuration**



**Figure D-2. Components of the CBL ISO**

6. Soldiers 1 and 2 remove the box containing CBL equipment and components, and then remove the bolts holding the M80 water heater to the floor. See Figure D-2.

**COACHING POINT:** If the fork lift is not available, make Soldiers 3 through 6 available at this time. The M80 water heater requires a minimum six-person lift. Stress the use of proper lifting techniques when positioning the heater. If the CBL is being prepared for cold weather operations, place the M80 water heater inside the cold weather configured TRICON that has been vented to accept the water heater's smoke stack.

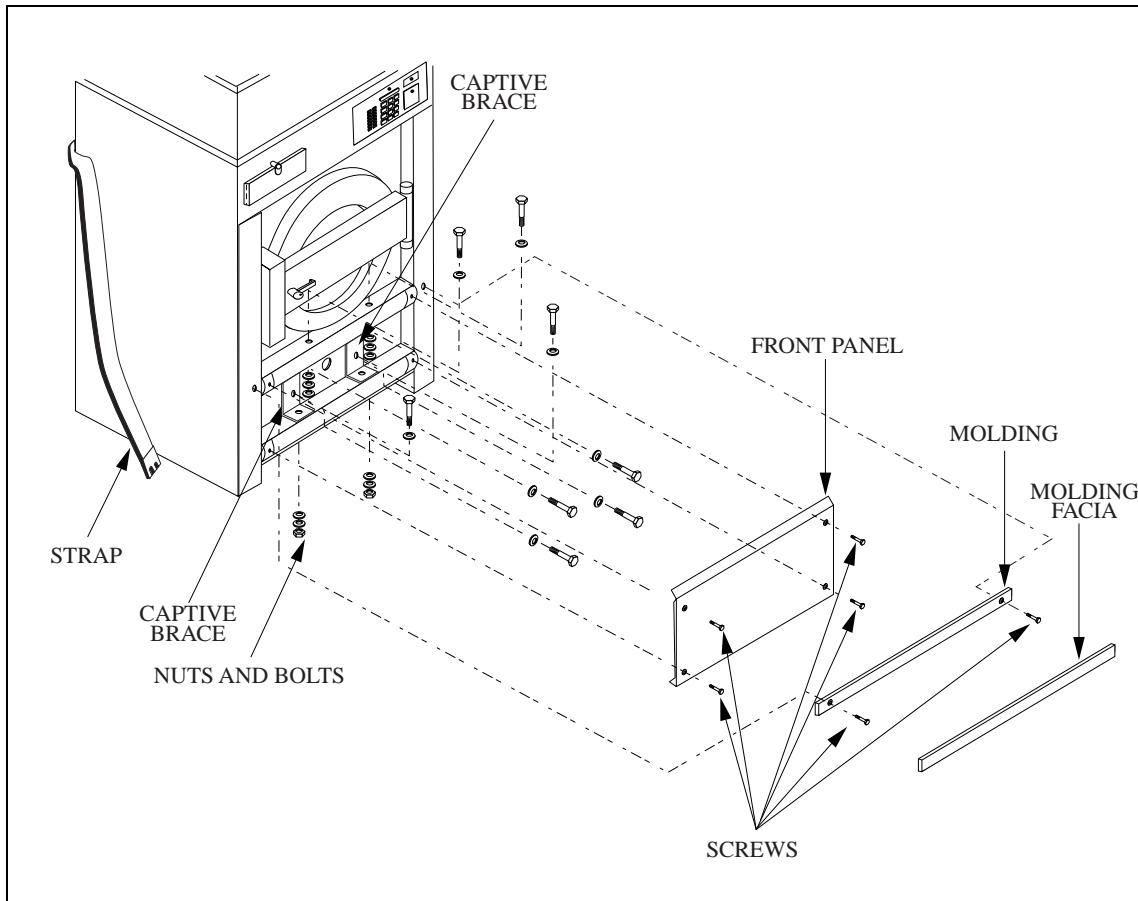
7. If the fork lift is available, use it to position the M80 water heater IAW the staking plan. Otherwise, Soldiers 1 and 2 retrieve the metal ramp and place it in the double entrance door by inserting its retaining legs into the slots in the base of the double entrance door frame, and then Soldiers 1 through 6 position the M80 water heater IAW the staking plan. See Figure D-2.

**COACHING POINT:** The sewage ejection pump (SEP) weighs approximately 500 pounds and requires a fork lift or minimum four-person lift to move it. Stress the use of proper lifting techniques when positioning the SEP. The SEP must be moved while still on its pallet. The site selected for the SEP should be level and free of rocks and debris.

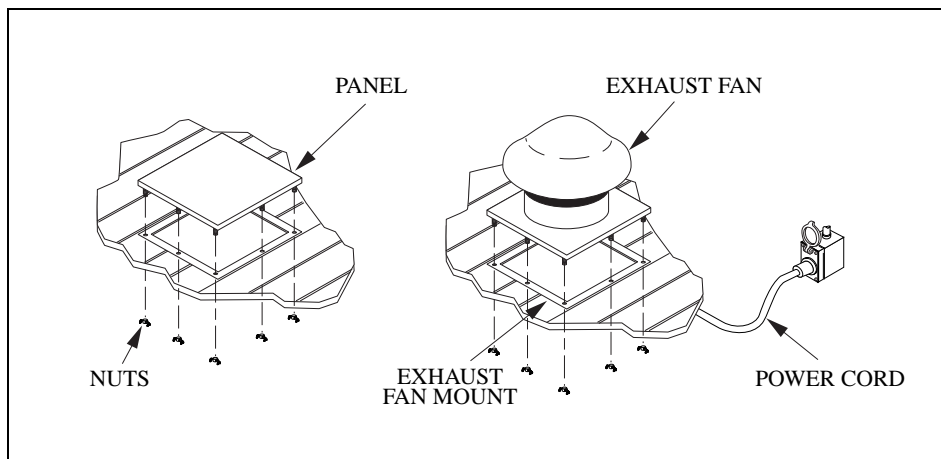
8. Using a fork lift or four-person lift, Soldiers 1 and 2 (or 1 through 4) identify and obtain the SEP, and position it, IAW the staking plan.
9. Soldiers 1 through 4 remove all other items from the CBL ISO and place them at the washer end of the CBL ISO.
10. Soldiers 1 and 2 set up the two washer-extractors by doing the following:
  - a. Remove the straps securing the washer-extractors to the CBL ISO. See Figure D-3.
  - b. Pull off the molding facia. See Figure D-3.
  - c. Remove the molding and the front panel by loosening the screws. See Figure D-3.
  - d. Remove the two captive braces by removing the screws and then storing the straps and captive braces for reuse. See Figure D-3.
  - e. Reinstall the front panel and molding using the screws, and then replace the molding facia. See Figure D-3.

**COACHING POINT:** Make Soldiers 3 and 4 available at this time to assist in installing the CBL ISO exhaust fan. The exhaust fan requires a two-person lift. Stress the use of proper lifting techniques when positioning the exhaust fan.

11. Soldiers 3 and 4 open the single service door on the dryer end of the CBL ISO. See Figure D-1.
12. Soldiers 1 and 2 remove the eight nuts in the exhaust fan panel from the ceiling of the CBL ISO. See Figure D-4.



**Figure D-3. Preparation of the washer-extractor for operation**

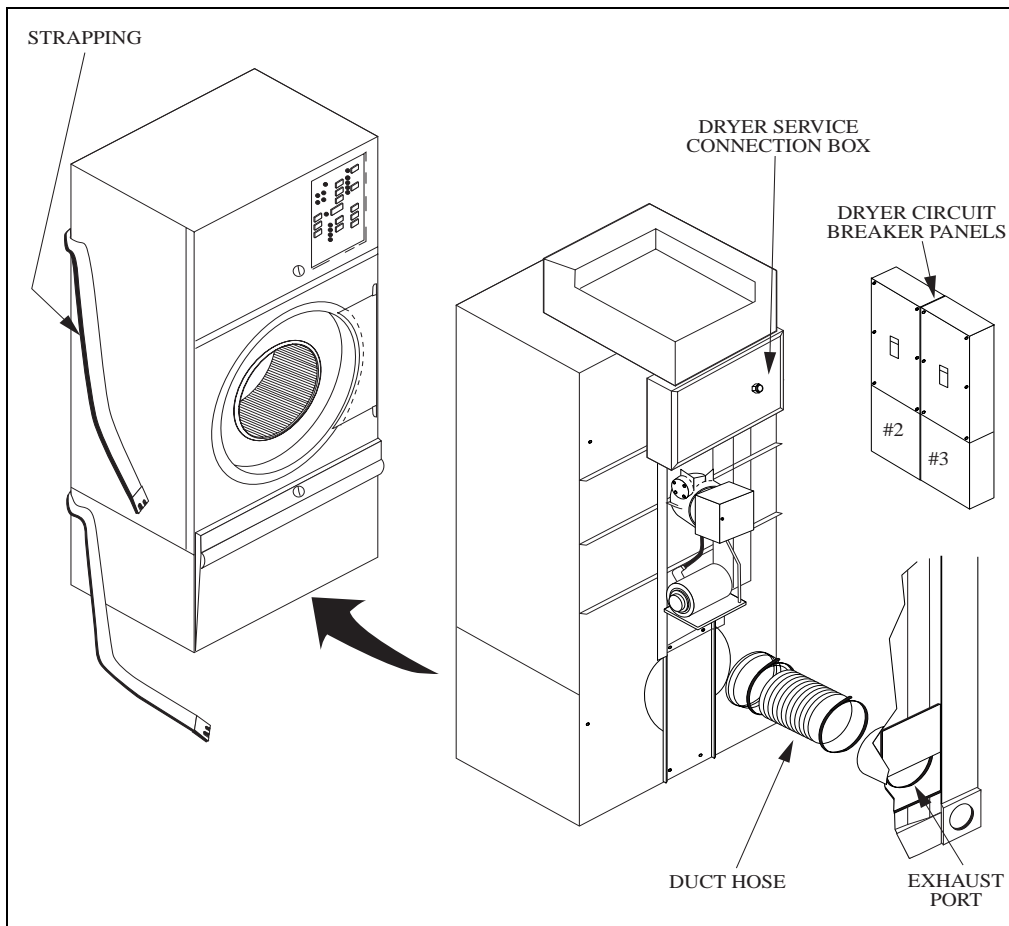


**Figure D-4. Installing the exhaust fan on top of the CBL ISO**

13. Soldiers 3 and 4 remove the panel from the roof of the CBL ISO and pass it to Soldiers 1 and 2, on the ground, to be stored for reuse.



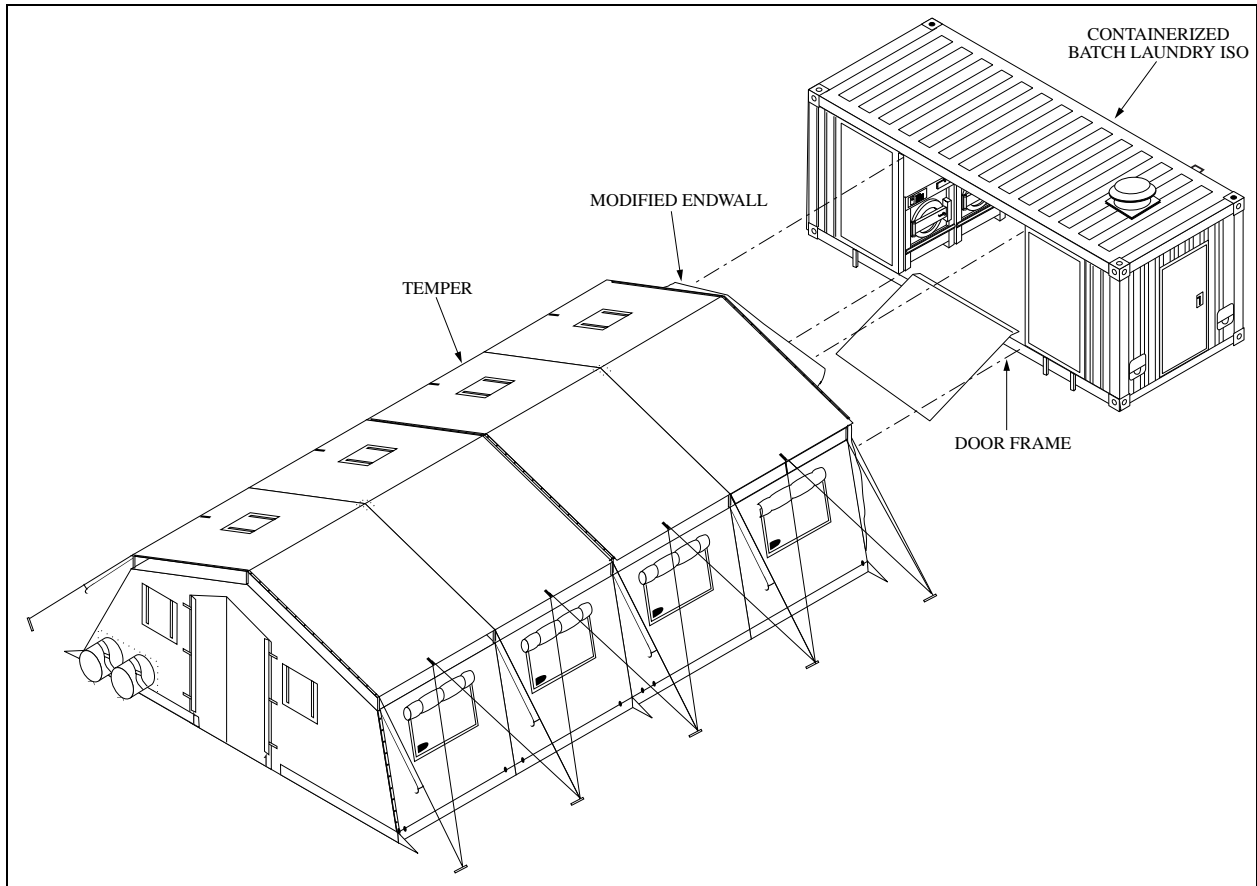
14. From the ground, Soldiers 1 and 2 pass the exhaust fan to Soldiers 3 and 4 on the roof of the CBL ISO.
15. Soldiers 3 and 4 lower the fan's power cord into the opening and install the fan onto the mount by aligning its studs with the holes in the mount. See Figure D-4.
16. Soldiers 1 and 2 install and tighten the eight nuts onto the fan studs, and then plug the fan's power cord into the power outlet located above the dryer circuit breaker panels.
17. Soldiers 1 and 2 set up the two dryers by doing the following:
  - a. Remove the straps securing the dryers to the CBL ISO and store them for reuse. See Figure D-5.



**Figure D-5. Preparation of the dryers for operation**

- b. Connect a dryer duct hose between the exhaust port of each dryer and the exhaust port of the CBL ISO, and then secure the hoses by tightening the two clamps. See Figure D-5.

**COACHING POINT:** Ensure that ten soldiers are available at this time to set up the TEMPER, IAW Drill 42-2-D0001, *Set Up the Four-Section TEMPER*. The TEMPER will be erected with a modified endwall that attaches the TEMPER to the double entrance door frame of the CBL ISO. Align the TEMPER frame squarely with the double door entrance prior to installing the liners, canvas, stakes, and flooring. See Figure D-6.



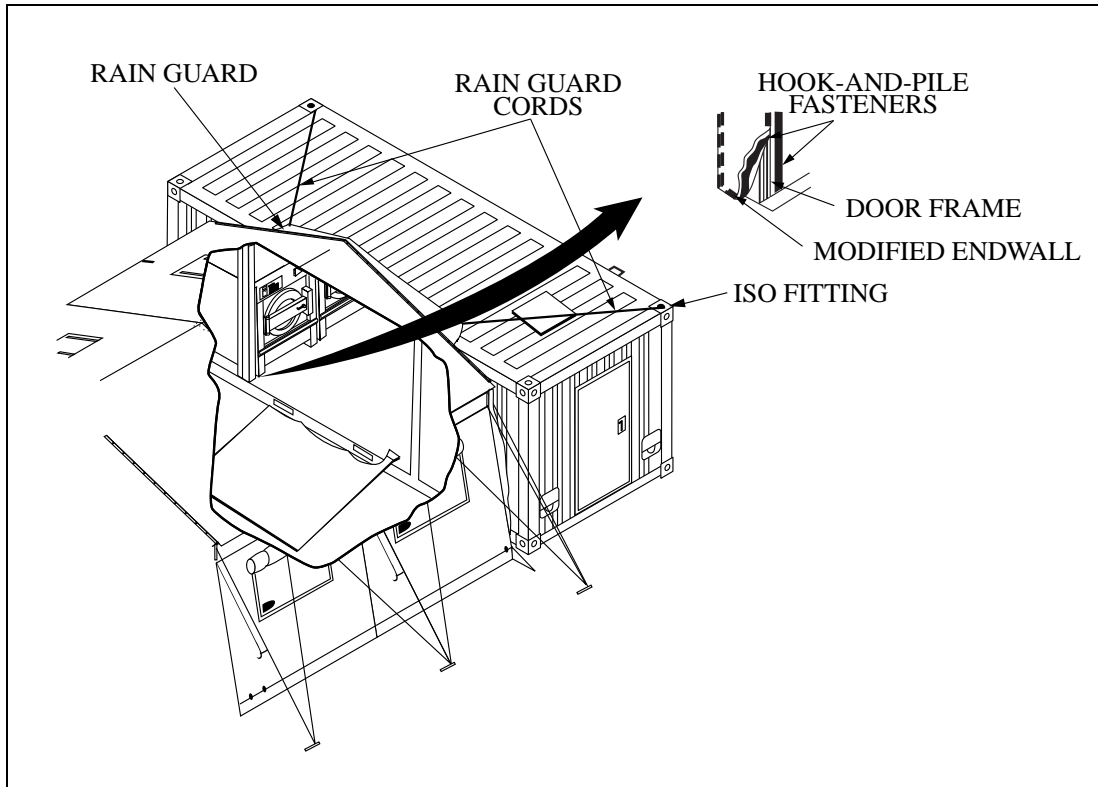
**Figure D-6. Alignment of the TEMPER with the double entrance door of the CBL ISO**

18. Soldiers 1 through 10 execute Drill 42-2-D0001, *Set Up the Four-Section TEMPER*, with the following exceptions:

- a. Install the modified endwall at the TEMPER end closest to the CBL ISO.
- b. Align the TEMPER frame so that the modified endwall will mate with the CBL ISO double entrance door frame before installing the liners, canvas, stakes, and flooring.

19. Soldiers 5 through 10 join the hook-and-pile fasteners of the modified endwall to those on the CBL ISO's double entrance door frame. See Figure D-7.

20. Soldiers 3 and 4 climb to the top of the CBL ISO and join the hook-and-pile fasteners of the rain guard to those on the top of the CBL ISO. See Figure D-7.



**Figure D-7. Connecting the modified endwall to the CBL ISO**

21. Soldiers 3 and 4 tie the rain guard cords to the CBL's ISO fittings. See Figure D-7.
22. Soldiers 5 through 10 place all furniture and equipment for the laundry work area inside the TEMPER.

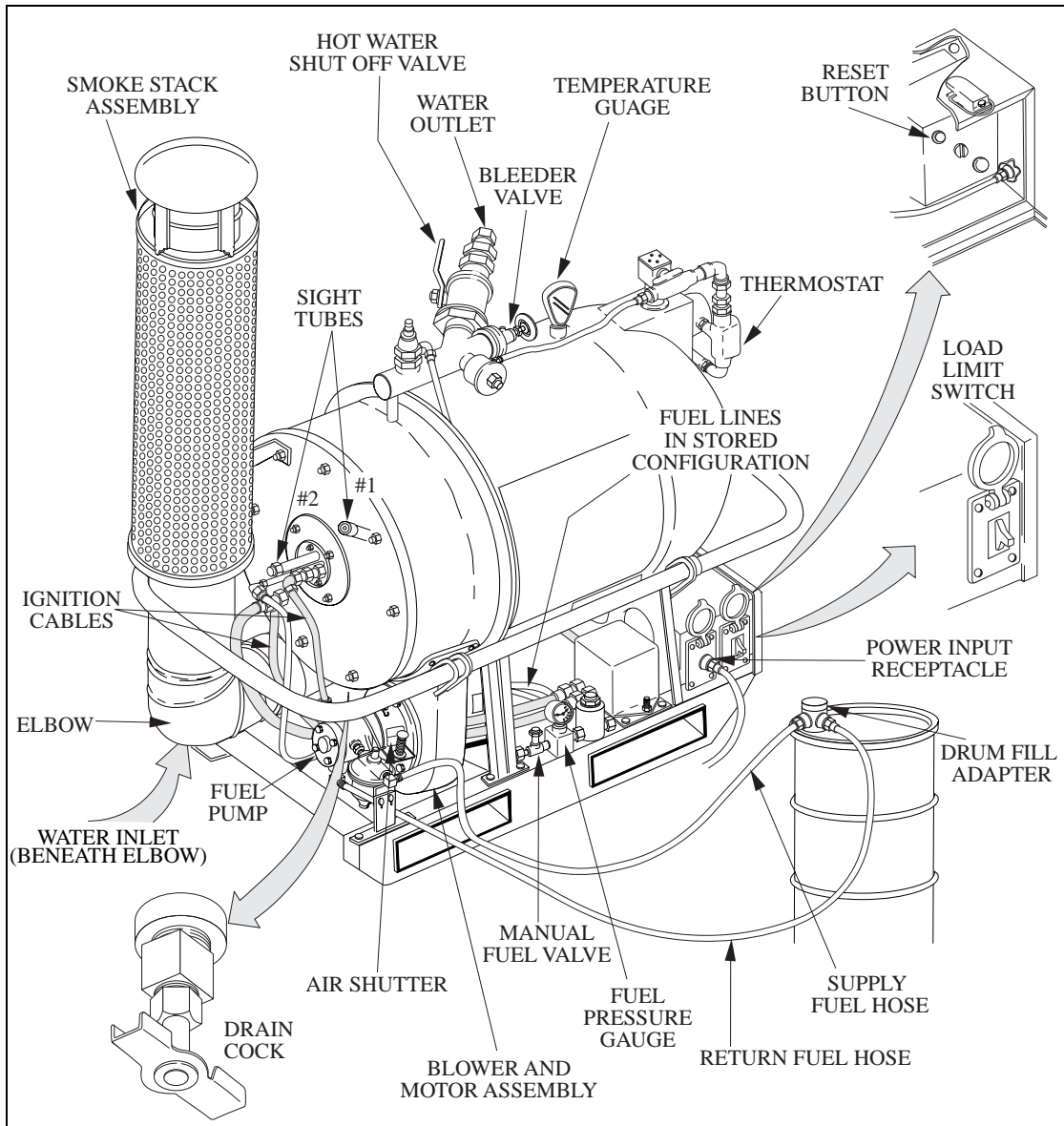
**COACHING POINT:** Release Soldiers 3 through 10 from the drill at this time.

23. Soldiers 1 and 2 prepare the M80 water heater for operations by doing the following:

**COACHING POINT:** Stress that fuel is highly flammable and dangerous if improperly handled. Soldiers should tighten all fuel fittings with a wrench to prevent fuel leaks. Consider fuel HW and handle fuel spills IAW current directives.

- a. Ensure the load limit switch is in the OFF position and the manual fuel valve is closed. See Figure D-8.

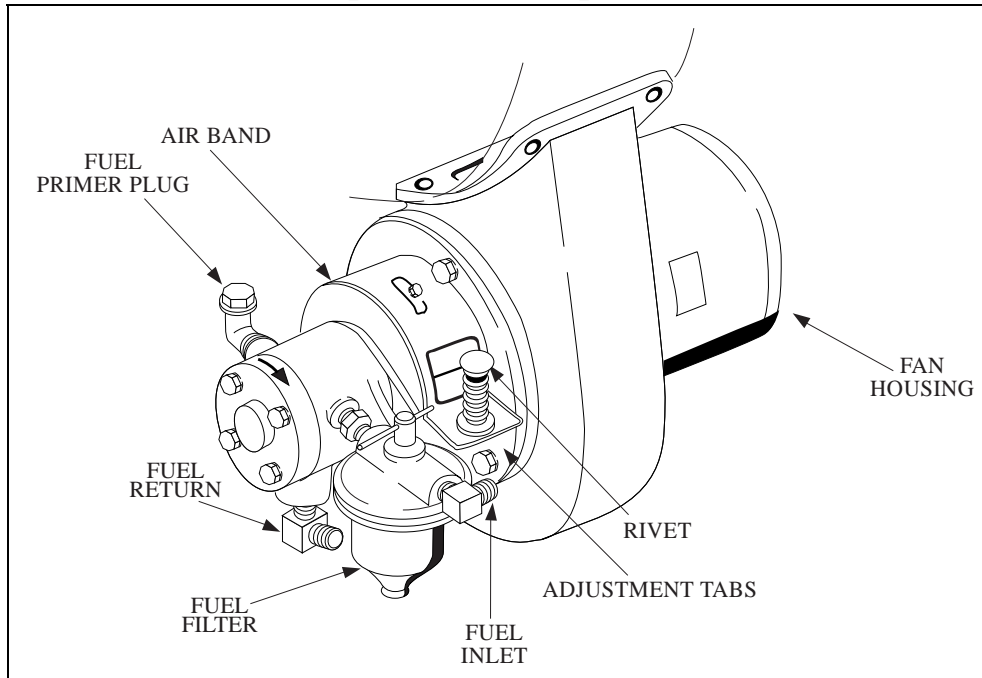
- b. Install the elbow, turning it slightly to the right to seat the pin in the slot. See Figure D-8.
- c. Install the smoke stack and two lengths of smoke pipe guard assembly and then tighten the screw on the bracket to secure the smoke stake assembly. See Figure D-8.
- d. Place two 55-gallon fuel drums approximately five feet from the water heater.



**Figure D-8. Key components of the M80 water heater**

- e. Remove the fuel supply extension tube from the bottom of the drum fill adapter and screw it onto the end of the fuel supply tube.
- f. Screw the drum fill adapter into the 55-gallon fuel drum. See Figure D-8.

- g. Disconnect the return fuel and supply fuel hoses from their holder beneath the M80 water heater tank. See Figure D-8.
- h. Connect the supply fuel hose from the water heater fuel pump filter to the suction fitting on the fuel drum fill adapter. See Figure D-8.
- i. Connect the return fuel hose from the water heater fuel pump to the return fitting on the fuel drum fill adapter. See Figure D-8.
- j. Prime the fuel pump by removing the fuel primer plug, adding fuel, and replacing the plug. See Figure D-9.

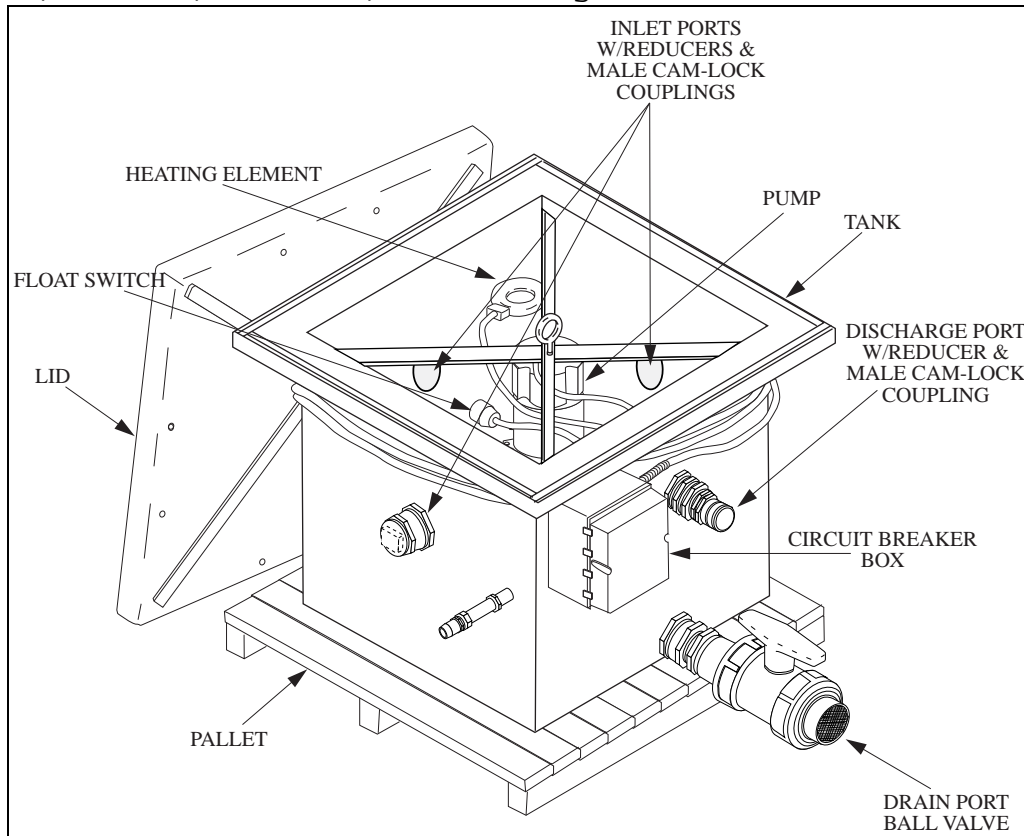


**Figure D-9. M80 water heater blower motor and fuel pump**

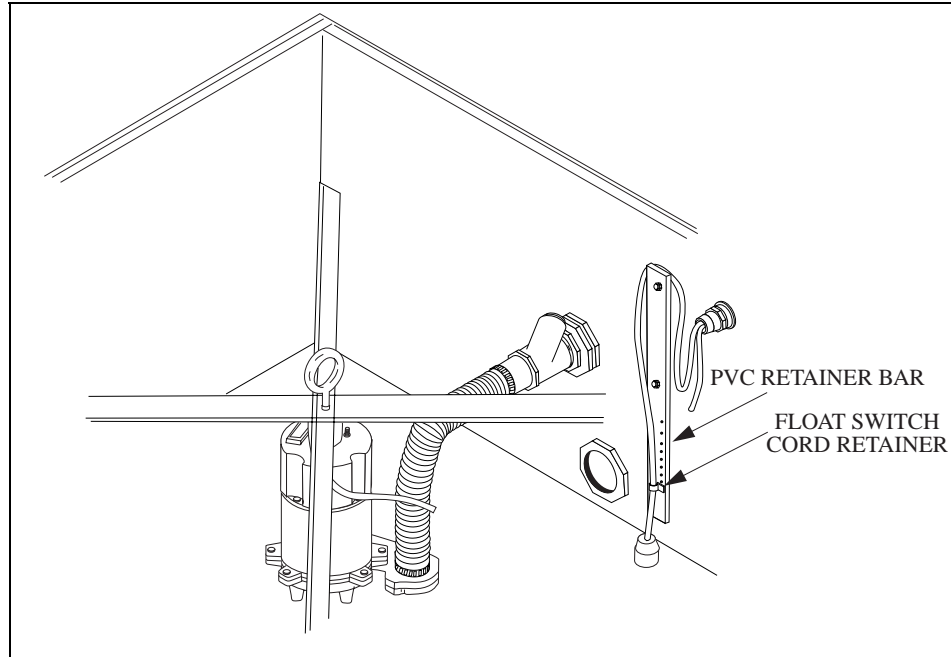
- k. Open the blower shutter halfway by pressing the rivet and shifting air band adjustment tabs. See Figure D-9.
  - l. Open the door to the control panel at the rear of the M80 water heater, press the FLAME SAFEGUARD reset button, and close the control panel door. See Figure D-8.
  - m. Set the water temperature control to the desired setting. See Figure D-8.
24. Soldiers 1 and 2 set up the general purpose SEP by doing the following:
- a. Remove the lid from the SEP by loosening the eight retainers. See Figure D-10.
  - b. Disconnect the float from the float switch cord retainer. See Figure D-11.
  - c. Install the PVC plug into the SEP inflow port that will not be used. See Figure D-10.

- d. Remove the PVC plug from the drain port, install the 2½-inch PVC nipple and bushing into the drain port, install the ball valve onto the drain port, and check that the ball valve is closed. See Figure D-10.
- e. For cold weather operations, install the heating element into the tank to prevent the graywater from freezing. See Figure D-10.
- f. Replace the lid on the SEP and secure it with the eight retainers. See Figure D-10.

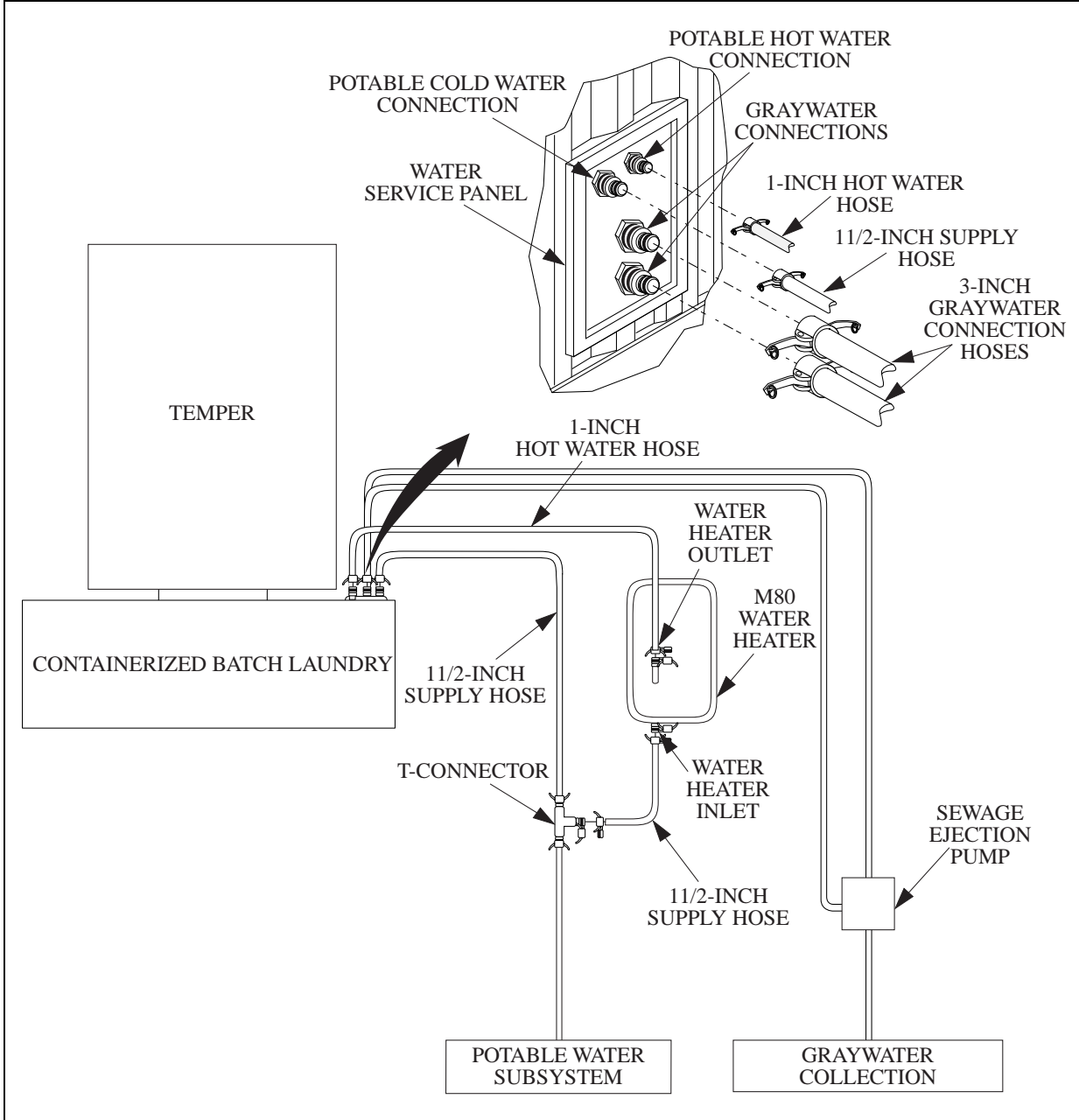
**NOTE:** The weight of the graywater collection hoses connected to the SEP inlet and outlet ports can break the ports. The graywater collection hoses must be supported in either of two ways: burying the SEP in the ground so that the drain valve is level with the ground or supporting the graywater hose with blocks, bricks, timbers, or sandbags.



**Figure D-10. Sewage ejection pump (SEP) components**

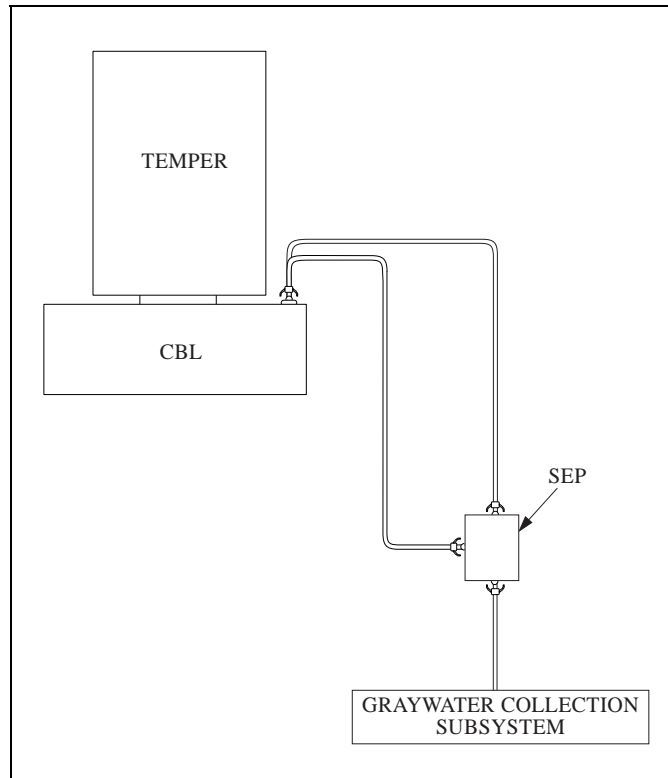


- Figure D-11. Sewage ejector pump (SEP) float switch**
25. Soldiers 1 and 2 set up the graywater collection hoses by doing the following:
- a. Connect two 3-inch graywater collection hoses to the graywater connections on the CBL ISO water service panel. See Figures D-12 and D-13.



**Figure D-12. Layout of the CBL potable water supply and graywater collection hoses**





**Figure D-13. Layout of CBL graywater collection hoses**

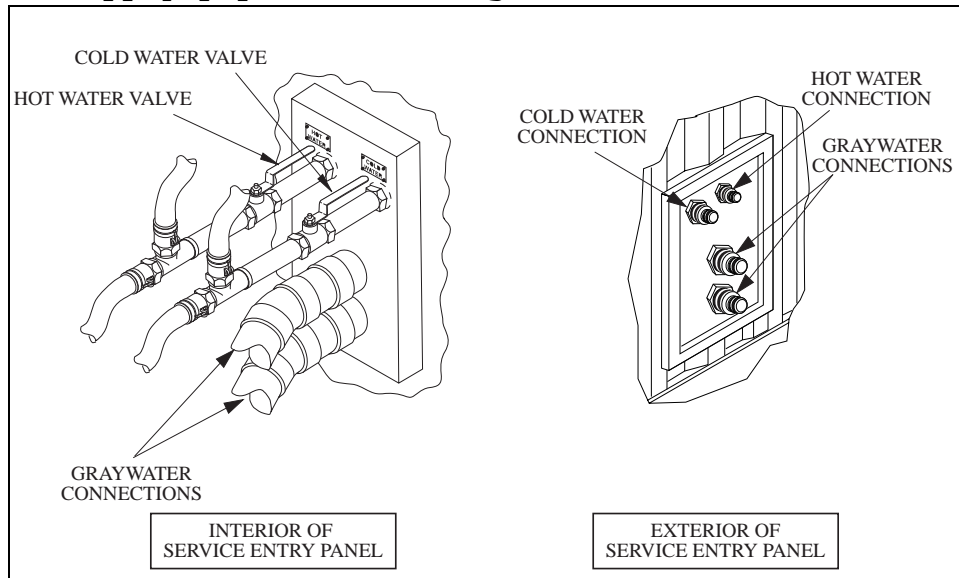
- b. Connect the other end of the two 3-inch graywater collection hoses to the aluminum quick disconnect (QD) couplings of two of the SEP inlet ports and then fasten their dust caps together. See Figure D-10.
- c. Connect the graywater collection hose from the main graywater collection subsystem to the discharge port of the SEP and then fasten their dust caps together. See Figures D-10 and D-13.

**COACHING POINT:** When the graywater collection hoses have been correctly assembled and connected, direct the soldiers to set up the CBL potable water supply hoses.

26. Soldiers 1 and 2 connect the potable water supply hoses by doing the following:

- a. Connect the 1½-inch T-connector to the main potable water supply hose. See Figure D-12.
- b. Connect one 1½-inch supply hose from the T-connector to the M80 water heater inlet. See Figures D-9 and D-12.
- c. Connect another 1½-inch supply hose from the other side of the T-connector to the cold water connection of the CBL's water service panel. See Figures D-12 and D-14.

- d. Layout and connect one 1-inch hot water hose from the M80 water heater water outlet to the hot water connection of the CBL's water service panel. See Figures D-9 and D-14.
- e. Turn the hot and cold water valves at the water service panel inside the CBL ISO to the ON position (in-line with water supply pipes). See Figure D-14.



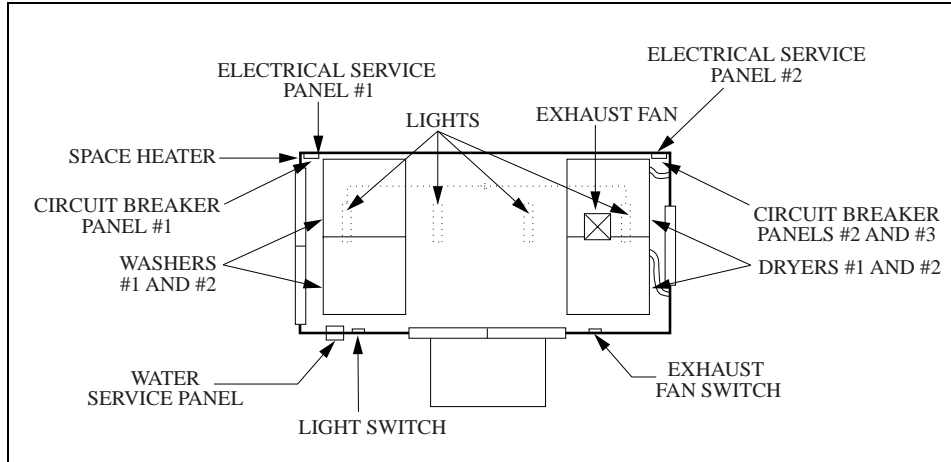
**Figure D-14. Interior and exterior water service entry panels on the CBL**

**COACHING POINT:** When the potable water supply hoses have been correctly assembled and connected, direct the soldiers to set up the CBL electrical components.

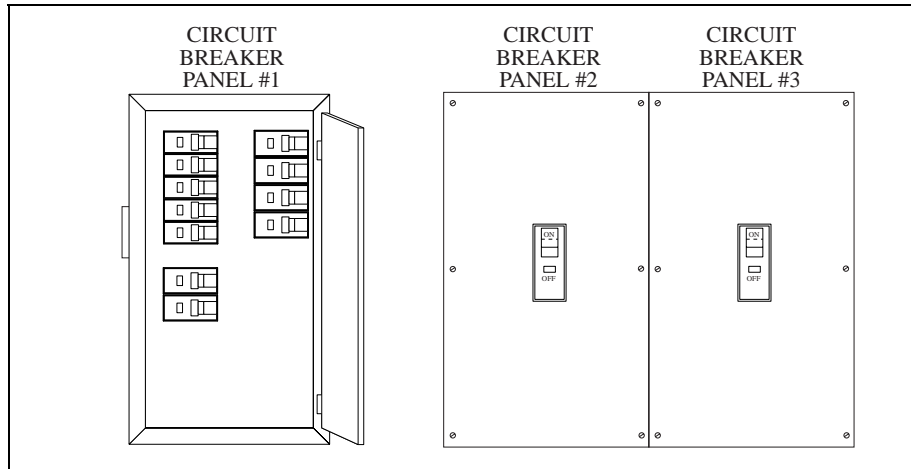
**COACHING POINT:** Stress that the CBL must be properly grounded prior to applying electrical power to the subsystem. Failure to properly ground the CBL can result in injury or death due to electrical malfunction. Ensure the soldiers wear leather gloves and eye protection when driving the grounding rod into the earth.

27. Soldiers 1 and 2 set up the electrical components by doing the following:

- a. Ensure that all circuit breakers on circuit breaker panels #1, #2, and #3 are in the OFF position. See Figures D-15 and D-16.

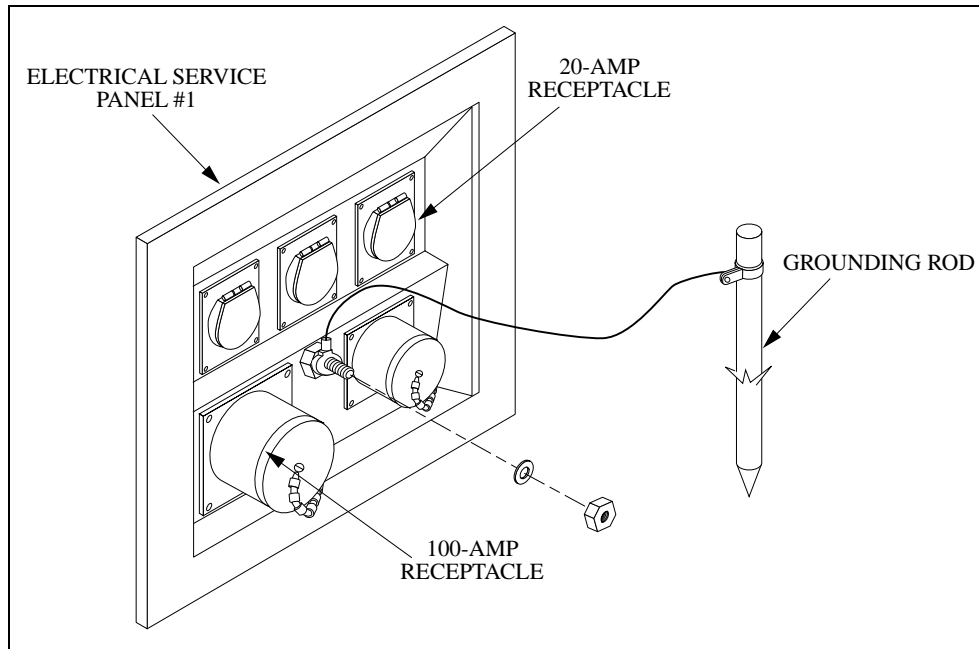


**Figure D-15. Electrical components of the CBL ISO**



**Figure D-16. Circuit breaker panels inside the CBL ISO**

- b. Drive the grounding rod at least three feet into the earth at a distance of less than five feet from electrical service panel #1 at the rear of the CBL. See Figure D-17.



**Figure D-17. Grounding connection to electrical service panel #1**

- c. Connect the grounding cable from the grounding rod to the stud on electrical service panel #1, using the nut and flat washer, and then tightens the nut. See Figure D-17.
- d. Place the three power distribution illumination systems equipment (PDISE)-M100 between the CBL ISO and the power generation source, IAW the staking plan. See Figures D-18 and D-19.
- e. Notify the Facilities Support Section to connect the PDISE-M100s to the power generation source.

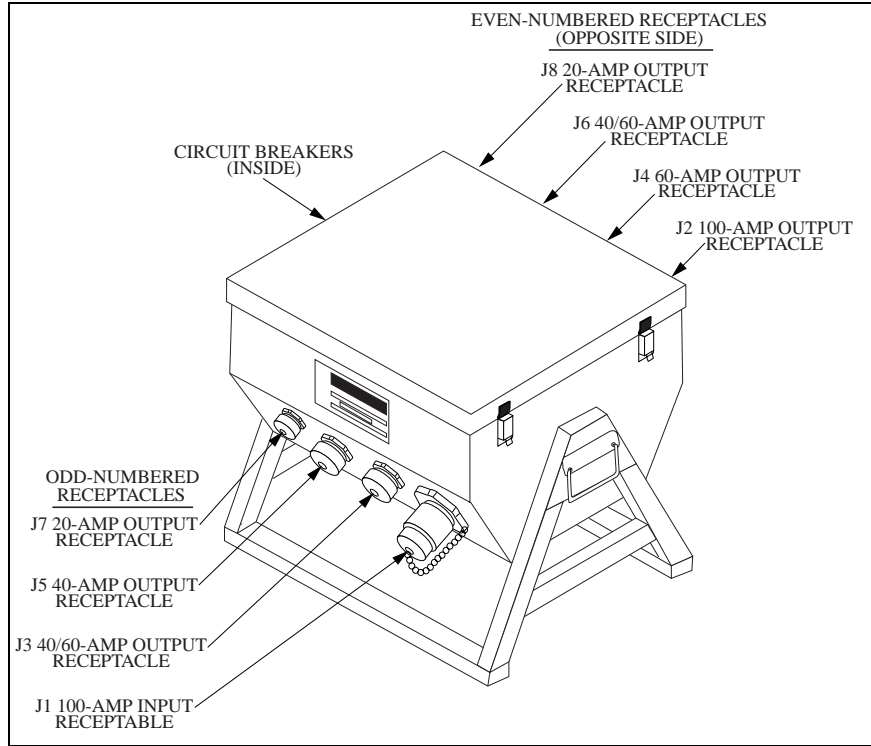


Figure D-18. PDISE-M100 receptacles and connections

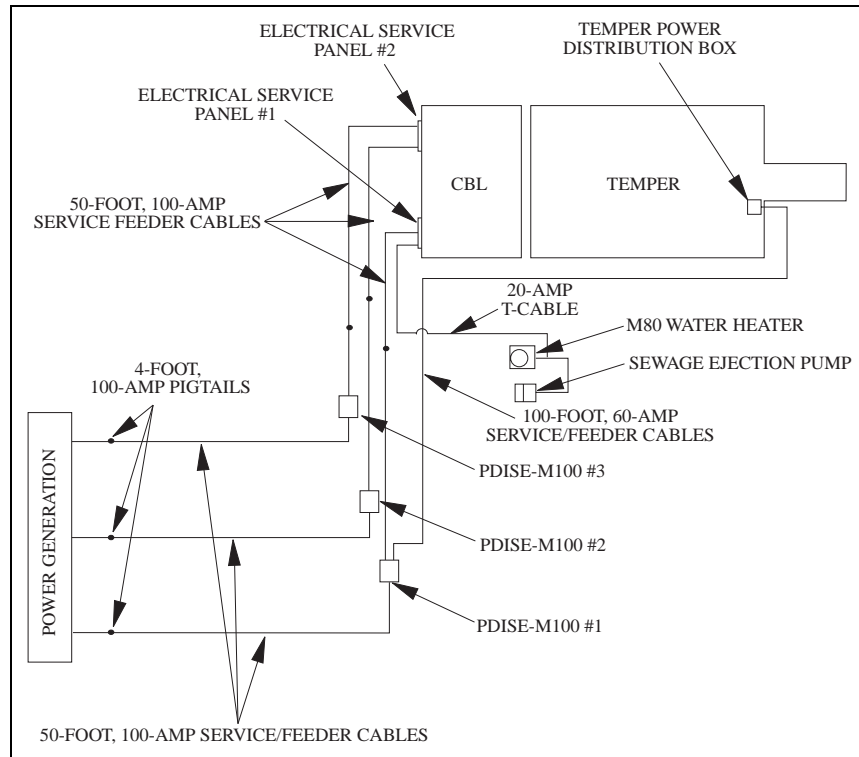


Figure D-19. Layout of the CBL electrical components and cables

**COACHING POINT:** Stress that the soldiers route service/feeder cables in straight runs with 90 degree turns. If they must route service/feeder cables parallel to the TEMPER, they lay the cables between the TEMPER and the stakes. They snake or loop excess cable side-to-side, rather than coiling it, to prevent creating an electric field that may damage electrical equipment.

**WARNING:** ONLY QUALIFIED TECHNICIANS IN THE FACILITIES SUPPORT SECTION MAKE THE ELECTRICAL SERVICE/FEEDER CABLE CONNECTIONS FROM THE PDISE-M100 TO THE ELECTRICAL POWER SOURCE.

- f. Check that the circuit breakers inside the three PDISE-M100s are set to OFF. See Figure D-18.
- g. Layout and connect two 50-foot 100-amp service/feeder cables between the J2 100-amp output receptacle on PDISE-M100 #1 and the 100-amp receptacle on electrical service panel #1, secure with lock rings, and connect their dust caps together. See Figures D-18, D-19, and D-20.

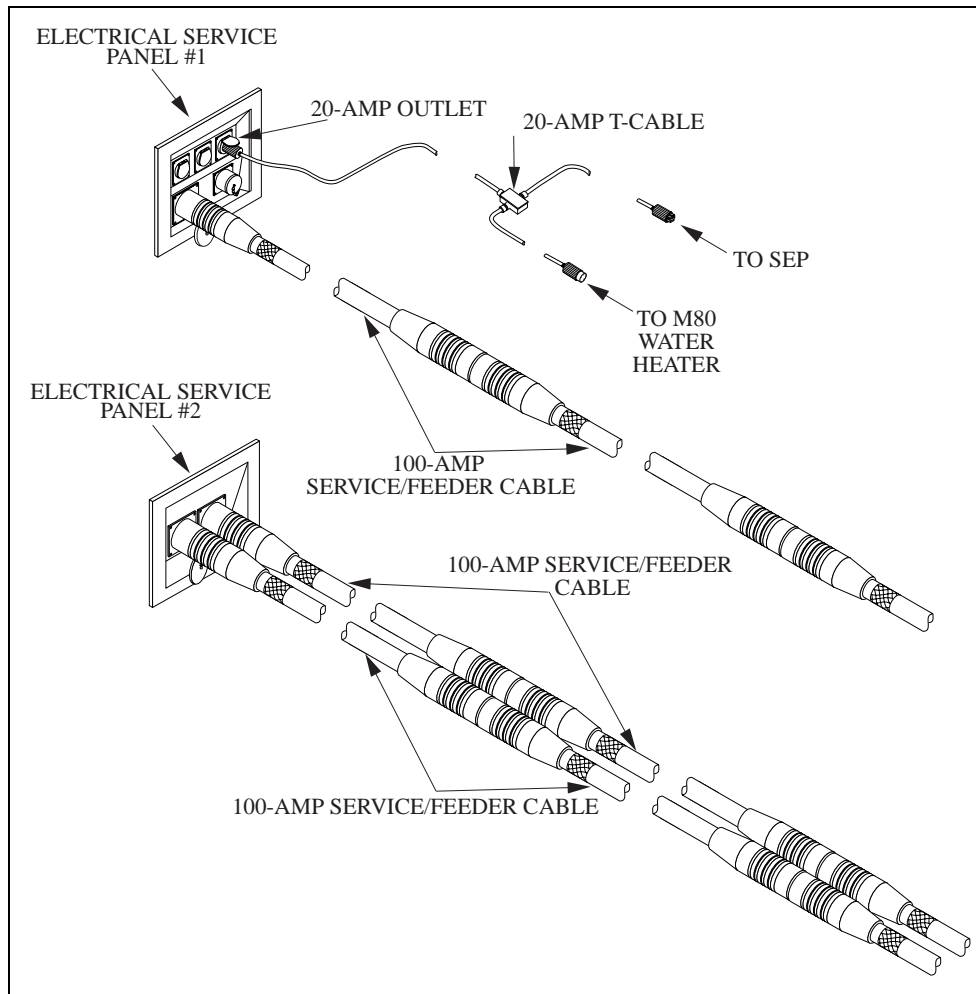


Figure D-20. Power cable connections to the CBL

- h. Layout and connect two 50-foot 100-amp service/feeder cables between the J2 100-amp output receptacle on PDISE-M100 #2 together and the 100-amp receptacle on electrical service panel #2, secure with lock rings, and connect their dust caps together. See Figures D-18, D-19, and D-20.
- i. Layout and connect two 50-foot 100-amp service/feeder cables between the J2 100-amp output receptacle on PDISE-M100 #3 and the 100-amp receptacle on electrical service panel #2, secure with lock rings, and connect their dust caps together. See Figures D-18, D-19, and D-20.
- j. Layout and connect three 100-foot 60-amp service/feeder cables between the J3 or J4 60-amp output receptacles on PDISE-M100 #1 and the TEMPER power distribution box, secure with lock rings, and connect their dust caps together. See Figures D-18, D-19, and D-20.
- k. Connect the 20-amp T-cable to the 20-amp outlet receptacle on electrical service panel #1 by inserting the connector and turning it, and then connect the other ends of the T-cable to the SEP power cord and the M80 water heater power input receptacle. See Figures D-8, D-10, D-19, and D-20.

DRILL LEADER ISSUES INSTRUCTIONS TO PERFORM PREOPERATIONS CHECKS.

28. Soldiers 1 and 2 visually inspect the electrical and water components inside and outside the CBL ISO for the following:

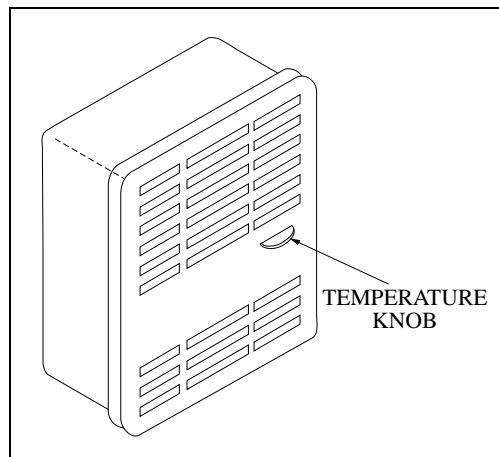
- a. Damage to pipes, valves, or hoses.
- b. Secure clamps on hoses and water supply connections.
- c. Damage to electrical cables or connection.
- d. Secure electrical connections.

29. Soldier 1 opens the gate valve at the user connection point of the potable water supply line to allow water to flow to the CBL water components.

**COACHING POINT:** There are three classes of leaks. Fluids seeping from connections or valves (they are wet or discolored) are Class I leaks. Leaks that form drops that do not drip from the connection or valve are Class II leaks. Leaks that drip from the connection or valve are Class III leaks. You can operate with Class I or II leaks, if you maintain the fluid levels as required in the preventive maintenance checks and services (PMCS). You must immediately report Class III leaks to the supervisor, so maintenance can repair them.

30. Soldiers 1 and 2 check the external and internal water supply hoses, couplings, pipes, and fittings for Class III leaks, shutting off the main water supply valve and repairing the leaks immediately if they find any.

31. Soldiers 1 and 2 power up the CBL subsystem components by doing the following:
  - a. Set the circuit breakers in the three PDISE-M100s to the ON position. See Figure D-18.
  - b. Set the circuit breaker (or power switch) on the SEP to the ON position. See Figure D-10.
  - c. Set all the circuit breakers in circuit breaker panels #1, #2, and #3 to the ON position. See Figures D-15 and D-16.
  - d. Push the circuit breaker on the TEMPER power distribution box to the ON position.
  - e. Turn on the exhaust fan and light switches inside the CBL ISO. See Figure D-15.
  
32. Soldiers 1 and 2 make the following preoperations checks on the CBL electrical components:
  - a. Check the PDISE-M100s for damage or tripped circuit breakers.
  - b. Check circuit breaker panels #1, #2, and #3 for damage or tripped circuit breakers.
  - c. Check the interior TEMPER lights for damage and proper operation, bulbs are in place, and covers are securely fastened.
  - d. Check TEMPER convenience outlets for proper operation using a trouble light.
  - e. Check the CBL ISO lights for damage and proper operation, bulbs are in place, and covers are securely fastened.
  - f. Check the CBL ISO exhaust fan for damage and proper operation.
  - g. Turn on the space heater, check it for damage and proper operation, and then turn it off. See Figures D-15 and D-21.



**Figure D-21. Space heater inside CBL ISO**



33. Soldiers 1 and 2 conduct preoperations checks on the M80 water heater by doing the following:

- a. Check that the manual fuel valve is closed. See Figure D-8.
- b. Set the load limit switch to the ON position. See Figure D-8.
- c. Visually check that the blower fan at the rear of the fan housing is rotating in the direction of the arrow on the housing. See Figure D-9.
- d. Turn the load limit switch to the OFF position. See Figure D-8.
- e. Notify the drill leader if the motor rotation is incorrect.

**NOTE:** Notify Facilities Support Section to correct the power phasing of the power group or M80 water heater.

- f. Open the water outlet valve on top of the M80 water heater. See Figure D-8.
- g. Open the bleeder valve, observe for a steady stream of water escaping from the valve, and then close the bleeder valve. See Figure D-8.

34. Soldiers 1 and 2 light off the M80 water heater by doing the following:

- a. Open the manual fuel valve. See Figure D-8.
- b. Turn the load limit switch to the ON position. See Figure D-8.
- c. Check that the fuel pressure gauge reads 75 to 80 pounds per square inch (psi) (or 517 to 532 kilopascas [kPa]). See Figure D-8.
- d. If the fuel pressure gauge does not read 75 to 80 psi within 15 seconds, then turn the load limit switch to the OFF position and repeat Step 59 and Substeps a through b, above, until the gauge reads 75 to 80 psi.

**NOTE:** The soldiers must notify the drill leader if the fuel pressure gauge does not read 75 to 80 psi (or 517 to 532 kPa) after three tries.

- e. When the fuel pressure reaches 75 to 80 psi within 15 seconds, open the manual fuel valve one full turn. See Figure D-8.
- f. Observe burner ignition through the sight tube. See Figure D-8.
- g. If the burner ignites within 20 seconds, then open the manual fuel valve fully. See Figure D-8.

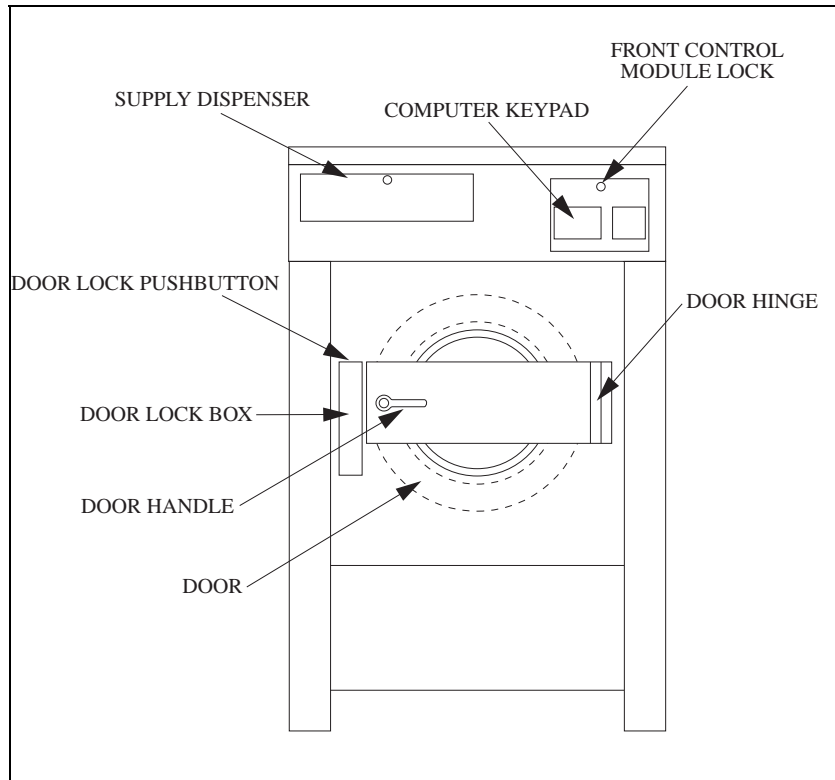
**COACHING POINT:** If combustion does not happen within a preset time, the control unit will cause a safety shutdown of the ignition spark. When a buzzer sounds on the control box, tell the soldiers that they must turn the load limit switch to the OFF position and wait two minutes. At the end of that time, the soldiers repeat Steps 32 and 33, above. If combustion still does not occur, they must follow the troubleshooting procedures in TM 10-4520-259-13&P, *Operator's, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List, Heater, Water, Liquid Fuel, M80.*

- h. Check that exhaust gasses from the smoke stack are transparent and smokeless; if necessary, adjust the air band on the blower motor assembly, if necessary, until no smoke is visible. See Figure D-9.

**COACHING POINT:** The position of the air band determines the ration of air to fuel. The soldiers must check for the presence of smoke in the exhaust gasses frequently because normal vibration of the water heater during operation may change the air band adjustment.

35. Soldiers 1 and 2 make the following preoperation checks on the washer-extractors:

- a. Check for the proper functioning of the washer-extractor door interlock by doing the following:
  - (1) Start the washer-extractor with the door open (the washer-extractor should not start).
  - (2) Start the washer-extractor with the door unlocked (the washer-extractor should not start).
  - (3) Open the door with a wash cycle in progress (the door should not open).
- b. Check that the door gasket and automatic supply dispenser are free of residual detergent and foreign matter. See Figure D-22.



**Figure D-22. Containerized Batch Laundry washer-extractor (front view)**

- c. Initiate a washer-extractor cycle and observe the each unit functions properly under normal conditions.
  - d. Perform periodic maintenance, IAW the washer-extractor commercial technical manual.
36. Soldiers 1 and 2 makes the following preoperations checks on the dryers:
- a. Check exhaust ducts for holes, tears, obstructions, or other damage. See Figure D-5.
  - b. Check that lint screens and traps are clean.
  - c. Initiate a dryer cycle and observe that each unit functions properly under normal conditions.
  - d. Perform periodic maintenance, IAW the dryer commercial technical manual.
37. Soldiers 1 and 2 make preoperations checks on the SEP by doing the following:
- a. Check the tank for damage and leaks. See Figure D-10.
  - b. Check the inlet and discharge connections and drain port ball valve for damage and leaks. See Figure D-10.
  - c. Check the circuit breaker box for damage or tripped circuit breakers. See Figure D-10.

- d. Remove the lid of the SEP and check the pump for proper operation by activating the float switch. See Figure D-11.
- e. If installed, turn the heating element circuit breaker ON, check the heating element for proper operation, and then turn OFF the heating element circuit breaker, unless operating in cold weather conditions. See Figure D-10.
- f. Replace the SEP lid and check the lid for damage, proper fit, and proper operation of its retainers. See Figure D-10.

DRILL LEADER ISSUES THE ORDER TO PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS).

38. Soldiers 1 and 2 perform periodic maintenance on CBL subsystem components by doing the following:

- a. Perform periodic maintenance on the M80 water heater, IAW TM 10-4520-259-13&P.
- b. Perform periodic maintenance on the TEMPER, IAW TM 10-8340-224-13.
- c. Perform periodic maintenance on the CBL, IAW TM 10-3510-223-13&P (CBL).
- d. Perform periodic maintenance on the washer-extractors, IAW their commercial technical manuals.
- e. Perform periodic maintenance on the dryers, IAW their commercial technical manuals.
- f. Check supply and drain hoses for dirt and debris, and clean as required.

39. Soldiers 1 and 2 operate and maintain the TEMPER and its components IAW Drill 42-2-D0002, *Operate and Maintain the Four-Section TEMPER*.

RUN-THROUGH: The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

PERFORM: When the soldiers can perform this drill according to the standards, their performance should be evaluated by the section leader.

**CREW DRILL 42-2-D0005**  
**Dismantle the Containerized Batch Laundry (CBL)**

TASK: Dismantle the CBL.

CONDITIONS: The CBL subsystem is operating in its designated area. Instructions have been received to cease operations and prepare for redeployment. Components have been inventoried and inspected for serviceability. Unserviceable components have been tagged and reported to the Force Provider (FP) company or platoon higher HQ. Coordination has been made with the Water Distribution Section to have highly chlorinated water available to flush the CBL's water lines. A steam cleaner is available from platoon or company to assist in cleaning the CBL. Two soldiers have been assigned to dismantle the CBL site. Eight additional soldiers are available to assist in dismantling the tent, extendable, modular, personnel (TEMPER), storing the M80 water heater, and removing the CBL exhaust fan. The additional soldiers are released when they complete these actions.

**NOTE:** Use of the 3,000-gallon collapsible fabric water tank and electric water pump is optional. The dismantling of the 3,000-gallon tank and electric water pump is not covered in this drill.

STANDARD: The CBL subsystem is dismantled and prepared for movement IAW TM 10-3510-223-13&P, *Operator, Unit and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for the Containerized Batch Laundry (CBL)*, TM 10-4520-259-13&P, *Operator's, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Heater, Water, Liquid Fuel M-80*, and commercial manuals supplied with CBL washer-extractor and dryer. The CBL subsystem meets required sanitation and cleanliness standards for shipment established by higher HQ.

SUPPORTING INDIVIDUAL TASK: To be determined (TBD).

SETUP INSTRUCTIONS:

a. Resources.

- (1) One completely set up and operational CBL subsystem (CBL International Standards Organization [ISO] container and laundry tent kits type 2A and 2B).
- (2) One general mechanic's automotive tool kit.
- (3) Steam cleaner.
- (4) Cleaning supplies (such as mops, cloths, brushes, soap, disinfectant).

(5) A wastewater vacuum tank/trailer (WWVT/T) team to clean out the sewage ejection pump (SEP).

(6) 30-gallon container of nontoxic antifreeze solution.

(7) Five-ton fork lift for moving M80 water heater into the CBL and other CBL components to staging area. (One of the soldiers should be qualified to operate the fork lift. If none is qualified, a fork lift operator will be needed.)

(8) Two Laundry Specialists and an additional eight soldiers to assist in dismantling the CBL.

(9) Technical documentation, including all applicable technical manuals (TMs) and commercial instructions supplied with the CBL subsystem components.

b. Training Site. The site must contain a fully set up, operational CBL subsystem. The CBL site and triple container (TRICON) staging area must be accessible by the fork lift.

c. Unit Instructions. The Laundry/Shower Section soldiers should be brought to the CBL subsystem. Designate the ten soldiers selected to dismantle the CBL subsystem by number (i.e., Soldier 1, Soldier 2, Soldier 3, Soldier 4, etc.). Use Soldiers 3 through 10 at the appropriate time to assist in dismantling the TEMPER, storing the M80 water heater back into the CBL (if a fork lift is not available), and dismantling the CBL exhaust fan.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains two soldiers to work together to dismantle the CBL subsystem correctly. Assign each soldier a different number during subsequent drill iterations so each learns all the drill steps and standards for dismantling the CBL.

b. Environmental Stewardship. Brief all soldiers on the safety and environmental stewardship requirements for executing this drill. Soldiers will be alert for any fuel leaks or spills at the M80 water heater. They will contain any fuel spills, dig up contaminated soil, and dispose of it IAW current directives. They will flush highly chlorinated water from the CBL's water pipes before dismantling the subsystem. They will collect any spilled graywater and dispose of it as hazardous waste (HW), IAW current directives.

c. Safety. Ensure the CBL subsystem is properly grounded prior to disconnecting power from the subsystem. Ensure all circuit breakers are OFF. Only a qualified technician will disconnect the subsystem's electrical pigtailed from the power source or power distribution system. Hot water may remain in the M80 water heater and CBL hoses after shutdown. Allow water to cool before attempting to disassemble the heater. Avoid skin

contact with graywater. Consider graywater as HW and use protection when performing any operation or maintenance involving graywater.

d. Demonstration (optional). If other soldiers from the Shower/Laundry Section have successfully performed the drill, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier to dismantle the CBL subsystem. The drill leader should answer all questions concerning the drill performance. Each soldier should explain their role in the drill, including the standards for which they are responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

**WALK-THROUGH INSTRUCTIONS:**

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader should conduct the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a deliberate pace on the first iteration as the "walk" phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

b. Initiating Cue. The drill leader gives the order to dismantle the CBL subsystem.

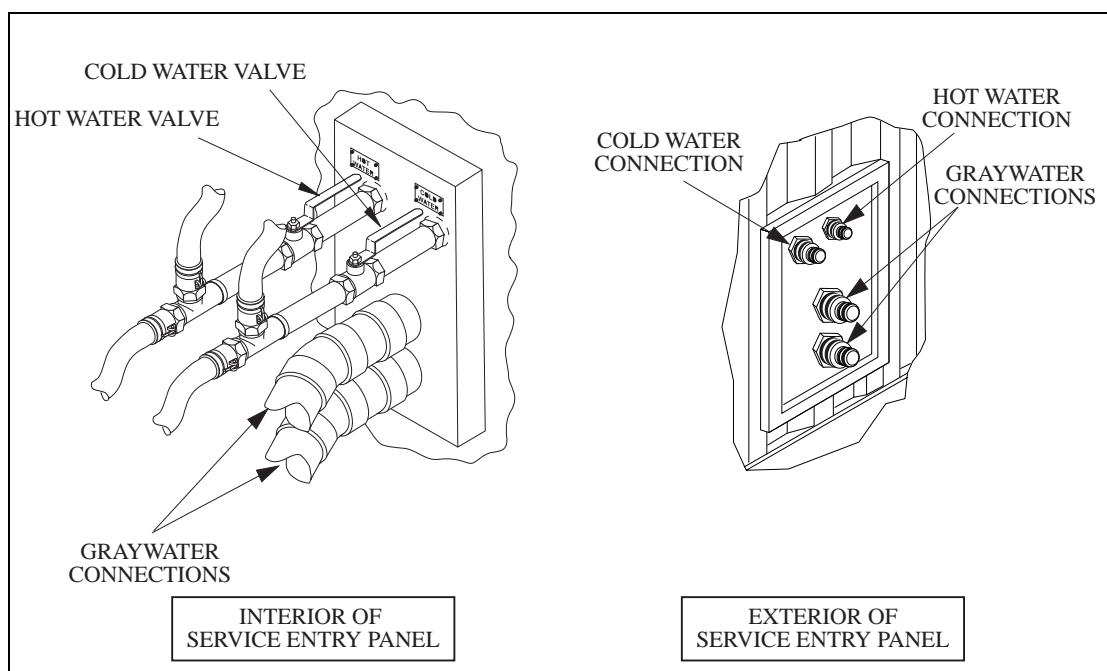
**Performance Measures:**

**COACHING POINT:** The drill leader, Preventive Medicine NCO, or section leader inspects the CBL for required cleanliness IAW higher HQ deployment directives and unit TSOP. Soldiers reclean components, as required, to meet these standards.

1. Soldiers 1 and 2 thoroughly clean the interior of the CBL including the inside and outside of the washer-extractors and dryers, the dryers' lint traps, and the washer-extractors' soap dispensers, IAW the unit TSOP and Preventive Medicine NCO instructions.

**COACHING POINT:** When the FP site shuts down, the Water Distribution System will send highly chlorinated water throughout the potable water supply system. The drill leader or personnel from the Water Distribution Section notifies the soldiers when the highly chlorinated water is available at the CBL site and when highly chlorinated water is no longer in the water distribution system.

2. Soldiers 1 and 2 operate washer-extractors to flush the CBL's potable water and graywater lines thoroughly with highly chlorinated water.
3. After the Water Distribution Section reports that highly chlorinated water is no longer in the water system, Soldiers 1 and 2 continue to operate washer-extractors to flush the residual highly chlorinated water from the CBL's potable water and graywater lines.
4. Soldiers 1 and 2 shut off the potable water supply at the CBL user connection point gate valve and close the hot and cold water valves at the water service panel inside the CBL ISO (turn the handles perpendicular to the water supply pipes). See Figure D-27.



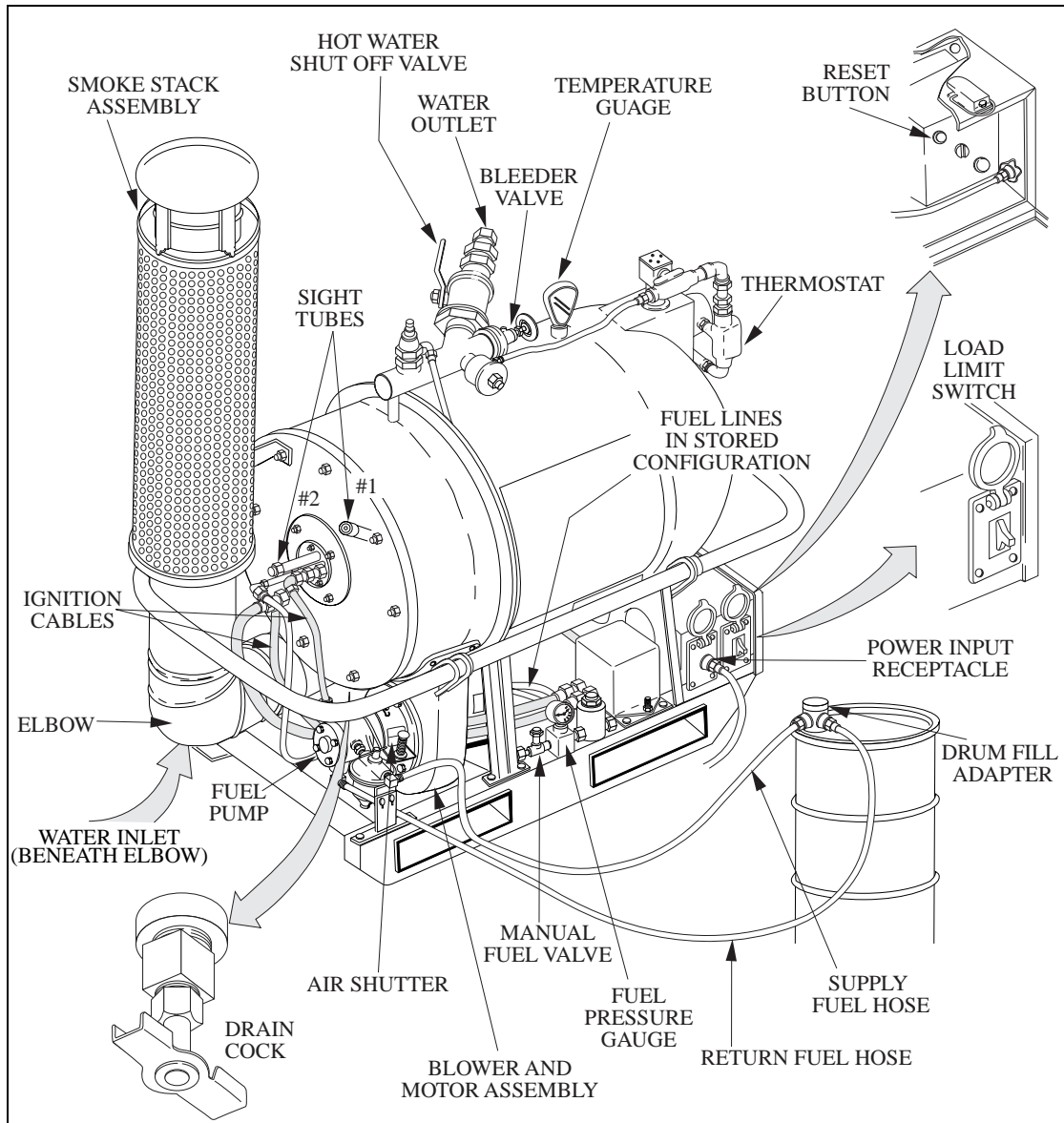
**Figure D-27. Interior and exterior water service entry panels on the CBL**

5. Soldiers 1 and 2 shut down the M80 water heater by doing the following:



- a. Turn the water temperature control to 0<sup>0</sup> Fahrenheit (F) (-18<sup>0</sup> Celsius [C]) and allow the water heater to operate for two minutes to purge vaporized fuel from the burner. See Figure D-28.
- b. Turn the load limit switch to the OFF position and close the manual fuel valve. See Figure D-28.
- c. Open the drain cock beneath the water tank and allow the hot water to drain from the tank.
- d. Close the drain cock when the water tank is empty.
- e. Disconnect all fuel lines and the drum fill adapter and drain any residual fuel into the fuel drum.
- f. Clean the outside of the drum fill adapter and set it aside for later repacking.
- g. Clean the outside of the fuel lines and pack them beneath the M80 water heater, IAW TM 10-4520-259-13&P.
- h. Position the fuel drums for collection by the Petroleum Distribution Section.

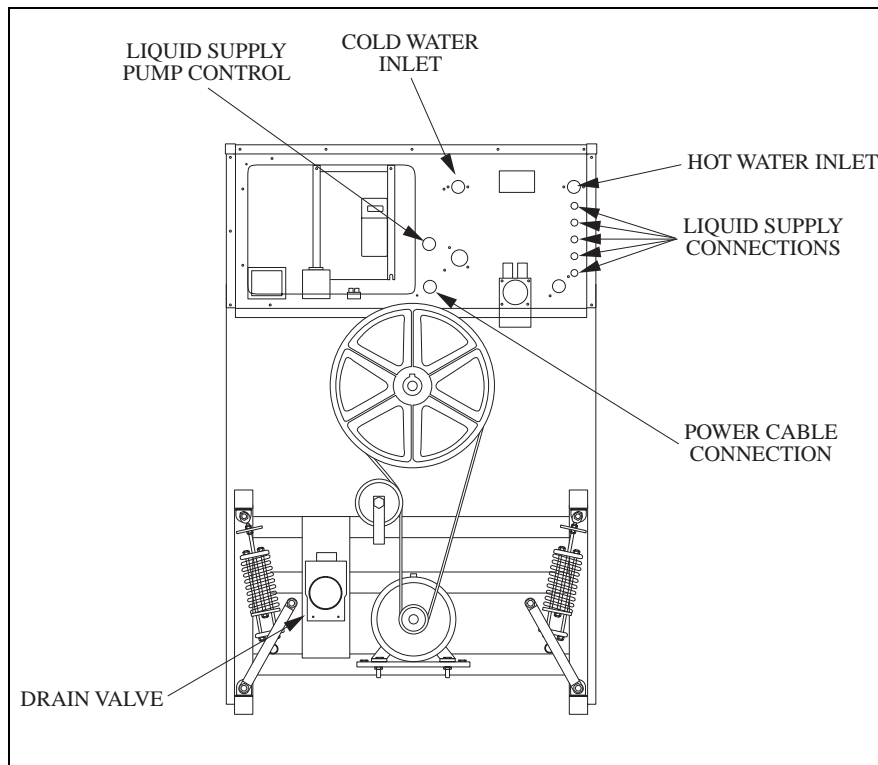
**COACHING POINT:** Continue the remainder of M80 water heater disassembly only after water in the hoses has cooled.



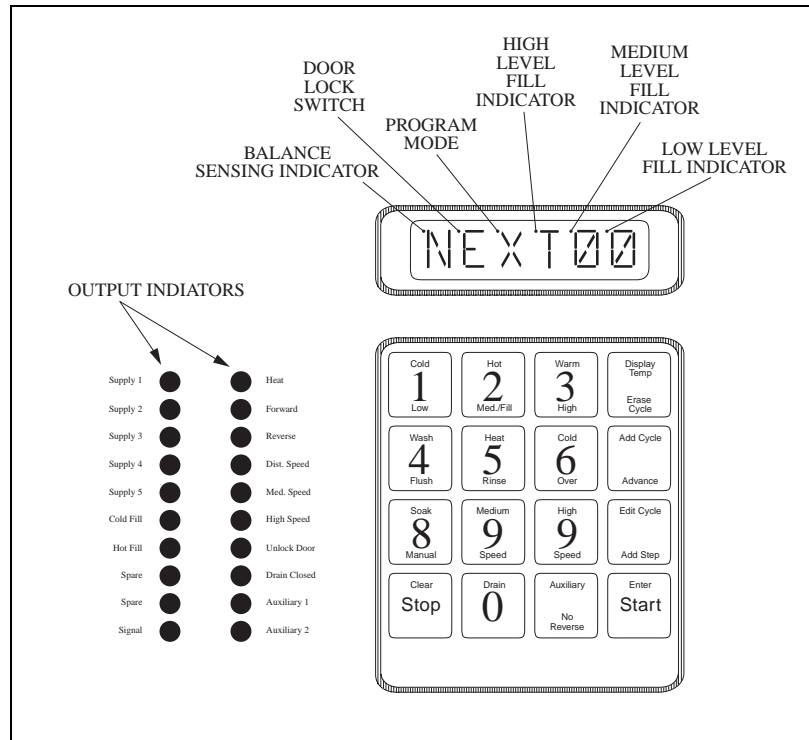
**Figure D-28. Key components of the M80 water heater**

6. Soldiers 1 and 2 prepare the washer-extractors for storage by doing the following:
  - a. Disconnect the CBL's cold water supply hose from the FP potable water system and drain it of potable water.
  - b. Replace the dust plug on the FP potable water supply hose.
  - c. Place the CBL's cold water supply hose into a 30-gallon container of nontoxic antifreeze solution.
  - d. Set the liquid supply control pump at the rear of the washer-extractors ON. See Figure D-29.
  - e. Enter cycle number 33 on the washer-extractors' computer keypad. See Figure D-30.

- f. Press the START button on the washer-extractors' computer keypad. See Figure D-30.
- g.



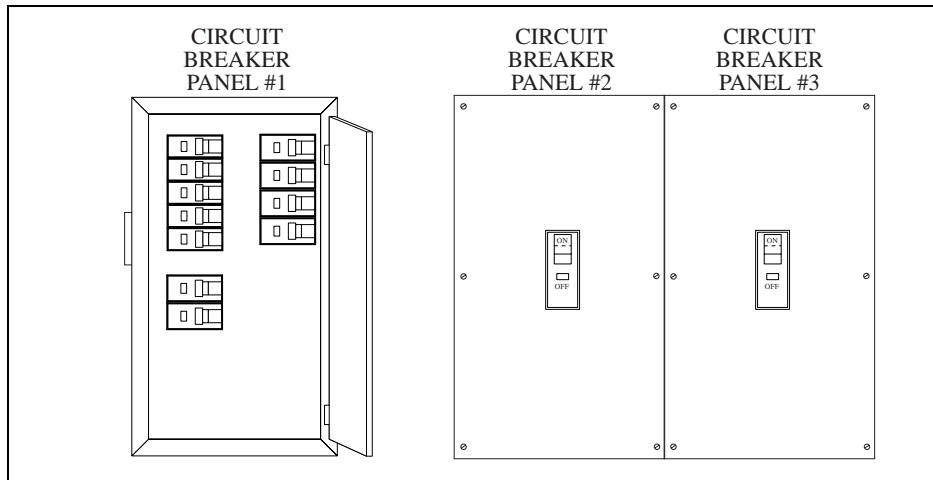
**Figure D-29. Containerized Batch Laundry washer-extractor (rear view)**



**Figure D-30. Washer-extractor computer keypad**

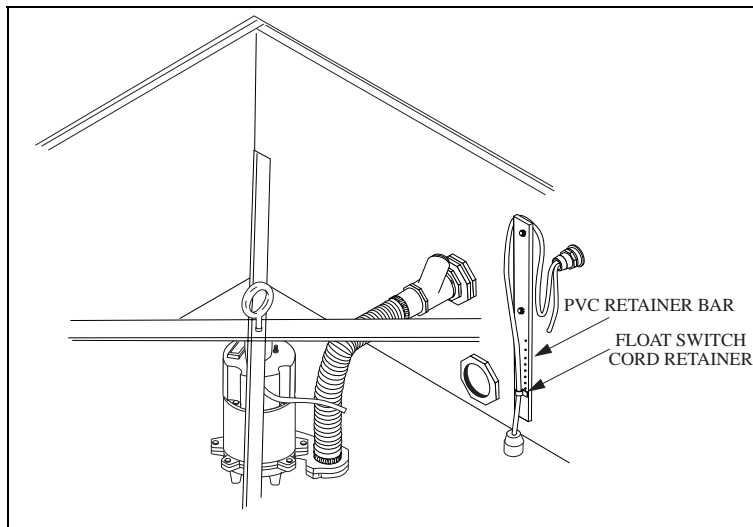
- g. Set the liquid supply control pump at the rear of the washer-extractors OFF when the cycle is complete. See Figure D-29.
  - h. Remove the CBL's cold water supply hose from the nontoxic antifreeze solution.
7. Soldiers 1 and 2 turn OFF the circuit breakers on circuit breaker panels #2 and #3 inside the CBL, turn OFF the circuit breaker on the TEMPER power distribution box, and turn OFF the power switch of the environmental control unit (ECU). See Figure D-31.

**NOTE:** Leave the circuit breakers on circuit breaker panel #1 ON until the SEP is disassembled and prepared for repacking.



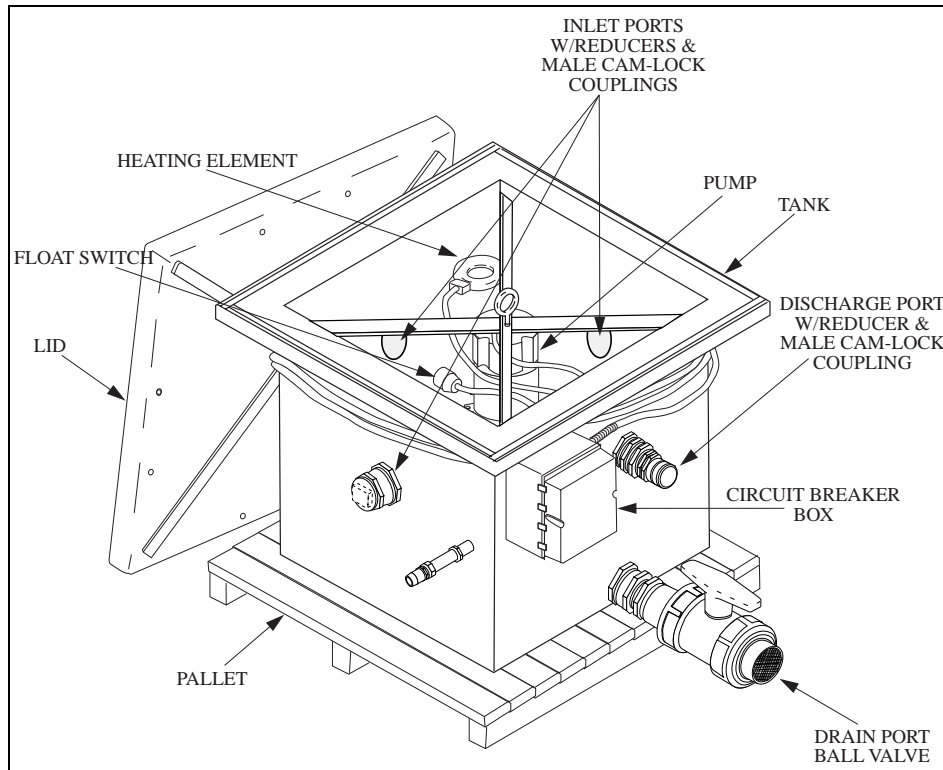
**Figure D-31. Circuit breaker panels inside the CBL ISO**

8. Soldiers 1 and 2 remove the lid from the SEP, lift the float switch to activate the pump, allow the pump to drain as much residual graywater from the tank as possible. See Figure D-32.



**Figure D-32. Sewage ejector pump float switch**

9. Soldier 1 notifies the WWVT/T team that they need to remove the remaining graywater from the SEP tank.
10. Soldiers 1 and 2 turn off all circuit breakers on circuit breaker panel #1, the SEP, and on the three PDISE-M100s. See Figures D-31, D-33, and D-34.



**Figure D-33. Sewage ejector pump controls and connections**

**WARNING:** ONLY QUALIFIED TECHNICIANS FROM THE FACILITIES SUPPORT SECTION WILL DISCONNECT THE PDISE-M100 FROM THE POWER SOURCE.

11. Soldier 1 notifies the Power Distribution Section to disconnect the three PDISE-M100s from the power generation source.
12. Soldiers 1 and 2 dismantle the CBL subsystem's electrical cables by doing the following:
  - a. Disconnect the T-cable from the SEP circuit breaker box and the M80 water heater power input receptacle. See Figures D-28 and D-33.
  - b. Disconnect the other end of the T-cable from the 20-amp outlet receptacle on electrical panel #1 and coil the T-cable neatly for repacking. See Figure D-35.
  - c. Disconnect the three 100-foot 60-amp service/feeder cables from the J3 or J4 60-amp output receptacle on PDISE-M100 #1, from each other, and from the POWER IN receptacle on the TEMPER power distribution box, and then reinstall their dust caps. See Figures D-34 and D-36.

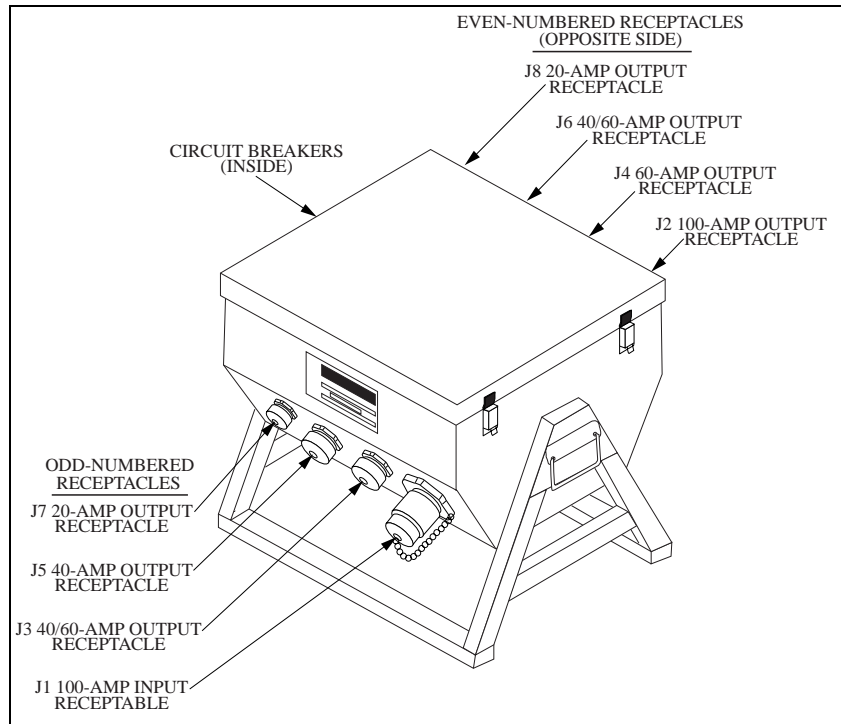


Figure D-34. PDISE-M100 receptacles and connections

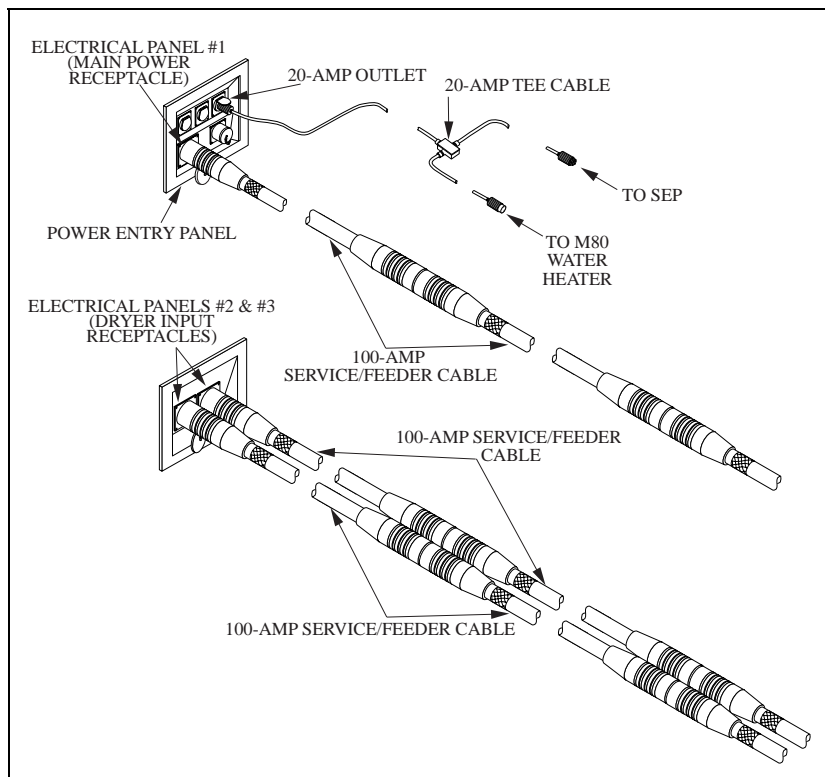
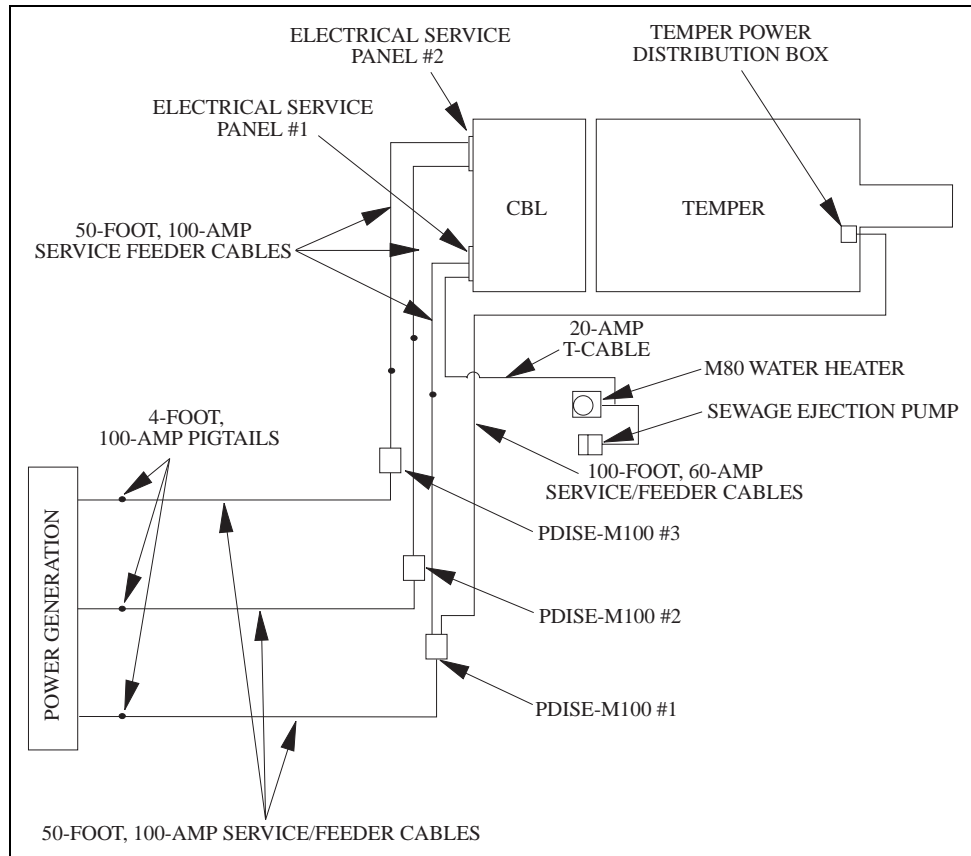


Figure D-35. Power cable connections to the CBL

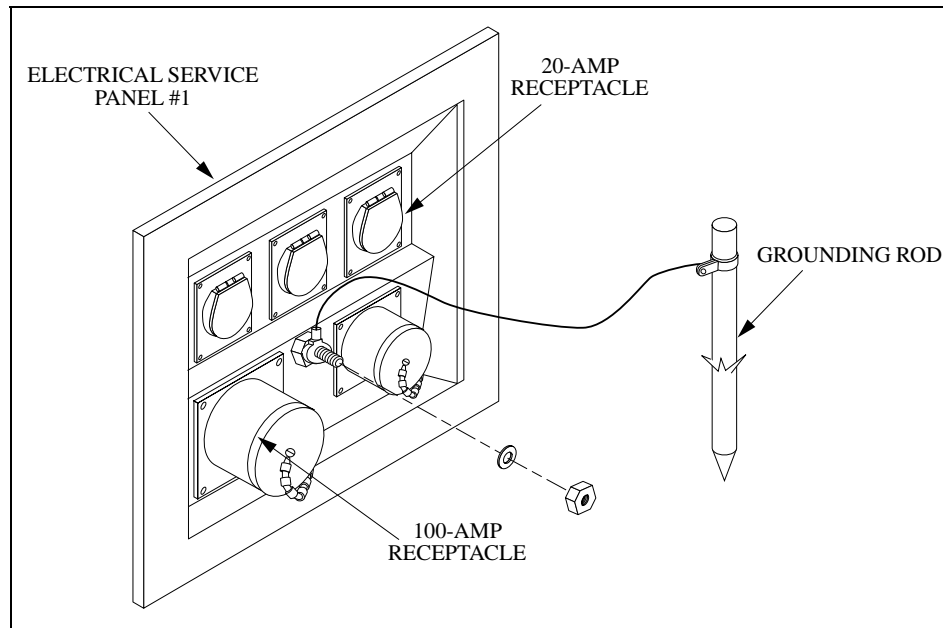


**Figure D-36. Layout of CBL electrical components and cables**

- d. Disconnect the two 50-foot 100-amp service/feeder cables from the J2 100-amp output receptacle on PDISE-M100 #2, from each other, and from the 100-amp receptacle on electrical service panel #2, and then reinstall their dust caps. See Figures D-34, D-35, and D-36.
- e. Disconnect the two 50-foot 100-amp service/feeder cables from the J2 100-amp receptacle output receptacle on PDISE-M100 #3, from each other, from the 100-amp receptacle on electrical service panel #2, and then reinstall their dust caps. See Figures D-34, D-35, and D-36.
- f. Disconnect the two 50-foot 100-amp service/feeder cables from the J2 100-amp output receptacle on PDISE-M100 #1, from each other, from the 100-amp receptacle on electrical service panel #1, and then reinstall their dust caps. See Figures D-34, D-35, and D-36.
- g. Clean surfaces of all electrical cables and the outside and face of the PDISE-M100s of dirt and debris using cloths, brushes, warm water, and detergent, and allow them to dry.
- h. Coil each 100-amp cable into a neat coil with a diameter no more than 26 inches and secure each coil with two 4-inch carrying straps.



- i. Coil each 60-amp cable into a neat coil with a diameter no more than 30 inches and secure each coil with two 4-inch carrying straps.
  - j. Position the PDISE-M100s and electrical service/feeder cables in the staging area for repacking.
13. Soldiers 1 and 2 unground the CBL ISO by doing the following:
- a. Remove the grounding rod from the earth. See Figure D-37.
  - b. Disconnect the grounding cable from electrical service panel #1, coil the cable around the ground rod, and place the rod and cable aside for later repacking. See Figure D-37.



**Figure D-37. Grounding connection to electrical service panel #1**

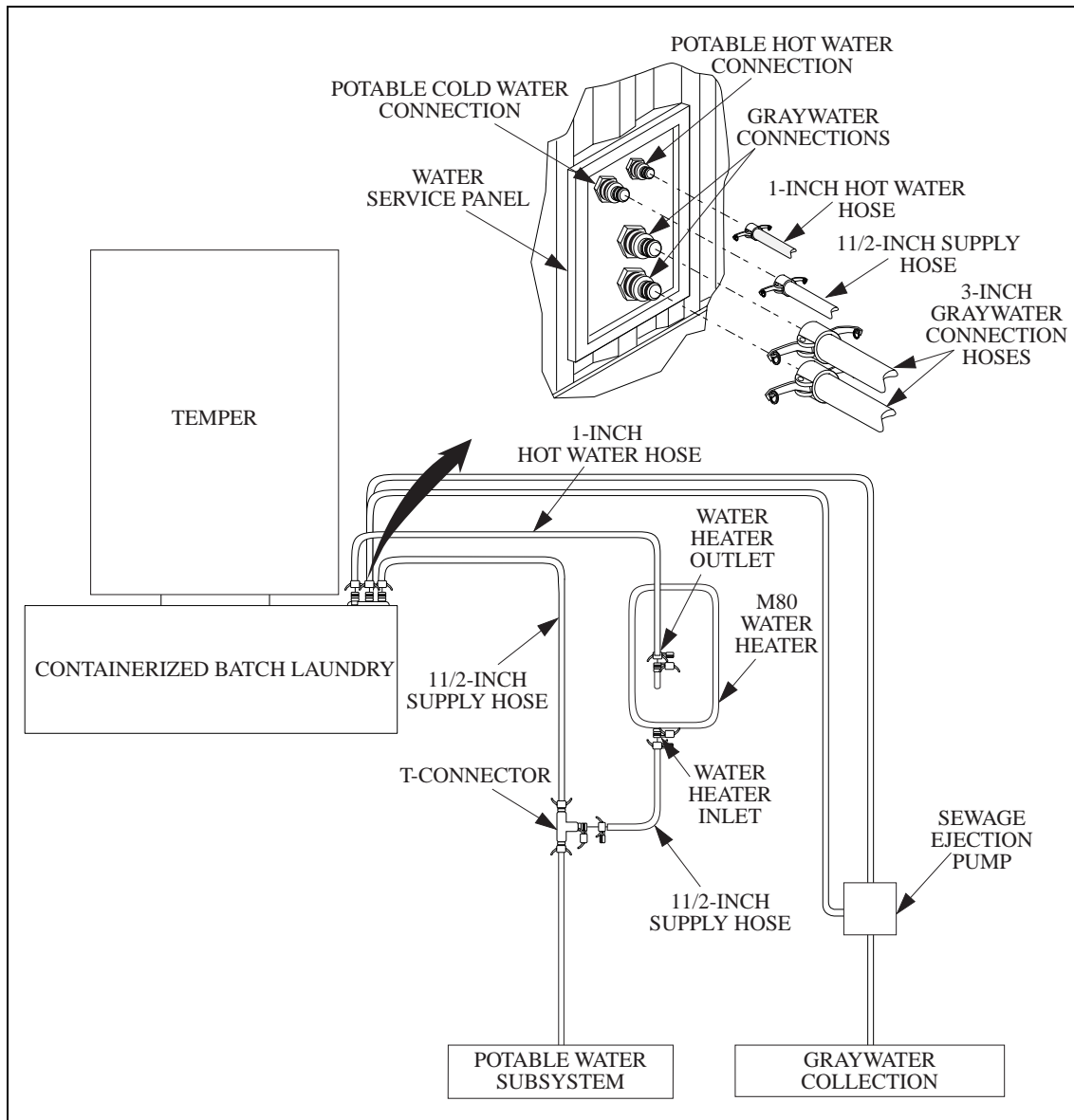
**COACHING POINT:** When the soldiers have disassembled the CBL's electrical components correctly, direct them to disassemble the potable water supply.

14. Soldiers 1 and 2 prepare the potable water supply lines for repacking by doing the following:

**COACHING POINT:** Stress that the soldiers must keep the open (connector) ends of the water hoses clean and not allow them to fall or rest on the ground where they can become contaminated with dirt or other debris.

- a. Disconnect the 1-inch hot water hose from the M80 water heater and the hot water port on the CBL service entry panel. See Figure D-38.

- b. Disconnect the 1½-inch supply hose from the 1½-inch T-connector and the cold water port on the CBL service entry panel. See Figure D-38.
- c. Disconnect the other 1½-inch supply hose from the other side of the 1½-inch T-connector and the M80 water heater inlet. See Figure D-38.
- d. Disconnect the potable water supply hose, which the Water Distribution provided, from the T-connector, and reinstall the dust plugs and caps. See Figure D-38.
- e. Drain the CBL potable water supply hoses by lifting one end of a hose overhead and walking toward the other end, and reinstall the dust plugs and caps.



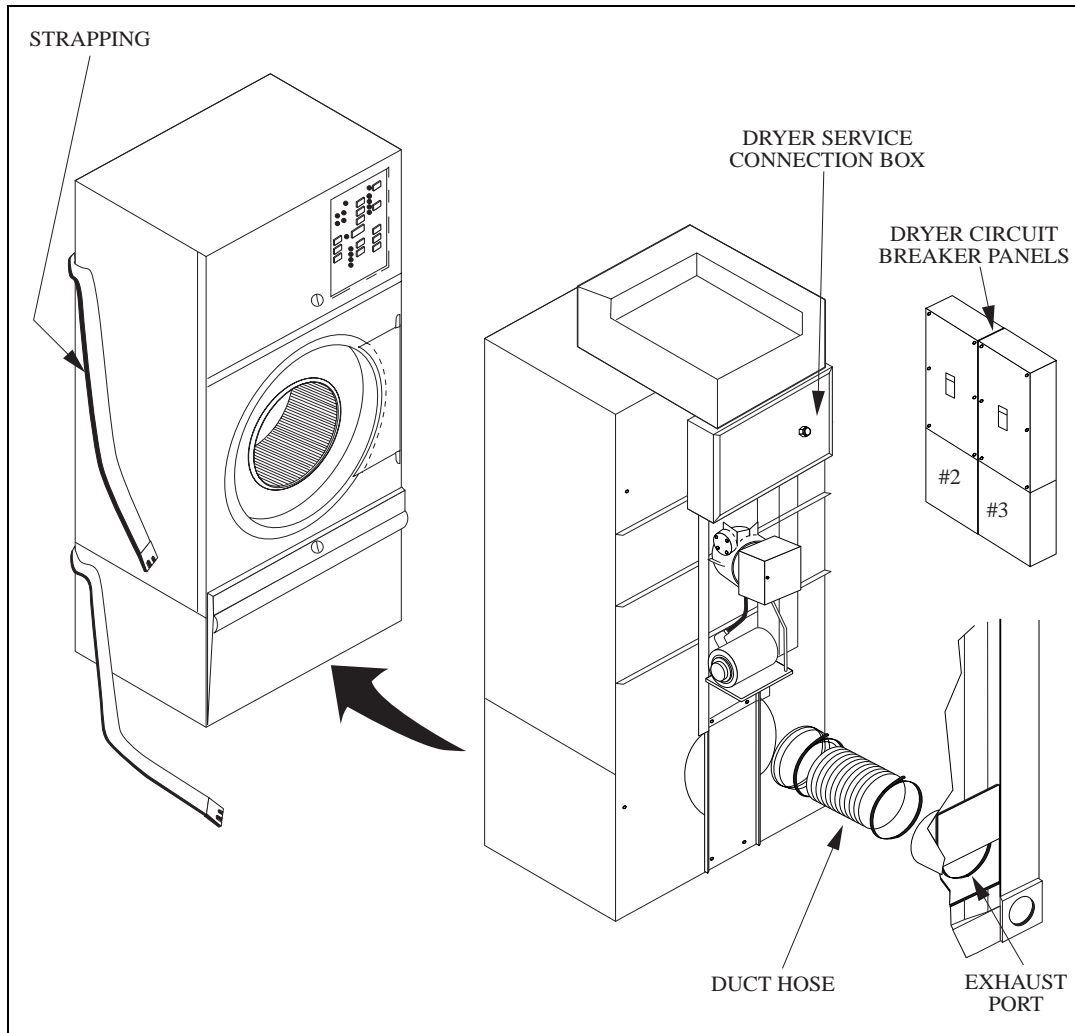
**Figure D-38. Layout of the CBL potable water supply and graywater collection hoses**

- f. Clean the exterior of all potable water supply hoses and T-connector of dirt and debris using soap and water and allow to dry.
- g. Coil all potable water supply hoses and place them and the T-connector aside for later repacking inside the CBL ISO.

**COACHING POINT:** When the soldiers have disassembled the CBL's potable water hoses correctly, direct them to disassemble the graywater collection components.

- 15. Soldiers 1 and 2 prepare the graywater collection lines for repacking by doing the following:
  - a. Disconnect the two 3-inch graywater collection hoses from the CBL's service entry panel. See Figure D-38.
  - b. Drain the two 3-inch graywater collection hoses into the SEP by lifting one end overhead and walking the hoses to the other end, and then reinstall their dust plugs and caps.
  - c. Disconnect the two 3-inch graywater collection hoses from the aluminum quick disconnect (QD) couplings of the SEP, and then reinstall their dust plugs and caps. See Figures D-33 and D-38.
  - d. Clean the exterior of the hoses of dirt and debris, using soap and water, coil then neatly, and set them aside for later repacking.
  - e. Disconnect the graywater collection hose from the SEP outlet port.
  - f. Coil the hose and leave it for the Water Distribution Section to recover.
  
- 16. Soldiers 1 and 2 prepare the SEP for movement by doing the following:
  - a. Reconnect the float switch cord retainer. See Figure D-32.
  - b. Clean the interior and exterior of the SEP with soap and water and then drain the tank by opening the drain port.
  - c. Replace the PVC plugs in the inflow ports.
  - d. Remove the ball valve from the drain port and store it inside the tank. See Figure D-33.
  - e. Remove the 2½-inch PVC nipple and bushing from the drain port and store it inside the tank. See Figure D-33.
  - f. Remove the 3-inch x 2-inch NPT reducer and 2-inch NPT x 2-inch cam-lock coupling half from the SEP, and carry them to the staging area for repacking. See Figure D-33.
  - g. Disconnect the heating element (if installed) and store it inside the tank. See Figure D-33.
  - h. Replace the SEP lid and secure it with the retainers. See Figure D-33.

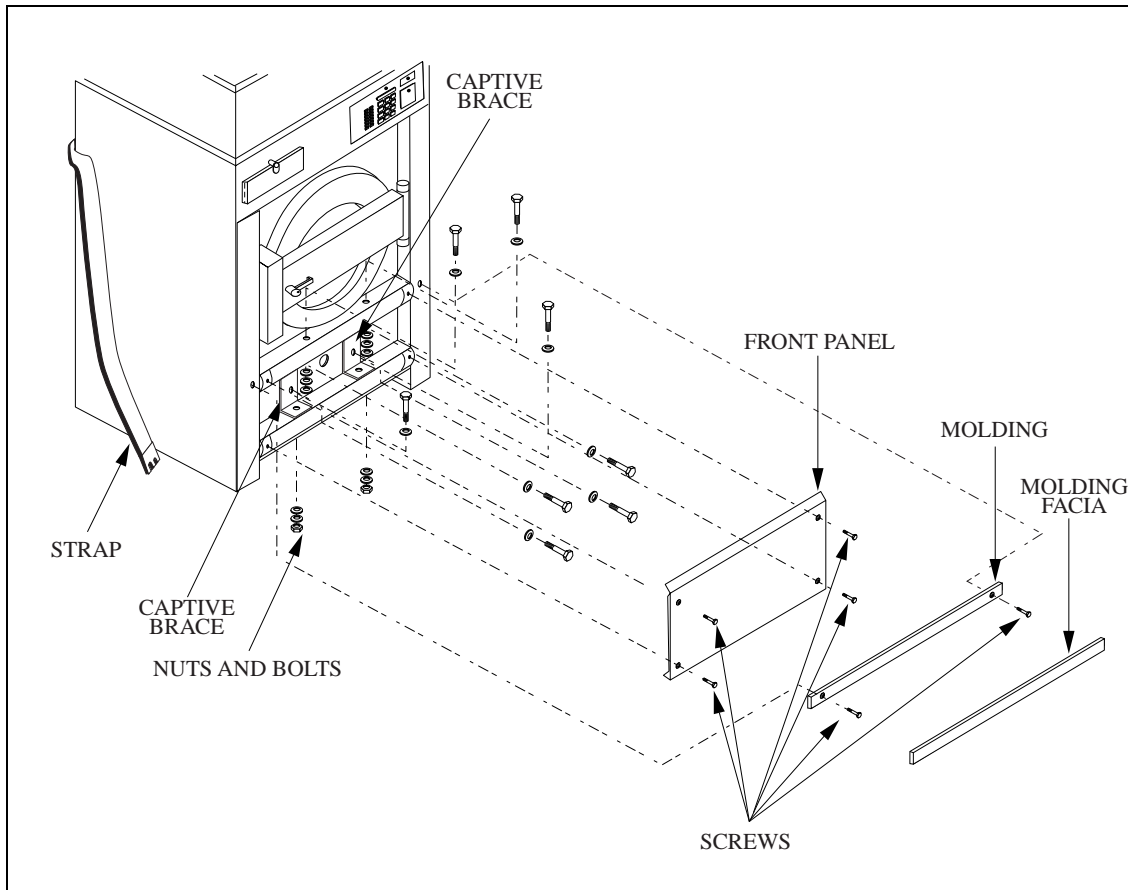
- i. Check the condition of the pallet and request a replacement if the pallet has deteriorated to the point that it may not support the SEP during shipment.
  - j. Move the SEP to the staging area using a fork lift.
17. Soldiers 1 and 2 prepare the dryers for movement by doing the following:
- a. Loosen the clamps on the exhaust duct hoses, remove the exhaust duct hoses, check the exhaust hoses for damage, and repack the exhaust duct hoses in the equipment box. See Figure D-39.
  - b. Perform actions necessary to ship or store the dryers, IAW their commercial technical manual.
  - c. Pack dryer components and accessories, IAW TM 10-3510-223-13&P (CBL) and unit TSOP instructions.
  - d. Locate the two web shipping straps for the dryers, position the shipping straps across the front of the dryers, and then tighten the straps so the dryers are secure. See Figure D-39.



**Figure D-39. Preparation of the dryers for movement and storage**

18. Soldiers 1 and 2 prepare the washer-extractors for movement by doing the following:
  - a. Pull off molding facia carefully and then remove the molding and front panel by taking out their screws. See Figure D-40.
  - b. Locate strapping and captive braces with nuts and bolts, and then install the captive braces using the nuts and bolts. See Figure D-40.
  - c. Reinstall the front panel and molding facia.
  - d. Perform necessary actions to ship or store the washer-extractors, IAW their commercial technical manual.
  - e. Pack washer-extractor components and accessories, IAW TM 10-3510-223-13&P (CBL) and unit TSOP instructions.
  - f. Locate the two web shipping straps for the washer-extractors, position them across the front of the washer-

extractors, and then tighten the straps so the washer-extractors are secure. See Figure D-40.



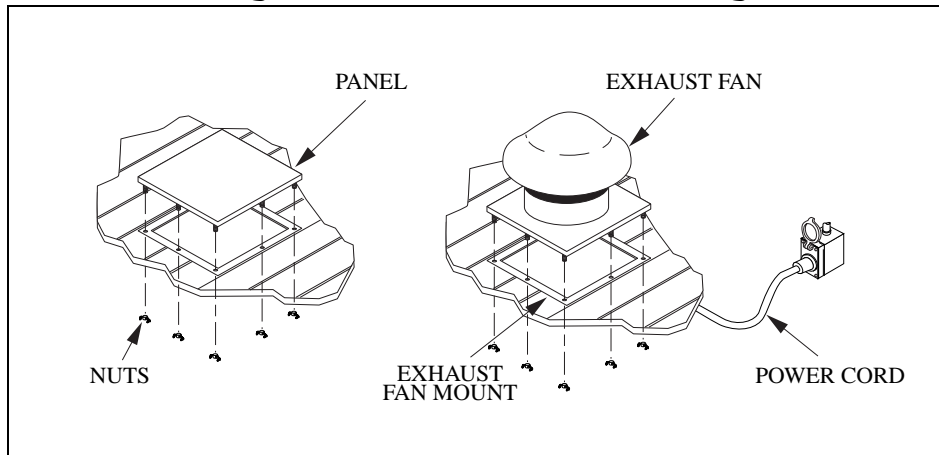
**Figure D-40. Preparation of the washer-extractors for movement and storage**

19. Soldiers 1 and 2 complete the disassembly of the M80 water heater by doing the following:
  - a. Disconnect the smoke stack and smoke pipe guard assembly. See Figure D-28.
  - b. Clean the M80 water heater for shipment, IAW TM 10-4520-259-13&P
  - c. Pack M80 water heater components and accessories, IAW TM 10-4520-259-13&P and TM 10-3510-223-13&P (CBL).

**COACHING POINT:** Make Soldiers 3 and 4 available at this time to assist in dismantling the CBL ISO exhaust fan.

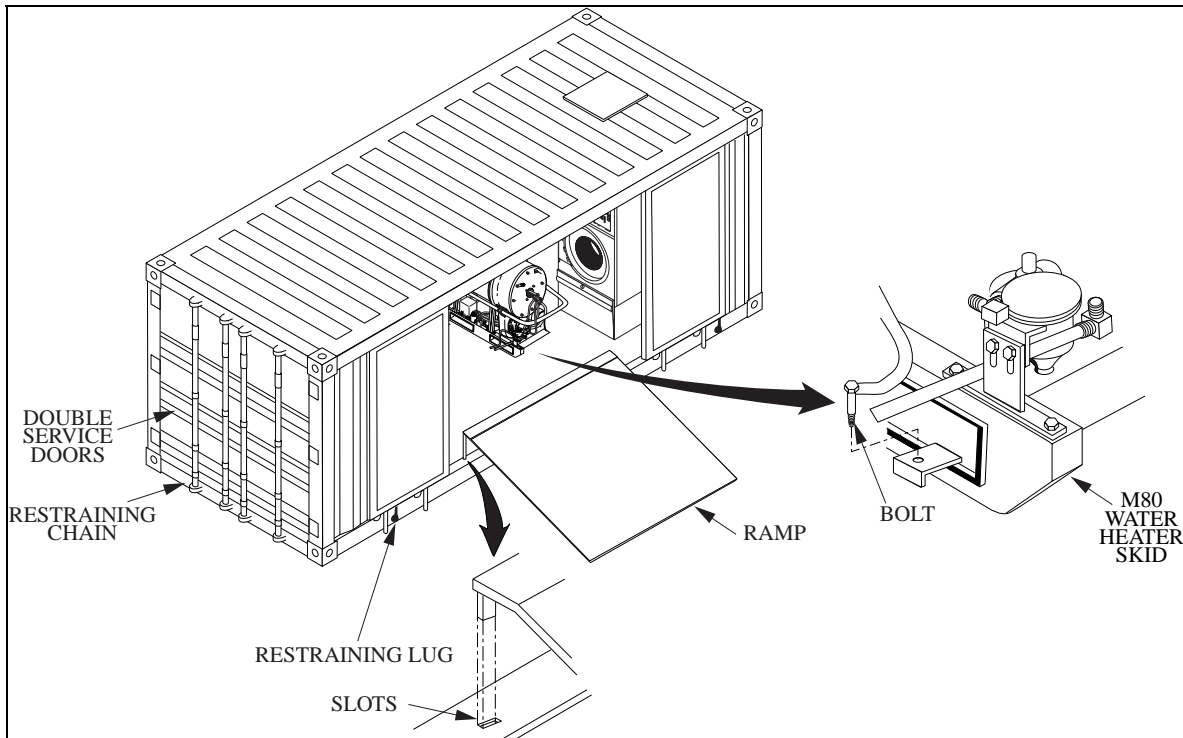
20. Soldiers 1 through 4 dismantle the CBL ISO exhaust fan by doing the following:

- a. Soldier 1 unplugs the exhaust fan's power cord from the power outlet.
- b. Soldiers 3 and 4 recover the exhaust fan panel from its storage place and climb to the top of the CBL ISO.
- c. Soldiers 1 and 2 remove the eight nuts in the exhaust fan from the ceiling of the CBL ISO. See Figure D-41.



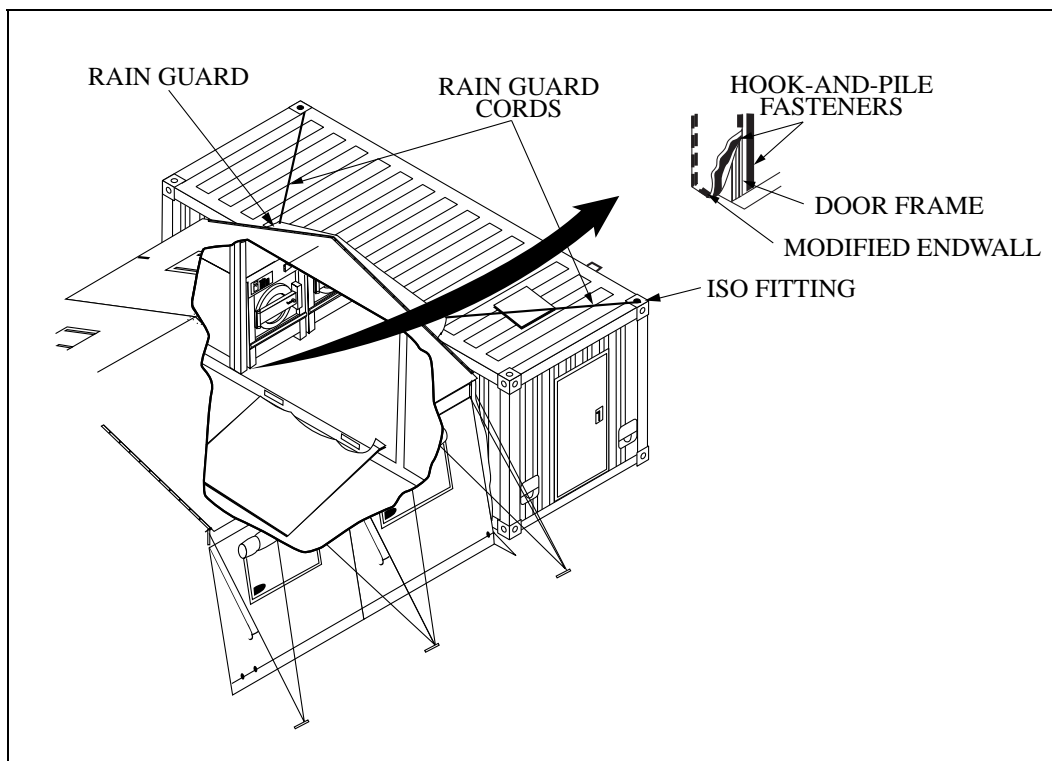
**Figure D-41. Dismounting the exhaust fan on top of the CBL ISO**

- d. Soldiers 3 and 4 remove the exhaust fan and pass it to Soldiers 1 and 2 on the ground.
  - e. Soldiers 1 and 2 reinstall the eight nuts onto the exhaust fan panel's studs. See Figure D-41.
  - f. Soldiers 3 and 4 carry the exhaust fan to the staging area for repacking.
21. Soldiers 1 and 2 remove the metal ramp from the frame of the CBL ISO's double entrance doors and place it out of the way until the work area TEMPER has been dismantled. See Figure D-42.



**Figure D-42. Components of the CBL ISO**

22. Soldiers 3 and 4 climb to the top of the CBL ISO and untie the rain guard cords from the ISO fittings. See Figure D-43.



**Figure D-43. Disconnecting the modified endwall from the CBL ISO**



23. Soldiers 3 and 4 disconnect the hook-and-pile fasteners of the rain guard from those on the top of the CBL ISO. See Figure D-43.

24. Soldiers 1 through 4 disconnect the hook-and-pile fasteners that attach the TEMPER modified endwall to the double entrance door frame of the CBL ISO.

**COACHING POINT:** Make Soldiers 5 through 10 available at this time to assist in dismantling the TEMPER.

25. Soldiers 5 through 10 move all furniture and equipment from inside the laundry work area TEMPER to the staging area for repacking.

26. Soldiers 1 through 10 dismantle and clean the TEMPER and its components, IAW Drill 42-2-D0003, *Dismantle the Four-Section TEMPER*.

27. Soldiers 1 through 10 carry the dismantled TEMPER, its modified endwall, power distribution box, fluorescent lights, and convenience outlets to the staging area for repacking.

28. Using a fork lift, Soldiers 5 through 10 move the ECU to the staging area for repacking.

29. Soldiers 1 and 2 replace the metal ramp at the double door entrance to the CBL ISO if a six-person lift is used to position the M80 water heater inside the CBL ISO.

**COACHING POINT:** If a fork lift will be used to position the M80 water heater inside the CBL ISO, direct Soldiers 1 and 2 to take the metal ramp to the staging area.

30. Using a fork lift or a minimum six-person lift, position the M80 water heater inside the CBL ISO.

**COACHING POINT:** Release Soldiers 3 through 10 from the drill at this time.

31. Soldiers 1 and 2 replace the bolts that hold the M80 water heater to the floor. See Figure D-43.

32. Soldiers 1 and 2 prepare the CBL components and equipment for movement and storage by doing the following:

- a. Perform preventive maintenance checks and services (PMCS) on the CBL, IAW TM 10-3510-223-13&P (CBL).

- b. Repack the CBL, IAW TM 10-3510-223-13&P (CBL) and unit TSOP.
- c. Close and latch all the CBL doors.

RUN-THROUGH: The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader conducts the initial run-through slowly. To learn all the performance steps, the soldiers should change positions during subsequent iterations of the drill.

PERFORM: When the soldiers can perform this drill according to the standards, the section leader should evaluate their performance.

**CREW DRILL 42-2-D0006**

**Set Up and Maintain the Containerized Latrine (CL)**

**TASK:** Set up and maintain the CL.

**CONDITIONS:** The Force Provider (FP) company or platoon has occupied an operational site for an FP module. The site has been prepared in accordance with (IAW) the site plan and is secure. The potable water distribution and power generation subsystems have been set up and are operational. The four CL subsystems have arrived at the site and have been positioned IAW the staking plan. All CL subsystem components have been inventoried, are present, and are in serviceable condition. Two soldiers have been assigned to set up and maintain one CL subsystem. Two additional soldiers are available initially to assist in the installation of the environmental control unit (ECU). After the ECU is installed, these two additional soldiers are released.

**NOTE:** Use of the 3,000-gallon collapsible fabric water tank is optional. It is a backup water supply for the potable water distribution subsystem. If the 3,000-gallon tank will be used, the tank and an electric water pump must be obtained from the Water Distribution Section. The set up, maintenance, and operation of the 3,000-gallon tank and electric water pump are not covered in this drill.

**STANDARD:** The CL subsystem is set up so that latrine facilities are available to satisfy tenant unit requirements.

**SUPPORTING INDIVIDUAL TASK:** To be determined (TBD).

**SETUP INSTRUCTIONS:**

a. Resources.

- (1) One complete CL subsystem contained in an International Standards Organization (ISO) container.
- (2) One general mechanic's automotive tool kit.
- (3) One carpenter's tool kit.
- (4) (Optional) One 3,000-gallon collapsible fabric water tank (provided and set up by the Water Distribution Section).
- (5) (Optional) One 30-gallon-per-minute (gpm) electric water pump (provided and set up by the Water Distribution Section).
- (6) At least two 20-foot 1½-inch potable water supply hoses (provided and set up by the Water Distribution Section) to connect the CL to the potable water supply subsystem.

(7) One power distribution illumination systems equipment (PDISE)-M100 (provided and set up by the Facilities Support Section).

(8) Two 100-foot 60-amp service/feeder cables (provided and set up by the Facilities Support Section) to connect from PDISE-M100 to CL power service panel.

(9) Five-ton fork lift to position the CL. (One of the soldiers should be qualified to operate the fork lift. If none is qualified, a fork lift operator will be needed.)

(10) Two Laundry or Shower Specialists to set up, maintain, and operate the CL, and an additional two soldiers to assist in installing the ECU.

(11) Technical documentation, including all applicable technical manuals (TMs) and commercial instructions supplied with the CL subsystem components.

b. Training Site. Position the CL in the center of a 200-by 200-foot level area that provides sufficient space to extend the water hoses and electrical cables to their connection points.

c. Unit Instructions. The Laundry/Shower Section soldiers should be brought to the CL subsystem. The drill leader has made a reconnaissance of the area and ensured that all equipment is present and operational, and that the site meets CL requirements. The four soldiers selected to set up the CL subsystem are designated by number (i.e., Soldier 1, Soldier 2, Soldier 3, and Soldier 4). Soldiers 3 and 4 will be released after the ECU has been installed in the CL ISO. To fully exercise the CL subsystem, the potable water and power generation subsystems must also be operational.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains two soldiers to work together to set up the CL subsystem correctly, conduct the initial operation and checks, and maintain the CL site IAW the pertinent technical publications. Assign each soldier a different number during subsequent drill iterations so each learns all of the steps and standards for setting up the CL subsystem, performing the initial operations and checks, and maintaining the CL.

b. Environmental Stewardship. Two personnel will set up the CL and maintain its components to support the tenant unit. They must constantly monitor the supply lines and connections for leaks and rapidly shut off the water supply if they detect leaks. Blackwater is considered a biological hazard (bio-hazard). Any blackwater spills will be treated as hazardous waste (HW) and disposed of according to current directives. The soldiers performing this drill must ensure that the holding tanks are

emptied daily to preclude backup and contamination of the facility.

c. Safety. Prior to applying electrical power to the shower, the drill leader, supervisor, or a qualified electrician will inspect the subsystem to ensure it is properly grounded. Ensure all circuit breakers are OFF prior to powering the CL initially. Wear leather gloves and eye protection when driving the grounding rod into the earth. Ensure all water hoses and power cables do not come in contact with, or cross over, each other. If power cables must cross water lines, ensure the power cables cross over top of the water hoses. Do not lay power cables across access or service roads. Only a qualified technician will connect the subsystem's electrical pigtailed to the power source or power distribution system. Ensure that potable water has filled the water heater and that the heater switch is OFF prior to setting the water heater circuit breaker switch to the ON position. Consider blackwater as HW and use protection when performing any operation or maintenance involving blackwater.

d. Demonstration (optional). If other soldiers from the Shower/Laundry Section have successfully set up another CL subsystem, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in setting up the CL subsystem. The drill leader can illustrate the steps with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should explain their role in the drill, including the standards for which they are responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader conducts the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a deliberate pace on the first iteration as the "walk" phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the

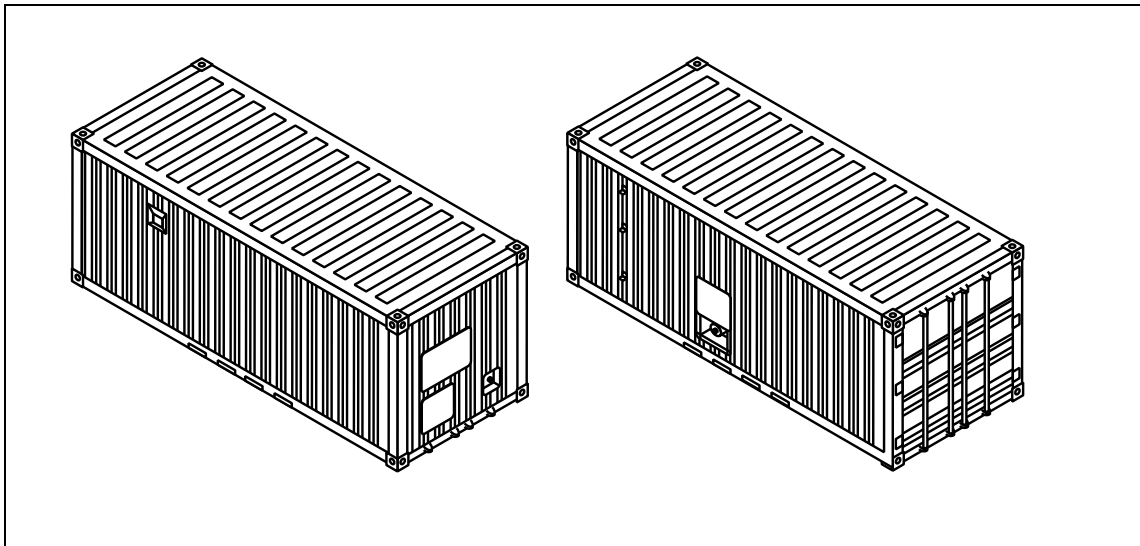
sequence listed, and all soldiers should perform their task steps simultaneously.

B. Initiating Cue. The drill leader gives orders to set up the CL subsystem and to conduct initial operations and checks.

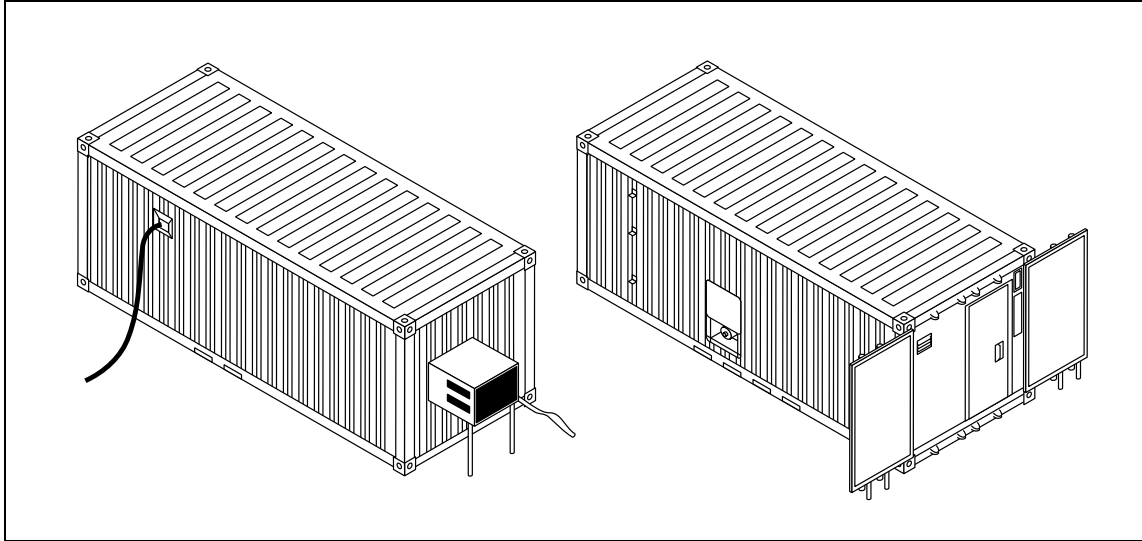
Performance Measures:

**COACHING POINT:** Soldiers 3 and 4 are available initially to help install the ECU.

1. Soldiers 1 and 2 check the CL ISO for level crosswise and lengthwise using a carpenter's level.
2. If the ISO must be leveled, use a fork lift to raise the CBL ISO and Soldiers 1 and 2 place flat stones, blocks, or lumber under the low corner(s) of the CBL ISO to level it lengthwise and crosswise.
3. Soldiers 1 and 2 unlatch the right- and left-hand service doors, securing them open by looping the safety catch over the hooks on the CL frame. The two soldiers then enter the CL through the main entrance door. See Figures D-1 and D-2.

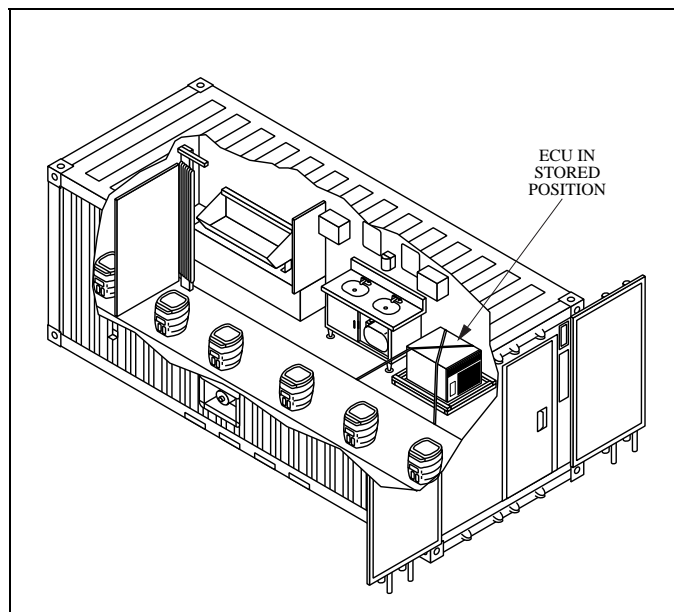


**Figure D-1. Containerized Latrine in stored configuration**

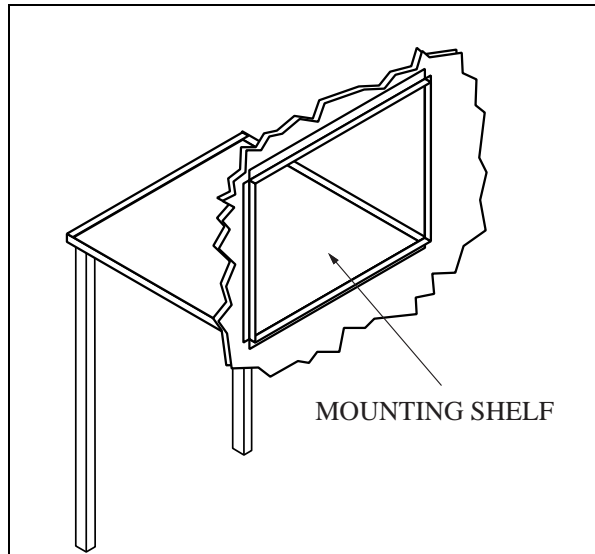


**Figure D-2. Containerized Latrine in deployed configuration**

4. Soldier 1 removes the strapping from the ECU, placing it beneath the sink. See Figure D-3.
5. Soldiers 1 and 2, inside the CL, and Soldiers 3 and 4, outside the CL, remove the ECU from inside the CL and carry it and the ECU support shelf legs to the rear of the CL near the ECU access panel.
6. Soldier 1 opens ECU access panel at the rear of the CL and the lowers the mounting shelf from outside the CL. See Figure D-4.

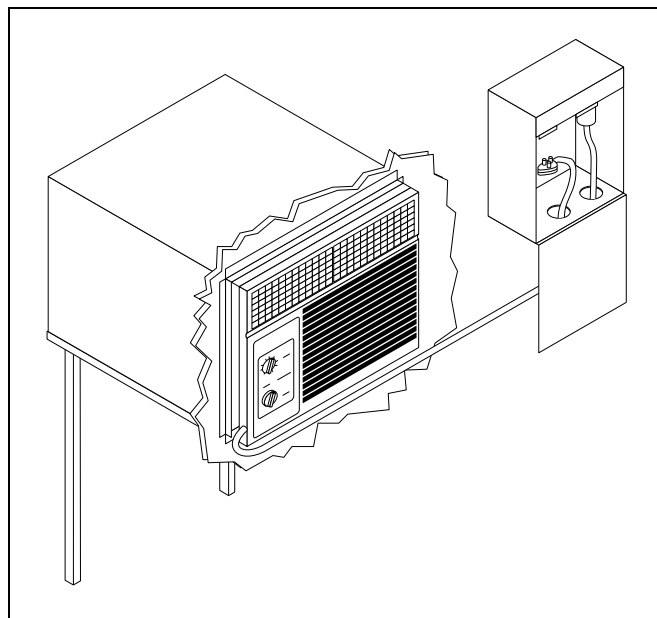


**Figure D-3. Interior of Containerized Latrine**



**Figure D-4. ECU mounting shelf with support legs attached**

7. Soldier 2 attaches the support legs to the mounting shelf.  
See Figure D-4
8. While Soldier 1 pulls and guides the ECU from inside the CL, Soldiers 2, 3, and 4 lift and slide the unit onto its mounting shelf from outside the CL, and position the ECU so that its power cord is inside the CL and control panel is flush with the inside wall. See Figure D-5.



**Figure D-5. ECU mounted on shelf and location of its power box outlet**



**COACHING POINT:** Release Soldiers 3 and 4 from the drill at this time.

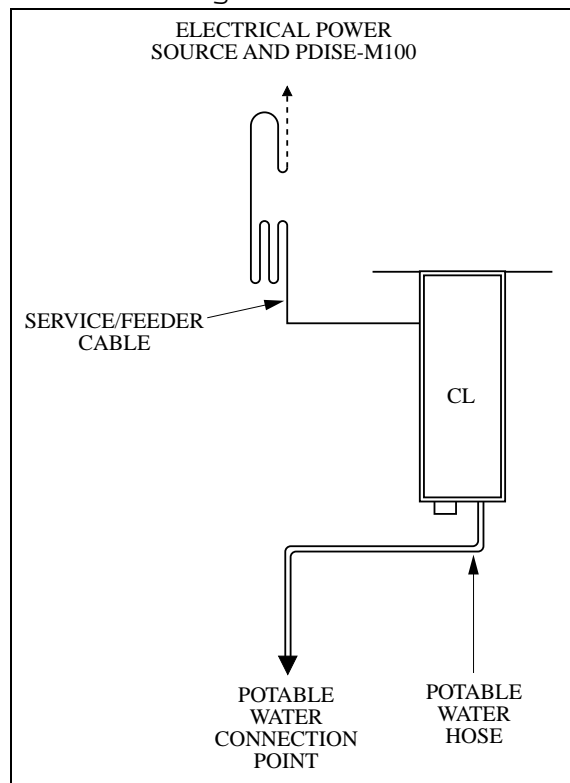
9. Soldier 1 plugs the ECU's power cord into the outlet on the rear wall and then attaches the protective grill to the front of the unit. See Figure D-5.

**NOTE:** The Water Distribution Section connects the potable water supply hose from the main line to the supply hoses leading to the CL. The soldiers connect the supply hose to the CL water service panel. Potable water supply must be connected to the CL before applying electrical power to the CL.

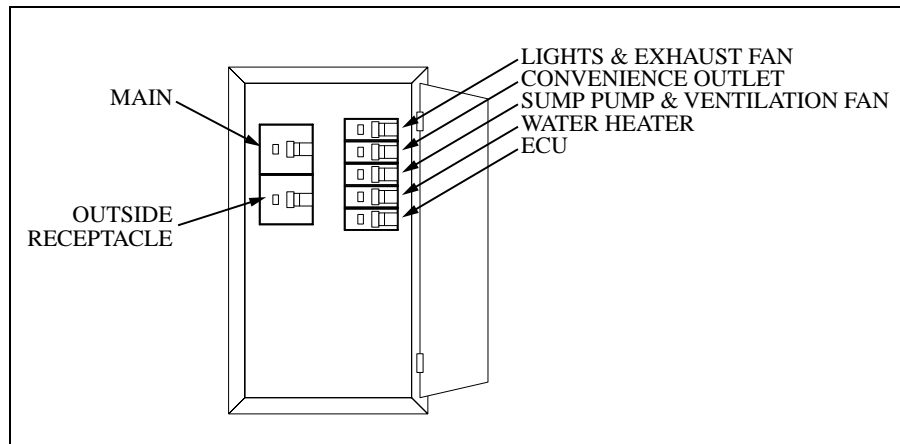
10. Soldiers 1 and 2 connect the 1½-inch potable water supply hose (from the potable water source) to the upper fitting on the water service panel on the CL, and then connect their dust cap and plug together. See Figure D-6.

11. Soldier 1 ensures that all circuit breakers on the circuit breaker panel inside the CL are set to the OFF position. See Figures D-7 and D-8.

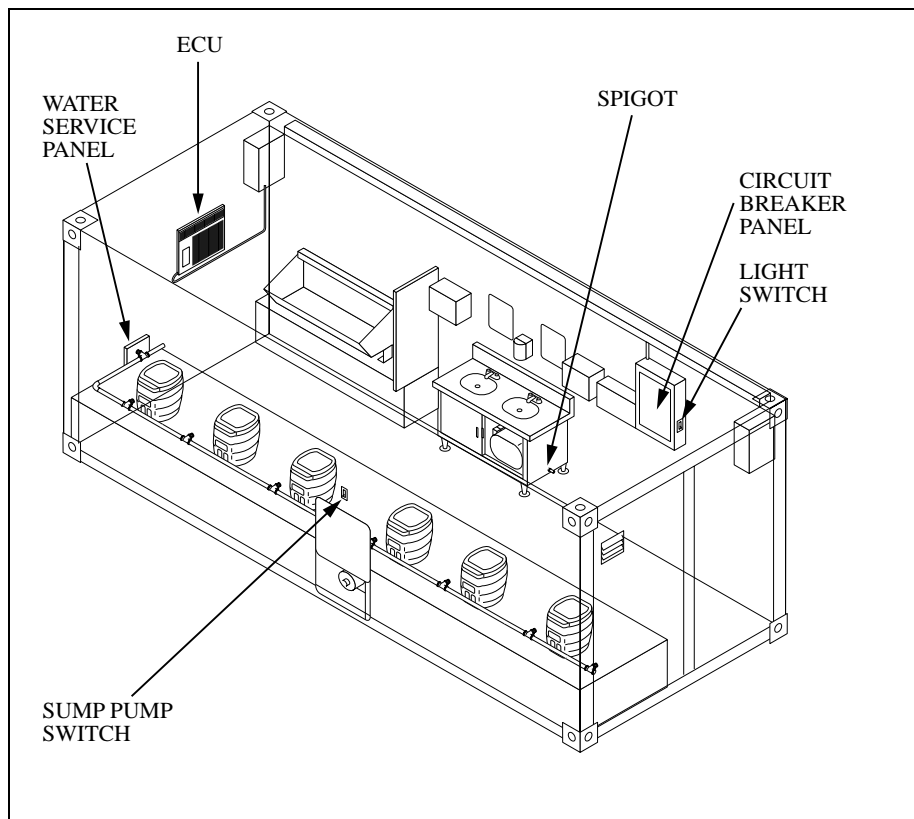
12. Soldier 2 ensures that the 60-amp circuit breaker for the CL electrical service/feeder cable in the PDISE-M100 is set to the OFF position. See Figures D-6 and D-9.



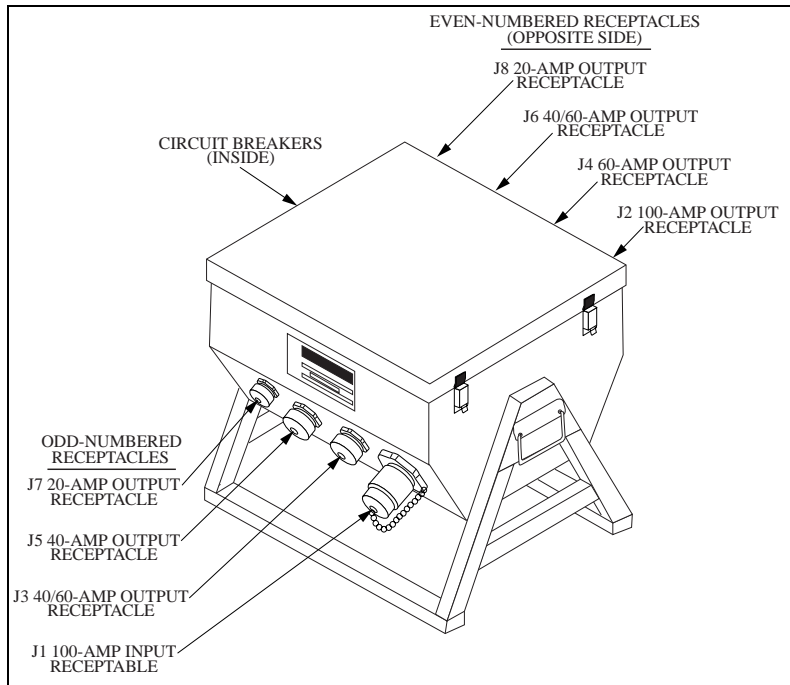
**Figure D-6. Electrical service/feeder cable and potable water supply hose layout**



**Figure D-7. Circuit breaker panel inside the Containerized Latrine**

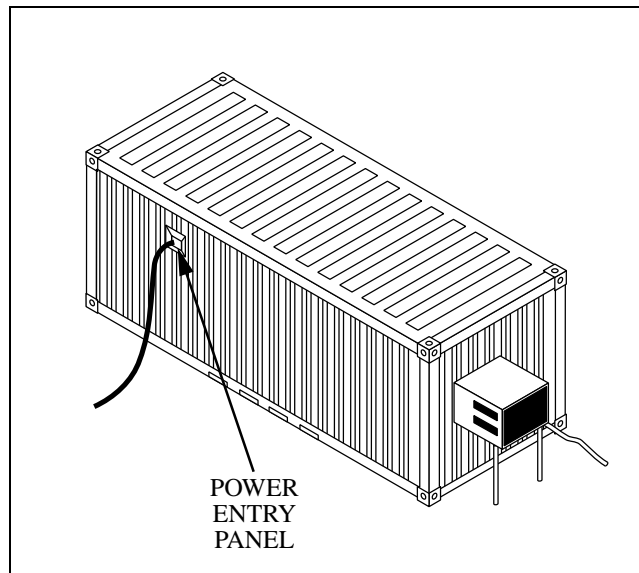


**Figure D-8. Location of Containerized Latrine controls (front view)**



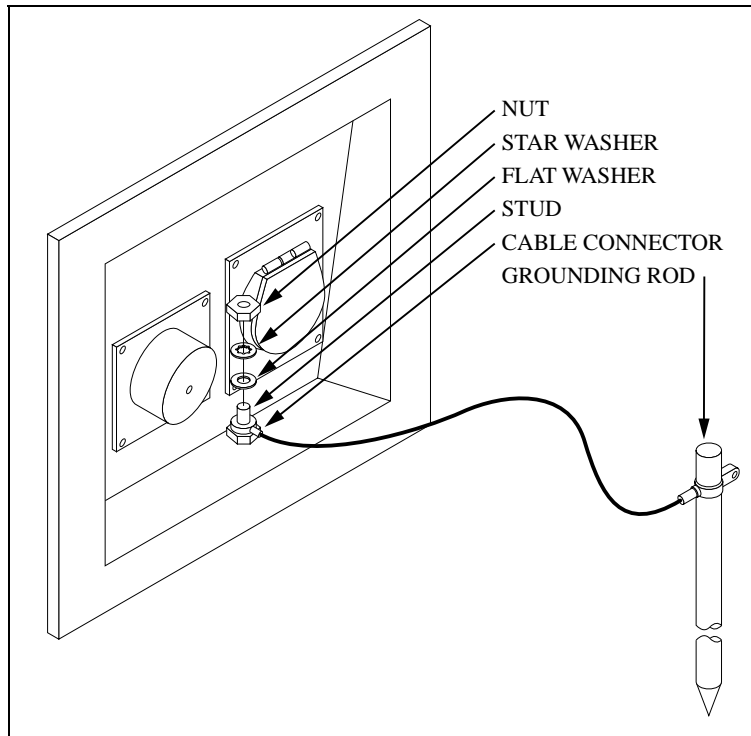
**Figure D-9. PDISE-M100 receptacles and connections**

13. Soldier 1 drives the grounding rod at least three feet into the earth at a distance of less than five feet from the power entry panel on the side of the CL. See Figure D-10.



**Figure D-10. Location of Containerized Latrine power entry panel**

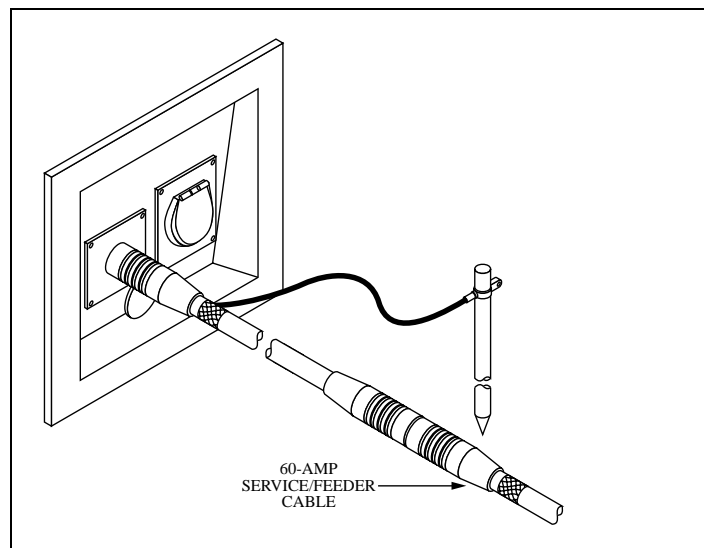
14. Soldier 2 connects the grounding cable from the grounding rod to the stud on the power entry panel, using nut, star washer, and flat washer. See Figure D-11.



**Figure D-11. Grounding connection to Containerized Latrine power entry panel**

**WARNING:** ONLY A TRAINED TECHNICIAN FROM THE FACILITIES SUPPORT SECTION CONNECTS THE PDISE-M100 TO THE POWER SOURCE.

15. Soldier 1 inserts the female end of the 60-amp service/feeder cable into the 60-amp receptacle on the CL power entry panel, secures it with the lock ring, and connects their dust caps together. See Figures D-6 and D-12.



**Figure D-12. Service/feeder cable connection to the power entry panel**

DRILL LEADER ISSUES INSTRUCTIONS TO PERFORM PREOPERATIONS CHECKS.

16. Soldiers 1 and 2 visually inspect the electrical and water components inside and outside the CL ISO for the following:

- a. Damage to pipes, valves, or hoses.
- b. Secure clamps on hoses and water supply connections.
- c. Damage to electrical cables or connections.
- d. Secure electrical connections.

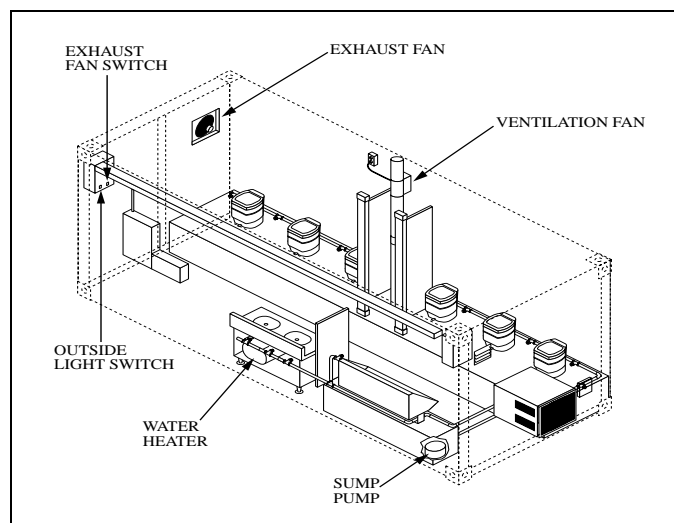
17. Soldier 1 opens the gate valve at the user connection point of the potable water supply line to allow water to flow to the CL water service panel.

18. Soldier 2 opens the valve at the water service panel inside the CL to allow water to flow to the CL water components.  
See Figure D-8.

**NOTE:** The hot water heater tank must be full of water before applying electrical power to the heater. The electric heating coils will burn up if the tank is empty.

19. Soldier 1 fills the hot water heater beneath the sinks by doing the following:

- a. Turns on the water tank's fill valve beneath the sinks.  
See Figure D-13.
- b. Opens the hot water faucets and observes that water flows from them, indicating that the tank is full and supply lines are free of air obstructions.
- c. Turns off the faucets.



**Figure D-13. Location of Containerized Latrine controls (rear view)**

**COACHING POINT:** There are three classes of leaks. Fluids seeping from connections or valves (they are wet or discolored) are Class I leaks. Leaks that form drops that do not drip from the connection or valve are Class II leaks. Leaks that drip from the connection or valve are Class III leaks. You can operate with Class I or II leaks, if you maintain the fluid levels as required in the preventive maintenance checks and services (PMCS). You must immediately report Class III leaks to the supervisor, so maintenance can repair them.

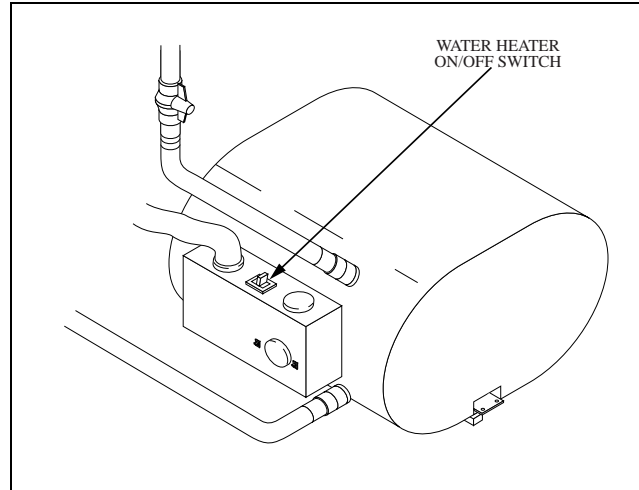
20. Soldiers 1 and 2 check the external and internal water supply hoses, couplings, pipes, and fittings for Class III leaks, shutting off the water service panel valve and repairing the leaks immediately if they find any.

21. Soldiers 1 and 2 power up the CL subsystem components by doing the following:

- a. Set the 60-amp circuit breaker for the CL electrical service/feeder cable in the PDISE-M100 to the ON position. See Figure D-9.
- b. Set all the circuit breakers on the circuit breaker panel inside the CL to the ON position. See Figures D-7 and D-8.

22. Soldiers 1 and 2 make the following preoperations checks on the CL electrical components:

- a. Check the PDISE-M100 for damage or tripped circuit breakers.
- b. Check circuit breaker panel for damage or tripped circuit breakers. See Figure D-7.
- c. Turn ON the power switches for the interior lights, exterior light, and exhaust fan and check these components for proper operation. See Figures D-8 and D-13.
- d. Check that the convenience outlet (on wall beneath sink) is operational by plugging a trouble light or some other power tool.
- e. Check that the sump pump is plugged into its labeled receptacle in the power box on the rear wall (also used by the ECU), plugging it in if it is not. See Figure D-8.
- f. Press the sump pump switch (located outside the CL) ON, listen for the pump to operate, and then press the switch OFF. See Figure D-8.
- g. Turn the water heater switch ON and check for the presence of hot water at the sink faucets after waiting for the tank to heat. See , on the space heater, check it for damage and proper operation, and then turn it off. See Figures D-13 and D-14.



**Figure D-14. Containerized Latrine six-gallon water heater**

- h. Check that the waste holding tank ventilation fan is plugged into the wall outlet and that the fan is operating. See Figure D-13.
- i. Turn the ECU power switch (on its front panel) ON, set the desired temperature, and then check that the unit blows hot or cold air according to the temperature setting. See Figure D-5.

23. Soldiers 1 and 2 make the following preoperations checks on the CL water service components:

- a. Check that the urinal and commodes flush properly.
- b. Check that there is hot and cold water at the sink faucets.

DRILL LEADER ISSUES THE ORDER TO PERFORM PMCS ON THE CL.

24. Soldier 1 checks the internal water supply and drain pipes and fittings for the following:

- a. Damage to, and leaks in, pipes, valves, and fittings.
- b. Damage to, leaks in, and proper operation of urinal and commodes.
- c. Connections are snug and secure.
- d. Water service panel is free of leaks, rust, and corrosion.

25. Soldier 2 checks the electrical components by doing the following:

- a. Interior and exterior lights function, lamps do not need replacement, and exhaust fan operates.
- b. ECU is operational and is blowing hot or cold air according to its temperature setting.

- c. Hot water is operational by checking for the presence of hot water at the sink faucets.
- d. Waste ventilation fan is operational.
- e. Sump pump is operational by pressing its power switch ON and OFF, and listening for its operation.

26. Soldiers 1 and 2 perform common checks on CL equipment by doing the following:

**NOTE:** Daily cleaning of the CL and restocking its supplies is a tenant unit responsibility.

- a. Keeping equipment and components clean.
- b. Removing dirt, sand, and debris from all electrical and water service panel entries and connections.
- c. Checking that bolts, nuts, and screws are tight and not bent or broken.
- d. Tightening all loose bolts, nuts, and screws.
- e. Checking water and drain hoses and pipes for wear, damage, and leaks.
- f. Tightening all loose fittings or couplings.
- g. Reporting all leaks and inoperable components for repair.

27. Soldiers 1 and 2 perform periodic maintenance on CL subsystem components by doing the following:

- a. Perform periodic maintenance on the CL.
- b. Perform periodic maintenance on the ECU, IAW its commercial technical manual.
- c. Perform periodic maintenance on the commode, IAW its commercial technical manual.
- d. Perform periodic maintenance on the water heater, IAW its commercial technical manual.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps, the soldiers should change positions during subsequent drill iterations.

**PERFORM:** When the soldiers can perform this drill according to the standards, their performance should be evaluated by the section leader.



**CREW DRILL 42-2-D0007**  
**Dismantle the Containerized Latrine (CL)**

**TASK:** Dismantle the CL.

**CONDITIONS:** The CL subsystem is operating in its designated area. Instructions have been received to cease operations and prepare for redeployment. Components have been inventoried and inspected for serviceability. Unserviceable components have been tagged and reported to the Force Provider (FP) company or platoon higher HQ. Coordination has been made with the Water Distribution Section to have highly chlorinated water available to flush the CL's water lines and holding tanks. A steam cleaner is available from platoon or company to assist in cleaning the CL. Two soldiers have been assigned to dismantle the CL site. Two additional soldiers are available to assist in the dismantling and storing environmental control unit (ECU). After the ECU is repacked for redeployment, these two additional soldiers are released.

**NOTE:** Use of the 3,000-gallon collapsible fabric water tank and electric water pump (both provided by the Water Distribution Section) is optional. The dismantling of the 3,000-gallon tank and electric water pump is not covered in this drill.

**STANDARD:** The CL subsystem is dismantled IAW commercial manuals supplied with CL components. The CL subsystem meets required sanitation and cleanliness standards for shipment established by higher HQ.

**SUPPORTING INDIVIDUAL TASK:** To be determined (TBD).

**SETUP INSTRUCTIONS:**

a. Resources.

(1) One completely set up and operational CL subsystem contained in an International Standards Organization (ISO) container.

(2) One general mechanic's automotive tool kit.

(3) Steam cleaner.

(4) Cleaning supplies (such as mops, cloths, brushes, soap, disinfectant, bucket, pail, and garden hose).

(5) A wastewater vacuum tank/trailer (WWVT/T) team to clean out the CL holding tanks.

(6) At least ten gallons of nontoxic antifreeze solution in a container.

(7) Technical documentation, including all applicable technical manuals (TMs) and commercial instructions supplied with the CL subsystem components.

b. Training Site. The site must contain a fully set up, operational CL subsystem. The CL site must be accessible by fork lift.

c. Unit Instructions. The Laundry/Shower Section soldiers should be brought to the CL subsystem. Designate the four soldiers selected to dismantle the CL subsystem by number (i.e., Soldier 1, Soldier 2, Soldier 3, and Soldier 4). Use Soldiers 3 and 4 at the appropriate time assist in dismounting and storing the ECU.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains two soldiers to work together to dismantle the CL subsystem correctly. Assign each soldier a different number during subsequent drill iterations so each learns all the drill steps and standards for dismantling the CL.

b. Environmental Stewardship. Brief all soldiers on the safety and environmental stewardship requirements for executing this drill. Soldiers will be alert for leaks and blackwater spills. Blackwater is considered a bio-hazard. Any blackwater spills will be treated as hazardous waste (HW) and disposed of according to current directives. They will flush highly chlorinated water from the CL's water pipes and holding tanks before dismantling the subsystem.

c. Safety. Ensure the CL subsystem is properly grounded prior to disconnecting power from the subsystem. Ensure all circuit breakers are OFF. Only a qualified technician will disconnect the subsystem's electrical pigtails from the power source or power distribution system. Hot water may remain in the water heater after it is turned off. Exercise care when draining the water heater's tank. Avoid skin contact with blackwater and consider it HW. Use protection when performing any operation or maintenance where contact with blackwater is possible.

d. Demonstration (optional). If other soldiers from the Shower/Laundry Section have successfully performed the drill, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier to dismantle the CL subsystem. The drill leader should answer all questions concerning the drill performance. Each soldier should

explain their role in the drill, including the standards for which they are responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

**WALK-THROUGH INSTRUCTIONS:**

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader should conduct the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a deliberate pace on the first iteration as the "walk" phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

b. Initiating Cue. The drill leader gives the order to dismantle the CL subsystem.

**Performance Measures:**

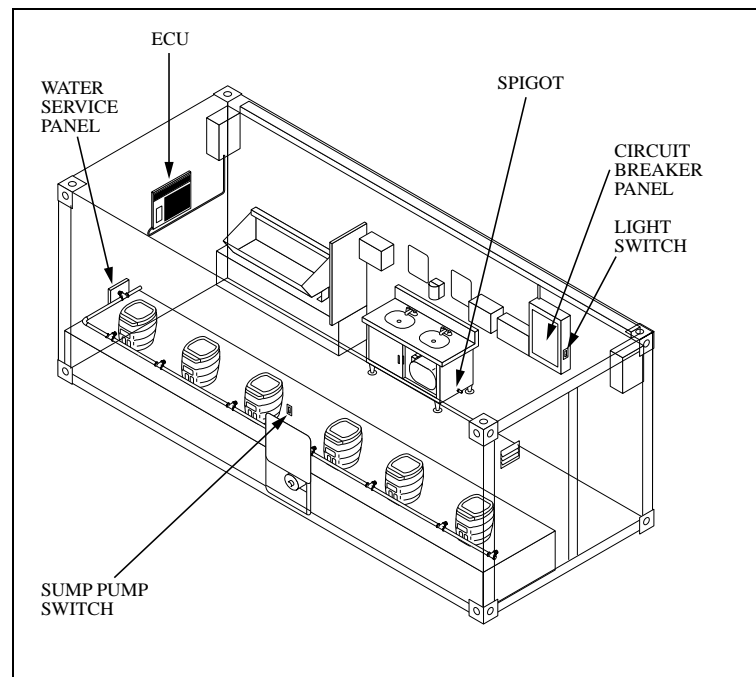
**COACHING POINT:** The drill leader, Preventive Medicine NCO, or section leader inspects the CL for required cleanliness IAW higher HQ deployment directives and unit TSOP. Soldiers reclean components, as required, to meet these standards.

1. Soldiers 1 and 2 thoroughly clean the interior of the CL, including urinal, commodes, and sinks, IAW the unit TSOP and Preventive Medicine NCO instructions.

**COACHING POINT:** When the FP site shuts down, the Water Distribution System will send highly chlorinated water throughout the potable water supply system. The drill leader or personnel from the Water Distribution Section notifies the soldiers when the highly chlorinated water is available at the CL site and when highly chlorinated water is no longer in the water distribution system.

2. Soldiers 1 and 2 flush the commodes and urinal, and turn on the sink faucets, for several minutes to flush the CL's water supply lines thoroughly with highly chlorinated water, followed by several minutes of potable water.
3. Soldier 2 pushes the sump pump switch (on the outside of the CL ISO) ON to pump highly chlorinated water from holding tank #1 to holding tank #2, and then pushes the sump pump switch OFF. See Figures D-15 and D-16.

4. Soldier 1 closes the gate valve at the user connection point of the potable water supply line to shut off the water flow to the CL water service panel.
5. Soldier 2 shuts the valve at the water service panel inside the CL ISO to stop the flow of water to the CL water components. See Figure D-15.
6. Soldier 1 disconnects the 1½-inch water supply hose (from the potable water source) from the upper fitting on the water service panel, reconnects it to the lower fitting on the water service panel, and then connects their dust caps together. See Figure D-17.
7. Soldier 2 opens the gate valve at the user connection point of the potable water supply line to start the flow of highly chlorinated water to the CL water service panel that flushes holding tank #2. See Figures D-15 and D-16.
8. Soldier 1 closes the gate valve at the user connection point of the potable water supply line to shut off water flow to the CL water service panel.



**Figure D-15. Location of Containerized Latrine controls (front view)**

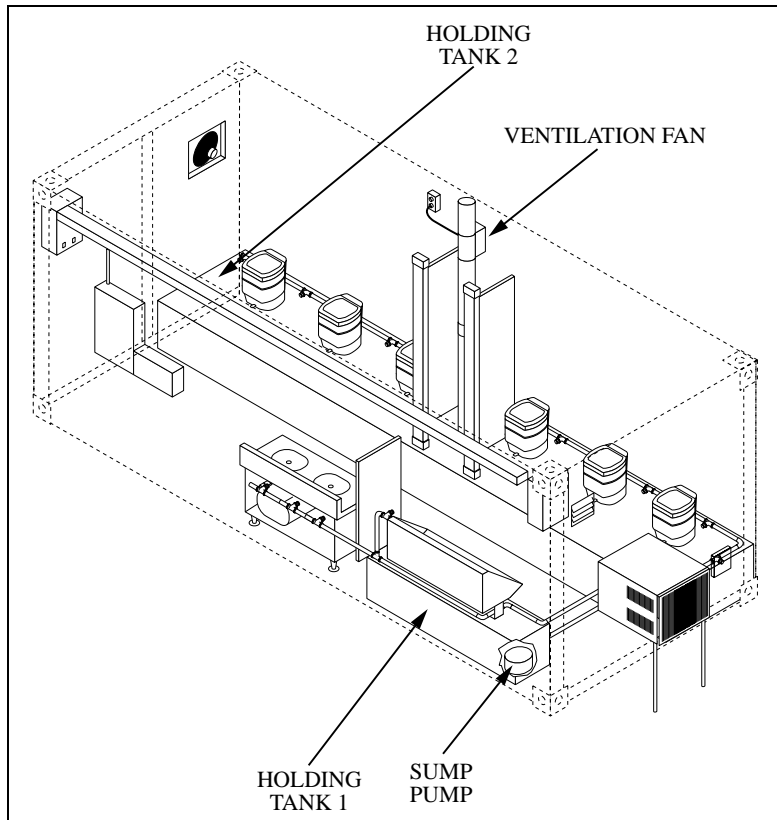


Figure D-16. Location of holding tanks and sump pump inside the CL ISO (rear view)

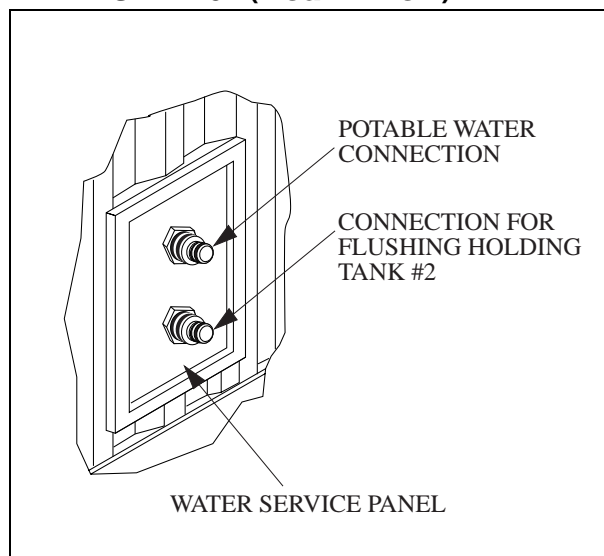
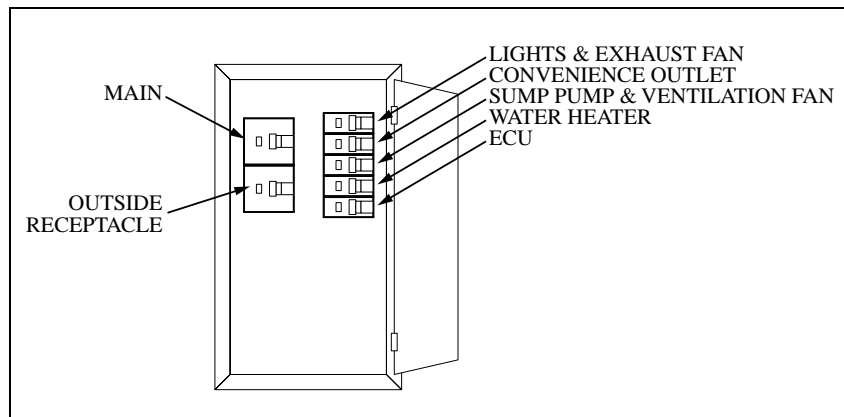


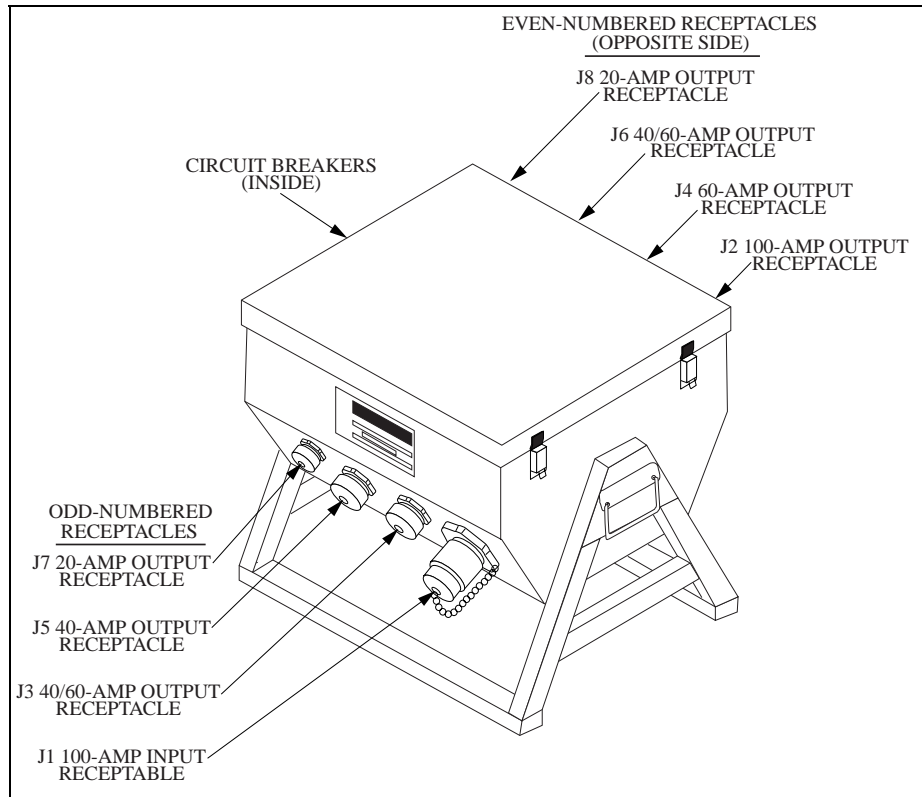
Figure D-17. Water service panel at rear of Containerized Latrine ISO

9. Soldier 2 notifies the WWVT/T team to suction out holding tank #2, removing any waste and residual highly chlorinated water.

10. Soldiers 1 and 2 repeat Steps 7 and 8, above, directing the WWVT/T team to suction out holding tank #2 a second time.
11. Soldier 1 closes the gate valve at the user connection point of the potable water supply line to shut off the water to flow to the CL water service panel.
12. Soldier 2 disconnects the 1½-inch potable water supply hose from the lower connector of the CL water service panel, connects their dust caps together, and then coils the free end of the supply hose out of the way. See Figure D-17.
13. Soldiers 1 and 2 clean the exterior of the water supply cables that serviced the CL of dirt and debris using soap and water, coil the hoses neatly, and leave them to be recovered by the Water Distribution Section.
14. Soldier 1 turns OFF all the CL electrical components (interior and exterior lights, exhaust fan, ECU, and water heater switch).
15. Soldier 2 shuts OFF electrical power to the CL by doing the following:
  - a. Sets the 60-amp circuit breaker for the CL electrical service/feeder cable in the PDISE-M100 to the OFF position. See Figure D-18.
  - b. Sets all the circuit breakers on the circuit breaker panel inside the CL to the OFF position. See Figure D-19.

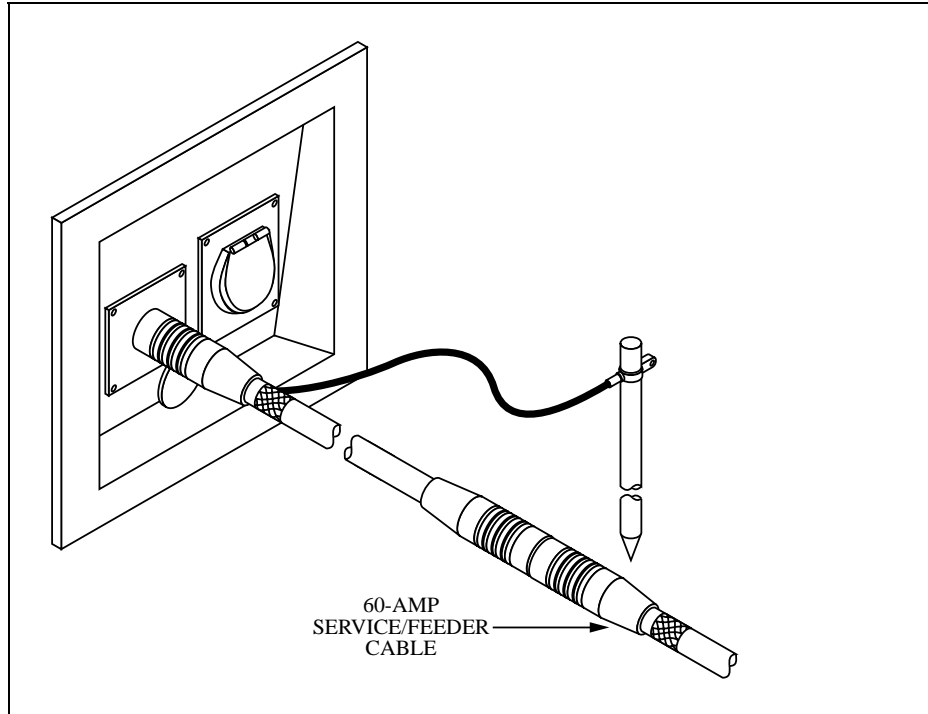


**Figure D-18. Circuit breaker panel inside the Containerized Latrine**



**Figure D-19. PDISE-M100 receptacles and connections**

16. Soldier 1 disconnects the 60-amp service/feeder cable from the 60-amp receptacle on the CL power entry panel, and reconnects their dust caps. See Figure D-20.
17. Soldiers 1 and 2 clean the service/feeder cables that powered the CL ISO of dirt and debris using soap and water, coil them neatly, and leave them to be recovered by the Facilities Support Section.



**Figure D-20. Service/feeder cable connection to the power entry panel**

18. Soldier 2 disconnects the grounding cable from the power entry panel, removes the grounding rod from the earth, and places them aside for repacking inside the CL ISO.
19. Soldier 1 drains residual potable water from the CL's plumbing by doing the following:
  - a. Opens the spigot beside the sinks and catches residual water in a pail or bucket. See Figure D-21.
  - b. Opens the petcock valve under the water heater and catches residual water in a pail or bucket. See Figures D-21 and D-22.
  - c. Attaches a garden hose to the toilet supply drain valve, opens the valve, and catches the residual water in a pail or bucket. See Figure D-21.
  - d. Closes the sink spigot, water heater petcock valve, and toilet supply drain valve, leaving the garden hose attached to the toilet supply drain valve.
  - e. Disposes of residual water collected in the bucket or pails, IAW current directives.



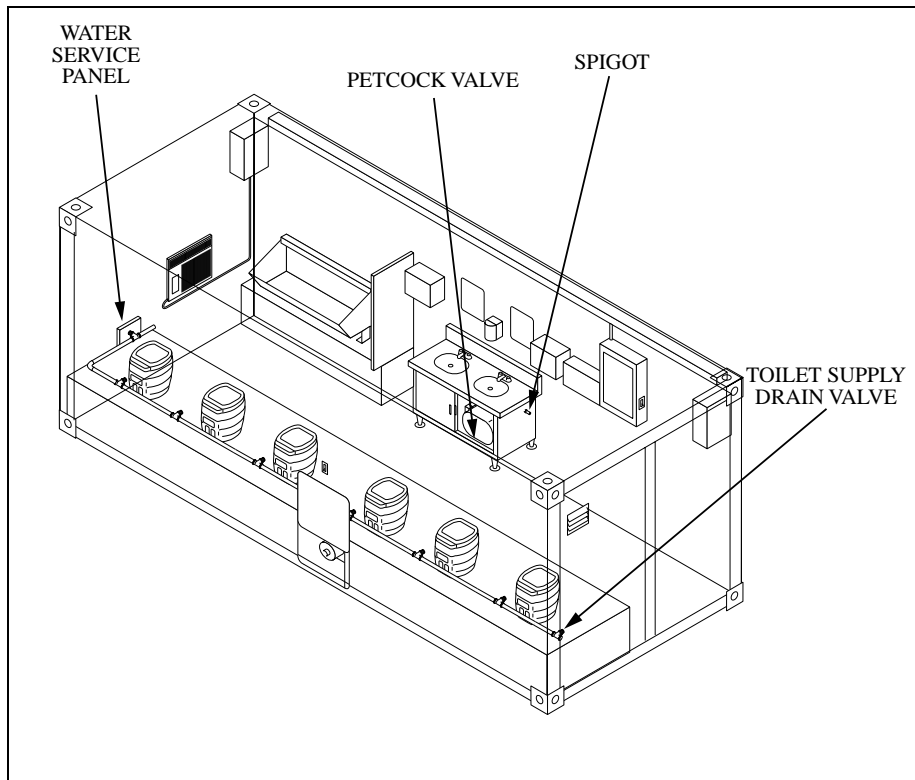


Figure D-21. Location of valves to drain water from plumbing

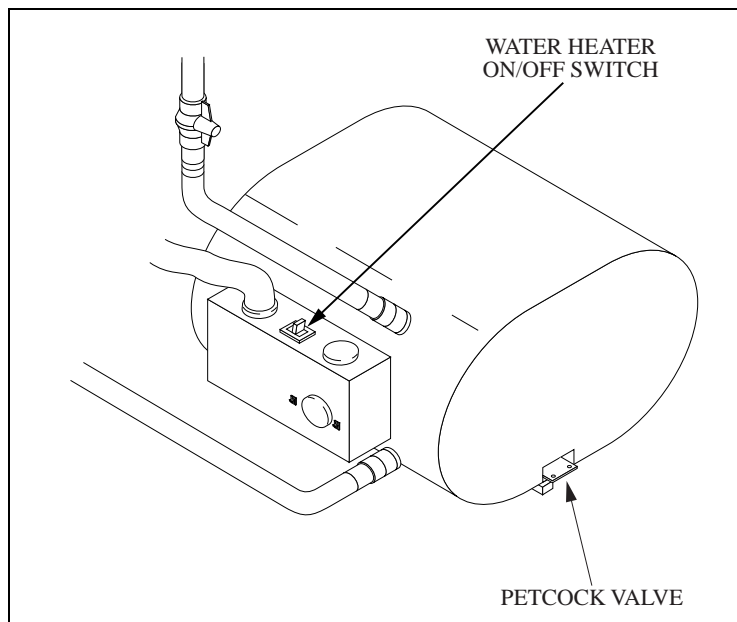
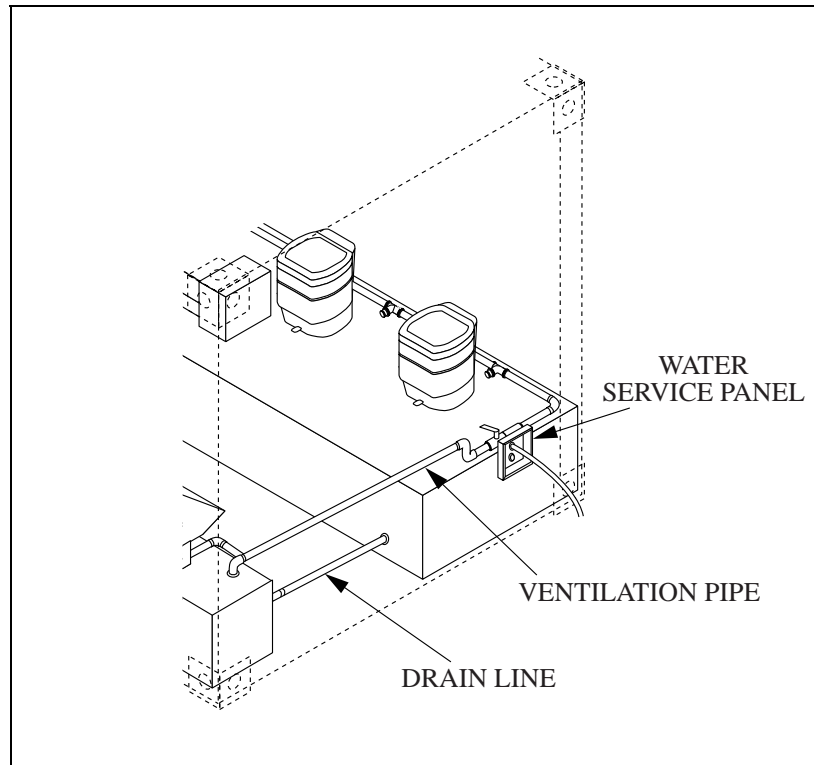


Figure D-22. Location of water heater power switch and petcock valve

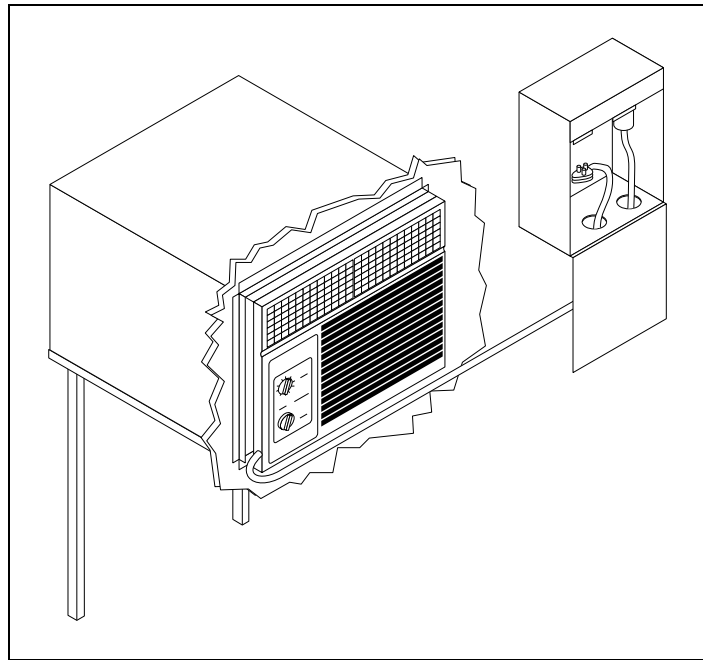
20. Soldier 2 places nontoxic antifreeze solution into the commode water supply lines by doing the following:
- a. Removes the ventilation pipe between holding tank #1 and the water service panel. See Figure D-23.



**Figure D-23. Water supply line at rear of Containerized Latrine ISO**

- b. Reinstalls the pipe vertically at the coupling by the water service panel.
- c. Pours nontoxic antifreeze solution into the vertical ventilation pipe until the pipe is full of the solution.
- d. Beginning at the commode nearest the water service panel, pushes the right pedal at the base of the commode that fills the bowl, observe for the first presence of the antifreeze solution flowing into the bottom of the bowl, and then release the pedal.
- e. Repeats Substep d, above, for each commode.
- f. Refills the vertical ventilation pipe with antifreeze solution, as necessary, until all commodes have a small amount of antifreeze in their bowls.
- g. Opens the toilet supply drain valve, drains remaining antifreeze solution into a bucket or pail, closes the valve, and detaches the garden hose. See Figure D-21.
- h. Returns all unused antifreeze solution to its container.

- i. Removes the ventilation pipe from the coupling and then reinstalls it horizontally in its original position. See Figure D-23.
21. Soldier 1 locates the ECU's pallet and places it on the ground beneath the ECU mounting shelf at the rear of the CL ISO.
  22. Soldier 2 unplugs the ECU from the power box outlet on the rear wall of the CL ISO and removes the ECU's grill, setting it aside for repacking. See Figure D-24.



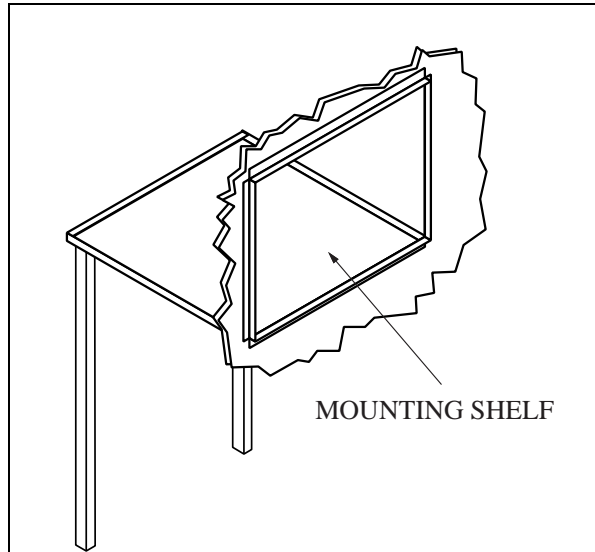
**Figure D-24. ECU mounted on shelf and location of its power box outlet**

**COACHING POINT:** Make Soldiers 3 and 4 available at this time.

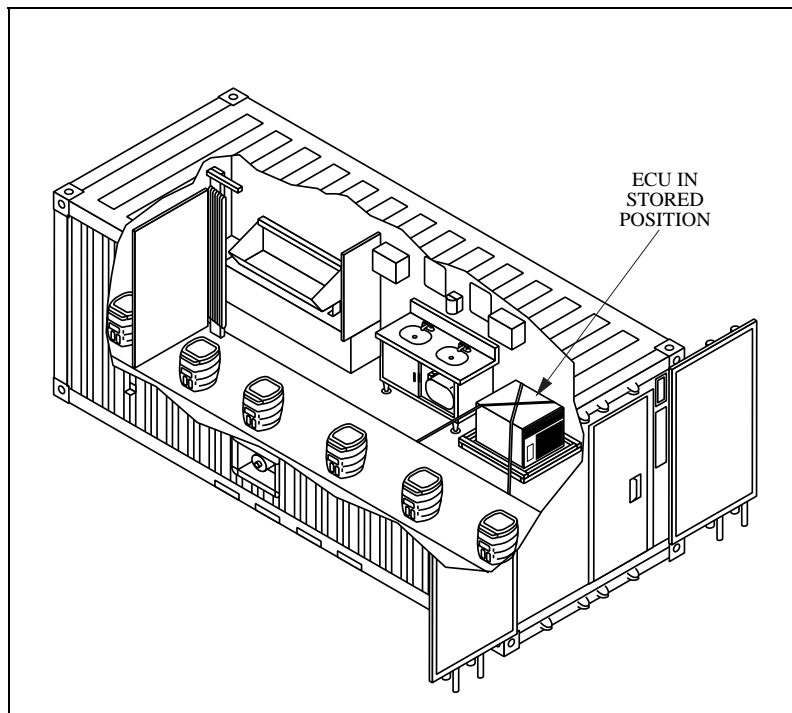
23. While Soldier 2 pushes and guides the ECU from inside the CL ISO, Soldier 1, 3, and 4 pull and lift the unit from its mounting shelf from outside the CL ISO, and then place the ECU on its pallet.
24. Soldier 1 detaches the support legs from the ECU mounting shelf, raises the shelf to its storage position, and closes the ECU access panel. See Figure D-25.
25. Soldiers 1, 3, and 4 move the ECU on its pallet to the CL entrance door.

26. Soldiers 1 and 2, inside the CL, and Soldiers 3 and 4, outside the CL. Place the ECU on its pallet back into the CL. See Figure D-26.

27. Soldiers 1 and 2 recover the tie downs for the ECU from beneath the sink, strap the ECU on its pallet to the D-rings on the floor, and tighten the tie downs. See Figure D-26.



**Figure D-25. ECU mounting shelf with support legs attached**



**Figure D-26. ECU in stored position inside the Containerized Latrine**

**COACHING POINT:** Release Soldiers 3 and 4 from the drill at this time.

28. Soldiers 1 and 2 prepare the CL components and equipment for movement and storage by doing the following:

- a. Perform preventive maintenance checks and services (PMCS) on the CL components, IAW commercial technical manuals for the water heater, ECU, and commode.
- b. Repack the CL ISO, IAW unit TSOP.
- c. Close and latch the CL service doors.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader conducts the initial run-through slowly. To learn all the performance steps, the soldiers should change positions during subsequent iterations of the drill.

**PERFORM:** When the soldiers can perform this drill according to the standards, the section leader should evaluate their performance.

**CREW DRILL 42-2-D0008**  
**Set Up, Maintain, and Operate the Shower**

**TASK:** Set up, maintain, and operate the shower.

**CONDITIONS:** The Force Provider (FP) company or platoon has occupied an operational site for a FP module. The site has been prepared in accordance with (IAW) the site plan and is secure. The potable water distribution and power generation subsystems have been set up and are operational. The five triple containers (TRICONS) types 4A through 4E containing one shower subsystem have arrived at the site and have been positioned IAW the staking plan. All shower subsystem components have been inventoried, are present, and are in serviceable condition. Three soldiers have been assigned to set up, maintain, and operate one of the two shower sites. Seven additional soldiers are available to assist in erecting the shower site's two four-section tents, extendable, modular, personnel (TEMPERS). After the TEMPERS are set up and the shower's components positioned, these additional soldiers are released.

**STANDARD:** The shower subsystem is set up IAW TM 10-5419-200-12, *Operator, Unit, Direct Support and General Support Maintenance Manual for Force Provider Modules 1 & 2*, Technical Order (TO) 35E35-3-1, *Erection, Operation, Storage, Inspection and Maintenance Instructions with Illustrated Parts Breakdown, Shave Stand Bare Base*, and TO 35E35-4-1, *Erection, Operation, Storage, Inspection and Maintenance Instructions with Illustrated Parts Breakdown Shower Facility Bare Base*. Maintenance and operation of the shower site is accomplished IAW the above references so that shower schedules satisfy tenant unit requirements.

**SUPPORTING INDIVIDUAL TASK:** Soldiers executing the drill should be proficient in Soldier Training Publication (STP) task 101-514-1156, *Operate the Bath Unit's Water Heater*, found in STP 10-57E14-SM-TG.

**SETUP INSTRUCTIONS:**

a. Resources.

(1) One complete shower subsystem (shower kit, shower tent kit, shower air conditioner kit, and shower support kit types 4D and 4E).

(2) One general mechanic's automotive tool kit.

(3) Five-ton fork lift to position shower components.

(One of the soldiers should be qualified to operate the fork lift. If none is qualified, a fork lift operator will be needed.)

(4) Three Shower Specialists to set up, maintain, and operate the shower site, and seven additional soldiers to assist in setting up the shower site.

(5) Technical documentation, including all applicable technical manuals (TMs) and commercial instructions supplied with the shower subsystem components and equipment.

b. Training Site. Position the TEMPERS in the center of a 60- by 75-foot area that provides sufficient space to extend the potable water hoses, graywater hoses, and electrical cables to their connection points. Use a level site, free of debris, large rocks, or other obstacles.

c. Unit Instructions. The Laundry/Shower Section soldiers should be brought to the shower site. The drill leader has made a reconnaissance of the site. Designate the ten soldiers selected to set up the shower by number (i.e., Soldier 1, Soldier 2, Soldier 3, Soldier 4, etc.). After the shower TEMPERS have been erected and shower components positioned, release Soldiers 4 through 10.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains three soldiers to work together to set up one shower correctly, conduct the initial operation and checks, and maintain and operate the shower site IAW the pertinent technical publications. Assign each soldier a different number during subsequent drill iterations so each learns all the steps and standards for setting up the shower, performing the initial operations and checks, maintaining the shower, and operating the shower.

b. Environmental Stewardship. Three personnel will set up the shower site, maintain its components, and operate them to support the tenant unit. They must constantly monitor the supply lines, connections, and pump for leaks, and rapidly shut off the pump if they detect leaks. Collect any spilled graywater and dispose of it as hazardous waste (HW), IAW current directives. Operators will be alert for any fuel leaks or spills at the M80 water heater. They will contain any fuel spills, and dig up contaminated soil and dispose of it, IAW current directives.

c. Safety. Prior to applying electrical power to the shower, the drill leader, supervisor, or a qualified electrician will inspect the subsystem to ensure it is properly grounded. Ensure all circuit breakers are OFF prior to powering the shower subsystem initially. Ensure water hoses, power cables, or fuel lines do not come in contact or cross over each other. If water lines must cross, potable water supply hoses must cross over graywater collection hoses to avoid possible potable water

contamination. Do not lay power cables across access or service roads. If power cables must cross water hoses, ensure the power cables cross over top of the water hoses. Only a qualified technician will connect the subsystem's electrical pigtailed to the power source or power distribution system. Be alert to symptoms of carbon monoxide poisoning when operating the M80 water heater. Avoid skin contact with graywater. Consider graywater as HW and use protection when performing any operation or maintenance involving graywater.

d. Demonstration (optional). If other soldiers from the Shower/Laundry Section have successfully set up the shower, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening, and why. When the demonstration is complete, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in setting up, maintaining, and operating the shower subsystem. The drill leader can illustrate the steps with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should explain their role in the drill, including the standards for which they are responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader conducts the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a deliberate pace on the first iteration as the "walk" phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

b. Initiating Cue. The drill leader gives orders to set up the shower and to conduct initial operations and checks.

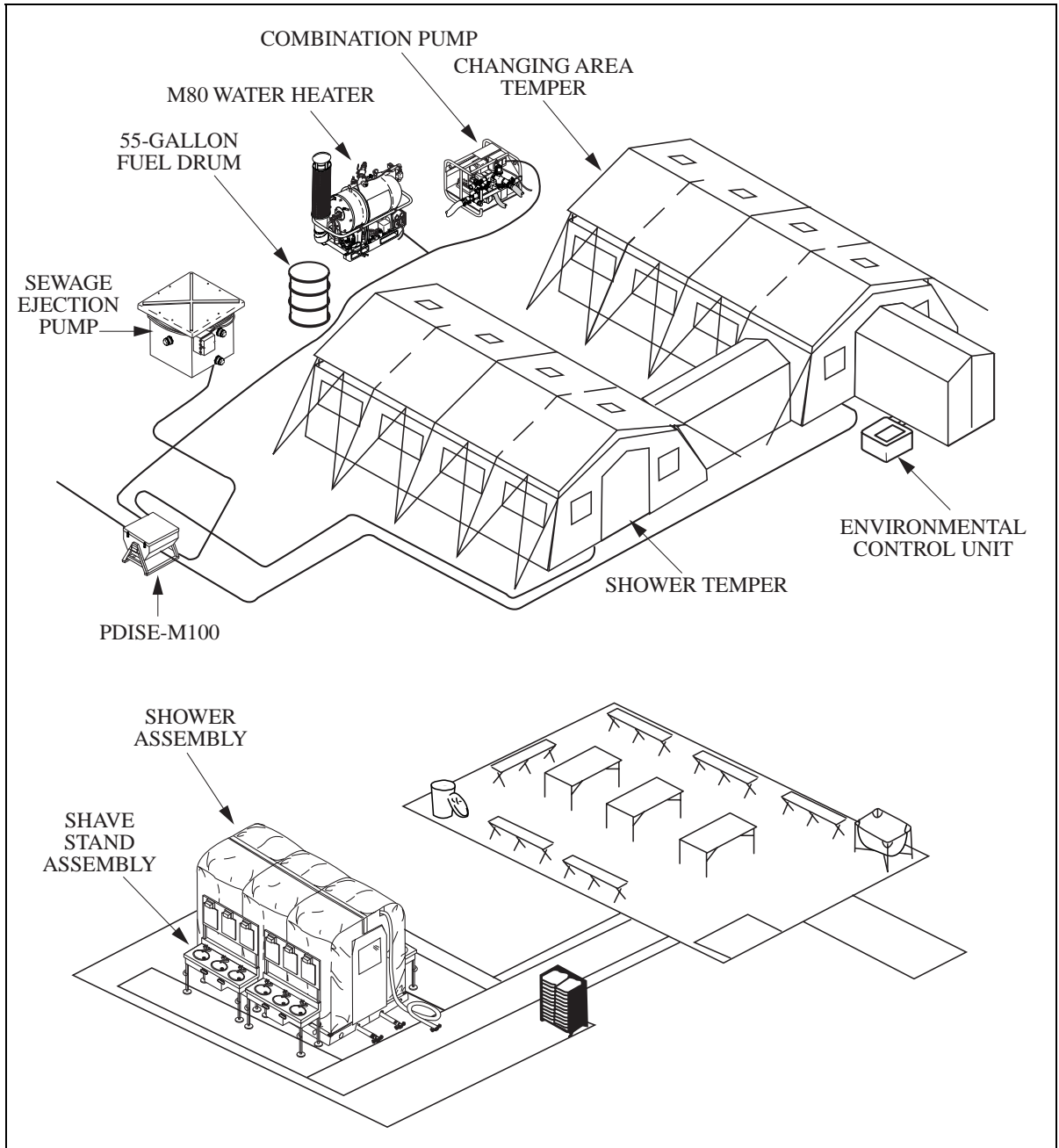
#### Performance Measures:

1. Soldiers 1 through 10 identify and obtain the following from the TRICONS:



- a. M80 water heater, positioning it at the shower site, IAW the staking plan, using a fork lift or a minimum of a six-man lift. See Figure D-1.
  - b. Combination pump, positioning it at the shower site, IAW the staking plan. See Figure D-1.
  - c. Power distribution illumination systems equipment (PDISE)-M100, positioning it at the shower site, IAW the staking plan. See Figure D-1.
  - d. Sewage ejection pump (SEP), positioning it at the shower site IAW the staking plan. See Figure D-1. (See note, page D-12, for emplacement options for the SEP.)
  - e. Request the Petroleum Distribution Section position one or more 55-gallon fuel drums within five feet of the M80 water heater. See Figure D-1.
2. Soldiers 1 through 10 set up two four-section TEMPERS IAW the procedures in Drill 42-2-D0001, *Set Up the Four-Section TEMPER*, including the following actions:
- a. Install door sill purlins and endwall plenum in the TEMPERS, IAW TM 10-5419-200-12. See Figure D-1.
  - b. Install two vestibules, IAW TM 10-5419-200-12. See Figure D-1.
  - c. Install one set of double bump-through doors, IAW TM 10-5419-200-12. See Figure D-2.

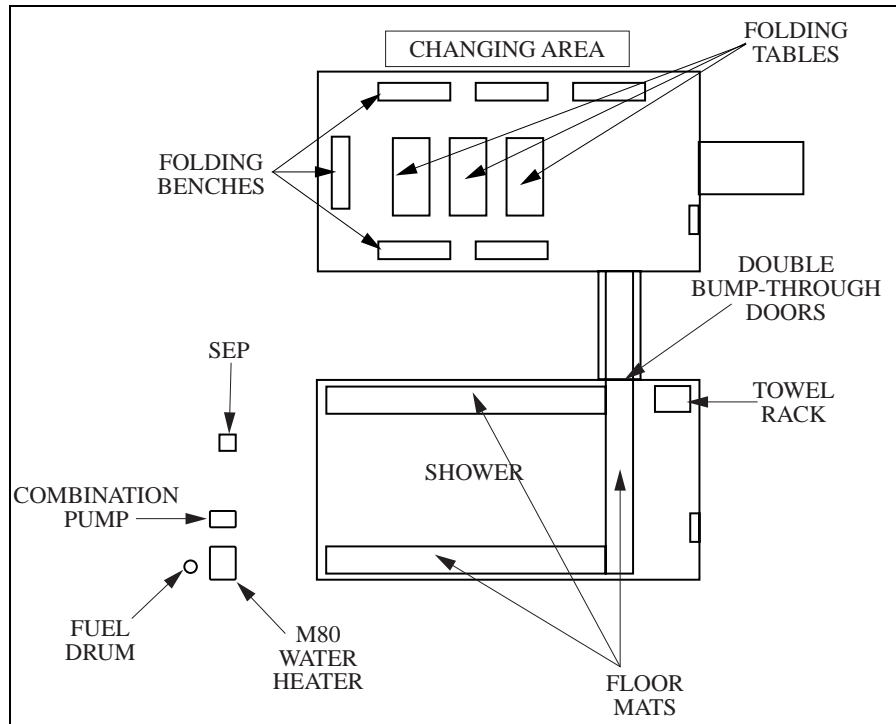
**COACHING POINT:** Release Soldiers 4 through 10 after the soldiers correctly set up the TEMPERS.



**Figure D-1. Major components of the shower subsystem**

3. Soldier 1 positions the fire extinguisher in the changing area TEMPER, IAW the TSOP. See Figure D-2.
4. Soldiers 2 and 3 position the floor mats along the walkway between the two TEMPERs and along the walkways where they will erect the shave stands. See Figure D-2.

5. Soldier 1 positions the towel rack in the shower TEMPER. See Figure D-2.



**Figure D-2. Setup of equipment in shower and changing area TEMPERs**

6. Soldiers 2 and 3 position the folding tables and benches in the changing area TEMPER. See Figure D-2.

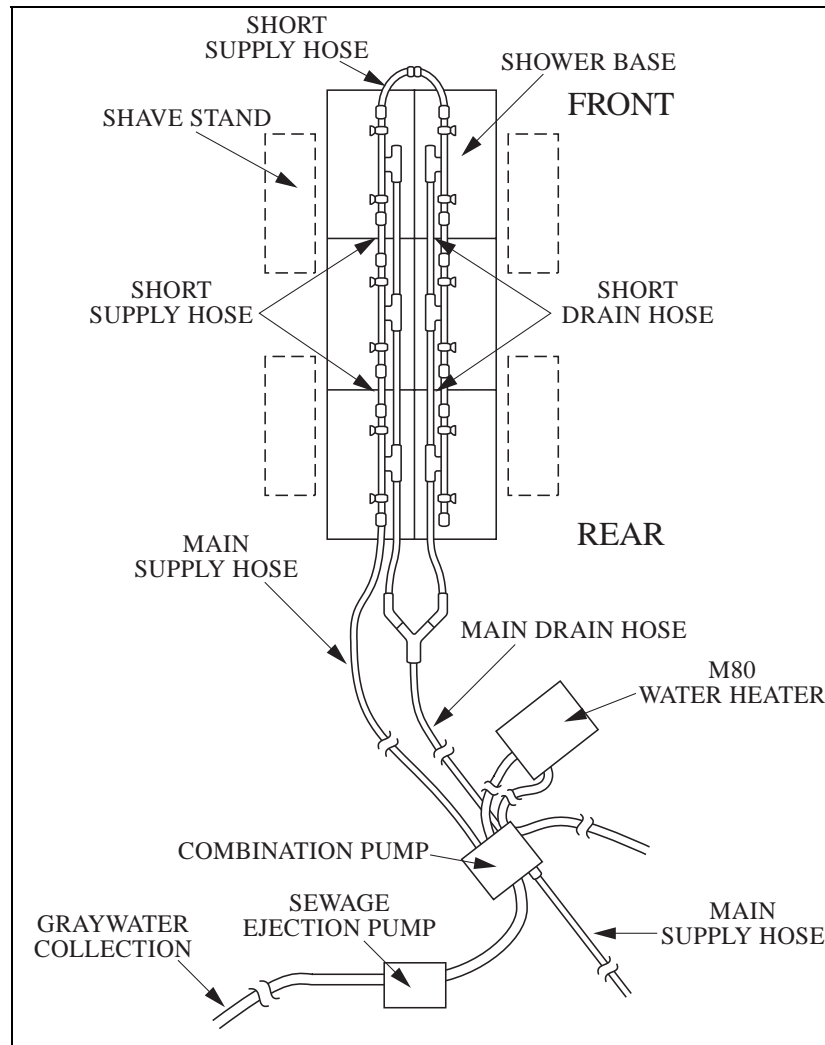
**COACHING POINT:** Soldiers will set up the shower facility IAW TO 35E35-4-1 (or TM 1006A-14 & P), inside the shower TEMPER, with the following exceptions:

- Route all water supply and graywater drain hoses out the rear of the TEMPER.
- Do not use the strainer or inlet filter screen supplied with the Bare Base Shower Facility.
- Leave open the fabric covering the top of the shower facility to allow light to enter the shower stalls.

7. Soldiers 1, 2, and 3 lay the six fiberglass base assemblies three to a side, and back to back, with their drain hose cutouts toward the centerline. See Figure D-3.

8. Soldiers 1, 2, and 3 lift the three base assemblies on each side upright and remove the caps from the drain manifolds.

9. Soldiers 1, 2, and 3 install six short 2-inch drain hoses between the drain manifolds of the shower bases and secure the hoses with hose couplings. See Figure D-3.
10. Soldiers 1, 2, and 3 install pipe caps on the two manifold outlet couplings (one on each side) at the front of the shower assembly. See Figure D-3.

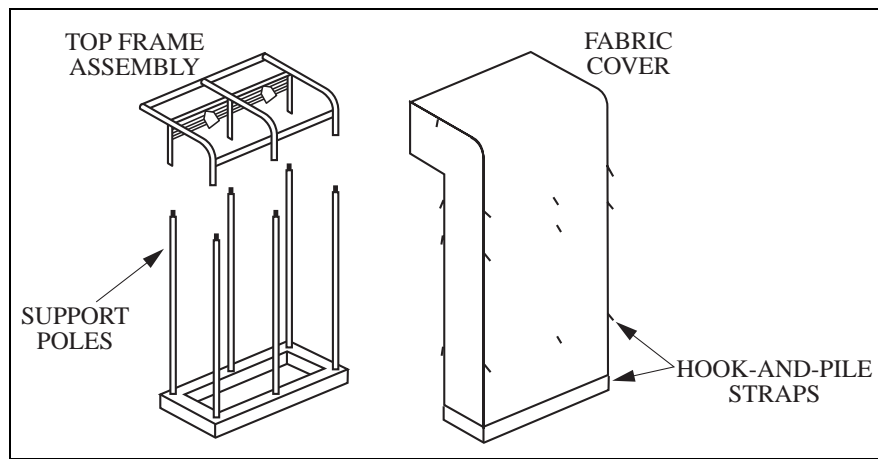


**Figure D-3. Layout of shower components and supply and drain hoses**

11. Soldiers 1, 2, and 3 lower the six base assemblies together so that all their facing sides are touching and neatly aligned.
12. Soldiers 1, 2, and 3 install six outer vertical support poles in one base in the front of the shower assembly, ensuring that the small peg on each support pole faces up. See Figure D-4.

13. Soldiers 1, 2, and 3 place a top frame assembly inside a fabric cover with the frame assembly's outer legs extending through the holes in the top rear of the fabric cover. See Figure D-4.

14. Soldiers 1, 2, and 3 position the top frame over the vertical support poles, with the frame's overhang facing the centerline and its fabric cover inside the support poles, and lower the top frame until it is firmly seated over the pegs of the vertical support poles. See Figure D-4.



**Figure D-4. Assembly of shower top frame, support poles, and fabric cover**

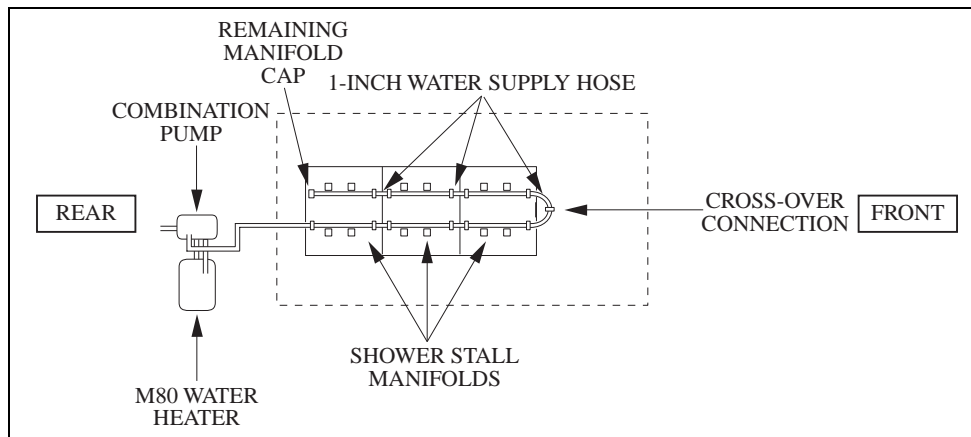
15. Soldiers 1, 2, and 3 secure the fabric cover top frame to the vertical support poles and the shower base with hook-and-pile straps.

**NOTE:** Some versions of the shower stall have fabric covers that go outside the support poles and other versions have fabric covers that go inside the support poles. The hook-and-pile straps on the fabric cover will always be on the same side as the support poles. Soldiers should check the location of these straps to determine whether the fabric cover will go outside or inside the support poles.

16. Soldiers 1, 2, and 3 repeat Steps 12 through 15 for the remaining five shower bases working from the front of the shower assembly to the rear.

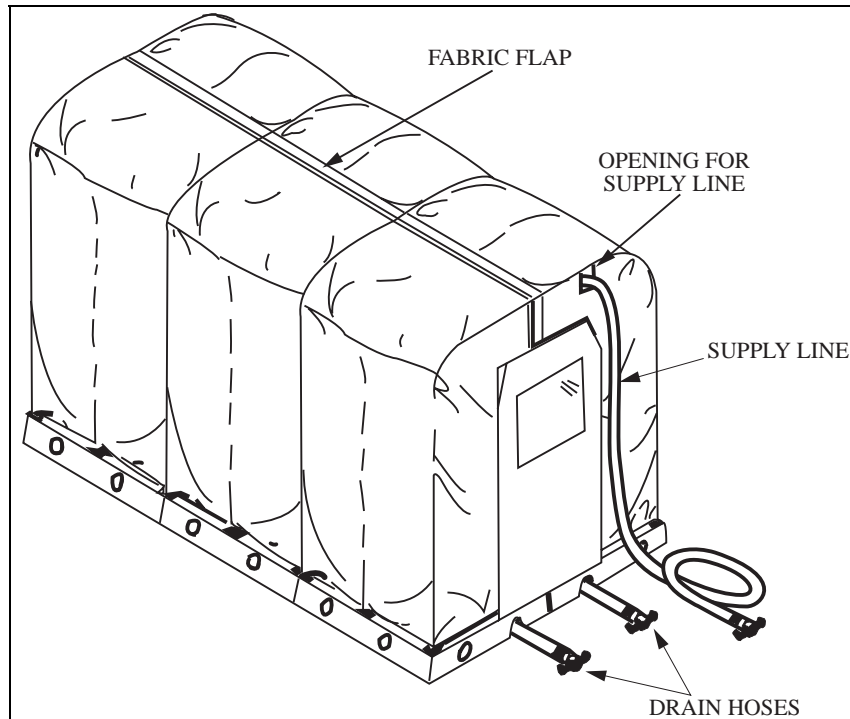
**COACHING POINT:** Ensure that the soldiers leave the fabric covering at the top of the shower assembly open to allow light to enter the shower stalls.

17. Soldiers 1, 2, and 3 secure the facing frames of each pair of shower bases together with hook-and-pile straps provided on their top frame center overhang.
18. Soldiers 1, 2, and 3 position the three small shower floor coverings over the central walkway inside the shower assembly by mating the hook-and-pile strips on the floor covering edges.
19. Soldiers 1, 2, and 3 hang the two door covers over the doorways at each end of the shower assembly by mating the hook-and-pile strips on the covers above the openings.
20. Soldiers 1, 2, and 3 remove the caps from each end of each of the six shower stall manifolds and store all but one of them for future use. See Figure D-5.
21. Soldiers 1, 2, and 3 route six 1-inch water supply hoses through openings in the shower stall fabric covers and connect them to the shower stall manifolds. See Figure D-5.



**Figure D-5. Shower potable water connections**

22. Soldiers 1, 2, and 3 connect the manifolds of the front end stalls with a supply hose to form a cross-over between the two sides of the shower assembly. See Figure D-5.
23. Soldiers 1 and 2 connect one end of a 1-inch x 10-foot supply hose to one of the two rear shower manifold connections and route the hose out the rear of the shower stalls. See Figure D-6.



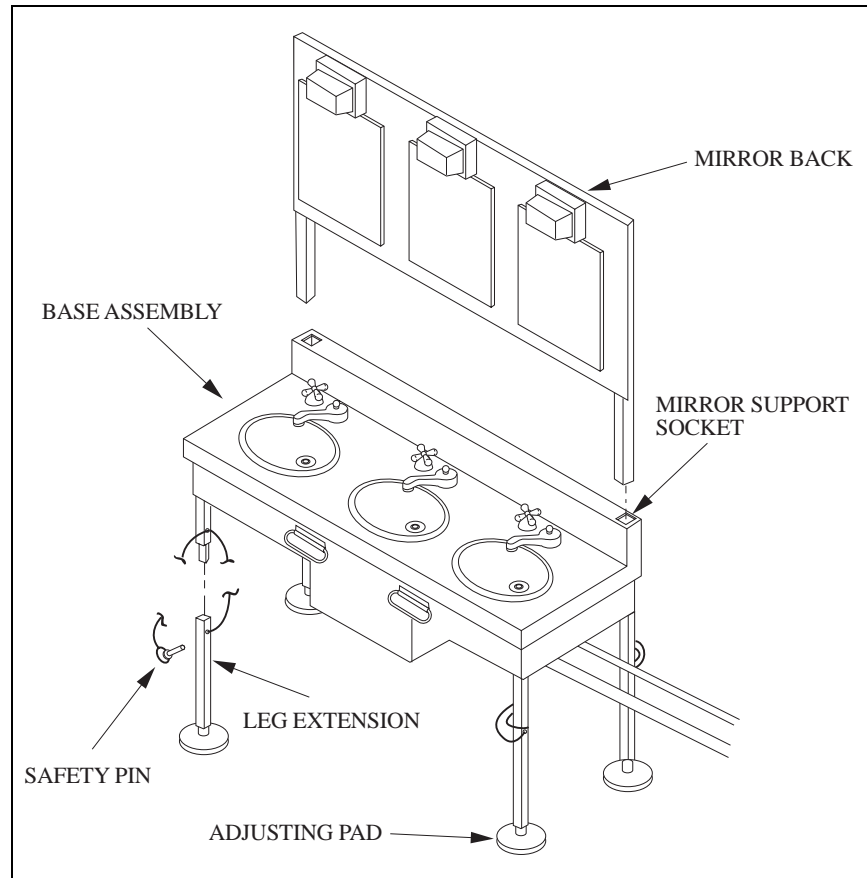
**Figure D-6. Shower stalls set up inside TEMPER**

24. Soldier 3 installs the remaining cap (from Step 20, above) to the other (unused) shower manifold connector. See Figure D-5.

**COACHING POINT:** Soldiers will set up the shave stands, IAW TO 35E35-3-1 (or TM 1006A-14 & P/1), inside the shower TEMPER, with the following exceptions:

- Route all water supply and graywater drain hoses out the rear of the TEMPER.
- Use the same main supply and drain hoses for the shower and shave stands.
- Use a 25-foot ground fault circuit interrupter (GFCI) extension cord, connected to the TEMPER convenience outlet, for electrical power for the shave stands. Route the extension cord along the TEMPER frame or under the floor mat.

25. Soldiers 1, 2, and 3 position four shave stand base assemblies (two to a side) on their backs inside the shower TEMPER. See Figure D-7.

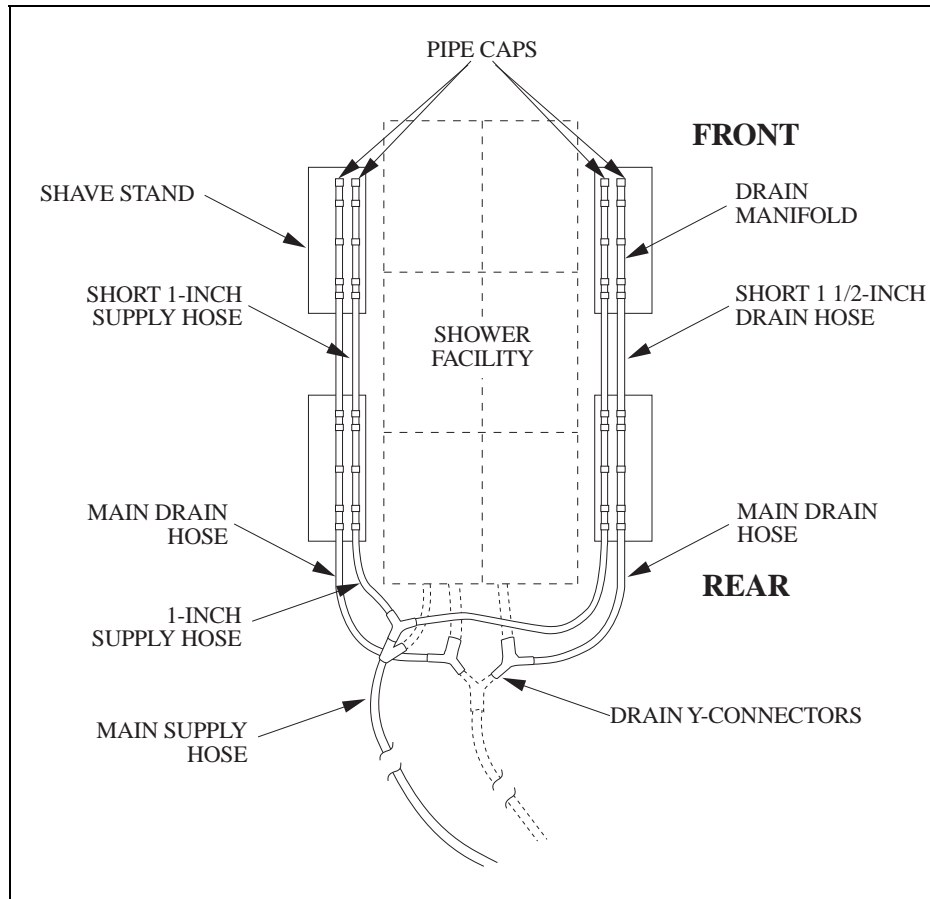


**Figure D-7. Shave stand set up inside TEMPER**

**NOTE:** Complete installation of the base assemblies before installing the mirror backs.

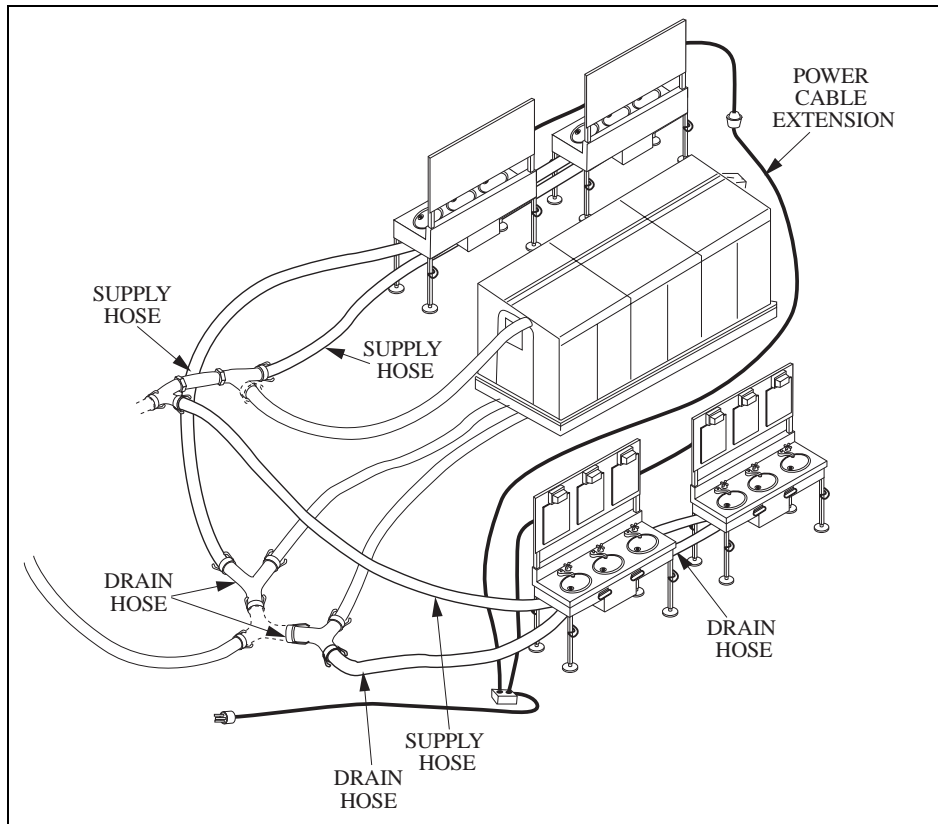
26. Soldiers 1, 2, and 3 install the leg extensions to each base by releasing the leg extension retainer straps, inserting the extensions over the base assemblies so the holes in the leg extensions and the bases line up, and inserting the safety pins. See Figure D-7.
27. Soldiers 1, 2, and 3 place the base assemblies upright onto their legs, position the shave stand assemblies so that there is approximately 12 inches between the back of the shave stands and the shower facility's walls, and level each shave stand by turning the adjusting pads on each leg extension. See Figure D-7.
28. Soldiers 1, 2, and 3 remove the pipe caps from all shave stand drain manifolds, except for the two end pipe caps at the front of the shower facility, and retain the caps for future use. See Figure D-8.





**Figure D-8. Shave stands' drain and supply hose connections**

29. Soldiers 1, 2, and 3 install a 1½-inch drain hose between the two shave stands on each side of the shower facility. See Figure D-8.
30. Soldiers 1, 2, and 3 remove the pipe caps from all shave stands' supply manifolds, except for the two end pipe caps located at the front of the shower facility. See Figure D-8.
31. Soldiers 1, 2, and 3 install a 1-inch supply hose between the two shave stands on each side of the shower facility. See Figure D-8.
32. At the rear of the shower facility, Soldiers 1, 2, and 3 install two 1½-inch drain hoses to the drain manifold of each pair of shave stands. See Figure D-9.



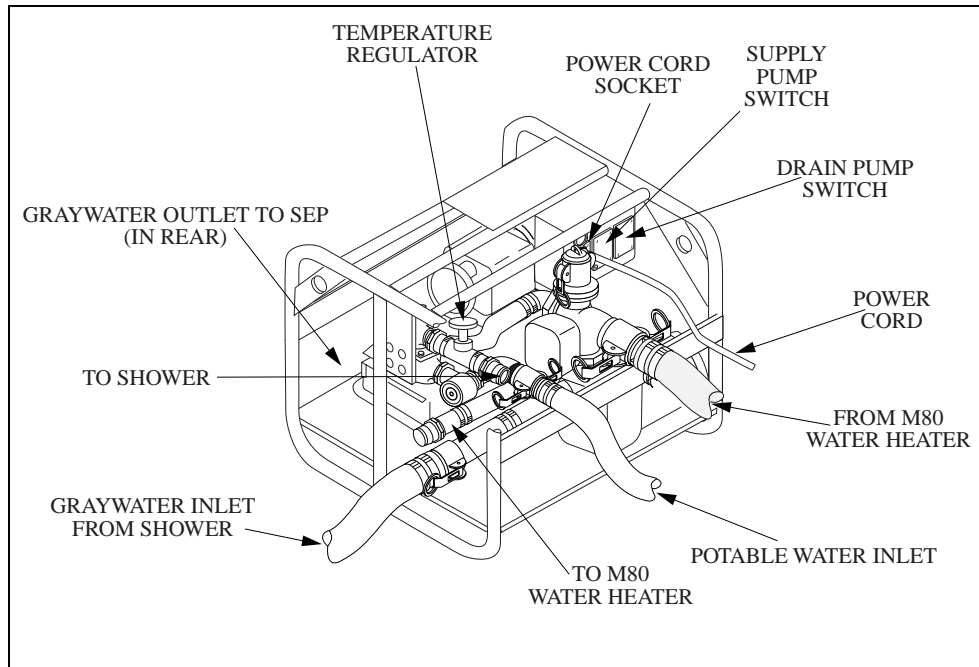
**Figure D-9. Shower and shave stand drain and supply connections**

33. At the rear of the shower facility, Soldiers 1, 2, and 3 install two 1-inch supply hoses to the supply manifold of each pair of shave stands. See Figures D-8 and D-9.
34. Soldiers 1, 2, and 3 install the shave stand mirror back to each base assembly by lowering the mirror support legs into the support sockets of the base assembly. See Figure D-7.
35. Soldiers 1, 2, and 3 connect the shave stands' power cables to the GFCI extension cord and run another GFCI extension cord to the farthest shave stand. See Figure D-9.

**NOTE:** The shower stalls and shave stands share main potable water supply hoses and graywater collection hoses. This requires installation of Y-connectors in the water supply hoses and drain hoses. The TRICONS contain additional Y-connectors for this purpose.

36. Soldiers 1, 2, and 3 install Y-connectors to interconnect the shower stalls' and shave stands' main potable water supply hoses and graywater collection hoses. See Figure D-9.
37. Soldiers 1, 2, and 3 install a 2-inch graywater drain hose from the shower facility Y-connector to the drain pump inlet

at the bottom of the combination pump. See Figures D-9 and D-10.



**Figure D-10. Combination pump water supply and drain connections**

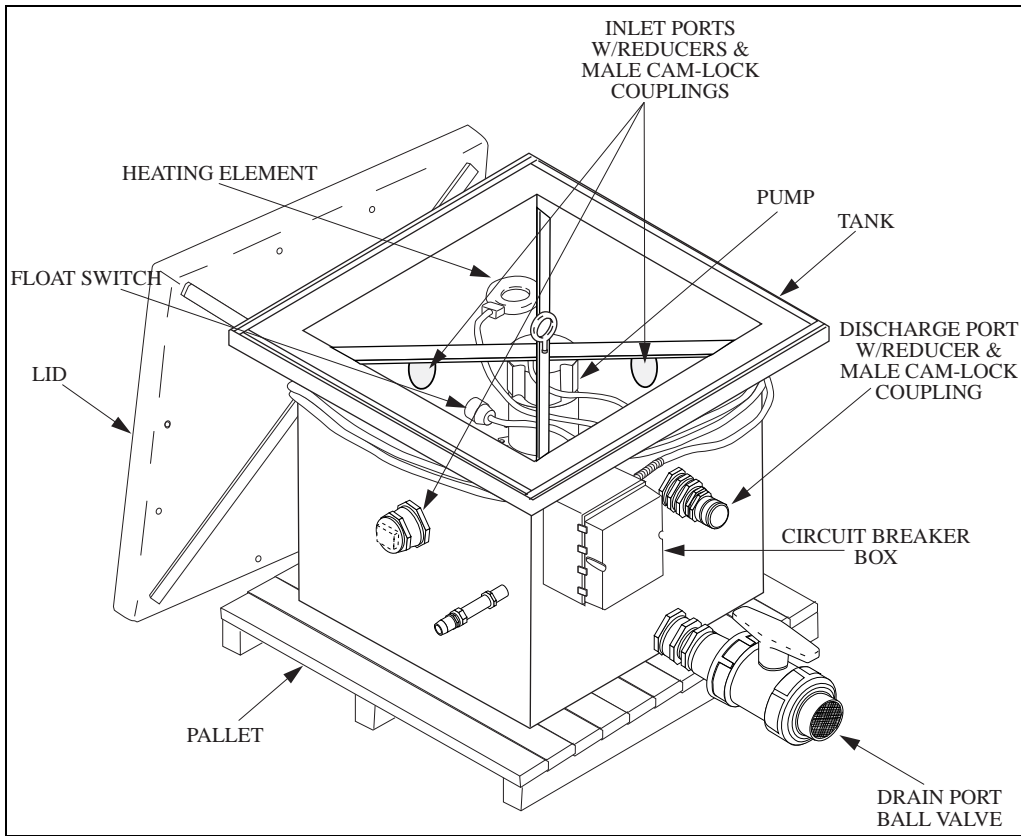
**WARNING:** CONNECT THE DRAIN HOSE FROM THE SEP TO THE GRAYWATER COLLECTION SYSTEM AT A POINT INDICATED ON THE SITE'S STAKING PLAN. BURY THE SEP FLUSH TO THE DRAIN HOSE CONNECTIONS OR SUPPORT THE CONNECTIONS TO PREVENT BREAKING THEM. THE SEP WEIGHS ALMOST 500 POUNDS AND REQUIRES PROPER LIFTING EQUIPMENT TO MOVE IT. THE SEP MUST BE MOVED WHILE IT IS STILL ON ITS PALLET. THE SITE FOR THE SEP MUST BE LEVEL AND FREE OF ROCKS AND DEBRIS.

**NOTE:** The general purpose SEP has 2-inch male couplings. The tank holds 250 gallons. When the SEP fills to 80 percent capacity, the float switch activates the pump that evacuates the graywater into the graywater collection system.

38. Soldiers 1, 2, and 3 set up the general purpose SEP by doing the following:

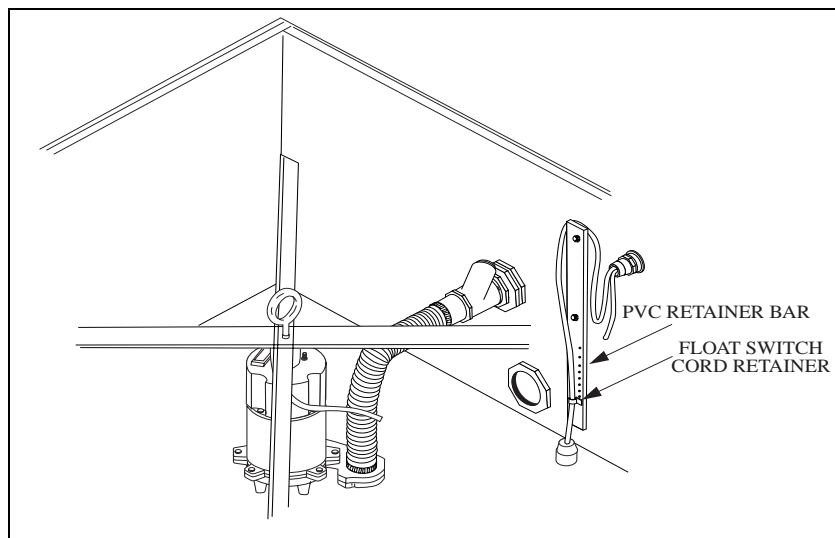
- a. Check that the SEP is fitted with 3-inch x 2-inch NPT reducers and 2-inch NPT x 2-inch male cam-lock coupling halves at the inlet and discharge ports. See Figure D-11.
- b. Connect the 2-inch x 35-foot graywater drain hose from the drain outlet of the combination pump to the 2-inch inlet port on the SEP. See Figures D-10 and D-11.
- c. Support the graywater hoses at the connections with earth (if the SEP is buried) or with blocks, bricks, or timber

(if the SEP is not buried) so they do not snap off the SEP's couplings.



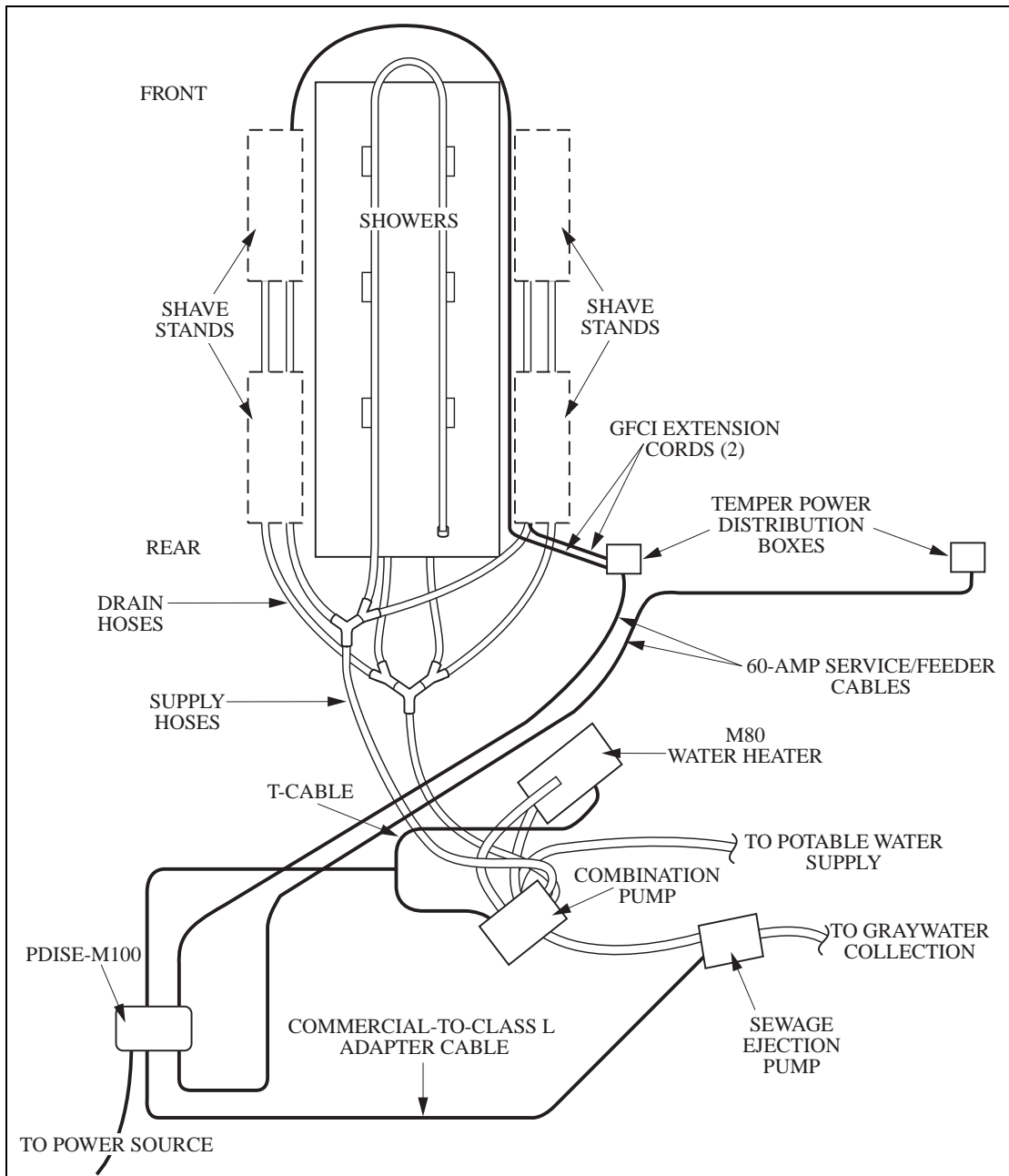
**Figure D-11. Sewage ejection pump components and connections**

d. Remove the lid of the SEP, release the float switch cord retainer, and replace the lid. See Figure D-12.



**Figure D-12. Sewage ejection pump float switch**

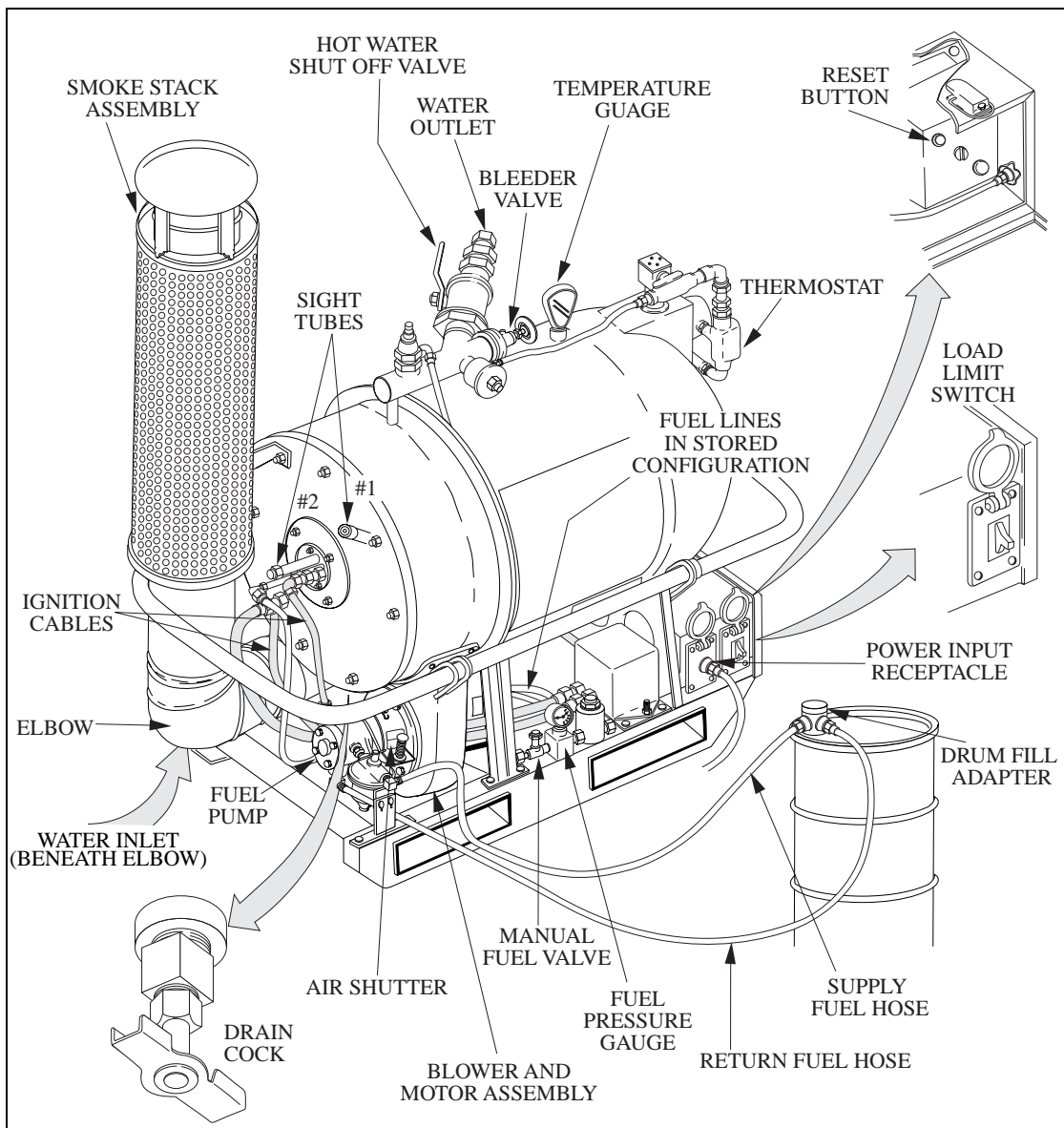
39. Soldiers 1, 2, and 3 obtain and connect the graywater drain hose to the discharge port of the SEP. See Figures D-11 and D-13.



**Figure D-13. Shower facility graywater, potable water, and electrical connections**

**COACHING POINT:** When the soldiers have correctly assembled and connected the graywater collection hoses, direct them to set up the shower potable water supply hoses.

40. Soldiers 1, 2, and 3 install the potable water connections among the shower, combination pump, and M80 water heater by doing the following:
- Connect 1-inch x 12-foot supply hose between the combination pump temperature regulator outlet and the water supply Y-connector at the shower. See Figures D-10 and D-13.
  - Connect one end of a red M80 water heater supply hose to the input connector on the combination pump temperature regulator and the other end to the outlet connector on the M80 water heater. See Figures D-10 and D-14.



**Figure D-14. M80 water heater controls and connections**

- c. Connect one end of another red M80 water heater supply hose to the outlet connector on the combination pump and the other end to the inlet connector on the M80 water heater. See Figures D-10 and D-14.
- d. Connect the 1-inch x 35-foot main water supply hose to a 1-inch x 1½-inch reducer and connect the reducer to a facility connection 1½-inch discharge hose that the Water Distribution Section provides.

**COACHING POINT:** When the soldiers have correctly assembled and connected the potable water supply hoses, direct them to set up the shower electrical components.

- 41. Soldiers 1, 2, and 3 ensure that all power switches and circuit breakers on the M80 water heater, combination pump, SEP, TEMPER power distribution boxes, and PDISE-M100 are in the OFF position.
- 42. Soldier 1 connects a commercial-to-class L adapter cable to the SEP power and to the J5 or J6 40-amp output receptacle on the PDISE-M100. See Figures D-11 and D-15.

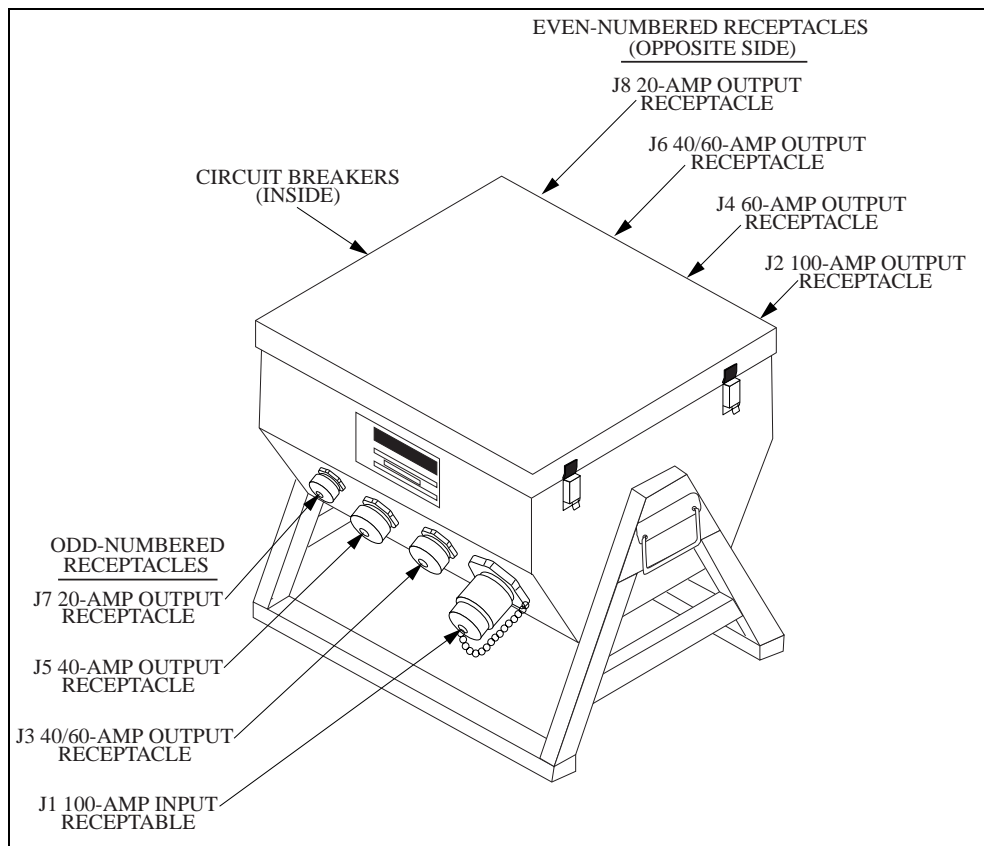


Figure D-15. PDISE-M100 power input and output receptacles

43. Soldiers 2 and 3 connect the T-cable to another commercial-to-class L adapter cable, connect one of the T-cable ends to the M80 water heater power input receptacle, connect the other T-cable end to the power cord socket on the combination pump, and connect the other end of the commercial-to-class L adapter cable to the J5 or J6 40-amp output receptacle (whichever was not used in Step 42) on the PDISE-M100. See Figures D-10, D-14, and D-15.

**WARNING:** LOOPING OR SNAKING EXCESS CABLE RATHER THAN COILING IT PREVENTS BOTH DAMAGE TO THE CABLE AND CREATION OF AN ELECTROMAGNETIC FIELD THAT CAN DAMAGE EQUIPMENT.

44. Soldiers 1, 2, and 3 lay out a pair of 100-foot 60-amp service/feeder cables from the PDISE-M100 to the shower TEMPER power distribution box and another pair of the service/feeder cables from the PDISE-M100 to the changing area TEMPER power distribution box, with the male ends of the cables toward the PDISE-M100 and the female ends toward the TEMPER power distribution boxes, snaking or looping excess cable side-to-side rather than coiling it. See Figure D-16.

45. Soldier 1 passes the 100-foot 60-amp service/feeder cables under each TEMPER's end wall nearest its power distribution box.

46. Soldiers 2 and 3 insert the female ends of the 100-foot 60-amp service/feeder cables into the POWER IN receptacle of each TEMPER's power distribution box, secure the cable with the lock ring, and connect the cable's and power distribution box's dust caps together.

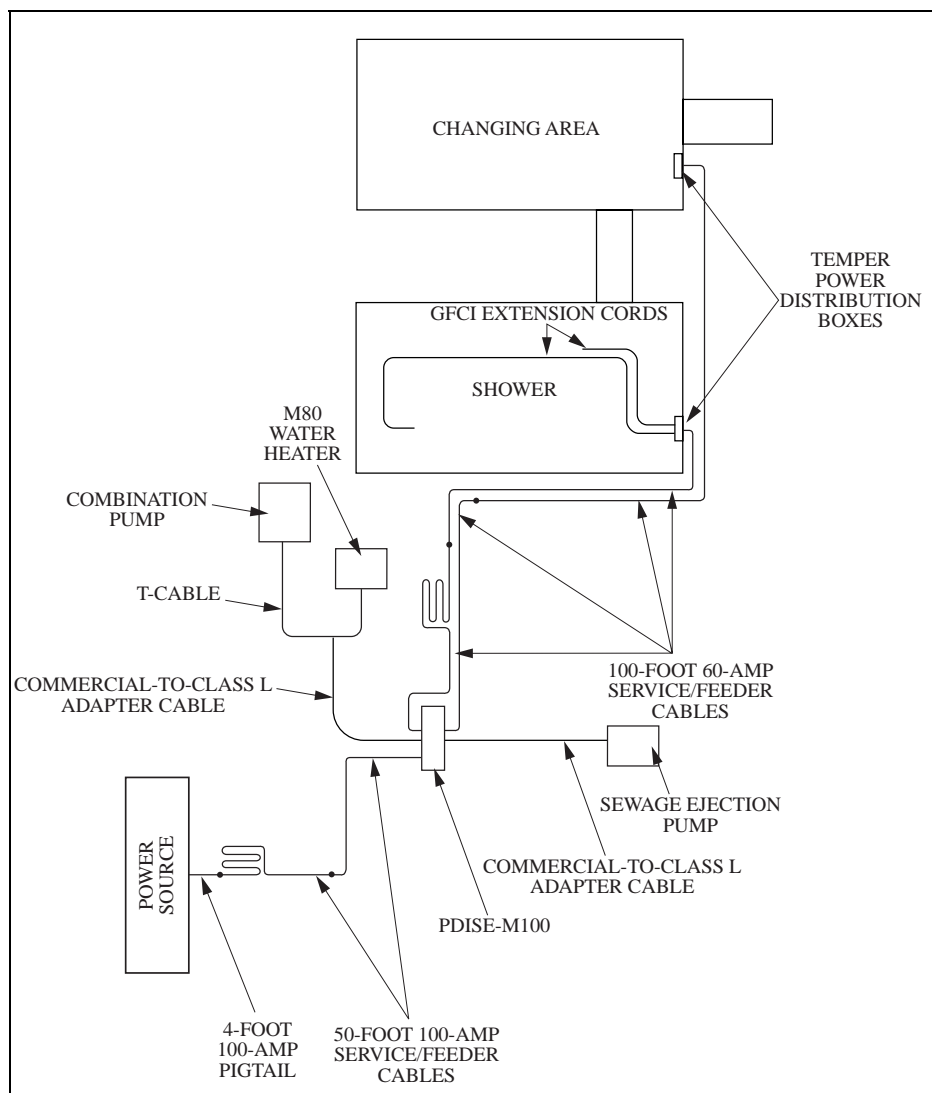
47. Soldiers 1, 2, and 3 connect each pair of 100-foot 60-amp service/feeder cables together, beginning at the TEMPER power distribution boxes and working toward the PDISE-M100, secure the cables with lock rings, and connect their dust caps together.

48. Soldiers 2 and 3 connect the male end of each pair of 100-foot 60-amp service/feeder cables to the J3 and J4 60-amp output receptacles on the PDISE-M100, secure them with lock rings, and connect their dust caps together. See Figure D-15.

49. Soldiers 1, 2, and 3 lay out the 4-foot 100-amp pigtail and two 50-foot 100-amp service/feeder cables from the power source to the PDISE-M100, with the male ends of the cables toward the PDISE-M100 and the female ends toward the power source, snaking or looping excess cable side-to-side as in Step 44, above. See Figure D-16.



50. Soldiers 2 and 3 connect the 50-foot 100-amp service/feeder cables together, secure them with the lock ring, and connect their dust caps together.
51. Soldier 1 connects the male end of the 50-foot 100-amp service/feeder cable to the J1 100-amp input receptacle on the PDISE-M100, secures it with the lock ring, and connects the dust caps together. See Figure D-15.
52. Soldiers 2 and 3 connect the free end of the 50-foot 100-amp service/feeder cable to the 4-foot 100-amp pigtails, secure it with the lock ring, and connect their dust caps together. See Figure D-16.



**Figure D-16. Electrical power layout and connections at shower site**

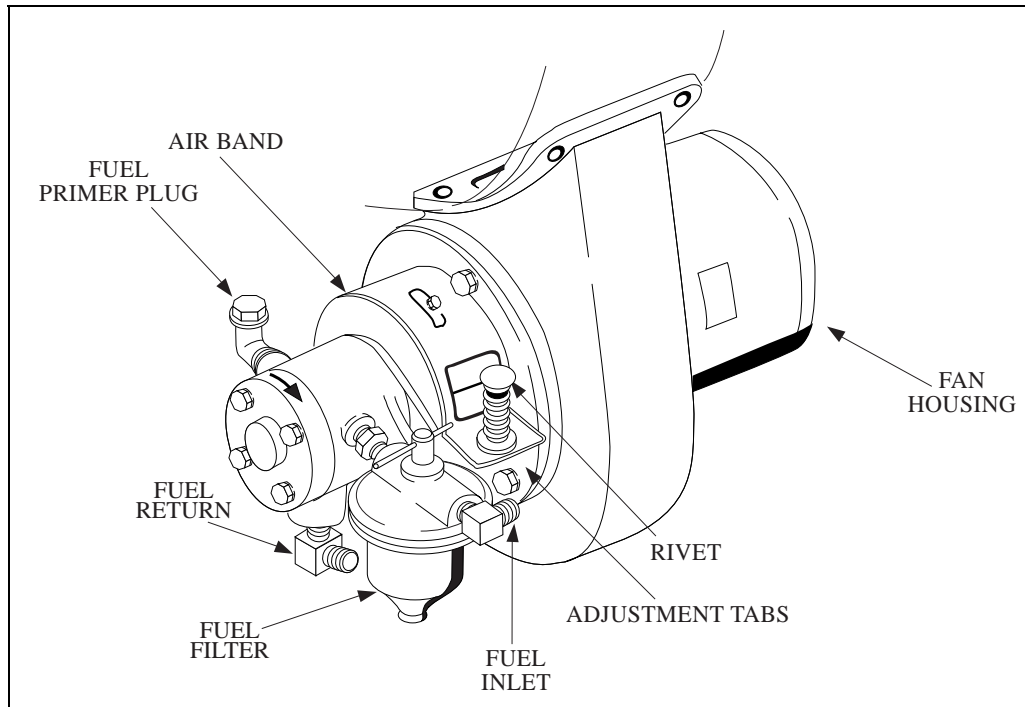
53. Soldier 1 notifies the Facilities Support Section to connect the 4-foot 100-amp pigtail to the power source.

**WARNING:** ONLY QUALIFIED TECHNICIANS IN THE FACILITIES SUPPORT SECTION MAKE THE ELECTRICAL SERVICE/FEEDER CABLE CONNECTIONS FROM THE PDISE-M100 TO THE ELECTRICAL POWER SOURCE.

**COACHING POINT:** Stress that fuel is highly flammable and dangerous if improperly handled. Soldiers should tighten all fuel fittings with a wrench to prevent fuel leaks. Consider fuel HW and handle fuel spills IAW current directives.

54. Soldiers 1, 2, and 3 prepare the M80 water heater for operations by doing the following:

- a. Ensure the load limit switch is in the OFF position and the manual fuel valve is closed. See Figure D-14.
- b. Install the elbow, turning it slightly to the right to seat the pin in the slot.
- c. Install the smoke stack and smoke pipe guard assembly and tighten the bracket holding the smoke stake assembly to the water heater tank.
- d. Disconnect the return fuel and supply fuel hoses from their holder in the middle of the skid opposite the manual fuel valve. See Figure D-14.
- e. Screw the extra length of fuel supply tubing from the bottom of the drum fill adapter and screw it securely onto the end of the other length of fuel supply tubing. See Figure D-14.
- f. Connect the supply fuel hose from the water heater fuel pump filter to the suction fitting on the fill adapter. See Figure D-14.
- g. Connect the return fuel hose from the water heater fuel pump to the return fitting on the fill adapter. See Figure D-14.
- h. Prime the fuel pump by removing the fuel primer plug, adding fuel, and replacing the plug. See Figure D-17.



**Figure D-17. M80 water heater blower motor and fuel pump**

- i. Open the blower shutter halfway by pressing the rivet and shifting air band adjustment tabs. See Figure D-17.
- j. Open the door to the control panel at the rear of the M80 water heater, press the FLAME SAFEGUARD reset button, and close the control panel door. See Figure D-14.
- k. Set the water temperature control to the desired setting. See Figure D-14.

**DRILL LEADER ISSUES INSTRUCTIONS TO PERFORM PREOPERATIONS CHECKS.**

55. Soldiers 1 and 2 visually inspect the electrical and water systems for the following:
  - a. Damaged pipes, valves, or hoses.
  - b. Loose clamps on hoses and water supply connections.
  - c. Blocked drains in shower stalls and shave stands.
  - d. Damaged or loose electrical cables or connections.
  - e. Connected and clean water supply hose dust plugs and caps.
56. Soldier 3 opens the gate valve at the user connection point of the potable water supply line to allow water to flow into the combination pump.
57. Soldiers 1 and 2 power up the shower subsystem components by doing the following:

- a. Set the circuit breakers in the PDISE-M100 to the ON position. See Figure D-15.
- b. Set the circuit breaker (or power switch ) on the SEP to the ON position. See Figure D-11.
- c. Set the combination pump supply and drain switches to the ON position. See Figure D-10.
- d. Visually check that the impeller on the combination pump rotates in the direction of the arrow on the housing.
- e. If the impeller rotates in the wrong direction, then turn OFF the supply and drain switches and notify the drill leader.

**NOTE:** Notify the Facilities Support Section to correct the power phasing of the power group or the combination pump.

- f. Push the circuit breaker on the power distribution box of each TEMPER to the ON position.

58. Soldier 3 makes the following preoperations electrical checks on the shower subsystem :

- a. Checks the interior TEMPER lights for damage and proper operation, and ensures that the bulbs are in place and covers are securely fastened.
- b. Using a trouble light, checks that the TEMPER convenience outlets for proper operation.
- c. Checks that the shave stands' lights operate properly.

59. Soldiers 1 and 2 conduct preoperations checks on the M80 water heater by doing the following:

- a. Check that the manual fuel valve is closed. See Figure D-14.
- b. Set the load limit switch to the ON position. See Figure D-14.
- c. Visually check that the blower fan at the rear of the fan housing is rotating in the direction of the arrow on the housing. See Figure D-17.
- d. Turn the load limit switch to the OFF position. See Figure D-14.
- e. Notify the drill leader if the motor rotation is incorrect.

**NOTE:** Notify the Facilities Support Section to correct the power phasing of the power group or M80 water heater.

- f. Open the water outlet valve on top of the M80 water heater. See Figure D-14.
- g. Open the bleeder valve, observe for a steady stream of water escaping from the valve, and then close the bleeder valve. See Figure D-14.

60. Soldiers 1, 2, and 3 light off the M80 water heater by doing the following:

- a. Open the manual fuel valve. See Figure D-14.
- b. Turn the load limit switch to the ON position. See Figure D-14.
- c. Check that the fuel pressure gauge reads 75 to 80 pounds per square inch (psi) (or 517 to 532 kilopascas [kPa]). See Figure D-14.
- d. If the fuel pressure gauge does not read 75 to 80 psi within 15 seconds, then turn the load limit switch to the OFF position and repeat Step 59 and Substeps a through b, above, until the gauge reads 75 to 80 psi.

**NOTE:** The soldiers must notify the drill leader if the fuel pressure gauge does not read 75 to 80 psi (or 517 to 532 kPa) after three tries.

- e. When the fuel pressure reaches 75 to 80 psi within 15 seconds, open the manual fuel valve one full turn. See Figure D-14.
- f. Observe burner ignition through the sight tube. See Figure D-14.
- g. If the burner ignites within 20 seconds, then open the manual fuel valve fully. See Figure D-14.

**COACHING POINT:** If combustion does not happen within a preset time, the control unit will cause a safety shutdown of the ignition spark. When a buzzer sounds on the control box, tell the soldiers that they must turn the load limit switch to the OFF position and wait two minutes. At the end of that time, the soldiers repeat Steps 59 and 60, above. If combustion still does not occur, they must follow the troubleshooting procedures in TM 10-4520-259-13 & P, *Operator's, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List, Heater, Water, Liquid Fuel, M80.*

- h. Check that exhaust gasses from the smoke stack are transparent and smokeless; if necessary, adjust the air band on the blower motor assembly, if necessary, until no smoke is visible. See Figure D-17.

**COACHING POINT:** The position of the air band determines the ration of air to fuel. The soldiers must check for the presence of smoke in the exhaust gasses frequently because normal vibration of the water heater during operation may change the air band adjustment.

DRILL LEADER ISSUES INSTRUCTIONS TO OPERATE THE SHOWER SUPPORT COMPONENTS AND EQUIPMENT.

61. Soldiers 1, 2, and 3 perform the following operational checks on the M80 water heater:

- a. Check fuel hoses for leaks and proper connections. See Figure D-14.
- b. Check ignition cables for frayed insulation or damaged connections. See Figure D-14.
- c. Check the blower and motor assembly for secure mounting. See Figure D-14.
- d. Check the air shutter for damage. See Figure D-17.
- e. Check the temperature gauge; it should coincide with the thermostat setting. See Figure D-14.

**NOTE:** The heater flame will shut off automatically and fuel pressure gauge will register zero when the specified water temperature is reached.

- f. Check the load limit switch, reset button, or circuit breakers to ensure they are not tripped from overload conditions. See Figure D-14.
- g. Check the boiler tank assembly for dents, breaks, cracks, and leaks.
- h. Check the fuel filter sediment bowl for the presence of solids or water, and clean out the solids and water, if necessary. See Figure D-17.

**COACHING POINT:** There are three classes of leaks. Fluids seeping from connections or valves (they are wet or discolored) are Class I leaks. Leaks that form drops that do not drip from the connection or valve are Class II leaks. Leaks that drip from the connection or valve are Class III leaks. You can operate with Class I or II leaks, if you maintain the fluid levels as required in the preventive maintenance checks and services (PMCS). You must immediately report Class III leaks to the supervisor, so maintenance can repair them.

**NOTE:** Water dripping from the shower heads and shave stand faucets is normal, even when their control valves are fully closed.

62. Soldiers 1, 2, and 3 perform preoperations checks of water supply lines, and shower and shave stand components by doing the following:

- a. Check for the presence of water at the shower heads and shave stand faucets by observing for dripping water.
- b. Check that water connectors and hoses are free of Class III leaks; turn off the combination pump and correct the leaks if any are found.

- c. Slide the shower head control valves and shave stand faucets to the fully open position and flush the shower manifolds, shave stand lines and faucets, and hoses for two minutes.
  - c. Slide the shower head control valves and shave stand faucets to the fully closed position.
63. Soldiers 1 and 2 perform preoperations checks on the SEP by doing the following:
- a. Check the tank for damage and leaks.
  - b. Check the inflow and outflow connections and ball valve for damage and leaks. See Figure D-11.
  - c. Check the circuit breaker box for damage and tripped circuit breakers. See Figure D-11.
  - d. Remove the lid from the SEP and checks the pump for proper operation by activating the float switch. See Figure D-12.
  - e. Turn the heating element (if installed) circuit breaker ON at circuit breaker box, check the heating element for proper operation, and turn OFF the heating element circuit breaker (unless operating in cold weather conditions). See Figure D-11.
  - f. Replace the SEP lid and check the lid for damage, proper fit, and proper operation of retainers. See Figure D-11.
64. Soldier 2 checks the combination pump for proper operation, leaks, or damage.
65. A soldier (1, 2, or 3) operates the combination pump during scheduled shower periods by doing the following:
- a. Turns on the supply and drain switches. See Figure D-10.
  - b. Turns off the supply switch at the end of the scheduled shower period.
  - c. Leaves the drain switch on for 15 minutes after the scheduled shower period to thoroughly drain graywater from the shower stalls and drain lines.

THE DRILL LEADER GIVES THE ORDER TO PERFORM PMCS ON THE SHOWER.

66. Soldiers 1, 2, and 3 perform during operations checks on the shower equipment and components by doing the following:
- a. Remove dirt, sand, and debris from all components and assemblies.
  - b. Ensure all hook-and-pile fasteners and the fabric covers in the shower assembly are properly secured.
67. Soldiers 1, 2, and 3 perform periodic maintenance on shower subsystem components by doing the following:

- a. Perform periodic maintenance on the M80 water heater, IAW TM 10-4520-259-13& P.
- b. Perform periodic maintenance on the SEP.
- c. Perform periodic maintenance on the TEMPERs, IAW TM 10-8340-224-13.
- d. Perform periodic maintenance on the shower assembly, IAW TO 35E35-4-1.
- e. Perform periodic maintenance on the shave stand assembly, IAW TO 35E35-3-1.
- f. Perform periodic maintenance on the combination pump, IAW TO 35E35-4-1.
- g. Check shower and shave stand drains for debris or blockage, and clean as required.
- h. Check shower and shave stand surfaces for cleanliness, and clean as required.
- i. Check fabric covers for damage and cleanliness, and clean or repair as required.
- j. Check supply and drain hoses for dirt and debris, and clean as required.

68. Soldier 1, 2, and 3 operate and maintain the TEMPERs and their components IAW Drill 42-2-D0002, *Operate and Maintain the Four-Section TEMPER.*

RUN-THROUGH: The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

PERFORM: When the soldiers can perform this drill according to the standards, their performance should be evaluated by the section leader.



**CREW DRILL 42-2-D0009**  
**Dismantle the Shower**

TASK: Dismantle the shower.

CONDITIONS: The shower subsystem is operating in its designated area. Instructions have been received to cease operations and prepare for redeployment. Components have been inventoried and inspected for serviceability. Unserviceable components have been tagged and reported to the Force Provider (FP) company or platoon higher HQ. Coordination has been made with the Water Distribution Section to have highly chlorinated water available to flush the shower's water lines. A steam cleaner is available from platoon or company to assist in cleaning the shower. Three soldiers have been assigned to dismantle the shower site. Seven additional soldiers are available to assist in dismantling the shower tents, extendable, modular, personnel (TEMPERs) and moving them to the staging area for the subsystem's triple containers (TRICONS). After the TEMPERs are moved to the staging area, these additional soldiers are released.

STANDARD: The shower subsystem is dismantled and prepared for movement IAW TM 10-5419-200-12, *Operator, Unit, Direct Support and General Support Maintenance Manual for Force Provider Modules 1 & 2*, Technical Order (TO) 35E35-3-1, *Erection, Operation, Storage, Inspection and Maintenance Instructions with Illustrated Parts Breakdown, Shave Stand Bare Base*, and TO 35E35-4-1, *Erection, Operation, Storage, Inspection and Maintenance Instructions with Illustrated Parts Breakdown Shower Facility Bare Base*. The shower subsystem meets required sanitation and cleanliness standards for shipment that higher HQ has established.

SUPPORTING INDIVIDUAL TASK: Soldiers executing the drill should be proficient in Soldier Training Publication (STP) task 101-514-1156, *Operate the Bath Unit's Water Heater*, found in STP 10-57E14-SM-TG.

SETUP INSTRUCTIONS:

a. Resources.

(1) One completely set up and operational shower subsystem (shower kit, shower tent kit, shower air conditioner kit, and shower support kit, types 4D and 4E, with electrical power and potable water applied to the shower subsystem, and the shower subsystem connected to the site's graywater collection subsystem).

- (2) One general mechanic's automotive tool kit.
- (3) Steam cleaner.
- (4) Cleaning supplies (such as mops, cloths, brushes, soap, disinfectant).
- (5) A wastewater vacuum tank/trailer (WWVT/T) team to clean out the sewage ejection pump (SEP).
- (6) Five-ton fork lift to move shower component to TRICON staging areas. (One of the soldiers should be qualified to operate the fork lift. If none is qualified, a fork lift operator will be required.)
- (7) Three Shower Specialists to dismantle the shower site and seven additional soldiers to assist in dismantling the shower site.
- (8) Technical documentation, including all applicable technical manuals (TMs) and commercial instructions supplied with the shower subsystem components.

b. Training Site. A fully set up, operational shower subsystem in the center of a 60- by 75-foot area. The shower site and TRICON staging area must be accessible by the fork lift.

c. Unit Instructions. The Laundry/Shower Section soldiers should be brought to the shower subsystem. Designate the ten soldiers selected to dismantle the shower subsystem by number (i.e., Soldier 1, Soldier 2, Soldier 3, Soldier 4, etc.). After dismantling the two TEMPERs and moving them to the TRICON staging area, release Soldiers 4 through 10.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains three soldiers to work together to dismantle the shower subsystem correctly. Assign each soldier a different number during subsequent drill iterations so each learns all the drill steps and standards for dismantling the shower.

b. Environmental Stewardship. Three personnel disassemble the shower site. They must act to prevent leaks from supply lines, connections, or combination pump, and rapidly shut off the pump if they detect leaks. They will be alert for any fuel leaks or spills at the M80 water heater. They will contain any fuel spills, dig up contaminated soil, and dispose of it IAW current directives. They will collect any spilled graywater and dispose of it as hazardous waste (HW), IAW current directives. They will flush highly chlorinated water from the shower subsystem's water pipes before dismantling the subsystem.

c. Safety. Ensure the shower subsystem is properly grounded prior to disconnecting power from the subsystem. Ensure all circuit breakers are OFF. Only a qualified technician will

disconnect the subsystem's electrical pigtailed from the power source or power distribution system. Hot water may remain in the M80 water heater and shower hoses after shutdown. Allow water to cool before attempting to disassemble the heater. Avoid skin contact with graywater. Consider graywater as HW and use protection when performing any operation or maintenance involving graywater or highly chlorinated water.

d. Demonstration (optional). If other soldiers from the Shower/Laundry Section have successfully performed the drill, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier to dismantle the shower subsystem. The drill leader should answer all questions concerning the drill performance. Each soldier should explain their role in the drill, including the standards for which they are responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader should conduct the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a deliberate pace on the first iteration as the "walk" phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

b. Initiating Cue. The drill leader gives the order to dismantle the shower site.

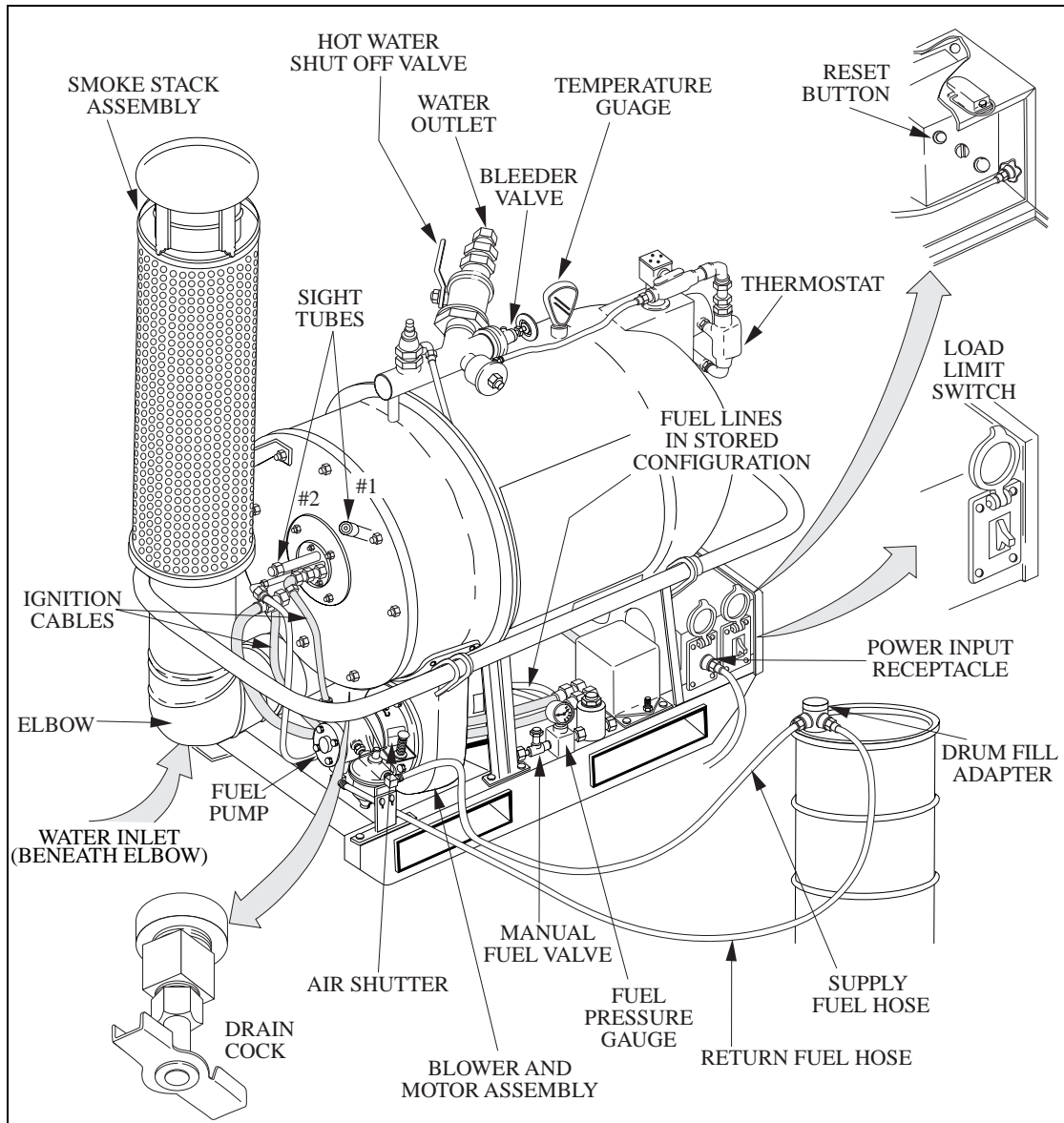
#### Performance Measures:

**COACHING POINT:** The drill leader, Preventive Medicine NCO, or section leader inspects the shave stands and shower stalls for required cleanliness IAW higher HQ deployment directives and unit TSOP. Soldiers reclean components, as required, to meet these standards.

1. Soldiers 1, 2, and 3 thoroughly clean the shave stands and the inside of the shower stalls.

**COACHING POINT:** When the FP site shuts down, the Water Distribution Section will send highly chlorinated water throughout the potable water supply system. The drill leader or personnel from the Water Distribution Section notifies the soldiers when the highly chlorinated water is available at the shower site and when highly chlorinated water is no longer in the water distribution subsystem.

2. Soldiers 1, 2, and 3 turn on shower manifold valves and shave stand faucets to flush the shower subsystem's potable water and graywater lines thoroughly with highly chlorinated water.
3. After the Water Distribution Section reports that highly chlorinated water is no longer in the water distribution subsystem, Soldiers 1, 2, and 3 continue to run potable water through the water lines until the residual highly chlorinated water is flushed from the shower and shave stand water lines.
4. Soldiers 1, 2, and 3 shut off all shower supply manifold valves and shave stand faucets.
5. Soldiers 1, 2, and 3 shut down the M80 water heater by doing the following:
  - a. Turn the water temperature control to 0<sup>0</sup> Fahrenheit (F) (-18<sup>0</sup> Celsius [C]) and allow the water heater to operate for two minutes to purge vaporized fuel from the burner. See Figure D-18.



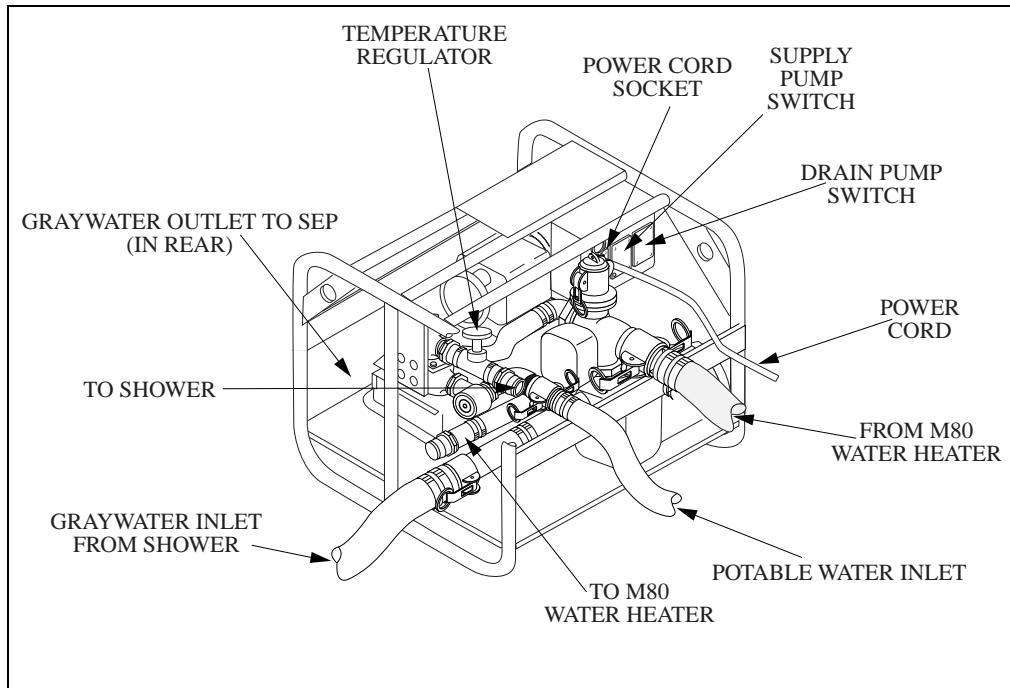
**Figure D-18. M80 water heater electrical, fuel, and water controls**

- b. Turn the load limit switch to the OFF position and close the manual fuel valve. See Figure D-18.
- c. Open the drain cock beneath the water tank and allow the hot water to drain from the tank.
- d. Close the drain cock when the water tank is empty.
- e. Disconnect all fuel lines and the drum fill adapter and drain any residual fuel into the fuel drum.
- f. Clean the outside of the drum fill adapter and set it aside for later repacking.
- g. Clean the outside of the fuel lines and pack them beneath the M80 water heater, IAW TM 10-4520-259-13 & P.

- h. Position the fuel drum for collection by the Petroleum Distribution Section.

**COACHING POINT:** Continue the remainder of M80 water heater disassembly only after water in the hoses has cooled.

6. Soldiers 1, 2, and 3 turn OFF the power switches and circuit breakers on the combination pump, the two environmental control units (ECUs), and the TEMPER power distribution boxes. See Figure D-19.



**Figure D-19. Combination pump water supply and drain connections**

7. Soldier 1 shuts off the gate valve at the shower subsystem user connection point of the potable water supply line.
8. Soldiers 2 and 3 remove the lid from the SEP, lift the float switch to activate the pump, and allow the pump to drain as much residual graywater from the tank as possible. See Figure D-20.
9. Soldier 1 notifies the WWVT/T team that they need to remove the remaining graywater from the SEP tank.
10. Soldiers 2 and 3 turn off all circuit breakers on the SEP and the PDISE-M100. See Figures D-21 and D-22.

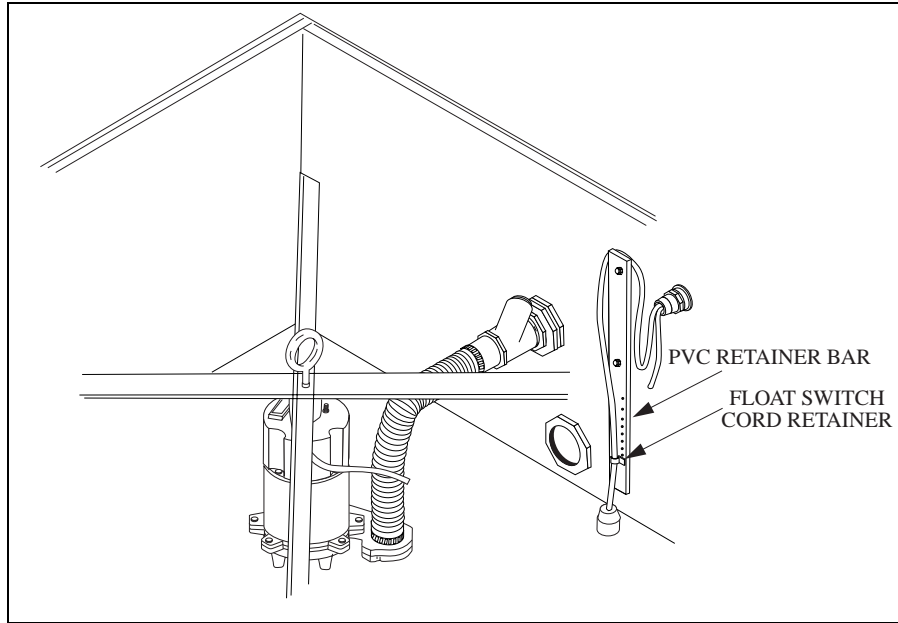


Figure D-20. Sewage ejection pump float switch

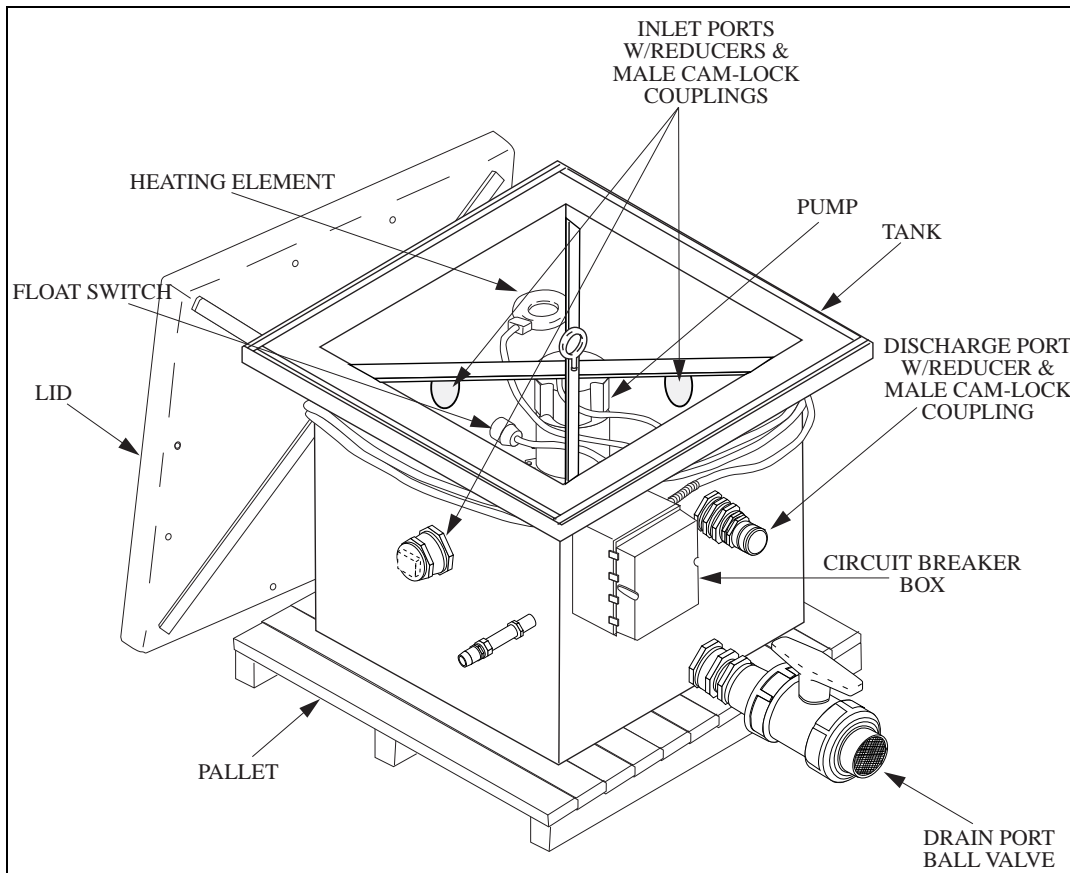
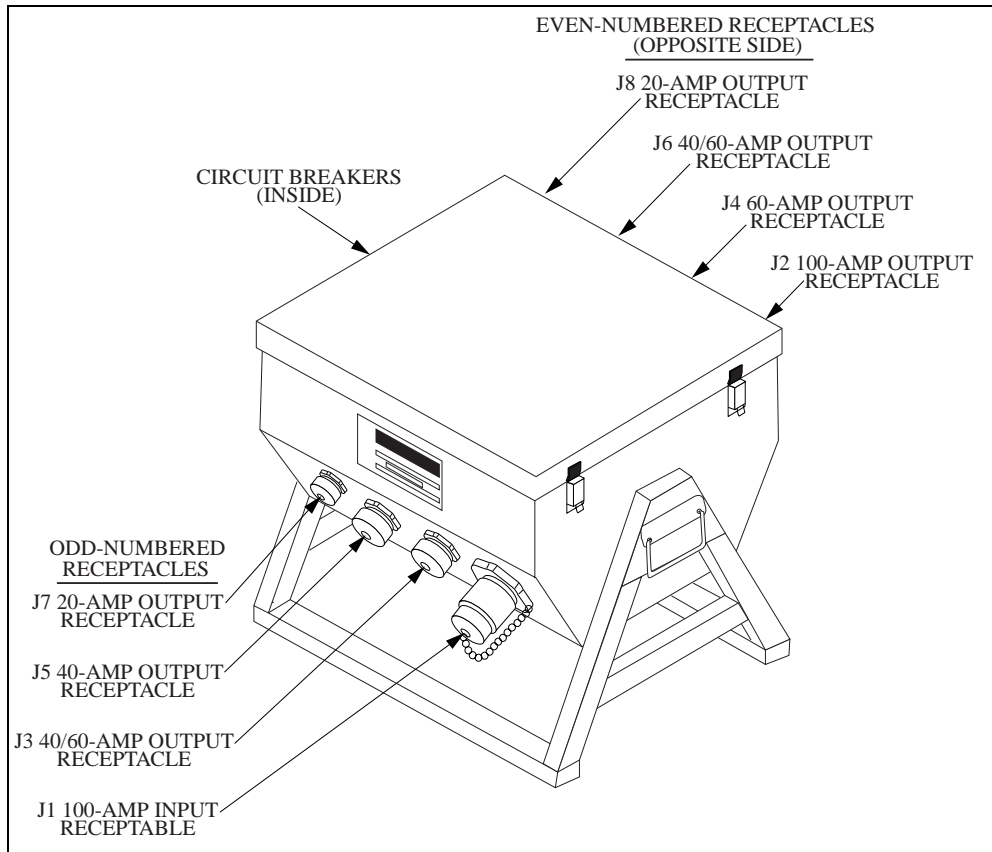


Figure D-21. Sewage ejection pump components and connections

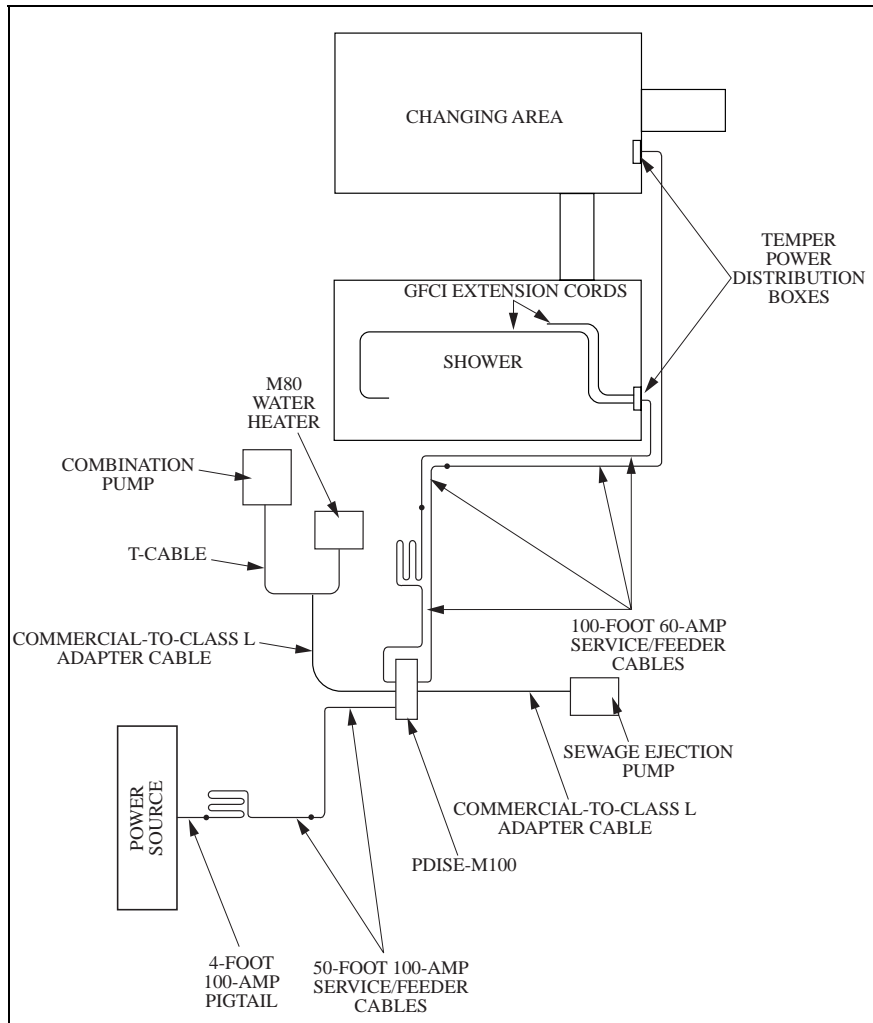


**Figure D-22. PDISE-M100 service/feeder cable connections**

**WARNING:** ONLY QUALIFIED TECHNICIANS FROM THE FACILITIES SUPPORT SECTION WILL DISCONNECT THE PDISE-M100 FROM THE POWER SOURCE.

11. Soldier 1 notifies the Facilities Support Section to disconnect the PDISE-M100 from the primary power source.
12. Soldiers 1, 2, and 3 dismantle the shower subsystem's electrical cables by doing the following:
  - a. Disconnect the commercial-to-class L adapter cable that is connected to the T-cable from the 40-amp output receptacle on the PDISE-M100. See Figures D-22 and D-23.
  - b. Separate the T-cable from the commercial-to-class L adapter cable, the M80 water heater, and the combination pump, and coil the T-cable and commercial-to-class L adapter cable neatly for repacking.
  - c. Disconnect the remaining commercial-to-class L adapter cable from the other 40-amp output receptacle on the PDISE-M100. See Figures D-22 and D-23.





**Figure D-23. Electrical power layout and connections at shower site**

- d. Separate the commercial-to-class L adapter cable from the SEP power cable, wrap the SEP's power cable around the tank, and coil the commercial-to-class L cable neatly for repacking. See Figure D-21.
- e. Disconnect the 50-foot 100-amp service/feeder cables from the 4-foot 100-amp pigtail and reinstall their dust caps. See Figure D-23.
- f. Disconnect the two 50-foot 100-amp service feeder cables from each other and the J-1 100-amp input receptacle on the PDISE-M100, replace their dust caps, coil each 100-amp cable into a neat coil with a diameter no more than 26 inches, and secure each coil with two 4-inch carrying straps. See Figures D-22 and D-23.
- g. Disconnect the two 100-foot 60-amp service/feeder cables from the J3 and J4 60-amp output receptacles on the PDISE-

- M100 and replace their dust caps. See Figures D-22 and D-23.
- h. Disconnect the two 100-foot 60-amp service/feeder cables from each other and the TEMPER power distribution boxes, replace their dust caps, coil each 60-amp cable into a neat coil with a diameter no more than 30 inches, and secure the coil with two 4-inch carrying straps. See Figure D-23.
  - i. Clean excess dirt and debris from surfaces of all electrical cables and the PDISE-M100.
  - j. Position the PDISE-M100, 4-foot 100-amp pigtail, and electrical service/feeder cables in the staging area for repacking.

**COACHING POINT:** When the soldiers have disassembled the shower's electrical components correctly, direct them to disassemble the potable water supply.

13. Soldiers 1, 2, and 3 prepare the potable water supply lines for repacking by doing the following:

**COACHING POINT:** Stress that the soldiers must keep the open (connector) ends of the water hoses clean and not allow them to fall or rest on the ground where they can become contaminated with dirt or other debris.

- a. Disconnect the shower facility 1-inch x 35-foot main supply hose from the 1-inch x 1½-inch reducer and remove the reducer.
- b. Immediately install the connector plug to the 1-inch shower supply hose and the cap to the main potable water supply hose, which the Water Distribution Section provides.
- c. Disconnect the red M80 water heater supply hose from the outlet connector on the combination pump and from the inlet connector on the M80 water heater. See Figures D-18 and D-19.
- d. Disconnect the other red M80 water heater supply hose from the input connector on combination pump pressure regulator and the output connector on the M80 water heater. See Figures D-18 and D-19.
- e. Disconnect the 1-inch x 12-foot supply hose from the combination pump pressure regulator outlet and the water supply Y-connector at the shower.
- f. Disconnect all Y-connectors on water supply lines and reinstall the dust plugs and caps.
- g. Drain potable water supply hoses by lifting one end of a hose overhead and walking toward the other end, and then reinstall their dust plugs and caps.
- h. Clean the exterior of all potable water supply hoses of dirt and debris using soap and water.

- i. Coil all potable water supply hoses and carry them to the staging area for repacking.

**COACHING POINT:** When the soldiers have disassembled the shower's potable water hoses correctly, direct them to disassemble the shower's graywater collection components.

14. Soldiers 1, 2, and 3 prepare the graywater collection lines for repacking by doing the following:

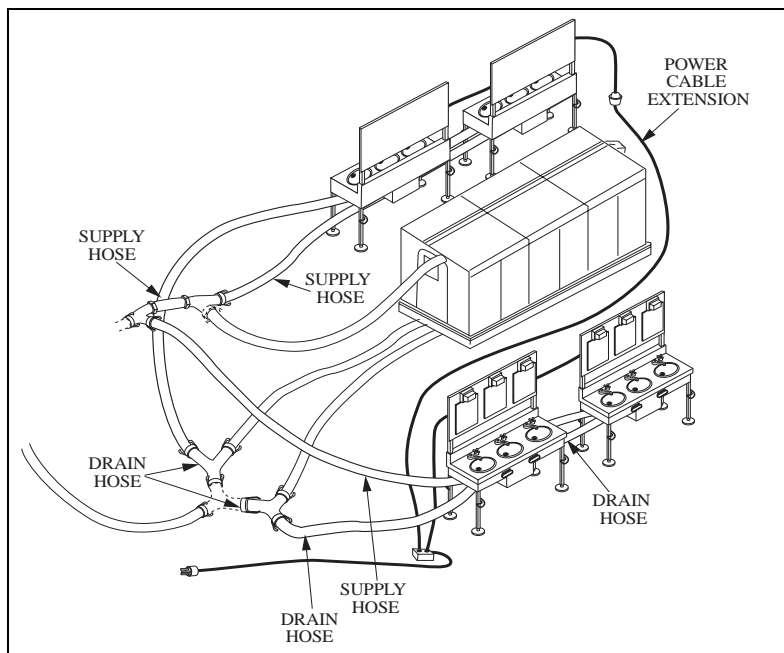
- a. Disconnect the shower facility 2-inch x 35-foot drain hose from the combination pump and SEP. See Figures D-19 and D-21.
- b. Drain the 2-inch graywater collection hoses by lifting one end overhead and walking the hose to the other end, and reinstall the dust plugs and caps.
- c. Clean the exterior of the drain hoses of dirt and debris, using soap and water, and then carry the hoses to the staging area for repacking.
- d. Disconnect the 2-inch graywater collection hose from the SEP.
- e. Coil the drain hose and leave it for the Water Distribution Section to recover.
- f. Remove the 3-inch x 2-inch NPT reducer and 2-inch NPT x 2-inch cam-lock coupling half from the SEP, and carry them to the staging area for repacking. See Figure D-21.

15. Soldiers 1, 2, and 3 prepare the SEP for movement by doing the following:

- a. Reconnect the float switch cord retainer. See Figure D-20.
- b. Replace the PVC plugs in the inflow ports.
- c. Clean the interior and exterior of the SEP with soap and water.
- d. Remove the ball valve and store it inside the tank. See Figure D-21.
- e. Remove the 2½-inch PVC nipple and bushing from the drain port and store it inside the tank. See Figure D-21.
- f. Disconnect the heating element (if installed) and store it inside the tank. See Figure D-21.
- g. Replace the SEP lid and secure it with the retainers. See Figure D-21.
- h. Check the condition of the pallet and request a replacement if the pallet has deteriorated to the point that it may not support the SEP during shipment.
- i. Move the SEP to the staging area using a fork lift.

16. Soldiers 1, 2, and 3 prepare the combination water pump for movement by doing the following:

- a. Drain water from the pump by slowly rolling it over 360 degrees twice.
  - b. Clean the pump of surface dirt and debris.
  - c. Perform preventive maintenance, IAW TO 35E35-4-1
  - d. Allow combination pump interior to air dry thoroughly.
  - e. Position combination pump at the staging area for repacking.
17. Soldiers 1, 2, and 3 disassemble the shave stands by doing the following:
- a. Disconnect the ground fault circuit interrupter (GFCI) extension cords, coil them neatly, and place them outside the TEMPER. See Figure D-24.
  - b. Remove the shave stand mirror assemblies from the shave stand bases and set them outside the TEMPER. See Figure D-25.
  - c. Disconnect the 1-inch supply and 1½-inch drain hoses from the shave stands' rear supply and drain manifolds, and place them outside the TEMPER. See Figure D-26.
  - d. Remove the 1-inch supply and 1½-inch drain hoses from between the two shave stands, reinstall the pipe caps, and place the hoses outside the TEMPER. See Figure D-26.
  - e. Remove the leg extensions from each base assembly by laying the bases on their backs, removing the safety pins securing the leg extensions, and resecuring the extensions to the base assemblies with the retainer straps. See Figure D-25.
  - f. Remove the disassembled shave stands from the TEMPER.



**Figure D-24. Shave stand electrical, drain, and supply connections**

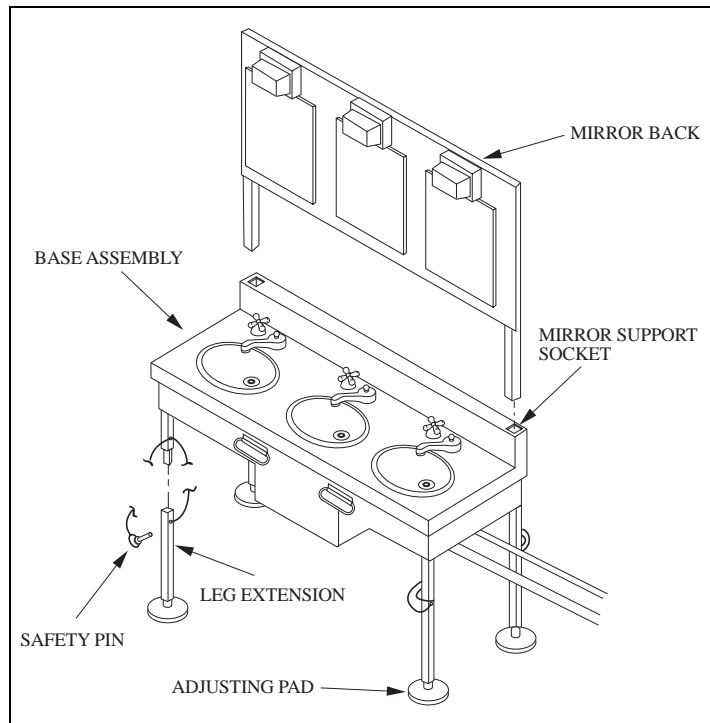


Figure D-25. Shave stand components

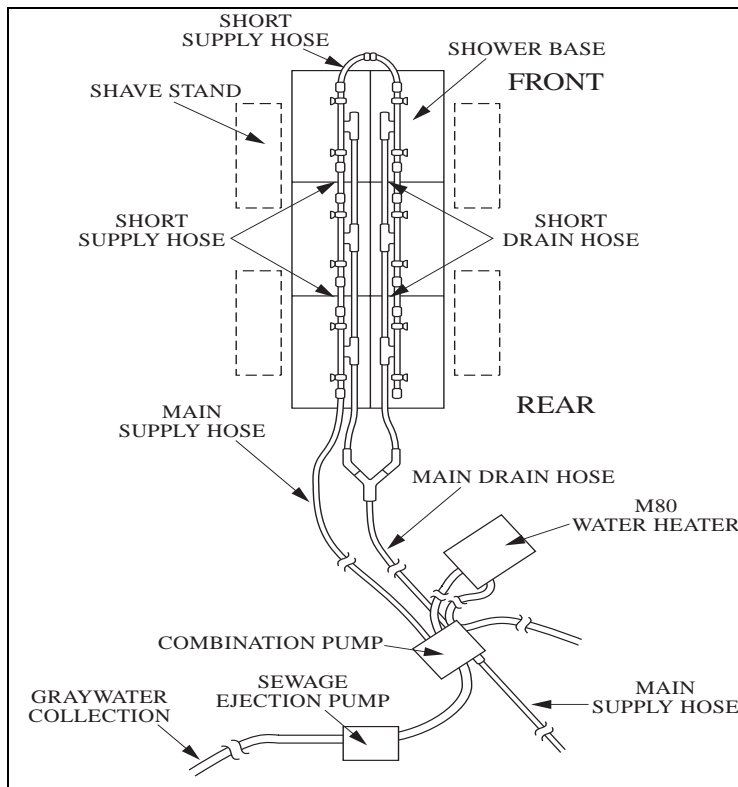
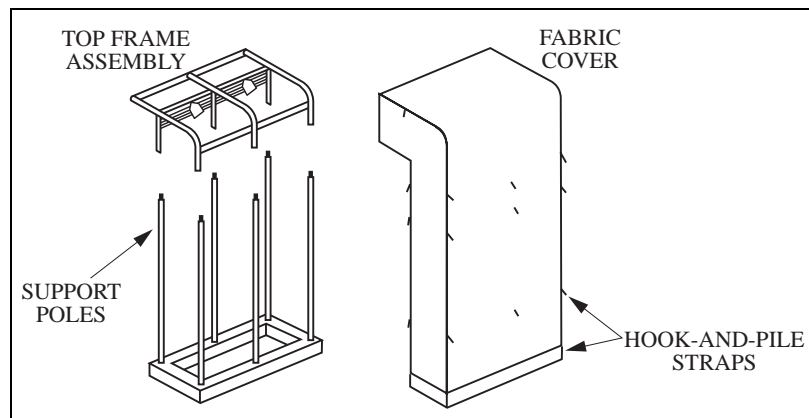


Figure D-26. Layout of shower components and supply and drain hoses

- g. Drain all hoses, manifolds, and bases.
  - h. Clean all components and allow them to air dry thoroughly.
  - i. Move the disassembled shave stands and all their accessories to the staging area for repacking.
18. Soldiers 1, 2, and 3 disassemble the shower facility by doing the following:
- a. Remove the two door cover openings and place them outside the TEMPER.
  - b. Remove the shower floor cover, roll it up, and place it outside the TEMPER for cleaning.
  - c. Disconnect the six 1-inch water supply hoses from the shower manifolds and place them aside for later repacking. See Figure D-26.
  - d. Replace the caps on each end of the shower manifolds.
  - e. Remove the hook-and-pile straps securing the facing frames of the showers.
  - f. Remove the fabric cover from the poles and base assembly of each of the shower stalls and set the covers outside the TEMPER for cleaning.
  - g. Remove the top frame with its fabric cover from each shower stall's support poles and set it outside the TEMPER. See Figure D-27.



**Figure D-27. Disassembly of shower top frame, support poles, and fabric cover**

- h. Remove the fabric cover from each shower stall's top frame assembly.
- i. Remove the six vertical support poles from each shower base assembly and set them outside the TEMPER. See Figure D-27. Remove the drain hoses from between the drain manifolds, tilting the six base units to expose the manifolds and replacing the pipe caps on each manifold. See Figure D-26.
- j. Drain all hoses, manifolds, and bases.

- k. Clean all components and allow them to air dry thoroughly.
  - l. Carry shower components and accessories to the staging area for repacking.
19. Soldiers 1, 2, and 3 remove the floor mats from the shower and changing TEMPERS, clean the mats, and move them to the staging area for repacking.
20. Soldiers 1, 2, and 3 remove the folding tables, folding benches, towel rack, and fire extinguisher from the TEMPERS, clean them of dirt and debris, and move them to the staging area for repacking.
21. Soldiers 1, 2, and 3 complete disassembly of the M80 water heater by doing the following:
- b. Disconnect smoke stack and smoke pipe guard assembly.
  - c. Clean the M80 water heater for shipment, IAW TM 10-4520-259-13 & P
  - d. Pack M80 water heater components and accessories, IAW TM 10-4520-259-13 & P and TM 10-5419-200-12.
  - e. Using a fork lift, move the M80 water heater and accessories to the staging area for repacking.

**COACHING POINT:** The seven soldiers selected to dismantle and clean the shower TEMPERS (Soldiers 4 through 10) are made available at this time. When the TEMPERS and their components are cleaned and moved to the staging area, these additional soldiers are released.

22. Soldiers 1 through 10 dismantle and clean the TEMPERS and their components IAW Drill 42-2-D0003, *Dismantle the Four-Section TEMPER*.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader conducts the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent iterations of the drill.

**PERFORM:** When the soldiers can perform this drill according to the standards, the section leader should evaluate their performance.

**CREW DRILL 42-2-D0010****Set Up the Bulk Fuel Storage and Distribution Subsystem for a Force Provider (FP) Module**

**TASK:** Set up the bulk fuel storage and distribution subsystem for a FP module.

**CONDITIONS:** The Force Provider (FP) company or platoon has occupied an operational site for a FP module. The site has been prepared in accordance with (IAW) the site plan and is secure. The precise location of the bulk fuel storage and distribution site has been staked out. The fuel storage and distribution section equipment has been unpacked and inventoried. Section personnel have previously installed 500-gallon fuel drums at each of the FP power generation sites. The drill leader has ensured that all components are present, clean, and serviceable, and has reported all shortages and unserviceable components to company or platoon HQ. Gate valves and drain hoses for storage tanks have been emplaced. Berms have been emplaced IAW TM 10-5430-210-12 and are close enough together to permit discharge lines to meet at the T-junction (see Figure D-1). Berm liners have not been installed. Four soldiers have been assigned to set up the bulk fuel storage and distribution site. Technical documentation, including all applicable technical manuals (TMs) and instructions supplied with the bulk fuel storage and distribution subsystem components, and tool kits are available. Section personnel should refer to Drill 4202-D00015 for procedures to set up the 500-gallon drums at the power generation sites.

**NOTE:** The FP fuel storage and distribution subsystem uses the same components as the Forward Area Refueling Equipment (FARE), except the FP subsystem employs 10,000-gallon collapsible fabric storage tanks with berm liners in addition to 500-gallon drums.

**STANDARD:** The bulk fuel storage and distribution site is set up IAW TM 10-5419-200-12, *Operator's, Unit and Direct Support Maintenance Manual for Force Provider Modules 1 & 2*. Set up and initial operation and checks are accomplished IAW the above reference so that bulk fuel operations satisfy user requirements.

**SUPPORTING INDIVIDUAL TASK:** Prior to executing the drill, the drill leader should be proficient in Soldier Training Publication (STP) task 101-519-3101, *Recommend a Site and Develop a Layout Plan for a Class III Supply and Distribution Point*, found in STP 10-77F15-SM-TG. The drill leader and soldiers executing the drill must be proficient in STP task 101-519-1304, *Assemble, Operate, Perform PMCS, and Disassemble the Forward Area Refueling Equipment (FARE) System*, found in STP 10-77F15-SM-TG.



SETUP INSTRUCTIONS:

a. Resources.

(1) One complete FP bulk fuel storage and distribution subsystem.

(2) One general mechanic's automotive tool kit.

(3) One five-ton forklift to position bulk fuel distribution and storage site components. (One of the soldiers should be qualified to operate the forklift. If none is qualified, a fork lift operator will be needed.)

(4) Four Petroleum Supply Specialists to set up the site.

(5) One slide hammer (to drive grounding rods).

(5) Technical documentation, including all applicable TMs and commercial instructions supplied with the bulk fuel storage and distribution subsystem components and equipment.

b. Training Site. The size of the drill site should be at least 300 feet by 500 feet and be accessible by bulk fuel supply vehicles. Berms surrounding the sites of the two 10,000-gallon collapsible fabric tanks must be constructed IAW TM 10-5430-210-12. Gate valves and drain hoses for storage tanks should be installed when the berms are completed.

c. Unit Instructions. The Petroleum Distribution Section soldiers should be brought to the bulk fuel storage and distribution site. The drill leader has made a reconnaissance of the site and ensured that the berms are correctly emplaced and that the site meets bulk fuel storage and distribution requirements. Designate the four soldiers selected to set up the site by number (i.e., Soldier 1, Soldier 2, etc.).

TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains the soldiers of the FP Petroleum Distribution Section to work together to correctly set up a FP bulk fuel storage and distribution subsystem and conduct the initial operation and checks. Assign each soldier a different number during subsequent drill iterations so each learns all the steps and standards for setting up the bulk fuel storage and distribution and performing the initial operation and checks.

b. Environmental Stewardship. Brief all soldiers on the environmental stewardship requirements of executing this drill. Fuel spills and leaks pose a direct threat to the environment and to human health. Although the drill will be executed with a dry system (no fuel in the system), all measures to protect the

environment will be taken. Drill leaders and soldiers will take measures to prevent leaks and spills during set up and if they occur, take immediate action to reduce their effect and to clean up contaminated soil and water. Spilled fuel and contaminated soil will be treated as hazardous waste (HW) and disposed of IAW current directives.

c. Safety. Even though the section will be working with a dry system for most of this drill, extreme care is required in following all safety precautions. No smoking is allowed. All equipment must be grounded immediately once it is in position. Soldiers must wear proper protective clothing and eye protection to eliminate injury hazards when driving grounding rods. Wipe bulk fuel storage and distribution components clean of residual fuel and put on protective clothing before performing any maintenance actions. Skin contact with fuel may cause health problems.

d. Demonstration (optional). If other soldiers from the Petroleum Distribution Section have successfully set up a bulk fuel storage and distribution site, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening, and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in setting up the FP bulk fuel storage and distribution subsystem. The drill leader should illustrate the steps and procedures with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should then explain their role in the drill, including the standards for which they are responsible. If a misunderstanding exists, the drill leader should make corrections immediately.

#### WALK-THROUGH INSTRUCTIONS:

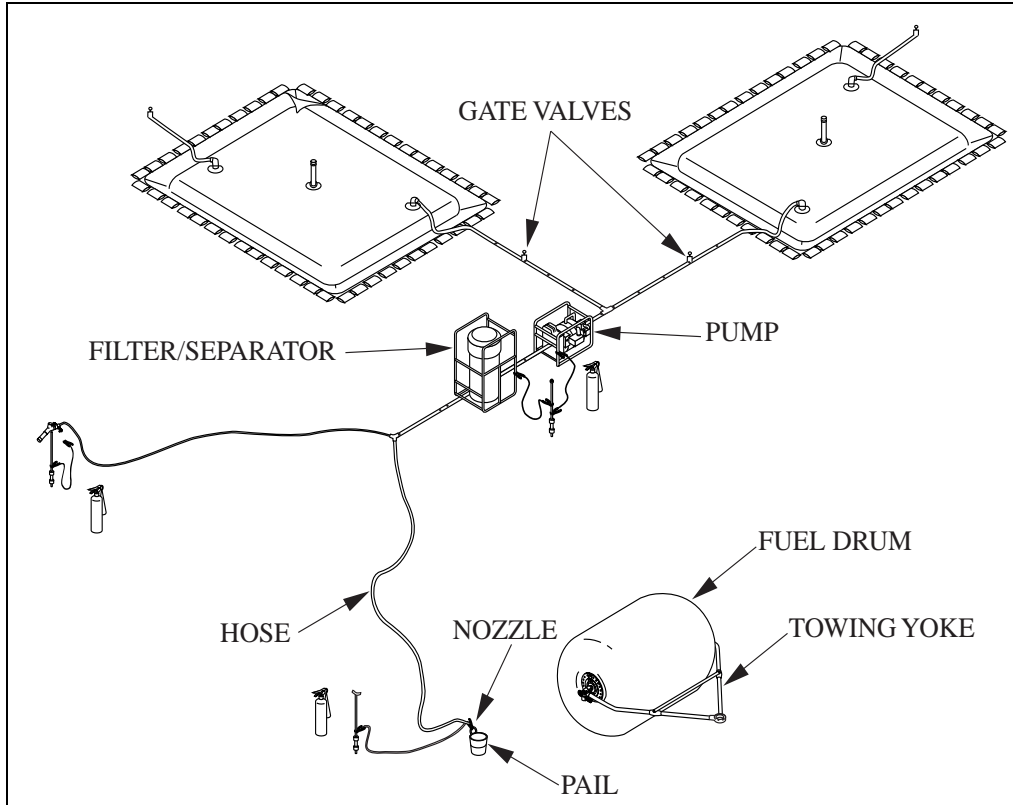
a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill should be conducted slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the crawl phase. The soldiers execute the drill at a deliberate pace on the first iteration as the walk phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the run phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

b. Initiating Cue. The drill leader gives orders to position the components of the subsystem and prepare for operations.

Performance Measures:

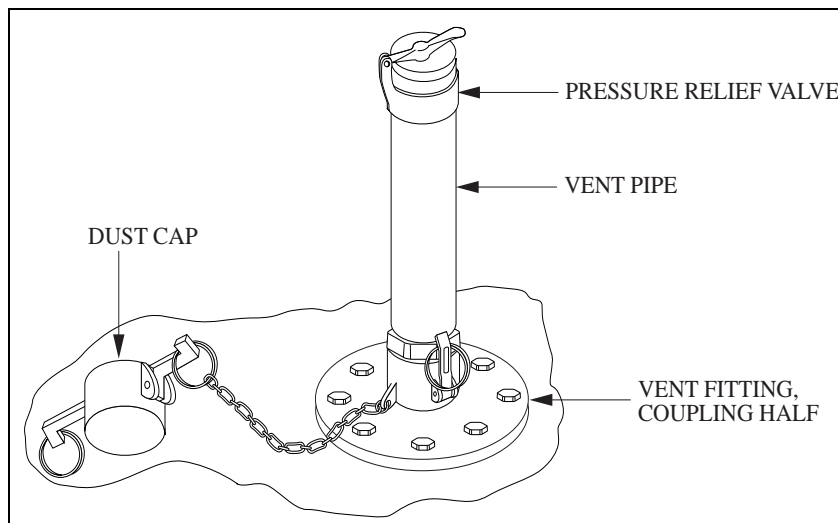
**COACHING POINT:** Inspect and clear the area inside the berm of all debris and sharp objects before installing the berm liner or the collapsible fabric tanks.

1. Soldiers 1 through 4 install a berm liner inside of each of the two berms and secure edges of berm liners with filled sandbags, doing one liner at a time. Soldiers may employ a forklift, if available, to transport the liner to the berm from the staging area. See Figure D-1.
2. Soldiers 1 through 4 position the two collapsible fabric tanks over the berm liners, positioning one tank at a time. Soldiers may employ a forklift, if available, to move tanks to the berm from the staging area.
3. Soldiers 1 and 2 move the fill components of the collapsible fabric POL tanks to the tanks.
4. Soldiers 3 and 4 move the discharge components of the collapsible fabric POL tanks to the tanks.

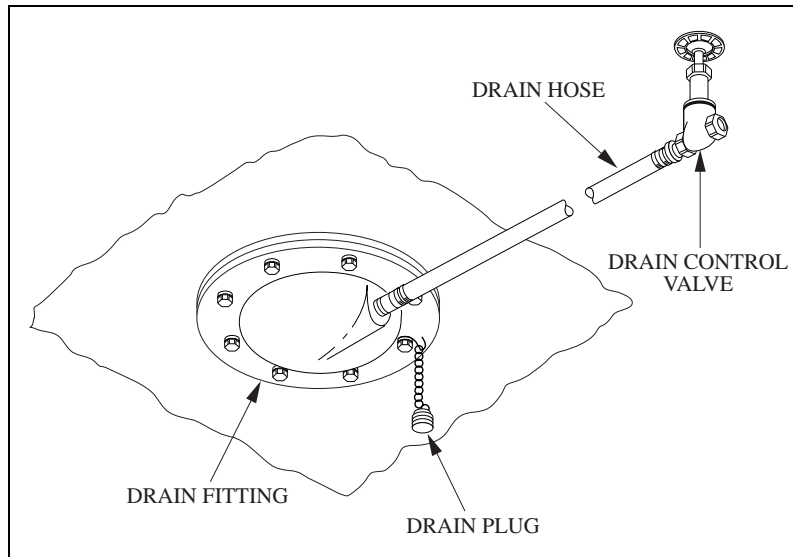


**Figure D-1. Fuel storage and distribution equipment**

3. Soldiers 3 and 4 move the safety vent and drain assembly for each POL tank to the tanks. See Figures D-2 and D-3.

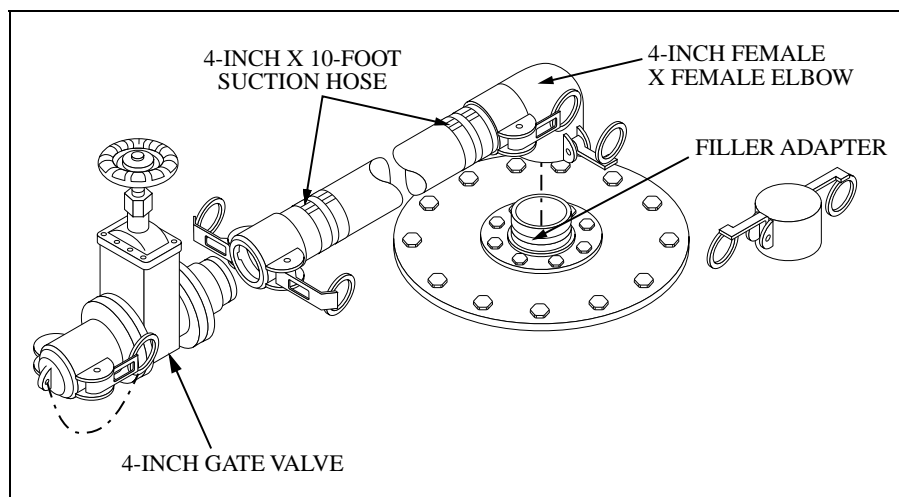


**Figure D-2. Safety vent**



**Figure D-3. Install drain assembly**

4. Soldier 1 installs the safety vent on each tank by removing the dust cap and screwing in the safety vent into the treaded portion of the ventilating coupling half.
5. Soldier 2 installs the drain assembly on each tank by removing the drain plug from the drain fitting, then screwing in the male fitting on the end of the drain hose into the drain fitting. Soldier 6 then attaches the drain control valve to the other end of the drain hose. See Figure D-3.
6. Soldier 1 connects the 4-inch filler female elbow to the filler adapter of each tank. See Figure D-4.



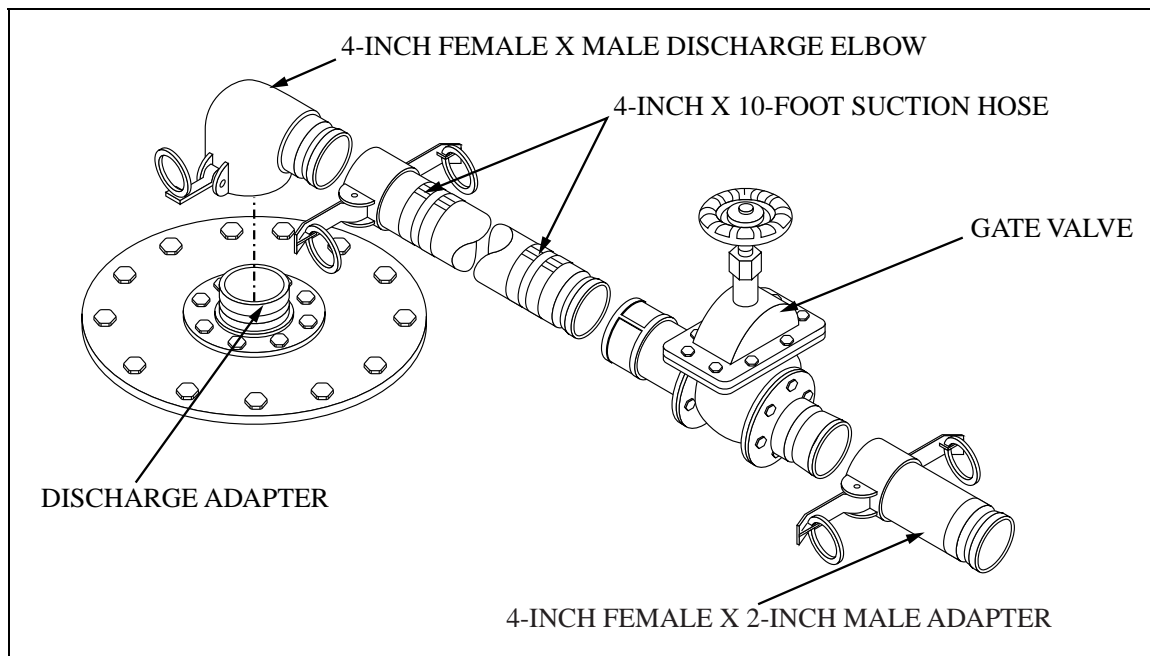
**Figure D-4. Assemble fill side of tank**

**COACHING POINT:** Ensure that the T-connection, all valves, and hose connections are kept out of dirt during installation and that the T-connection is laid on clean rock, boards, etc. to keep it out of dirt and mud.

7. Soldiers 1 and 2 connect two sections of 4-inch by 10-foot suction hose to the filler elbow. See Figure D-4.

9. Soldier 1 installs a 4-inch gate valve to the end of the filler hose. See figure D-4.

10. Soldier 2 installs 4-inch female and male discharge elbows onto the discharge adapter of the tank. See figure D-5.



**Figure D-5. Assemble discharge side of tank**

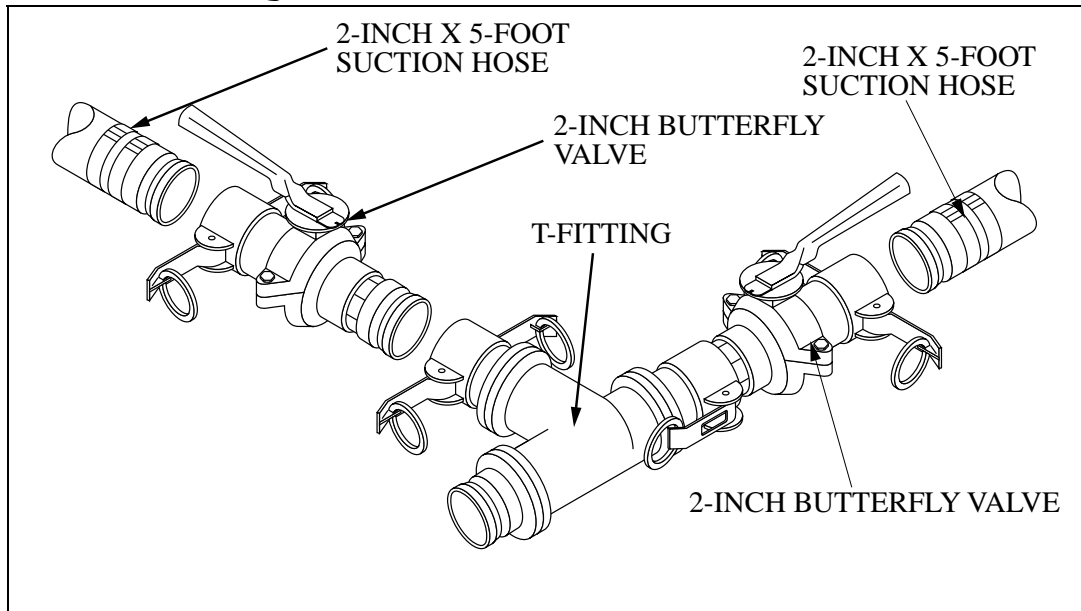
11. Soldiers 3 and 4 connect two sections of 4-inch by 10-foot long suction hose to the discharge elbow.

12. Soldier 3 installs a 4-inch gate valve to the end of the hose for the discharge side of tank.

13. Soldier 4 installs a 4-inch female by 2-inch male adapter on the gate valve for the discharge side of the tank.

14. Soldiers 1 through 4 repeat steps 10 through 13 for the other tank.

- Soldiers 1 and 2 connect four sections of 2-inch by 5-foot long suction hose to adapter from the discharge side of each tank. See Figure D-6.



**Figure D-6. Discharge line layout**

- Soldiers 3 and 4 install a 2-inch butterfly valve to the end of the discharge hose from each tank. See Figure D-6.

- Soldiers 1 and 2 connect both butterfly valves to the T-fitting. Soldiers 3 and 4 ensure that the T-connection is raised off the ground.

- Soldier 1 connects one 5-foot suction hose to the end of the T-fitting. See figure D-7.

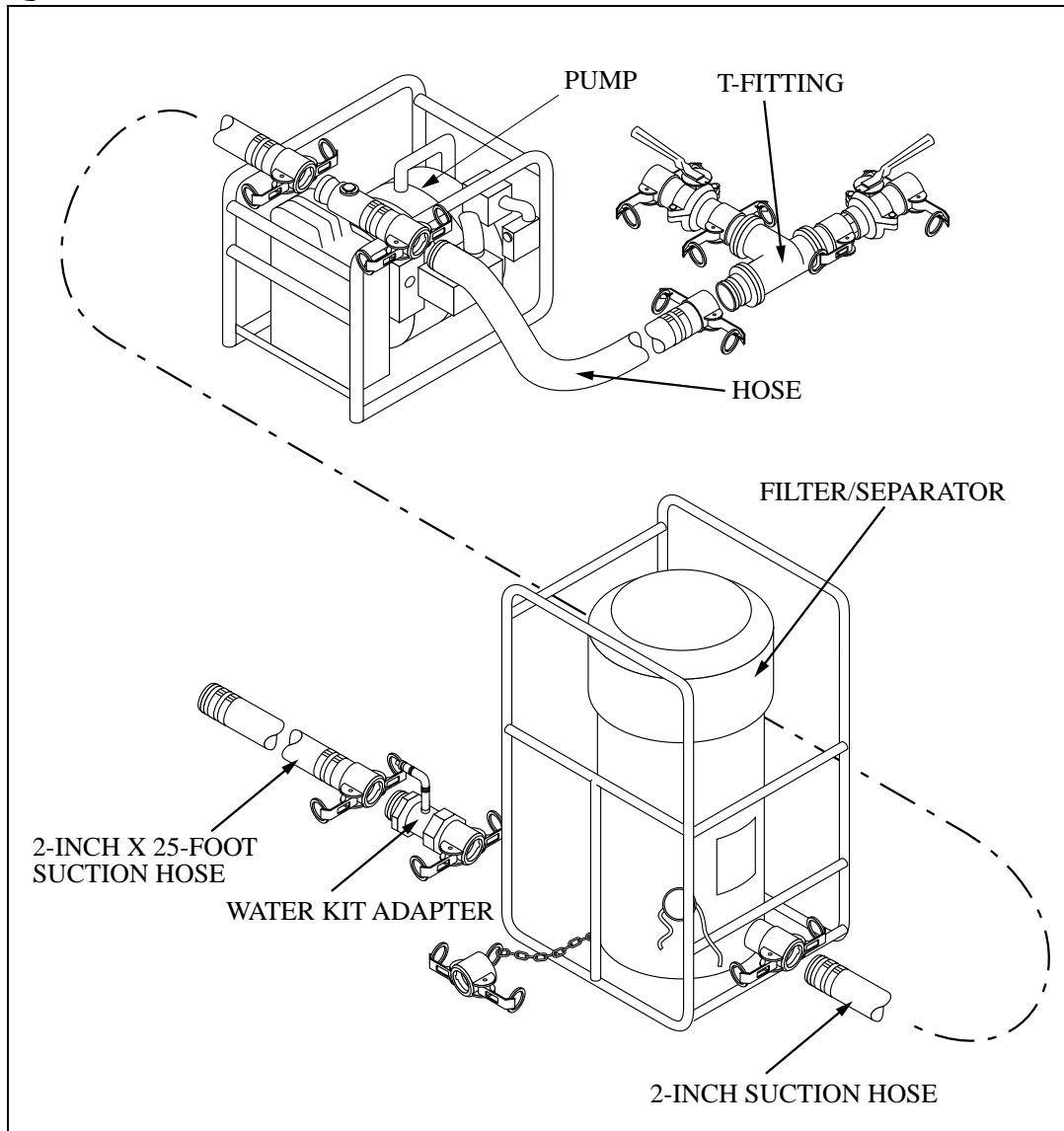
- Soldiers 1 and 2, place the pump on level ground, at the end of the suction hose, with the inlet port of the pump facing toward the fuel tanks, and connect the hose from the T-connection to the pump's inlet port.

**COACHING POINT:** Ensure that the inlet port on the pump is facing toward the T-fitting that joins the two tanks.

- Soldier 3 lays two 5-foot sections of suction hose at the discharge end of the pump and connects the hose to the pump's discharge port.

- Soldiers 2 and 3 set the filter/separator on level ground at the end of the suction hoses leading from the discharge port of the pump. The filter/separator inlet port should be facing the pump.

22. Soldier 4 drives one grounding rod/nozzle hanger at least three feet into the ground, halfway between the pump and the filter/separator, and attaches the grounding cable clips from the grounding rod to the pump and the filter/separator. See figure D-1.

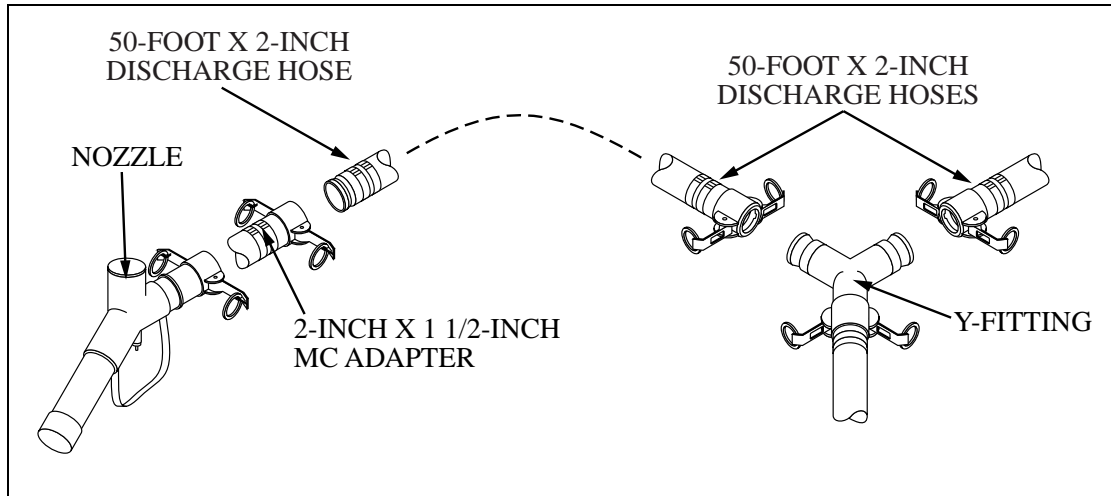


**Figure D-7. Pump, separator and tank connections**

23. Soldier 1 connects the suction hose to the inlet side of the filter/separator.
24. Soldier 2 places the water detector kit adapter by the outlet side of the filter/separator.



25. Soldier 1 connects one 2-inch suction hose to the water detector kit adapter.
26. Soldier 1 connects a Y-fitting to the other end of the 2-inch by 25-foot hose. See Figure D-8.
27. Soldiers 3 and 4 connect two each 2-inch by 50-foot discharge hose assemblies to the open ends of the Y-fitting and lay them out to the two fueling sites. See Figure D-8.



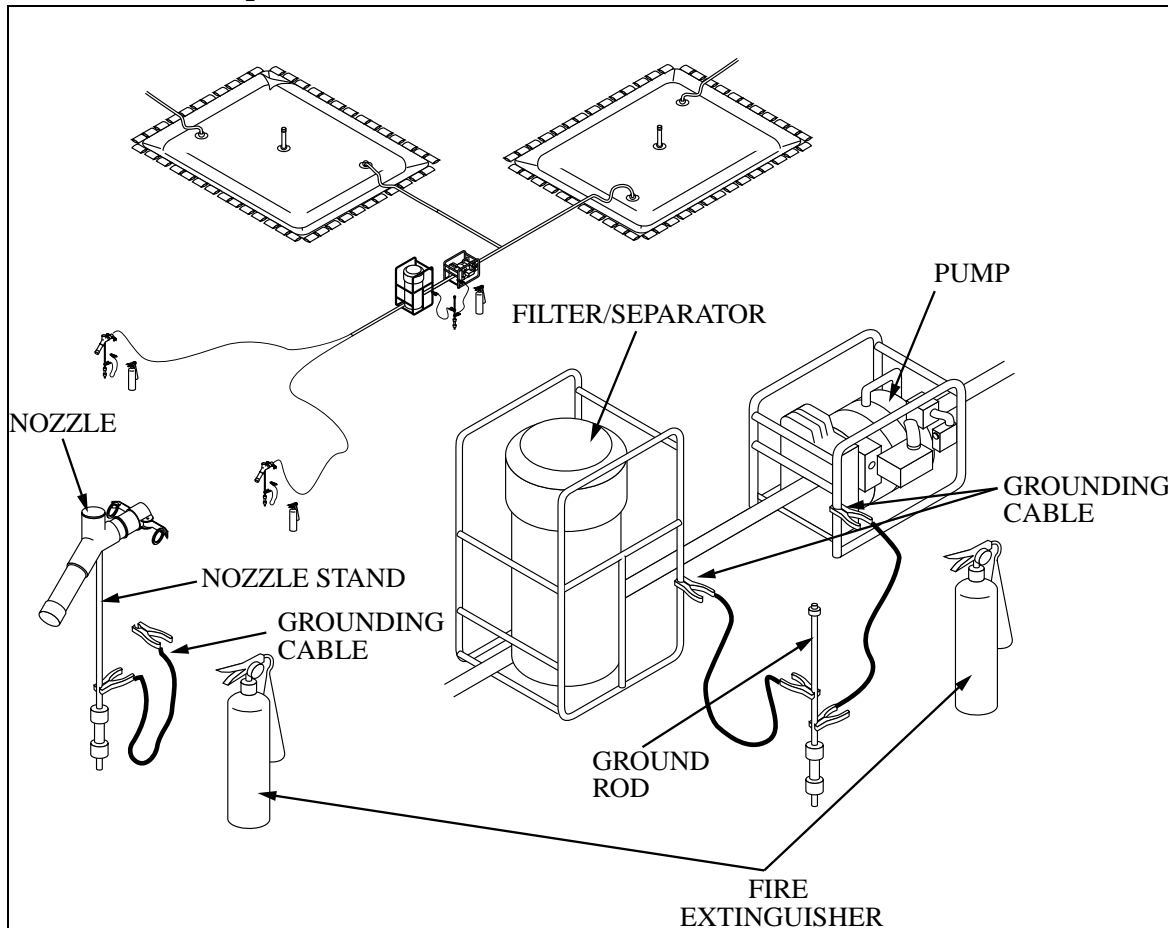
**Figure D-8. Discharge hose assemblies**

29. Soldier 1 lays out one 2-inch female coupler (FC) by 1- $\frac{1}{2}$  inch male coupler (MC) adapter and 1- $\frac{1}{2}$  to 1/2 inch nozzle at each of the two fueling sites.
30. Soldiers 1 and 2 then install one FC by 1- $\frac{1}{2}$  inch MC adapter and 1- $\frac{1}{2}$  1/2 inch nozzle at each of the two fueling sites and hang the nozzles on the hangers.

**COACHING POINT:** Maintain a minimum space of at least 25 feet between issue points.

31. Soldier 3 and 4 walk about 10 feet back toward the Y-fitting. Each soldier then drives a grounding rod/nozzle hanger at least three feet into the ground and hangs nozzle on the hanger. See Figure D-9.
32. Soldiers 3 and 4 then attach a grounding cable to the grounding rod and to the nozzle at each of the two fueling sites.

33. Soldiers 3 and 4 position a 20-pound dry chemical fire extinguisher at each fuel nozzle and a third extinguisher near the pump.
34. Soldier 3 positions a drip pan/pail with absorbent material under each fuel nozzle at the bulk fuel site.
35. Soldier 4 positions a five-gallon water can at each issue point.
36. Soldier 1 inspects the 10,000-gallon tanks for holes, tears, or cuts to fabric of the tank, and for evidence of leaks or deterioration.
37. Soldiers 3 and 4 emplace poles that stand six feet tall on both sides of the fuel tank and tie a string between the two poles to mark the maximum amount that the tank should be filled safely.

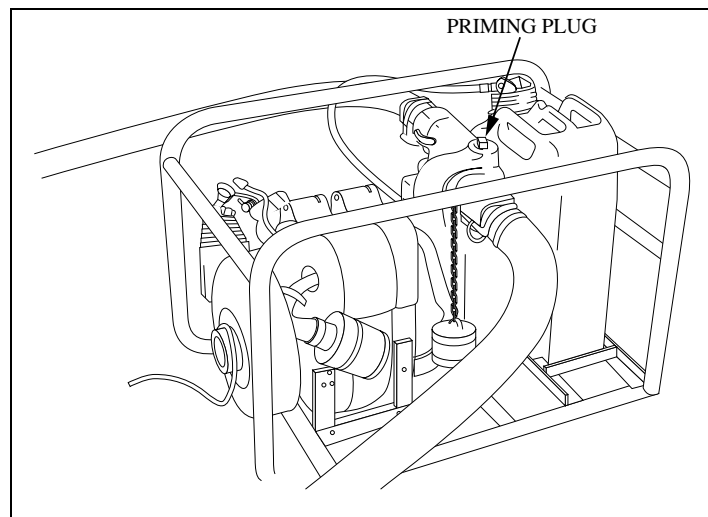


**Figure D-9. Safety equipment at bulk fuel storage and distribution site**

DRILL LEADER GIVES THE ORDER TO RECEIVE BULK FUEL.

**WARNING:** TO ENSURE FUEL OPERATIONS THAT ARE BOTH SAFE AND WILL AVOID POTENTIAL DAMAGE TO THE ENVIRONMENT, PREVENTIVE MAINTENANCE CHECKS AND SERVICES MUST BE EXECUTED BEFORE ISSUING OR RECEIVING FUEL.

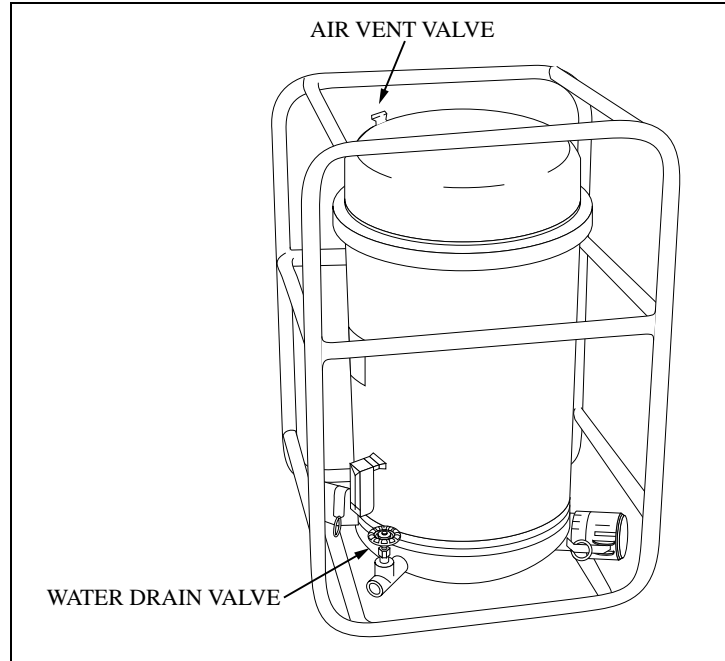
38. Soldier 1 checks valves and fittings for broken handles and broken hand wheels, and checks the Y-fittings and T-fittings for proper connection and evidence of leakage.
39. Soldier 2 checks the suction and discharge hoses for cuts, dry rot, blistering, and damaged clamps.
40. Soldier 3 checks the fuel nozzles for presence and condition of dust plugs, ensures grounding cables are in place, and checks the cleanliness of the strainer.
41. Soldier 1 checks fire extinguishers for availability and serviceability.
42. Soldier 3 removes the priming plug from the top of the pump, fills the pump with fuel, and replaces the priming plug, only when required. See figure D-10.



**Figure D-10. 100-GPM pump priming plug**

43. Soldier 2 guides the bulk fuel supply vehicle to an accessible point where the vehicle's discharge line will reach the 4-inch suction hose on the fill side of the tank. See figure D-4.

44. Soldiers 3 and 4 connect the suction hose on the fill side to the discharge hose on the truck, and request that the delivery driver open the discharge valve once the connection is secure.
45. Soldier 1 opens the gate valve on the fill side of the storage tank, allowing the fuel to flow from the truck to the storage tank.
46. Soldier 1 closes the gate valve on the fill side of the tank before the top of the tank touches the string described in step 36.
47. Soldiers 2 requests that the delivery driver closes the discharge valve and then cap the discharge hose on the delivery vehicle without spilling any fuel.
48. Soldier 2 caps the fill hose and soldier 4 then reopens the fill side gate valve to permit any fuel left in the fill hose to flow into the tank.
49. Soldiers 2 and 3 then walk the hose toward the fill side gate valve to force any remaining fuel into the storage tank.
50. Soldier 1 opens the gate valve on the discharge end of one bulk fuel tank and opens the butterfly valve at the T-fitting.
51. Soldier 2 opens the filter/separator air-vent valve by pushing it down until it locks in place and closes the water drain valve by turning the hand wheel to the right on the filter/separator. See figure D-11.



**Figure D-11. Filter/separator air vent valve and water drain valve**

52. Soldier 3 starts the pump engine and selects the appropriate speed based on the fuel lift.

**COACHING POINT:** Run pump engine at idle speed to lift the fuel two feet or less. Run the engine above idle speed but less than full throttle to lift the fuel two to five feet. Run the pump at full throttle to lift the fuel five feet or more.

53. Soldier 3 reduces engine speed upon hearing the pump engine slow down, so the filter/separator can fill slowly.

54. Soldier 1 closes the air vent valve after all air has been displaced from the filter/separator by turning it until the valve pops up on the filter/separator, and then checks the pressure gauge.

55. Soldiers 1 and 2 check the system for leaking hoses or couplings.

**COACHING POINT:** Do not issue fuel until the sample has been visually inspected, tested, and approved.

56. Soldiers 1 and 2 take fuel samples from each nozzle to test for contamination as soon as the system is full of fuel.

RUN-THROUGH: The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

PERFORM: When the soldiers can perform this drill according to the standards, the section leader should evaluate their performance.

**CREW DRILL 42-2-D0011**  
**Operate and Maintain the Bulk Fuel Storage and Distribution**  
**Subsystem for a Force Provider (FP) Module**

**TASK:** Operate and maintain the bulk fuel storage and distribution subsystem for a FP module.

**CONDITIONS:** The bulk fuel storage and distribution system has been set up and is fully operational at the FP site. Adequate bulk fuel supplies are on hand to support operations. At least three soldiers and a drill leader are available to execute the drill. The unit SOP on handling and storing hazardous waste (HW) and heavy metals is available and on-hand. Technical documentation is available, including all applicable technical manuals (TMs) and instructions supplied with the bulk fuel storage and distribution subsystem components.

**NOTE:** The FP fuel storage and distribution subsystem uses the same components as the Forward Area Refueling Equipment (FARE), except the FP subsystem employs 10,000-gallon collapsible fabric storage tanks with berm liners in addition to 500-gallon drums.

**STANDARD:** The bulk fuel and storage distribution system is operated in accordance with (IAW) TM 10-5419-200-12, *Operator's, Unit and Direct Support Maintenance Manual for Force Provider Modules 1 & 2*, without fuel spills or accidents. Fuel levels are maintained to meet all FP operational needs.

**SUPPORTING INDIVIDUAL TASKS:** Prior to executing the drill, the drill leader should be proficient in Soldier Training Publication (STP) task 101-519-3215, *Direct the Assembly, Operation, PMCS, and Disassembly of the Forward Area Refueling Equipment (FARE)*, found in STP 10-77F15-SM-TG. The drill leader and soldiers executing the drill must be proficient in STP task 101-519-1304, *Assemble, Operate, Perform PMCS, and Disassemble the Forward Area Refueling Equipment (FARE) System*, found in STP 10-77F15-SM-TG.

**SETUP INSTRUCTIONS:**

a. Resources.

- (1) One completely set up and operational FP bulk fuel storage and distribution subsystem.
- (2) One tank and pump unit (TPU).
- (3) One vehicle that requires fuel.
- (4) One fuel bladder that requires fuel.
- (5) Blank copies of DA Form 3643.
- (6) Three Petroleum Supply Specialists to operate and maintain the bulk storage and distribution site.

(5) Technical documentation, including all applicable TMs and commercial instructions supplied with the bulk fuel storage and distribution subsystem components and equipment.

b. Training Site. The size of the drill site should be at least 300 feet by 500 feet and be accessible by bulk fuel supply vehicles. The training area must be occupied by an operational bulk fuel and storage site.

c. Unit Instructions. The Petroleum Distribution Section soldiers should be brought to the bulk fuel storage and distribution site. The drill leader has made a reconnaissance of the site and ensured that the site is operational. Designate the three soldiers selected to operate and maintain the site by number (i.e., Soldier 1, Soldier 2, etc.). The bulk fuel storage and distribution section is issuing bulk JP8/diesel fuel. Soldiers 1 and 2 operate the two refueling points, and Soldier 3 operates the pump.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. The drill trains the soldiers of the FP Petroleum Distribution Section to work together to correctly operate and maintain a FP bulk fuel storage and distribution subsystem. Assign each soldier a different number during subsequent drill iterations so each learns all the steps and standards for operating and maintaining the bulk fuel storage and distribution subsystem.

b. Environmental Stewardship. Brief all soldiers on the environmental stewardship requirements of executing this drill. Environmental stewardship operations will conform to the unit SOP, local laws and requirements, and with theater policy. Two personnel will perform all fuel dispensing operations - one will dispense the fuel and the other will operate the pump. This technique permits constant monitoring of the pump for leaks and for quick shut off of the pump in an emergency. Fuel contaminated with dirt or water will be treated as HW and disposed of according to current directives. The section will maintain a HW site for the temporary storage of contaminated fuel, oil, petroleum waste, and filters. The HW will be stored only on a non-permeable hard stand and will be protected from the elements. Secondary containment will be provided to prevent leaks or spills from contaminating soil or water.

c. Safety. The drill leader will check each issue point to ensure that five-gallon water cans are filled and present. The soldiers are working with a wet fuel supply subsystem. No smoking is allowed. All equipment must be grounded. Collapsible fabric fuel tanks must be properly grounded to earth to ensure



safe operation. Wipe bulk fuel storage and distribution components clean of residual fuel and put on protective clothing before performing any maintenance actions. Extended skin contact with fuel may cause health problems.

d. Demonstration (optional). If other soldiers from the Petroleum Distribution Section have successfully operated and maintained a bulk fuel storage and distribution site, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening, and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in operating and maintaining the FP bulk fuel storage and distribution subsystem. The drill leader should illustrate the steps and procedures with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should then explain their role in the drill, including the standards for which they are responsible. If a misunderstanding exists, the drill leader should make corrections immediately.

#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill should be conducted slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the crawl phase. The soldiers execute the drill at a deliberate pace on the first iteration as the walk phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the run phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

b. Initiating Cue. The drill leader gives orders to conduct during-operations PMCS and provide bulk fuel to support FP operations.

#### Performance Measures:

1. Soldiers 1 and 2 position a spill container at each refueling point and move a fire extinguisher to a point within easy reach of fueling operations.

**COACHING POINT:** Ensure that the engines of vehicles receiving fuel, as well as vehicles towing bladders that are to receive fuel, are not operating during refueling operations.

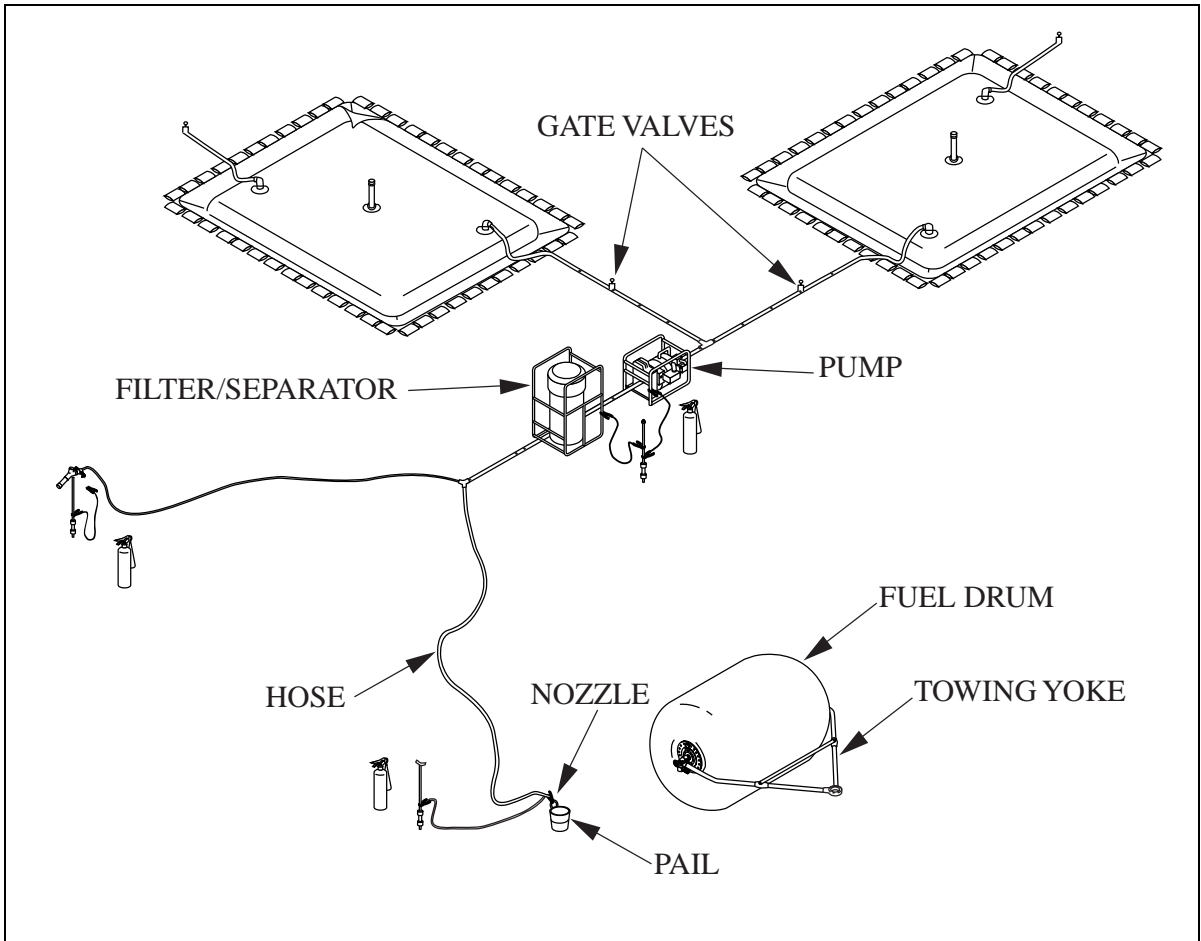
2. Soldiers 1 and 2 man the two fuel issue points and issue fuel by first removing the dust cap from the fuel nozzle and the receptacle cap from customer vehicle. Each soldier performs fueling operations by inserting the nozzle into the filler port or valve and maintaining positive metal-to-metal contact between the nozzle and the fuel receptacle during the entire time fuel is flowing.
3. Soldier 3 increases the pump's engine speed to full throttle, while maintaining visual contact with the nozzle operators at all times.
4. Soldiers 1 and 2 squeeze the nozzle trigger to fill vehicle until almost full.
5. Soldiers 1 and 2 release the trigger, visually signal the pump operator, remove the nozzle, and reinstall dust cap on nozzle and filler cap on vehicle.
6. Soldier 3 decreases the engine speed on the pump to idle.
7. Soldiers 1 and 2 replace nozzles on grounding rods and move the fire extinguishers and spill containers to their original position.
8. Soldier 3 shuts down the pump engine.
9. Soldiers 1 and 2 ensure that appropriate entries are made to DA Form 3643.

THE PETROLLEUM SUPPLY SERGEANT GIVES THE ORDER TO REFUEL THE 500-GALLON FUEL DRUMS.

**WARNING:** ENSURE THAT SOLDIERS CONDUCTING BULK FUEL OPERATIONS ARE PROPERLY ATTIRED WITH PROTECTIVE CLOTHING AND EYE PROTECTION.

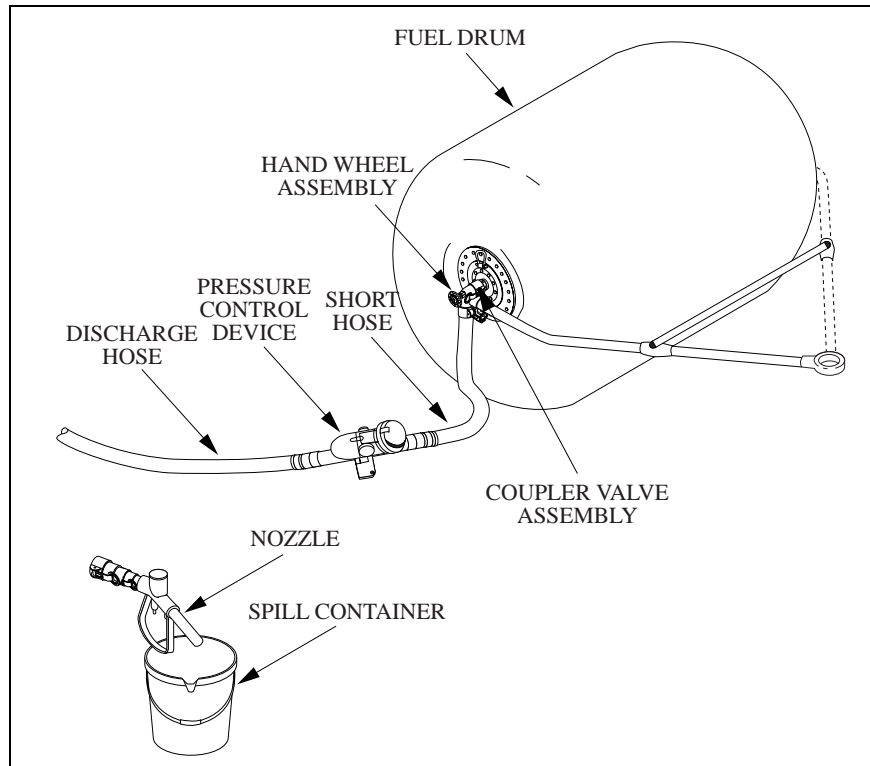
**COACHING POINT:** Fuel drums have been towed to the bulk fuel site to be refilled using the towing yoke assembly, or they may be filled at the power generation site using mobile refueling equipment.

10. Soldier 1 guides vehicle driver-towing drum to stop in position to permit drum to be refilled. See Figure D-12.



**Figure D-12. Refueling the 500-gallon drum at the fuel storage site**

11. Soldier 2 ensures pumping assembly is not operating, and that the gate valves and the butterfly valves on the discharge side of the fuel storage tanks are closed. See Figure D-12.
12. Soldier 1 positions a fuel nozzle from either fuel leg over a barrel or pail, squeezes nozzle handle, and walks out hose from filter separator to nozzle to remove any residual fuel. See Figure D-13.



**Figure D-13. Install pressure control to drum and fill.**

13. Soldier 2 removes the nozzle from the same discharge hose and collects any spillage. See Figure D-13.
14. Soldier 2 ensures that the customer positions the drum at the refueling point properly for refueling.
15. Soldier 1 ensures the pump and pump engine are not operating and that both the gate and the butterfly valves are closed on the discharge side of the fuel storage tanks. See Figure D-12.
16. Soldier 1 positions the fuel nozzle from over a spill container placed near the drum, and squeezes the nozzle trigger to remove any residual fuel in the line.
17. Soldier 2 walks back ten feet from the nozzle and lifts the hose while Soldier 1 pulls the trigger on the nozzle. See Figure D-12.
18. Soldier 2 removes the nozzle from the same discharge hose and collects any remaining fuel in the spill container.
19. Soldier 1, keeping the hose end over the spill container at all times, connects the pressure control device and then connects the short hose.

**COACHING POINT:** When soldiers are attaching the following components, they will ensure that the spill container is positioned to catch any spillage of fuel from the line.

20. Soldier 2 removes the cap on the short hose and connects the elbow coupler valve.
21. Soldier 2 keeps the elbow coupler valve over the spill container and opens the elbow coupler valve enough to let the air out.
22. Soldier 1 opens the gate and butterfly valves coming from one storage tank to the pump.
23. Soldier 1 starts the pump, maintains visual contact at all time with the nozzle operator, while keeping the pump engine at idle speed.
24. Soldier 2 presses the fill button on the pressure control valve. As soon as the air is pushed out and the fuel flows, the soldier closes the elbow valve at the handwheel on the bladder.

**COACHING POINT:** The soldier should hold down the fill button until fuel flows from the elbow coupler valve. The pressure control will close when the flow is stopped at the elbow coupler valve assembly.

25. Soldier 1 moves a fire extinguisher to a point within easy reach of the refueling operations.
26. Soldier 2 connects the elbow coupler valve to the drum, opens the valve and pushes the fill button on the pressure control device.
27. Soldier 3 increases the pump engine speed as directed by Soldier 2, to fill the drum.
28. Soldier 2 signals the pump operator to increase the pump revolutions per minute (rpms). When the drum is filled, Soldier 2 then closes the elbow valve and disconnects the elbow valve from the drum.
29. Soldier 3, when signaled that the drum is full, shuts down the pump and closes the butterfly and gate valves.

30. Soldier 3 shuts down the pump and checks for leaks, broken parts, and other items as required by the post-operations PMCS checks.
31. Soldier 2 opens the filter/separator air-vent valve by pushing it down until it locks in place and closes the water-drain valve by turning the hand wheel to the right on the filter/separator. See figure D-11
32. Soldier 1 closes the air-vent valve after all air has been displaced from the filter/separator by turning it until the valve pops up on the filter/separator, and then checks the pressure gauge.
33. Soldiers 1 and 2 check the system for leaking hoses or couplings and dispose of any contaminated fuel or soil IAW current directives.

**COACHING POINT:** Ensure that all dust plugs and caps are connected together at each connection and that pump is turned off when not needed to support refueling.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

**PERFORM:** When the soldiers can perform this drill according to the standards, the section leader should evaluate their performance.

**CREW DRILL 42-2-D0012**

**Dismantle the Bulk Fuel Storage and Distribution Subsystem for a Force Provider (FP) Module**

**TASK:** Dismantle the bulk fuel storage and distribution subsystem for a FP module.

**CONDITIONS:** The bulk fuel storage and distribution site is operating in its designated area. Components have been inventoried and inspected for serviceability. Unserviceable components have been tagged and reported to the Force Provider (FP) company or platoon higher HQ. Both 10,000-gallon fuel tanks have been drained of remaining fuel. Four soldiers have been assigned to dismantle the bulk fuel storage and distribution site. Technical documentation, including all applicable technical manuals (TMs) and instructions supplied with the bulk fuel storage and distribution subsystem components, and tool kits are available. Personnel should refer to Drill 42-2-D0017 for procedures on disassembling the 500-gallon fuel drums at the power generation clusters.

**STANDARD:** Fuel storage and distribution subsystem is dismantled and prepared for movement IAW TM 20-5419-200-12, *Operator's, Unit and Direct Support Maintenance Manual for Force Provider Modules 1 & 2*, and technical instructions provided with its components without damage to the equipment or injury to personnel.

**SUPPORTING INDIVIDUAL TASK:** Prior to executing the drill, the drill leader should be proficient in Soldier Training Publication (STP) task 101-519-3215, *Direct the Assembly, Operation, PMCS, and Disassembly of the Forward Area Refueling Equipment (FARE)*, found in STP 10-77F15-SM-TG. The drill leader and soldiers executing the drill must be proficient in STP task 101-519-1304, *Assemble, Operate, Perform PMCS, and Disassemble the Forward Area Refueling Equipment (FARE) System*, found in STP 10-77F15-SM-TG.

**SETUP INSTRUCTIONS:**

a. Resources.

- (1) One completely set up and operational FP bulk fuel storage and distribution subsystem.
- (2) One 55-gallon drum to store residual fuel from draining the system.
- (3) Fuel spill containers and absorbent material.
- (4) One general mechanic's automotive tool kit.
- (5) One five-ton forklift to position bulk fuel distribution and storage site components. (One of the soldiers

should be qualified to operate the forklift. If none is qualified, a fork lift operator will be needed.)

(6) Steam cleaner and clean rags, scrub brushes, brooms, mops, and pails.

(7) Four Petroleum Supply Specialists to disassemble the bulk storage and distribution site.

(8) Technical documentation, including all applicable TMs and commercial instructions supplied with the bulk fuel storage and distribution subsystem components and equipment.

b. Training Site. The size of the drill site should be at least 300 feet by 500 feet and be accessible by bulk fuel supply vehicles. The training area must be occupied by an operational bulk fuel and storage site.

c. Unit Instructions. The Petroleum Distribution Section soldiers should be brought to the bulk fuel storage and distribution site. The drill leader has made a reconnaissance of the site and ensured that the site is operational. Designate the four soldiers selected to dismantle the site by number (i.e., Soldier 1, Soldier 2, etc.). The site must be dismantled and prepared for redeployment.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. The drill trains the soldiers of the FP Petroleum Distribution Section to work together to correctly dismantle a FP bulk fuel storage and distribution subsystem. Assign each soldier a different number during subsequent drill iterations so each learns all the steps and standards for dismantling the bulk fuel storage and distribution subsystem.

b. Environmental Stewardship. Brief soldiers on their environmental responsibilities in the breakdown of the fuel storage and distribution components. Movement of any remaining fuel and disposal of contaminated fuel, used oil, and contaminated residue such as filters and rags must be accomplished without pollution to the ground or to the water in the area. These items are considered to be hazardous waste (HW) and must be disposed of in accordance with the unit TSOP and with local laws, regulations, and theater policy. The HW site operated by the Petroleum Distribution Section will be closed according to the TSOP and theater policy, but is not addressed in this drill. Any contaminated water that results from the steam cleaning of components must be contained and disposed of as HW. Contain any spills immediately and dispose of contaminated soil or water IAW current directives.



c. Safety. The section may dismantle a wet or dry fuel supply subsystem. Permit no smoking in any case. All equipment will remain grounded until dismantled. Wipe bulk fuel storage and distribution components clean of residual fuel and put on protective clothing before performing any cleaning or maintenance actions. Extended skin contact with fuel may cause health problems. Strenuously avoid fuel spills.

d. Demonstration (optional). If other soldiers from the Petroleum Distribution Section have successfully dismantled a bulk fuel storage and distribution site, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening, and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in dismantling the FP bulk fuel storage and distribution subsystem. The drill leader should illustrate the steps and procedures with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should then explain their role in the drill, including the standards for which they are responsible. If a misunderstanding exists, the drill leader should make corrections immediately.

#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill should be conducted slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the crawl phase. The soldiers execute the drill at a deliberate pace on the first iteration as the walk phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the run phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

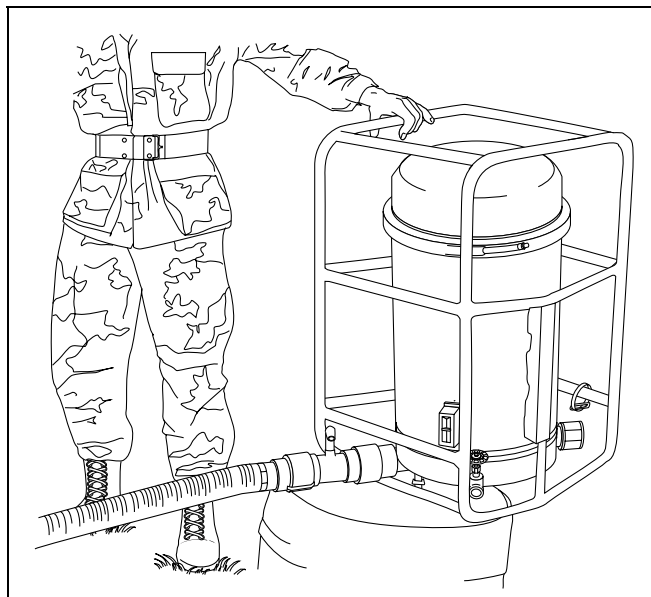
b. Initiating Cue. The drill leader gives orders to dismantle the bulk fuel storage and distribution subsystem.

#### Performance Measures:

**WARNING:** SOLDIERS 1 AND 2 STEADY THE FILTER SEPARATOR DURING THE DRAINING PROCESS TO AVOID FUEL SPILLS AND DAMAGE TO EQUIPMENT OR INJURY TO PERSONNEL. LEAVE GROUNDING CABLES CONNECTED TO BOTH

GROUNDING RODS AND GROUNDED COMPONENTS AS LONG AS POSSIBLE TO AVOID INJURY DUE TO ELECTRICAL SHOCK.

1. Soldier 1 shuts down the pump engine.
2. Soldier 4 closes the discharge-end gate valves at each fuel tank and the butterfly valves at the T-fitting.
3. Soldiers 1, 2, and 3 position the filter/separator so the water drain valve is over the spill container. See Figure D-14.
4. Soldier 3 opens the air vent of the filter/separator and the water-drain valve by turning the hand wheel to the left. See Figure D-14.
5. Soldier 4 disconnects the suction hose from the filter/separator outlet and caps the hose ends.
6. Soldiers 2 and 3 position the filter/separator so that the inlet port is over the spill container.
7. Soldier 1 removes the water suction adapter from the filter/separator outlet and caps it.
8. Soldier 1 drains the filter/separator.
10. Soldier 1 caps the inlet port.

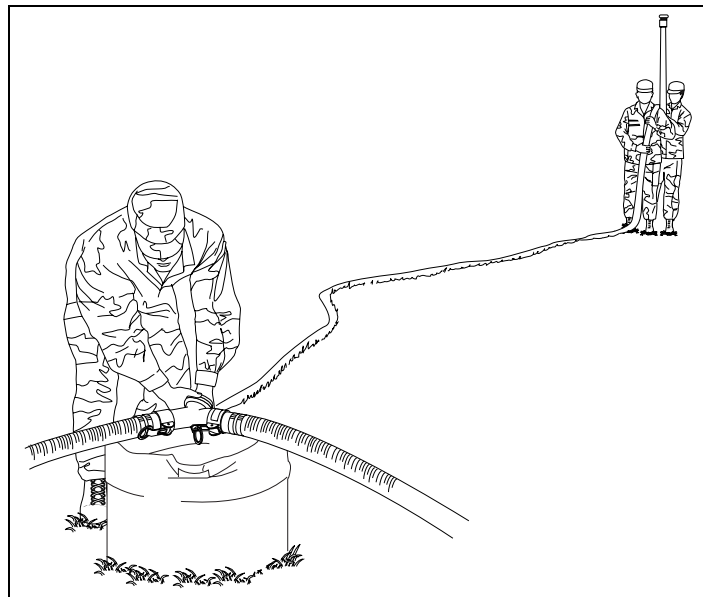


**Figure D-14. Draining the filter/separator**

11. Soldier 2 closes the air vent valve.
12. Soldiers 1, 2, and 3 set the filter/separator back onto the ground.

**COACHING POINT:** Ensure soldiers pour the fuel from the spill container into the 55-gallon drum when the spill container is full.

13. Soldier 4 places the spill container under the Y-fitting.  
See Figure D-15.

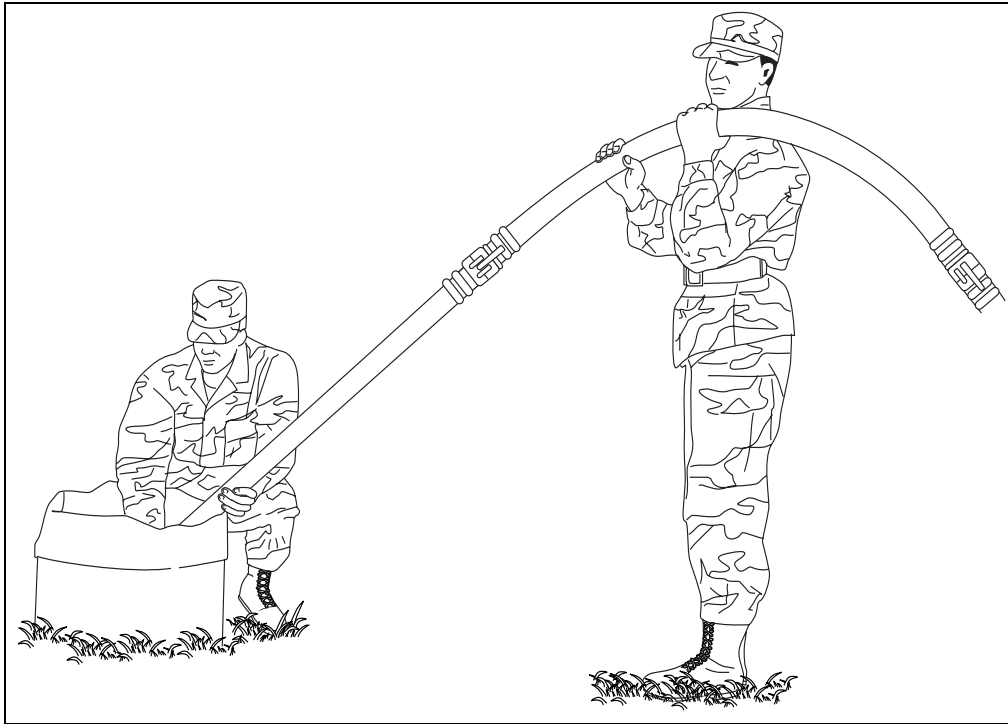


**Figure D-15. Disconnecting the Y-fitting**

14. Soldier 4 disconnects the right discharge hose from the Y-fitting and caps the fitting. See Figure D-15.
15. Soldier 3 holds the open end of the discharge hose inside the spill container.
16. Soldier 1 removes the filler nozzles from the end of the disconnected discharge hose.

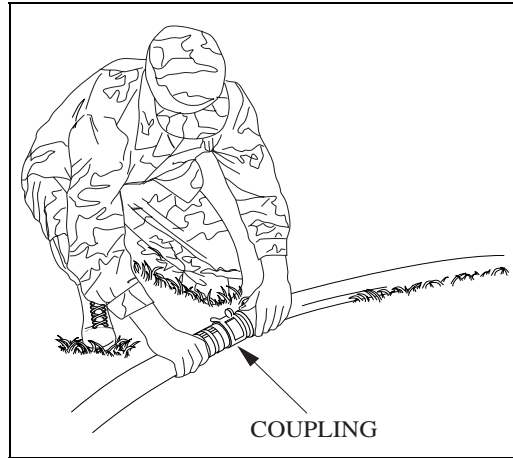
**COACHING POINT:** Ensure soldiers only remove nozzles from discharge hoses after they have been disconnected from the Y-fitting and the disconnected end of the hose from the Y-fitting is placed over a spill container.

17. Soldier 2 stretches hose to its full length and lift the nozzle end of the hose at least shoulder high. See Figure D-16.



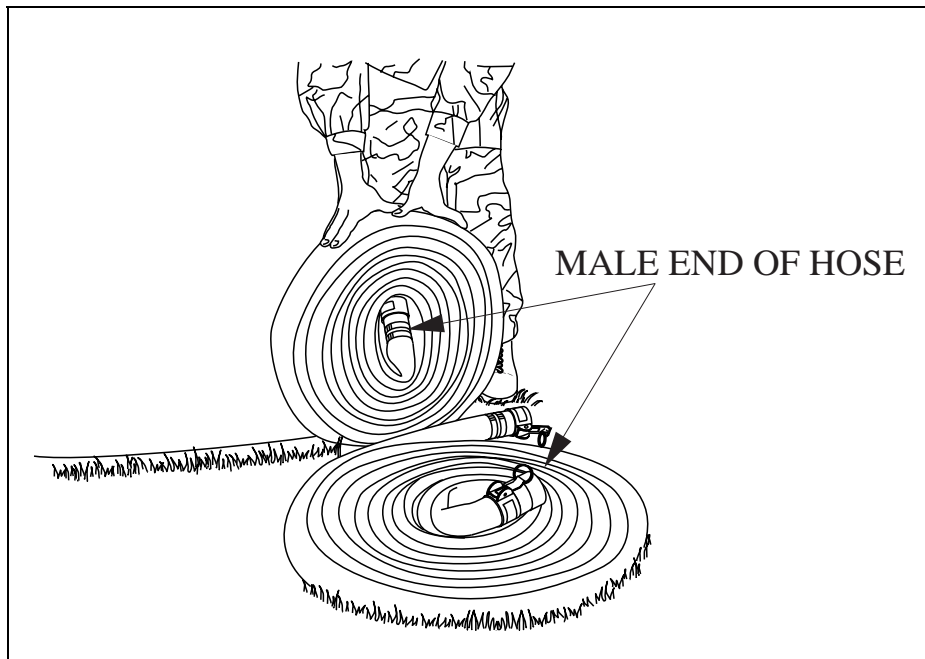
**Figure D-16. Draining the disconnected discharge hose**

18. Soldier 1 walks the fuel in the hose towards the Y-fitting. Upon reaching the spill container, the soldier goes back to the beginning of the hose and walks the fuel through again. See Figure D-16.
19. Soldier 1 goes back to the same leg of the hose line and disconnects the coupling between the two 50-foot lengths of hose, insuring that he has a drip pan under the coupling when he disconnects it. See Figure D-17.



**D-17. Separating 50-foot hose sections**

20. Soldier 2 caps the male end of each hose and uses it as a reel for rolling the hose, starting at the male end. See Figure D-18.

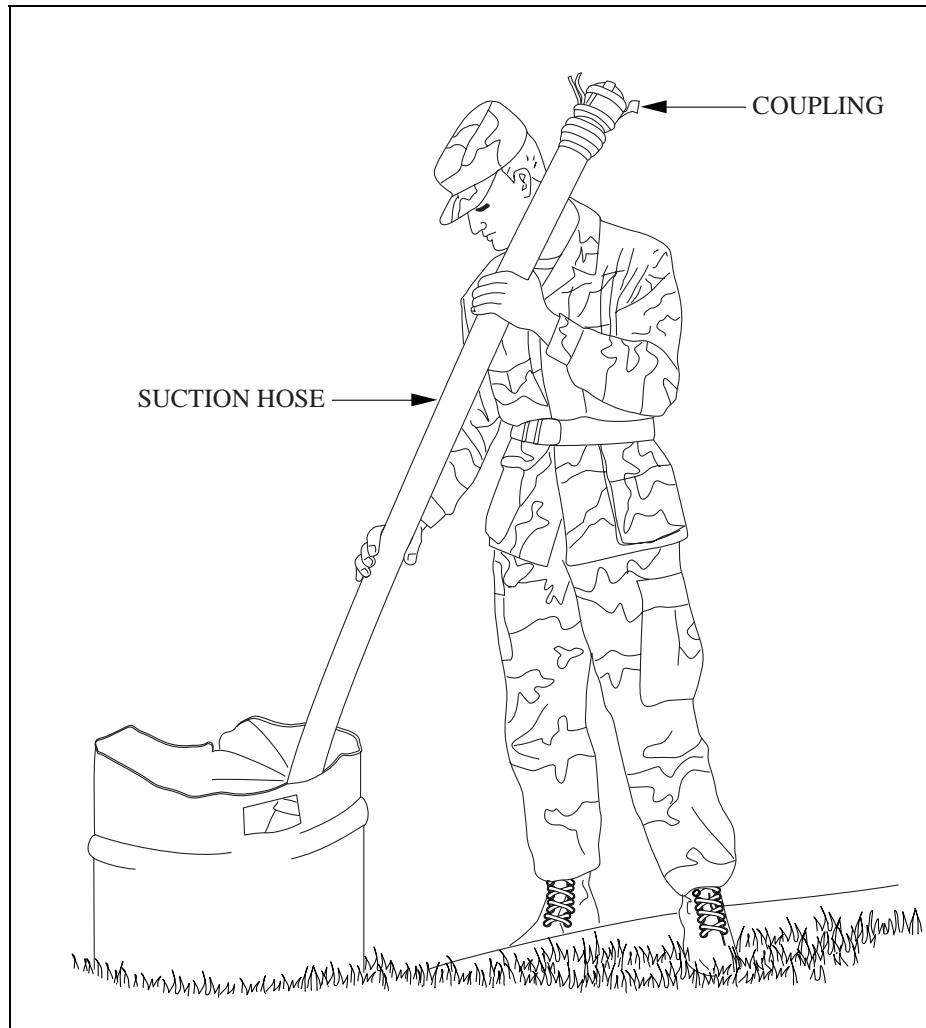


**Figure D-18. The male end of 50-foot hose as reel**

21. Soldier 2 lays the hoses on the ground and caps the female end of each hose.
22. Soldier 3 removes the cap from the Y-fitting and holds the Y-fitting in the spill container.

**COACHING POINT:** Soldiers 1 through 4 Repeat steps 15 through 22 to dismantle the left discharge hose, ensuring that the female end of the hose is over a drip pan while they roll the hose.

23. Soldier 2 raises the suction hoses, removes the cap, and drains the hose. See Figure D-19.



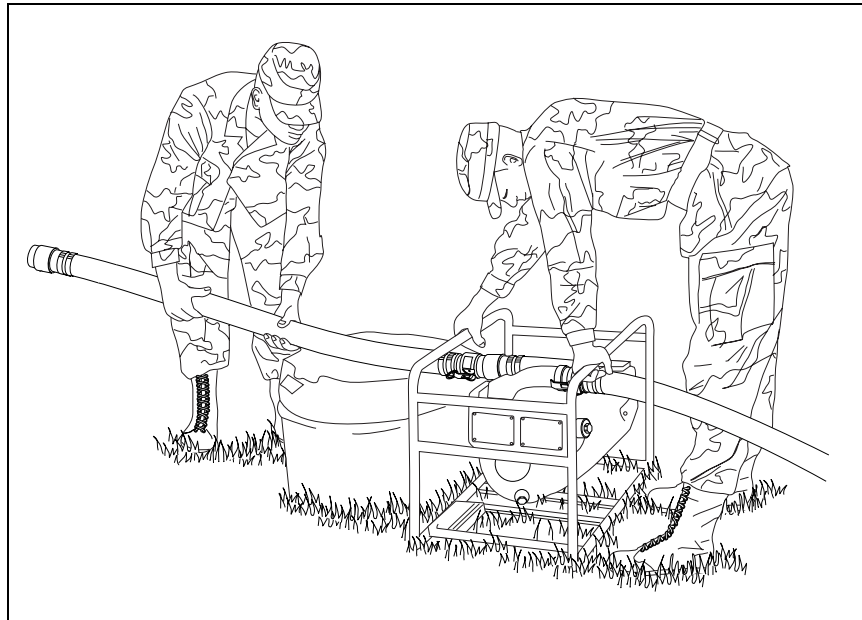
**Figure D-19. Draining five-foot suction hoses**

24. Soldier 3 disconnects the Y-fitting from the suction hose and caps the Y-fitting.

25. Soldier 2 caps both ends of the suction hose.

**COACHING POINT:** Ensure that cables are capped/plugged to avoid damage to connections, and that they are not dragged in the dirt when being moved and dismantled.

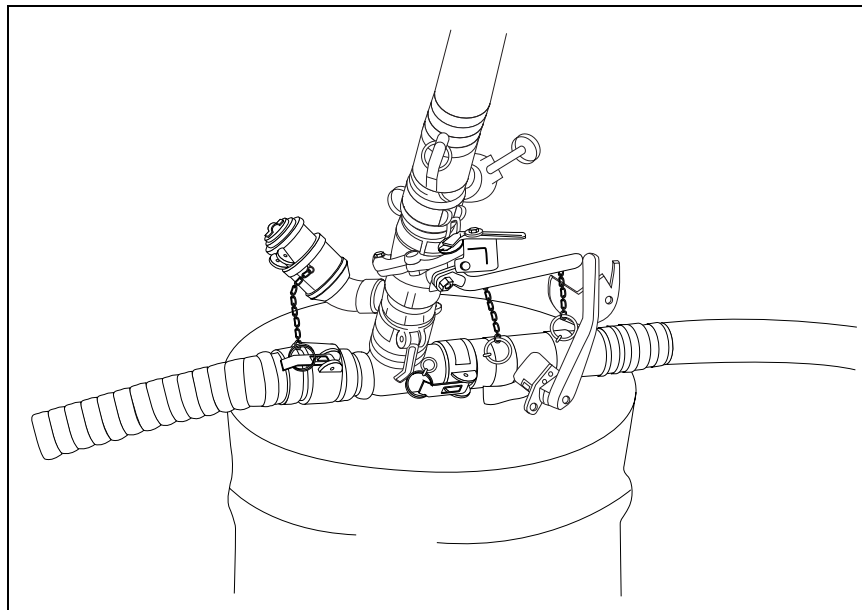
26. Soldiers 2 and 3 position the pump so that the pump inlet is over the spill container.
27. Soldier 3 holds the pump during the draining process. See Figure D-20.
28. Soldier 1 disconnects the suction hose from the pump inlet and caps the hose.



**Figure D-20. Draining the pump**

29. Soldier 2 caps the pump inlet.
30. Soldiers 2 and 3 position the pump so that the pump outlet is over the spill container.
31. Soldier 1 disconnects the suction hose from the pump outlet and holds it in the spill container.
32. Soldier 2 raises the suction hose, removes the cap, and drains the hose. The soldier then caps both ends of the hose. See Figure 19.
33. Soldiers 2 and 3 drain the fuel from the pump housing into the spill container by tilting the pump on its side. See Figure D-20.
34. Soldier 2 caps the pump outlet.

35. Soldiers 1 and 3 move the spill container to the T-fitting.
36. Soldier 2 positions the spill container under the T-fitting. See Figure D-21.
37. Soldier 2 disconnects the suction hose from the T-fitting and caps the fitting.
38. Soldier 2 holds the open end of the suction hose in the spill container.
39. Soldier 1 raises the opposite end of this suction hose, removes the cap, and drains the hose into a spill container.



**Figure D-21. Placing the T-fitting over the spill container**

40. Soldier 1 then caps both ends of the suction hose.
41. Soldier 2 disconnects the right butterfly valve from the T-fitting and caps the fitting.
42. Soldier 2 holds the butterfly valve in the spill container and opens the butterfly valve.
43. Soldier 3 closes the discharge-end gate valve from tank number 1.
44. Soldiers 2 and 3 raise the valve shoulder high.



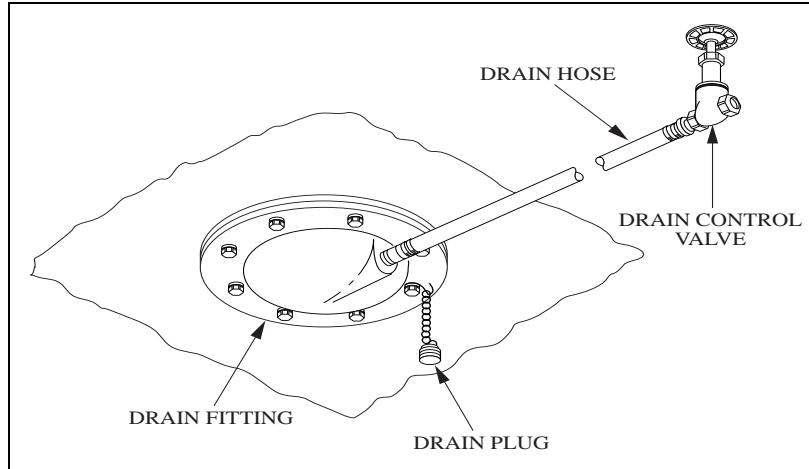
45. Soldier 1 disconnects the 4-inch female by 2-inch male adapter from the gate valve and holds it, with attached suction hoses at least shoulder high.
46. Soldiers 2 opens the valve. Soldier 3 walks the hose toward the tank discharge elbow to permit any residual fuel in the 4-inch hoses to drain into the tank. Soldier 2 then lowers the valve slowly over a spill container.
47. Soldier 1 walks the fuel in the 2-inch suction hose towards the T-fitting. When the soldier reaches the spill container, the soldier goes back to the 4-inch female by 2-inch male adapter end of the hose and walks the hose again. See Figure D-16.
48. Soldier 1 disconnects the butterfly valve and caps both ends of the valve.
49. Soldiers 2 and 3 disconnect the gate valve from the 4-inch suction hoses. Then they disconnect the two suction hoses from the discharge elbow on the tank, and then drain the drain valve and all hoses and connections into a spill container. They then cap all connections.

**COACHING POINT:** Soldiers 1 through 4 repeat steps 37 through 49 for the hoses and valves for the number 2 fuel tank.

50. Soldiers 1 and 2 pour the remaining fuel left in the spill container into 55-gallon drums.

**COACHING POINT:** Do not use the fuel collected in the spill containers until it has been sampled, tested, and found to be usable.

51. Soldier 3 confirms that the fuel storage tank is not leaking by inspecting the area between tank and berm liner.
52. Soldiers 1 through 4 drag the tank out of berm to level ground with the drain port on the downhill side if possible.
53. Soldiers 1 and 2 obtain at least two empty spill containers and place one under the drain port. See Figure D-22.



**Figure D-22. Draining the fuel tanks**

54. Soldier 1 opens the port over the spill container and Soldiers 2 and 3 fold the tank toward the drain nozzle to force any residual fuel out of the tank.
55. Soldiers 2 and 3 use absorbent material to remove any fuel from the berm liner.
56. Soldiers 1, 2, and 3 move all connections, fittings, and hoses to the vicinity of the berm for cleaning.
57. Soldier 1 powers up the steam cleaner and ensures the correct cleaning materials are on hand.

**WARNING:** ALL RESIDUAL FUEL MUST BE REMOVED FROM ALL COMPONENTS TO PREVENT THE DANGER OF FIRE OR EXPLOSION FROM STORED FP FUEL DISTRIBUTION AND STORAGE COMPONENTS.

58. Soldiers 1, 2, and 3 use the steam cleaner, soap or detergent, and scrub brushes to clean all dirt, grease, and residual fuel from fuel storage and distribution components. They then use clean rags to thoroughly dry the cleaned items. They use the berm liner to trap the dirt, contaminated water, and fuel as they remove it from components.
59. Soldiers 1 through 4 place the clean, dried components on a tarp or clean dunnage near the storage containers.
60. Soldiers 1 through 4 use pails, mops and absorbent materials to remove all contaminated runoff from the cleaning that has gathered in the berm liner.
61. Soldiers 1 through 4 remove the berm liner from the berm, clean it, and fold it for repacking.

**COACHING POINT:** Soldiers 1 through 4 repeat steps 50 through 61 for the second fuel tank. They dispose of contaminated liquid and fuel IAW current directives.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

**PERFORM:** When the soldiers can perform this drill according to the standards, the section leader should evaluate their performance.

**CREW DRILL 42-2-D0013**  
**Set Up and Maintain the Food Service Subsystem for a Force  
Provider (FP) Module**

**TASK:** Set up and maintain the food service subsystem for a FP module.

**CONDITIONS:** The Force Provider (FP) company or platoon has occupied an operational site for a FP module. The site has been prepared in accordance with (IAW) the site plan and is secure. The power generation, potable water distribution, and graywater collection subsystems are operational. The site has been staked and prepared IAW the site plan. The Senior First Cook has ensured that all components are present, clean, and serviceable, and has reported all shortages and unserviceable components to company or platoon HQ. Eleven skill level one (SL1) soldiers from the Food Service Section are assigned to set up the food service facility. Fifteen additional SL1 soldiers are available to assist in setting up the dining tent, extendable, personnel (TEMPER). One soldier qualified in military occupational specialty (MOS) 52C, Utilities Equipment Repairer, is available to supervise and assist in erecting the 600-cubic-foot walk-in refrigerators. The area is secure and large enough to permit efficient and hygienic food service operations. The drill leader and the soldiers perform the Drill 42-2-D0001, *Set Up a Four-Section TEMPER*, to provide practice on setting up TEMPER tents, either during this drill or prior to the set up of the food service subsystem. Technical documentation, including all applicable technical manuals (TMs) and instructions for the commercial equipment supplied with the food service equipment, and tool kits are available.

**NOTE:** If the drill is to be followed by actual operation of the food service subsystem, and the ambient temperature is to be less than +32° Fahrenheit (F), then the cold weather kit (CWK) must be installed with the subsystem. See Drill 42-2-0001, *Set Up a Four-Section TEMPER*, and Drill 42-2-D0018, *Set Up, Maintain, and Operate a Potable Water Distribution and Storage Site*, for information on installing CWK components.

**STANDARD:** The food service subsystem is set up IAW TM 10-5419-200-12, *Operator's, Unit and Direct Support Maintenance Manual for Force Provider Modules 1 & 2*, and is operational within three, eight-hour work days, two 12-hour work days, or 24 hours of continuous set up operations. Set up and initial operation and checks are accomplished IAW the above reference so that food service operations satisfy user requirements.

SUPPORTING INDIVIDUAL TASK: Prior to conducting the drill, the drill leader should be proficient in Soldier Training Publication (STP) tasks, 101-524-2163, Direct Personnel Operating and Maintaining the Field Kitchen Equipment, 101-524-3255, Determine Requirements and Establish Procedures in Support of Field Feeding Requirements, and 101-524-3256, Supervise Food Service Personnel in a Field Kitchen, found in STP 10-92G25-SM-TG. The supervisor in MOS 52C should be familiar with tasks 091-181-5201, Maintain Air Conditioning Electrical Systems, and 091-181-5203, Maintain Air Conditioning Vapor Systems.

SETUP INSTRUCTIONS:

a. Resources.

- (1) One complete FP food service subsystem.
- (2) One five-ton fork lift to position food service components. (One of the soldiers should be qualified to operate the fork lift. If none is qualified, a fork lift operator will be needed.)
- (3) Eleven MOS 92G SL1 Food Service Section personnel and a detail of at least 16 soldiers to assist with setting up food service TEMPERS.
- (4) One soldier qualified in MOS 52C.
- (5) CWK components if the ambient temperature is to be less than 32° Fahrenheit.
- (6) Technical manuals and commercial manuals for food service subsystem components and appliances.
- (7) General mechanic's automotive tool kit.
- (8) Plumber's tool kit.
- (9) Two shovels.
- (10) A total of 1280 square feet of four by eight foot sections of ½-inch plywood, for the floor of the kitchen and field sanitation TEMPERS.
- (11) At least 14 cubic yards of fine gravel to provide three-inch deep substrate for the kitchen floor and for the walk-in refrigerators.
- (12) Sufficient lumber to form the foundations of two 600-square foot walk-in refrigerators (preferably using 4-inch by 4-inch timbers of at least 120 board feet).

**NOTE:** The maximum number of soldiers required to erect the 96-foot dining facility TEMPER is 27. Once the dining facility TEMPER is erected, the additional soldiers may be released to perform other tasks.

- b. Training Site. The size of the drill site should be at least 250 feet by 250 feet.

c. Unit Instructions. The drill leader has made a reconnaissance of the area and ensured that the site meets food service requirements. The soldiers executing the drill should be brought to the food service subsystem site. Because of to the relatively large number of soldiers required to set up the food service subsystem, teams of soldiers should be used to expedite the drill. Each team should have an NCO in charge. There should be up to four teams, each with six or seven soldiers, with a letter designation such as Team A, Team B, Team C, and Team D. Team A and team B should comprise only soldiers in MOS 92G, since they will set up the food service appliances. All soldiers/teams are not required for the entire drill. After the dining facility TEMPER is set up, soldiers not in MOS 92G or 52C may be released. To fully exercise the food service subsystem, potable water, graywater, and electrical power support must be available.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains the soldiers of the Food Service Section to set up the FP food service subsystem. Assign each soldier a different number or team during subsequent drill iterations so each learns all the steps and standards for setting up a food service subsystem.

b. Environmental Stewardship. Brief all soldiers on the environmental stewardship requirements of executing this drill. Graywater and fuel spills and leaks pose a direct threat to the environment and to human health. Although soldiers may execute the drill with a dry system (no graywater or fuel in the system), they will take all measures to protect human health and the environment in every case. Treat all graywater and fuel spills and contaminated soil as hazardous waste (HW) and dispose of it IAW current directives. Drill leaders and soldiers will take measures to prevent leaks and spills during set up and, if they occur, take immediate action to reduce their effect and to clean up contaminated soil and water.

c. Safety. Follow all safety warnings, cautions, and notes listed in TM 10-5419-200-12 and all other applicable manuals for the food service subsystem components. Only qualified power generation personnel will make electrical power supply connections from the generators to the food service power distribution and illumination systems, electrical (PDISE)-M100s. Ensure that food service subsystem components are properly grounded before connecting to electrical power system. When the food service subsystem or its components are connected to a power source, never attempt to repair any electrical component without first shutting off power to the component IAW its applicable operating instructions. Appliances are heavy. If heavy lifting

equipment is not available, use a minimum of four persons to lift and move appliances, using proper lifting procedures. Ensure water hoses, exhaust ducts, power cables and fuel lines do not come in contact with, or cross over, each other (power cables may be laid on top of water lines if necessary). Leaking fuel and water can cause damage or electrical hazards. If water hoses must cross over each other, the potable water hose must cross over the graywater hose to prevent water contamination. Do not connect water hoses to appliances until qualified medical or water supply personnel have certified the water as potable. Ensure M80 water heater exhaust ducts are properly routed away from the TEMPER tents. Carbon monoxide can kill. Be alert to the symptoms of carbon monoxide poisoning. Route electrical cables and water hoses away from vehicular traffic to avoid damage to cables and hoses. Water and electrical lines must be routed through buried culverts if they cross a road carrying vehicular traffic.

d. Demonstration (optional). If soldiers from another Food Service Section have successfully set up a food service subsystem, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening, and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in setting up the food service subsystem. The drill leader can illustrate the steps with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should explain their role in the drill, including the standards for which they are responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

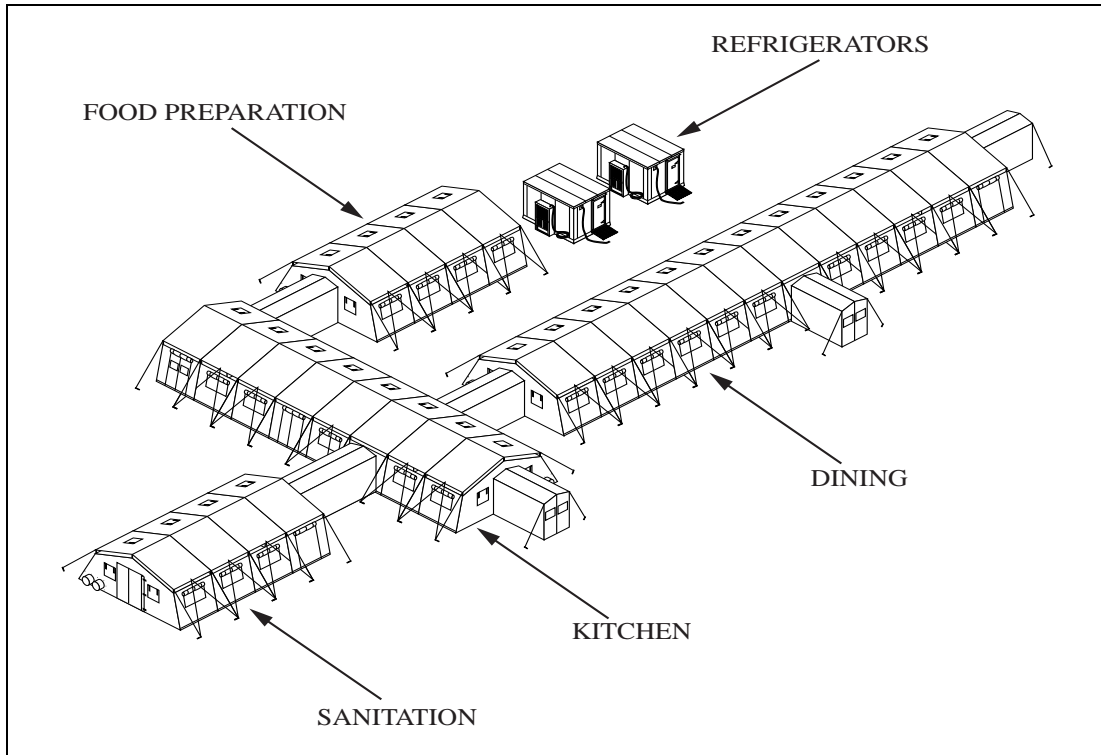
#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader should conduct the drill slowly as a walk-through explanation at first, showing each action; each soldier should carefully follow the performance measures. This is the crawl phase. The soldiers execute the drill at a deliberate pace on the first iteration as the walk phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the run phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

b. Initiating Cue. The drill leader gives orders to set up the food service subsystem and to conduct initial checks and operations.

Performance Measures:

**WARNING:** TO ENSURE SAFETY AND PREVENT THE DANGER OF ELECTROCUTION, NO ELECTRICAL COMPONENTS ARE INSTALLED OUTSIDE OF THE TEMPERS AT THIS TIME TO INCLUDE PDISE-M100s OR CABLES.

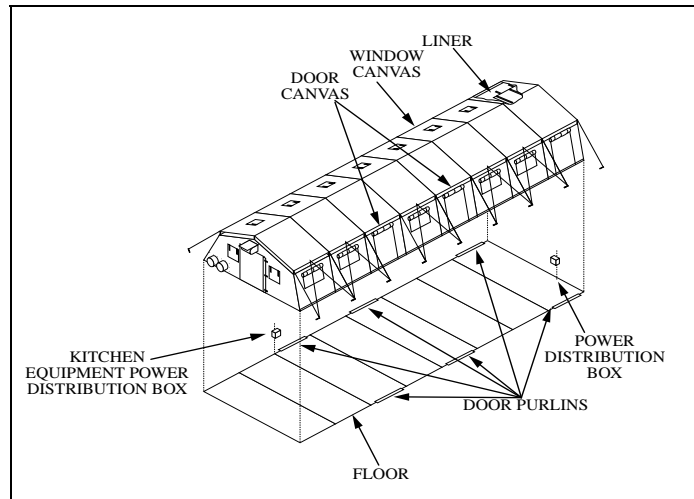


**Figure D-1. Food service subsystem layout**

**COACHING POINT:** Allow space to set up vestibules connecting the food service, dining, and sanitation TEMPERS (Figure D-1). Vestibules connected to TEMPER side doors are 10-feet, 10-inches long, and vestibules connected to end doors of TEMPERS are 11 feet, 6-inches long. Install all furniture, appliances and equipment before installing vestibules.

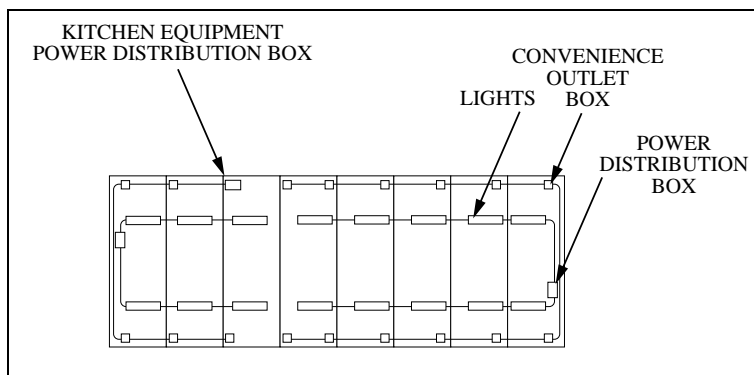
1. Teams A and B first erect the kitchen TEMPER (see Figure D-1) according to the staking plan by executing Drill 42-2-D0001, *Set Up the Four-Section TEMPER*, with the following exceptions:
  - a. Set up six TEMPER sections using a minimum of 19 soldiers. See Figure D-2.





**Figure D-2. Kitchen TEMPER**

- b. Install hardstand flooring to support the heavy appliances used in the kitchen. A stable floor must be constructed of at least ½-inch thick plywood laid on top of a foundation of a minimum of three inches of fine gravel.
- c. If the kitchen will be used in ambient temperatures less than 32°F, see Drill 42-2-D0018, *Set Up, Maintain, and Operate a Potable Water Storage and Distribution Site*, for instructions on installing CWK to prevent water lines from freezing.
- d. Install two power distribution boxes, one of which will be a kitchen equipment power distribution box, and other electrical components as shown in Figure D-3.



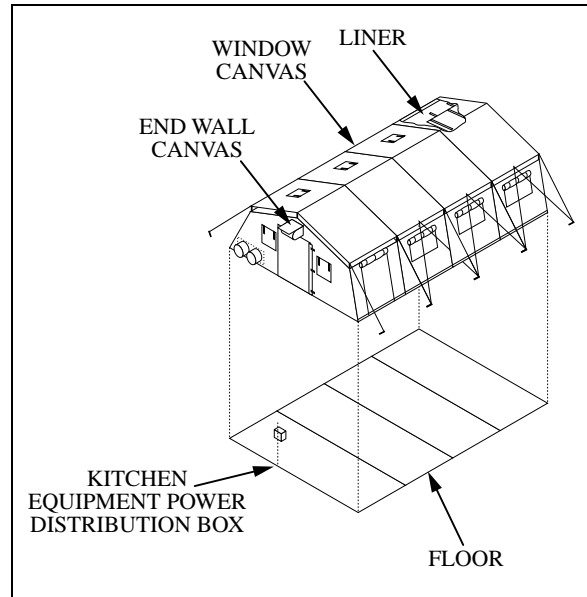
**Figure D-3. Kitchen TEMPER power components**

- e. Attach three vestibules to the TEMPER. See Figure D-1.
- f. Install a set of double, bump-through doors, as directed in Drill 42-2-D-0001, at the end of the vestibule to the

outside, and another set of double, bump-through doors opposite the entrance to the sanitation center.

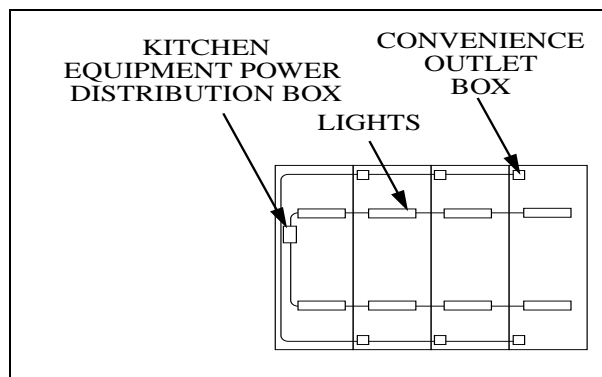
2. Teams C and D erect the food preparation TEMPER (see Figure D-1) according to the staking plan by executing Drill 42-2-D0001, *Set Up the Four-Section TEMPER*, with the following exceptions:

- a. Install endwall plenum, liners, and window sections only. See Figure D-4.



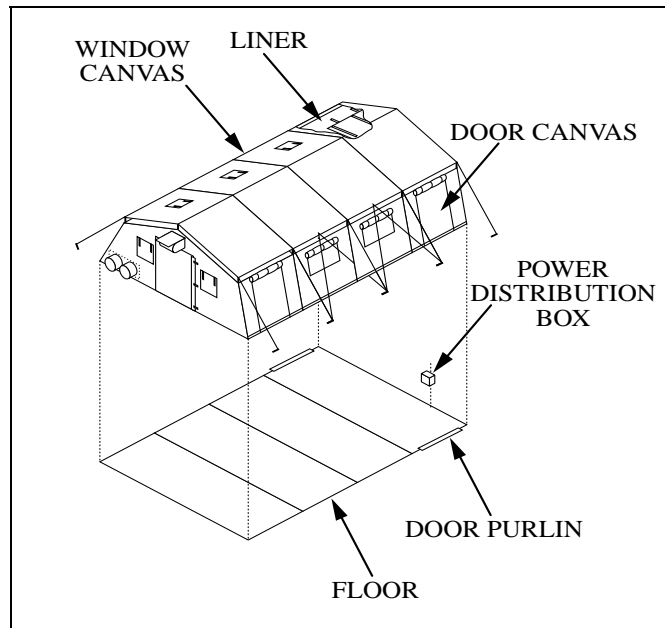
**Figure D-4. Food preparation TEMPER**

- b. Install a power distribution box for kitchen equipment. See Figure D-4.
- c. Install eight fluorescent lights and six convenience outlets, connecting to the kitchen equipment power distribution box. See Figure D-5.



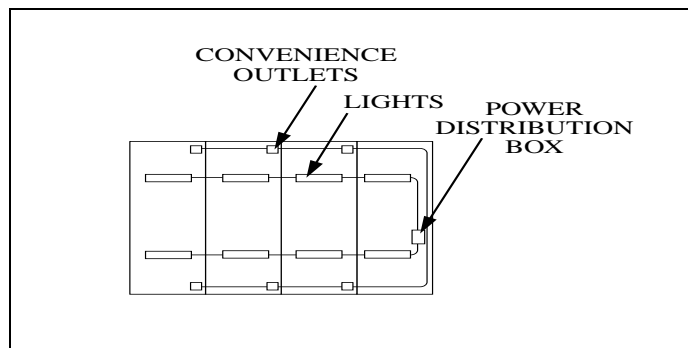
**Figure D-5. Food preparation TEMPER power components**

3. Teams A and B erect the field sanitation TEMPER (see Figure D-1) according to the staking plan by executing Drill 42-2-D0001, *Set Up the Four-Section TEMPER*, with the following exceptions:
  - a. Install plywood flooring on top of a gravel base.
  - b. Connect to the kitchen TEMPER using a vestibule. See Figure D-1.
  - c. Install a power distribution box for kitchen equipment. See Figure D-6.



**Figure D-6. Field sanitation TEMPER**

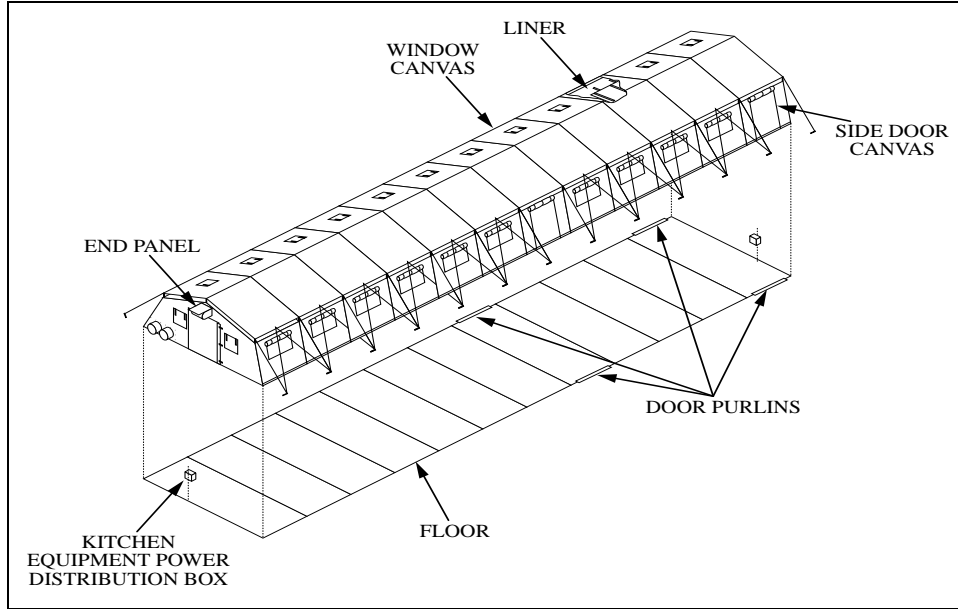
- d. Install eight fluorescent lights and six convenience outlets, connecting to the power distribution box. See Figure D-7.



**Figure D-7. Field sanitation TEMPER power components**

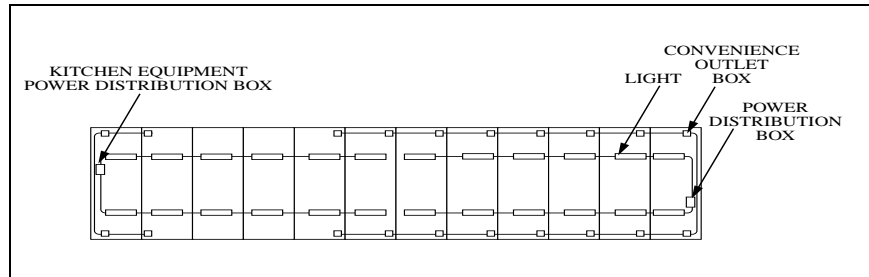
4. Teams A, B, C, and D erect the dining TEMPER (see Figure D-1) according to the staking plan by executing Drill 42-2-D0001, *Set Up the Four-Section TEMPER*, with the following exceptions:

- a. Set up the dining TEMPER with 12 sections (96 feet long). See Figure D-8.



**Figure D-8. Dining TEMPER layout**

- b. Install one sidewall plenum, two endwall plenums, extendible plenums, liners, and floors, and install six door sill purlins at the three door sections. See Figure D-8.
- c. Install bump-through doors at the other outside entrances to the dining TEMPER. See Figure D-1.
- d. Install power equipment, including installing a kitchen equipment power distribution box, at the end of the dining TEMPER nearest the kitchen, and a standard TEMPER power distribution box at the opposite end of the TEMPER. See Figure D-9.



**Figure D-9. Dining TEMPER power components**

- e. Install 12 fluorescent lights and 12 convenience outlets along one side of the TEMPER and connect them to the power distribution box nearest the kitchen. Install 12 fluorescent lights and convenience outlets on the opposite side of the TEMPER and connect them to the other power control. See Figure D-9.
  - f. Install vestibules between the kitchen TEMPER and the food preparation TEMPER, and between the kitchen TEMPER and the dining TEMPER. See Figure D-1.
  - g. Install vestibules between the kitchen TEMPER and the sanitation TEMPER, and on the end section of the kitchen TEMPER. See Figure D-1.
  - h. Install vestibules on the end wall of the dining TEMPER opposite the kitchen TEMPER and on a sidewall section of the dining TEMPER. See Figure D-1.
5. Using a forklift, Teams A through D install two environmental control units (ECUs) at each end of the kitchen TEMPER by executing Drill 42-2-D0001, *Set Up the Four-Section TEMPER*.

**COACHING POINT:** After the ECUs have been installed, release the non-food service soldiers who were detailed to assist in erecting TEMPERs.

**WARNING:** HEAVY LIFT TECHNIQUES MUST BE USED TO POSITION APPLIANCES IN THE ABSENCE OF MATERIAL HANDLING EQUIPMENT. AT LEAST FOUR PERSONS MUST BE AVAILABLE TO MOVE EACH APPLIANCE, LIFTING WITH THEIR LEGS AND NOT BACK MUSCLES, TO AVOID INJURY. USE A FORKLIFT TO MOVE THE APPLIANCES AS CLOSE TO THE TEMPER AS POSSIBLE.

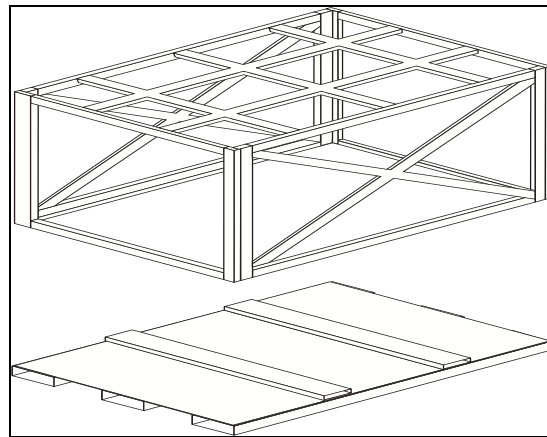
**WARNING:** ENSURE THAT NO ELECTRICAL COMPONENTS ARE CONNECTED TO ANY PDISE-M100S UNTIL ALL APPLIANCES ARE IN PLACE. ASSEMBLY AND PREPARATION MUST BE COMPLETE BEFORE HOOK-UP TO POWER TO AVOID DEATH OR INJURY TO PERSONNEL AND DAMAGE TO EQUIPMENT.

**COACHING POINT:** Make sure that the different appliances are correctly positioned and leveled as they are moved into the kitchen TEMPER. If flooring settles or becomes uneven, the soldiers may have to adjust it and level the appliance for safe and efficient operations.

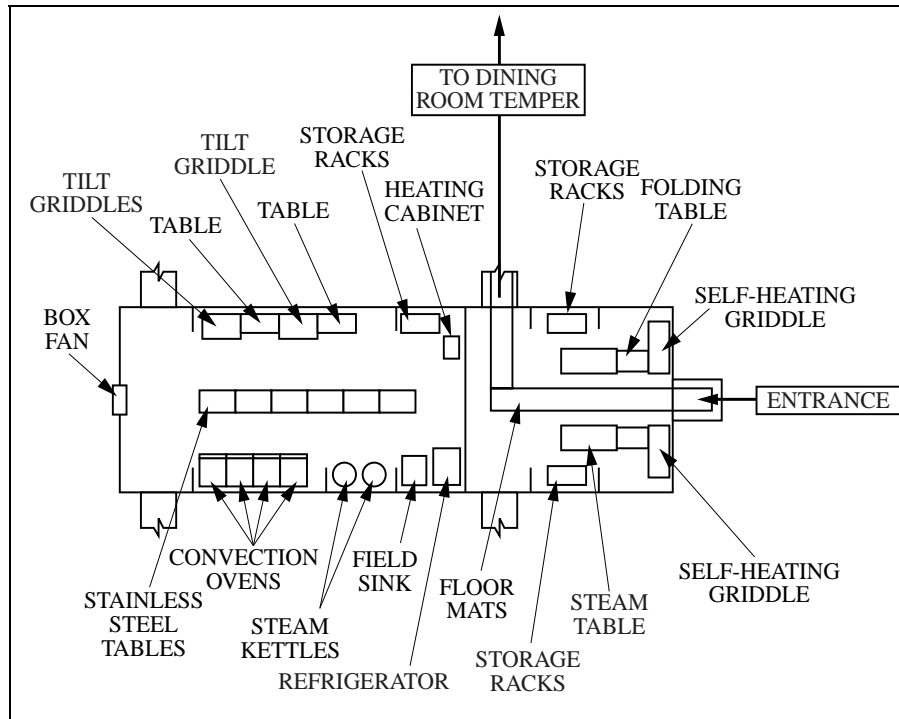
6. Team A and B soldiers place the equipment in the kitchen TEMPER by doing the following:
- a. Using a forklift, position the four convection ovens in the kitchen tent. Remove each oven from its reusable container

and position each on top of the container, keeping the container base immediately beneath the oven to protect it. See Figure D-10 and D-11.

- b. Position two steam kettles on the left-hand side in the fifth section of the kitchen TEMPER, ensuring they are secure and level, and installing them IAW the commercial instructions provided with the kettles. See Figure D-11.
- c. Using a four person lift for each, position the tilt griddles in the kitchen tent, installing them IAW the commercial instructions provided with the griddles. See Figure D-11.
- d. Position two self-heating griddles in the kitchen tent, installing them near the customer entrance and IAW the commercial instructions provided with the griddles. See Figure D-11.



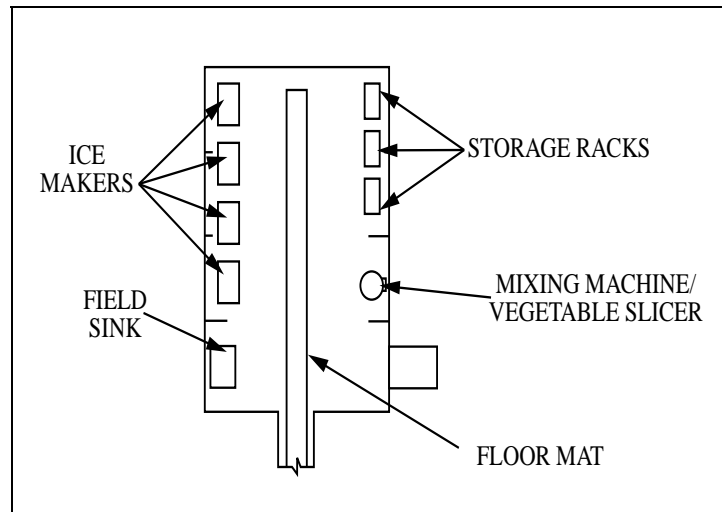
**Figure D-10. Convection oven shipping container/stand**



**Figure D-11. Layout of kitchen tent equipment**

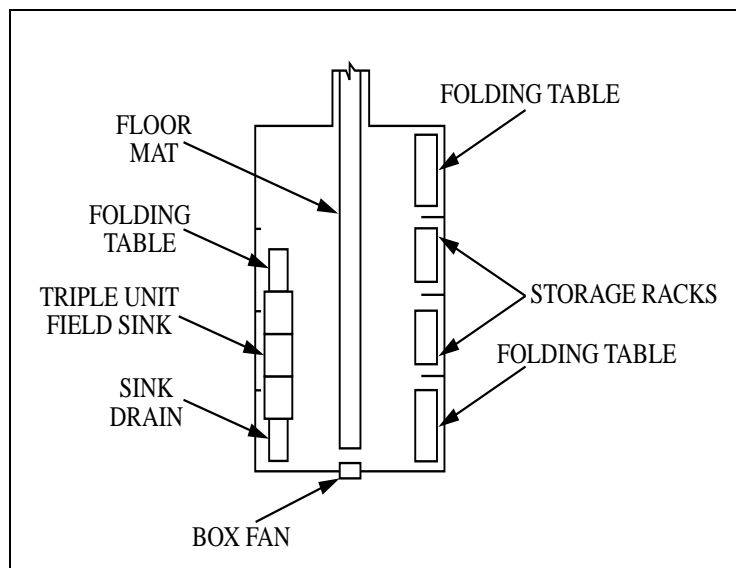
- e. Position two steam tables in the kitchen tent, next to the self-heating griddles, installing them IAW the commercial instructions provided with the tables. See Figure D-11.
  - f. Position one single-unit field sink in the kitchen tent, installing it without hooking it up to either potable or graywater service at this time. See Figure D-11.
  - g. Position three kitchen storage racks in the kitchen tent. See Figure D-11.
  - h. Position one heating cabinet in the kitchen tent, installing it IAW the commercial instructions provided with the cabinet. See Figure D-11.
  - i. Position two folding tables and six stainless steel tables in the kitchen tent. See Figure D-11.
  - j. Position one 30-inch box fan so that it exhausts to outside and the TEMPER door seals tightly around it. See Figure D-11.
  - k. Position floormats and all unassigned items as shown in Figure D-11.
  - l. Position the 17-cubic foot upright refrigerator in the kitchen tent as shown in Figure D-11.
7. Team A places equipment in the food preparation TEMPER by doing the following:
- a. Positions the floor mats, one single-unit field sink, and mixing machine/vegetable slicer. See Figure D-12.

- b. Positions four ice makers and three storage racks. See Figure D-12.
- c. Positions all other assigned food preparation equipment.



**Figure D-12. Layout of food preparation equipment**

- 8. Team B places items inside the field sanitation center TEMPER by doing the following:
  - a. Positions three folding tables, one triple-unit field sink, one sink drain, and two storage racks. See Figure D-13.



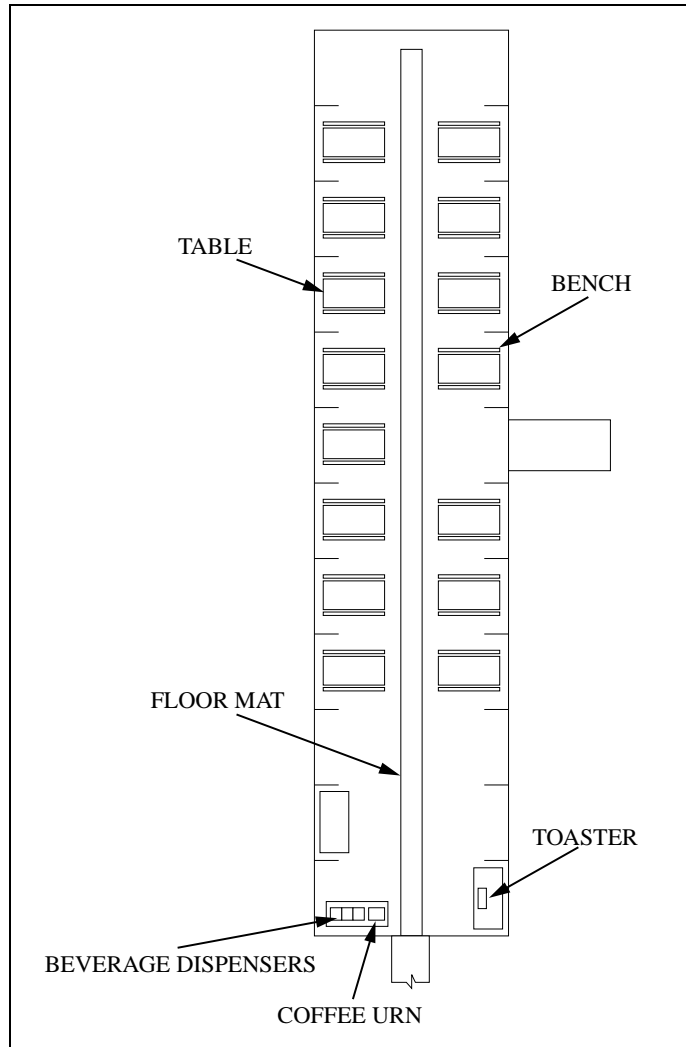
**Figure D-13. Layout of sanitation center equipment**



- b. Positions one 30-inch box fan so that it exhausts outside and is sealed by the tent door. See Figure D-13.
- c. Positions the floor mat and other unassigned field sanitation equipment. See Figure D-13.

9. Team A places equipment in the dining TEMPER by doing the following:

- a. Positions the coffee urn, three beverage dispensers, and toaster. See Figure D-14.

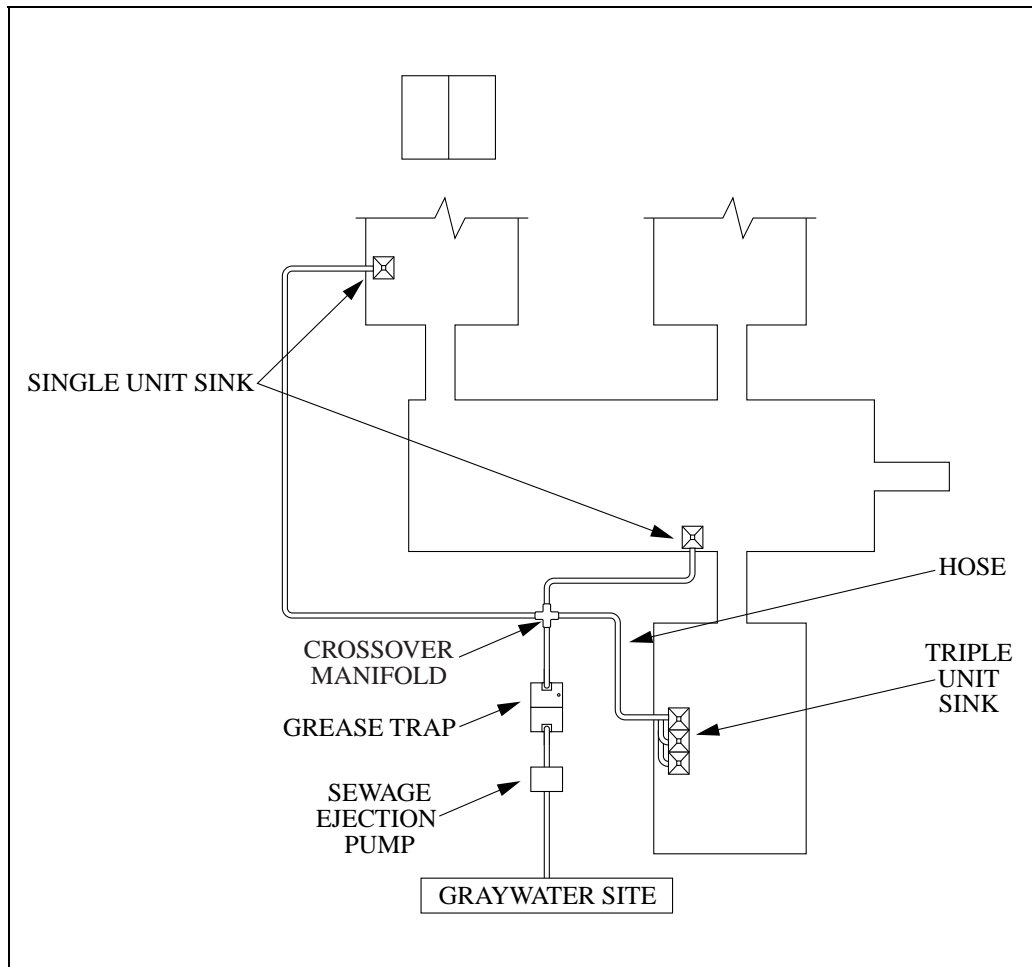


**Figure D-14. Layout of dining TEMPER equipment**

- b. Positions 15 dining tables, 30 benches, floormats, and three additional tables at one end of the TEMPER for kitchen/dining equipment. See Figure D-14.

10. Team B positions grease trap by doing the following:

- a. Lays out the potable water supply hoses IAW the staking plan. See Figure D-15.
- b. Positions the graywater hose crossover manifold, the "3-to-1" graywater collection hose for the sanitation center, and the sewage ejection pump IAW the staking plan. See Figure D-15.



**Figure D-15. Layout of graywater collection components**

- c. Obtains the components for the grease trap. See Figure D-16.

**NOTE:** The wooden components of the grease trap are labeled for ease of assembly. The sides are lettered as AB, BC, CD, and AD. The interior partitions are numbered as #1, #2, #3, and #4.

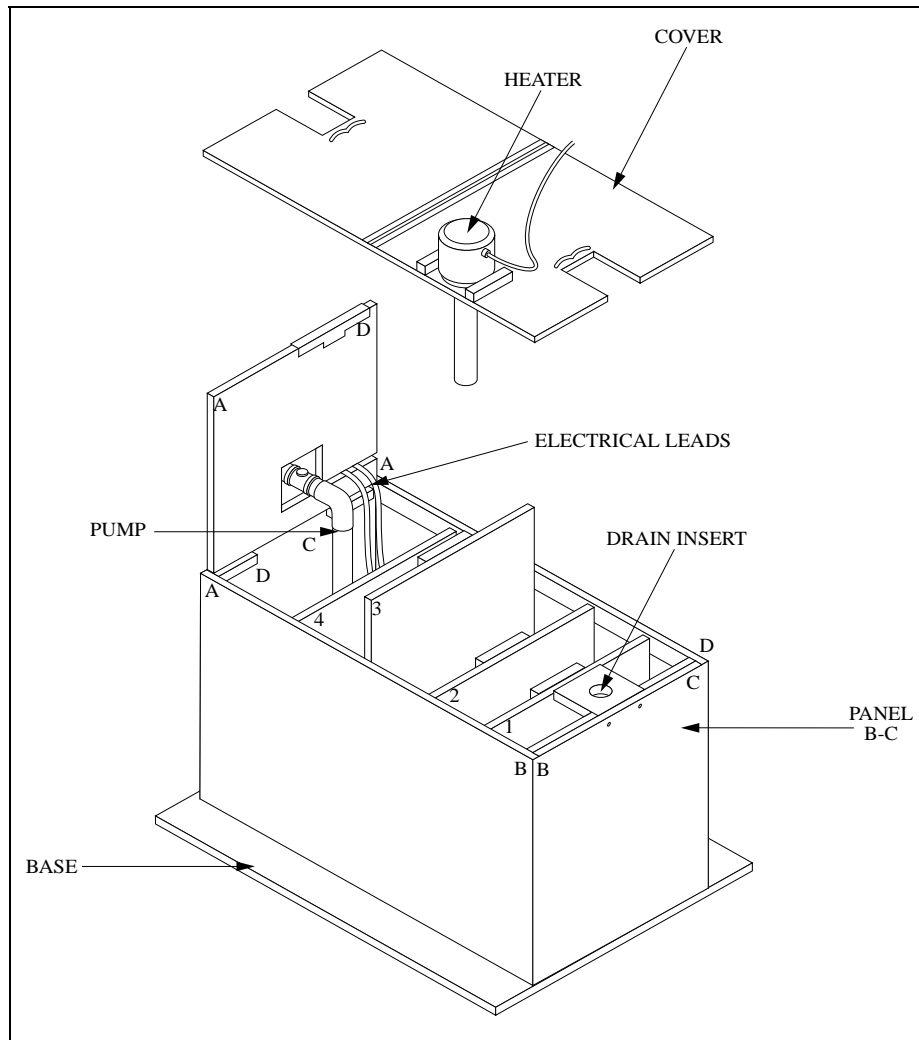
- d. Locates the pit for the grease trap where all the sinks will effectively drain into it by gravity only below (i.e., down hill from) the graywater crossover manifold and below

all sinks that drain into the grease trap. See Figure D-15.

- e. Digs a pit for the grease trap which is 5-feet long by 3-feet wide by 2-feet deep.

**COACHING POINT:** After the pit for the grease trap is dug, three soldiers may be released from this portion of the drill and used to set up the graywater collection hoses by proceeding to Steps 11 and 12.

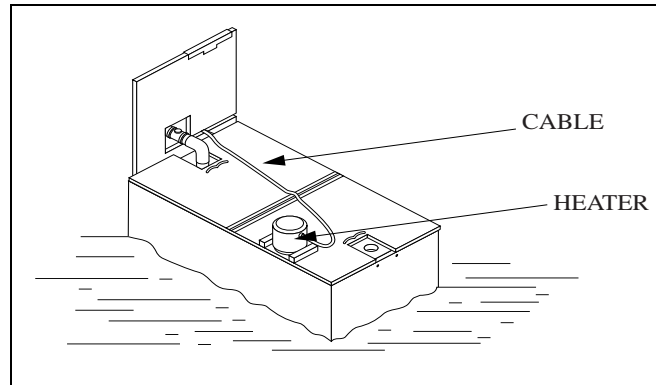
- f. Assembles the grease trap as shown in Figure D-16.
- g. Positions and secures the heater and the grease trap cover.



**Figure D-16. Grease trap assembly**

- h. Places the grease trap into the pit so that no more than half of it is above ground level, ensuring there are no

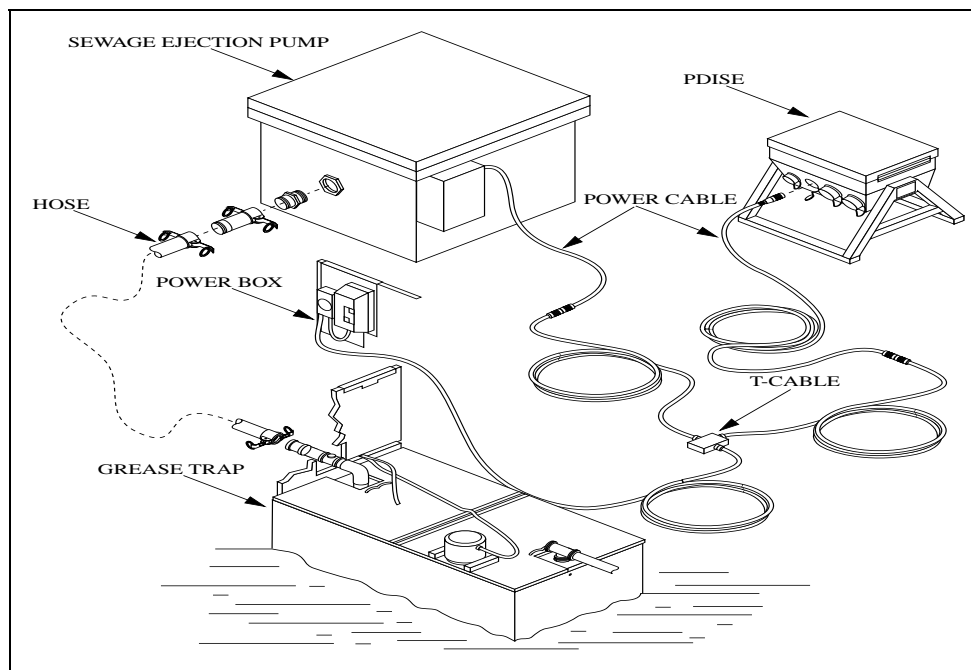
obstructions to the input and discharge hoses. See Figure D-17.



**Figure D-17. Grease trap positioned in pit**  
i. Backfill soil into the pit around the grease trap. See Figure D-17.

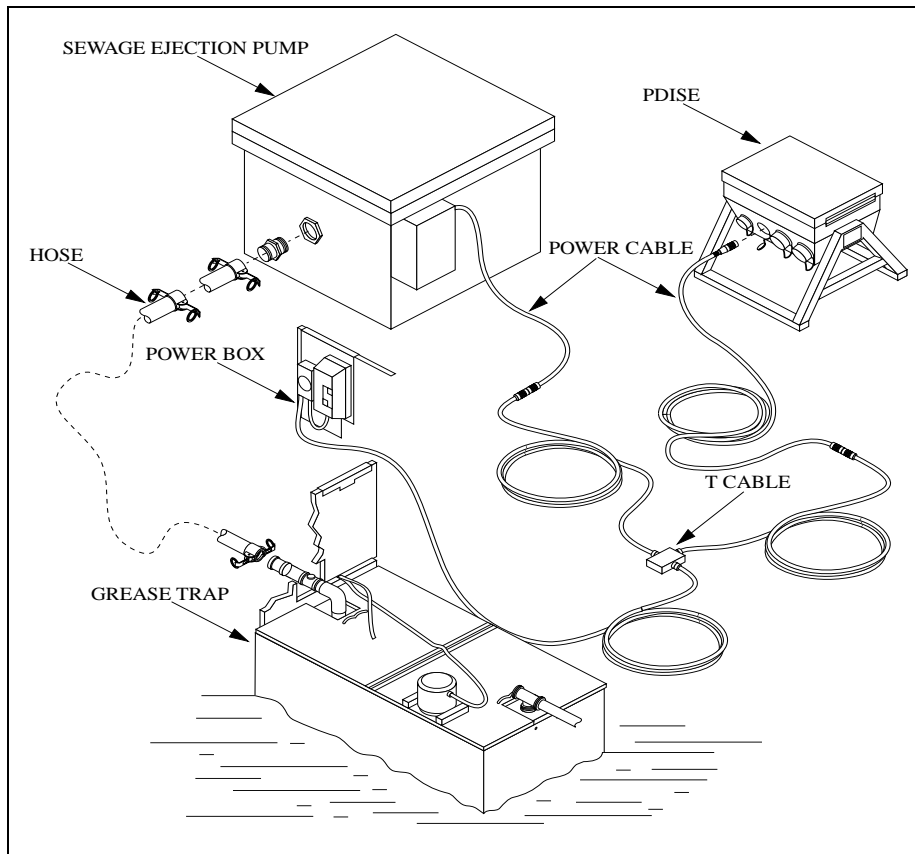
**COACHING POINT:** If a water hose must cross an electrical service/feeder cable, the hose must pass under the electrical cable. The hose should be placed within a culvert or provided some form of shielding so that it does not touch the electrical cable. Graywater collection hoses must always cross under potable water supply hoses. The hoses should be shielded so that they do not actually touch one another.

11. Team B soldiers position the graywater crossover manifold between the grease trap and the field sinks. See Figure D-18.



**Figure D-18. Graywater hose connections to the grease trap**

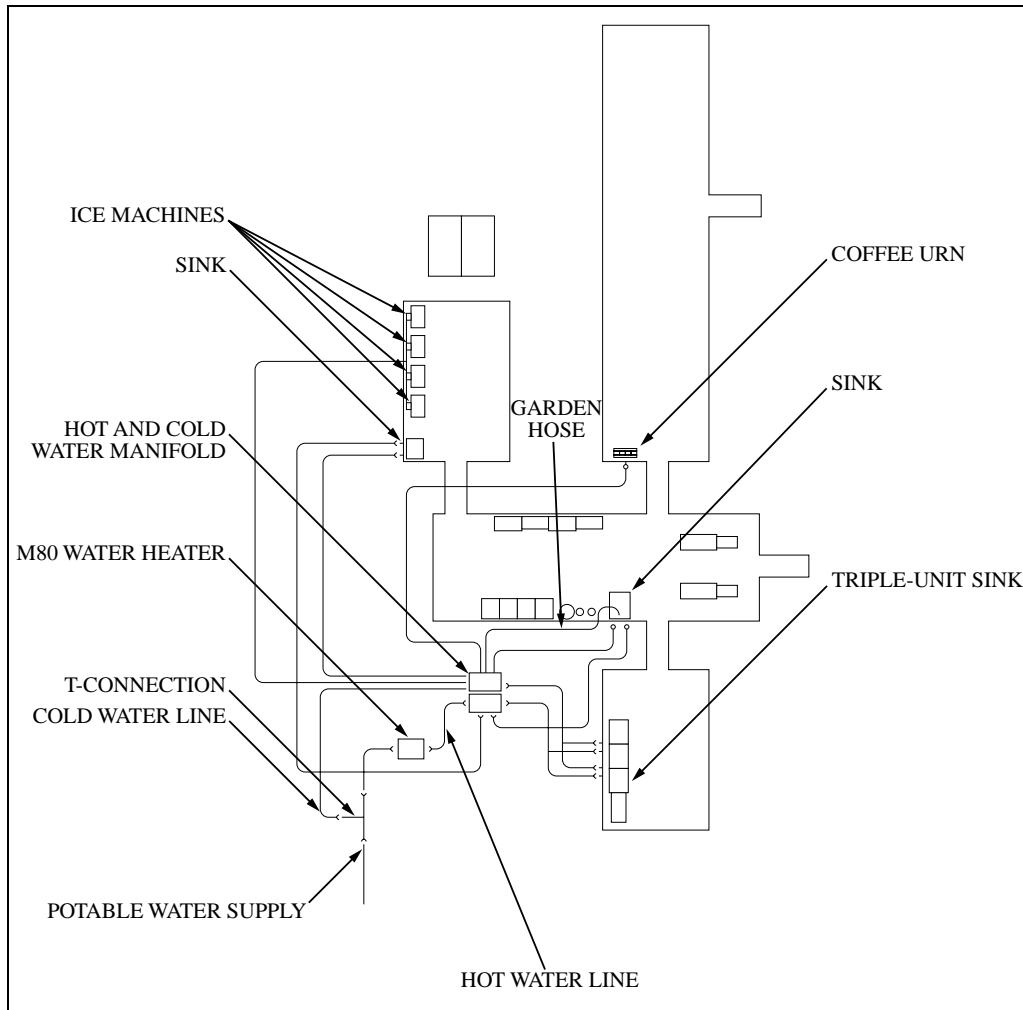
- a. Layout hoses from the crossover manifold to two single unit field sinks (one in the food preparation TEMPER and the other in the kitchen TEMPER). See Figure D-15.
- b. Lay out one "3-to-1" graywater collection hose (provided with the sanitation center) from the crossover manifold to the triple unit sink in the sanitation center. See Figure D-18.
- c. Connect all field sink hoses to the crossover manifold. See Figure D-17.
- d. Lay out graywater collection hose from the crossover manifold to the grease trap, connect it to the adapter, and then position the adapter into the drain insert on the grease trap. See Figure D-18.



**Figure D-19. Sewage ejector pump and grease trap components**

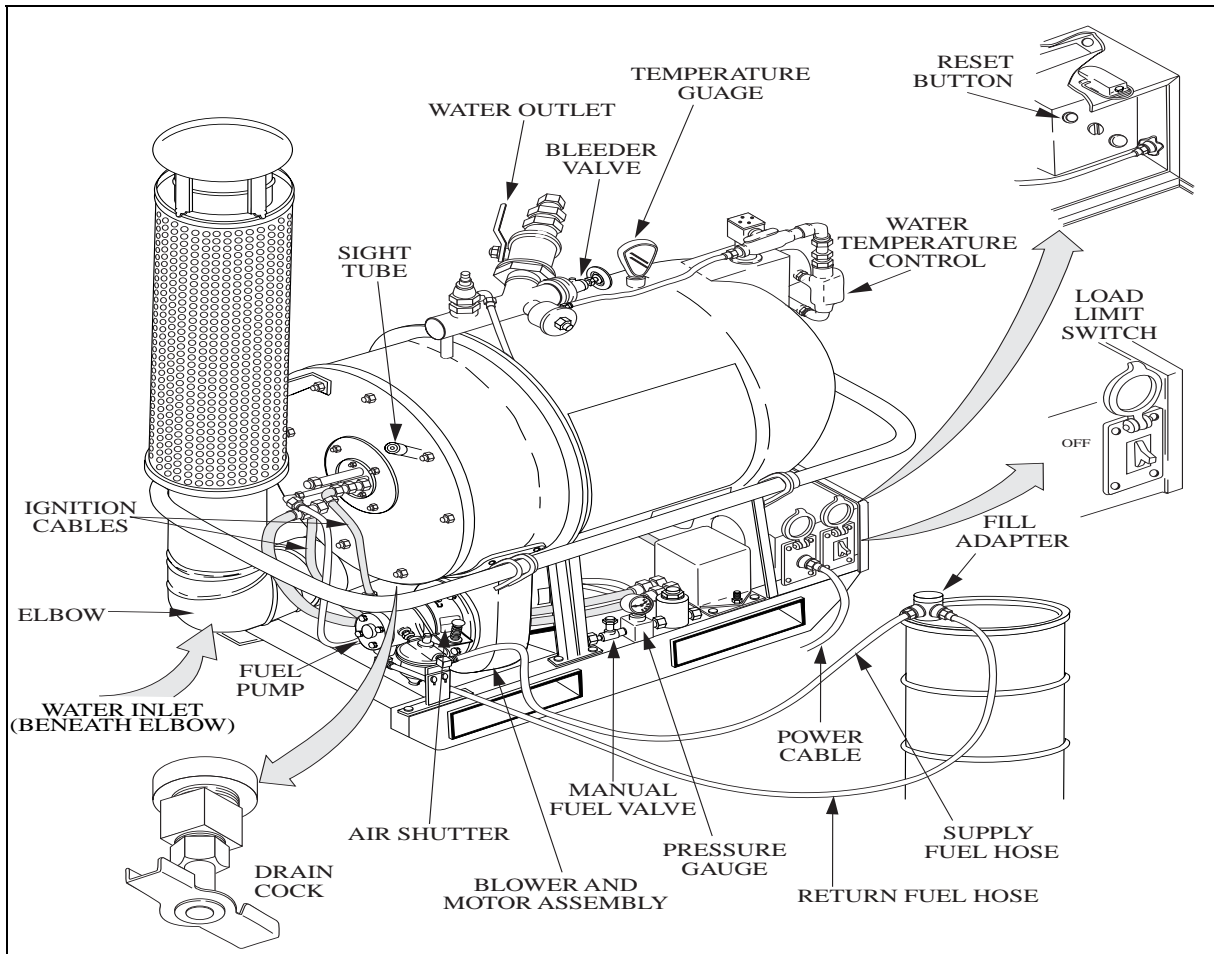
12. Team B soldiers position and install the sewage ejector pump (SEP) opposite the discharge end of the grease trap by doing the following:

- a. Execute the steps for installing the SEP in Drill 42-2-D0004, *Set Up and Maintain the Containerized Batch Laundry (CBL)*. See Figure D-19.
  - b. Connect one 1¼ -inch discharge hose to the SEP outlet port on the grease trap. See Figure D-18.
  - c. Ensure the SEP is fitted with a 3-inch pump inlet port, a 3-inch by 2-inch NPT reducer, and a 2-inch NPT by 2-inch male cam-lock coupling half.
  - d. Connect a 2-inch female cam-lock to a 1 ¼-inch male cam-lock reducer to the coupling half, and then connect the discharge hose from the grease trap to the coupling half on the SEP.
  - e. Connect the SEP power cable to the T-cable, and then connect the grease trap pump power cable to the T-cable.
13. Team A soldiers position the potable water supply components by doing the following:
- a. Position the T-connection at the location specified by the staking plan for connection to the potable water supply hose. See Figure D-20.



**Figure D-20. Layout of potable water supply hoses**

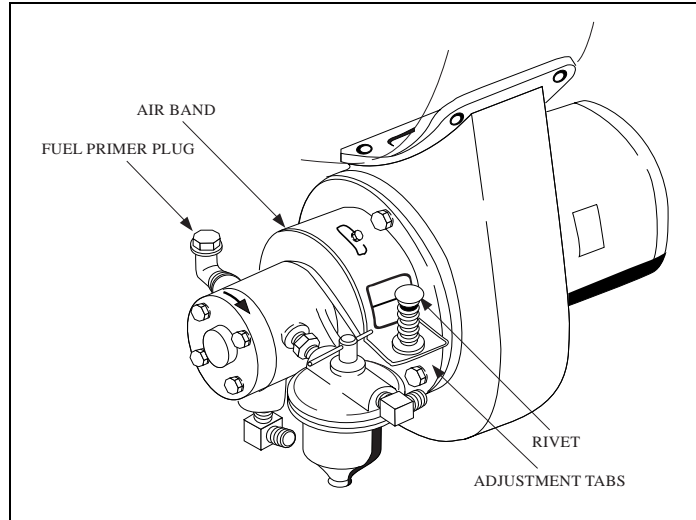
- b. Position the M80 water heater within five feet of the staked potable water connection point. See Figure D-20.
  - c. Position the hot and cold water distribution manifold within a five-foot radius of the corners of the sanitation and kitchen TEMPERS as shown in Figure D-20.
  - d. Connect water supply hoses from the T-connection to both the M80 water heater and to the cold water manifold.
  - e. Reposition the manifold and the M80 water heater if hoses do not reach this location.
14. Team B soldiers prepare the M80 water heater for operations by doing the following:
- a. Ensure the load limit switch is in the OFF position and the manual fuel valve is closed. See Figure D-21.
  - b. Install the smoke stack elbow, turning it slightly to the right to seat the pin in the slot.



**Figure D-21. M80 water heater electrical, fuel, and water controls**

- c. Install the smoke stack and two lengths of its guard assembly, tightening the screw on the bracket to secure the smoke stack and guard assembly. See Figure D-21.
- d. Screw the fill adapter into the fuel drum. See Figure D-21.
- e. Disconnect the return fuel and supply fuel hoses from their holder on the skid of the M80 water heater.
- f. Connect the supply fuel hose from the water heater fuel pump filter to the suction fitting on the fill adapter. See Figure D-20.
- g. Connect the return fuel hose from the water heater fuel pump to the return fitting on the fill adapter. See Figure D-20.
- h. Prime the fuel pump by removing the fuel primer plug, adding fuel, and replacing the plug. See Figure D-21.



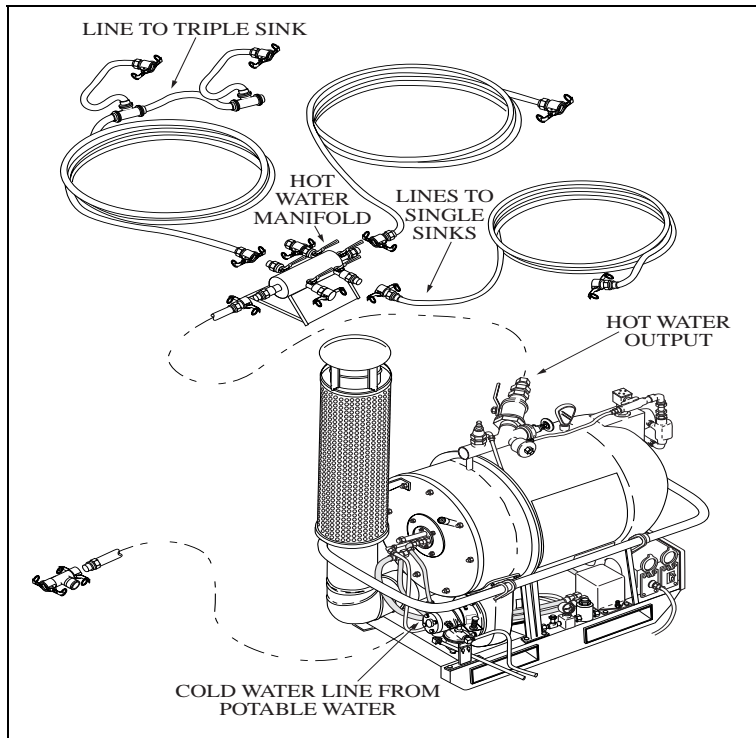


**Figure D-22. M80 water heater blower motor and fuel pump**

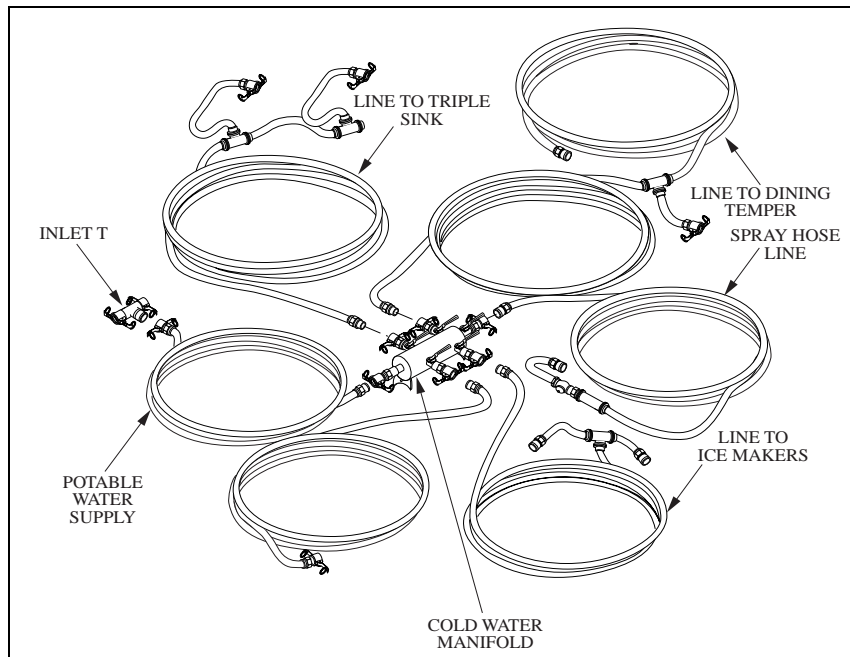
- i. Open the blower shutter halfway by pressing the rivet and shifting the air band adjustment tabs. See Figure D-22.
  - j. Open the door to the control panel at the rear of the M80 water heater, press the FLAME SAFEGUARD reset button, and close the control panel door. See Figure D-21.
  - k. Set the water temperature control to the desired setting. See Figure D-21.
15. Teams A and B lay out hot water and cold water supply hoses by doing the following:
- a. Connect one end of a 1 ½-inch by 6-foot cold water supply hose to the potable water T-inlet and connect the other end to the M80 water heater inlet port. See Figure D-23.
  - b. Connect the hot water supply hoses for the field sinks to the hot and cold water manifold and then extend the hoses to the sinks. See Figures D-23 and D-24.

**COACHING POINT:** Ensure that unused ports on the manifold remain closed with handles at a 90 degree angle (perpendicular) to the port.

- c. Connect one end of a 1-inch by 25-foot cold water supply hose to the T-inlet and the other end of the hose to the cold water manifold. See Figure D-24.
- d. Lay out the cold water supply hoses, ensuring that potable water hoses pass over any graywater hoses and pass under any electrical cables that they must cross. Pass the cold water supply hoses under tent walls, between liners and tent walls, and through overhead spaces as necessary to reach the serviced appliance.



**Figure D-22. Hot water supply hose connections**

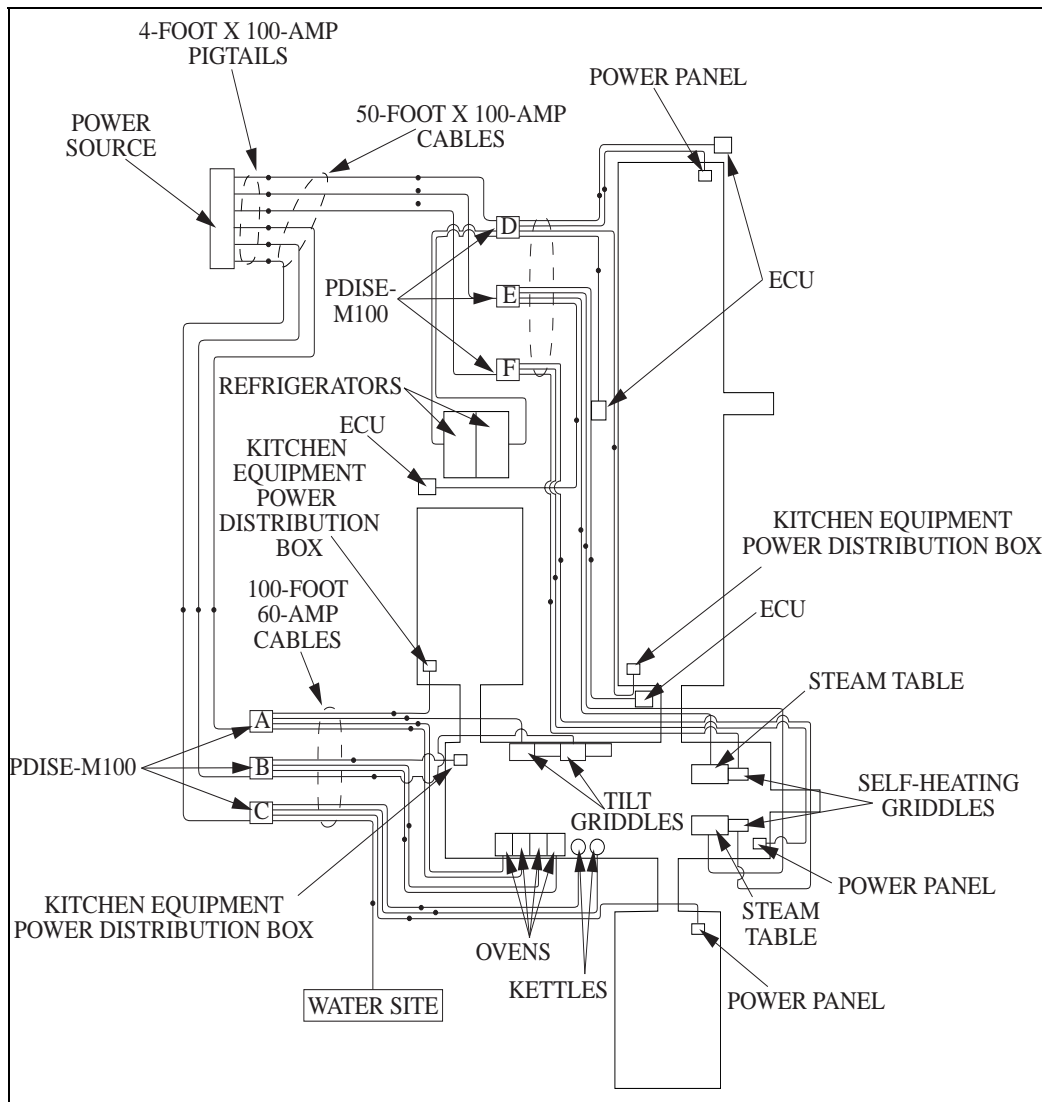


**Figure D-24. Cold water supply hose connections**

- e. Connect the cold water supply hoses for field sinks in the kitchen, sanitation, and food preparation TEMPERS to

- the cold water manifold, extend the supply hoses to the field sinks, and then connect the supply hoses to the sinks.
- f. Connect the cold water supply hose for the ice machines to the cold water manifold, and then connect the other end of the supply hose to the ice machines.
- g. Connect the hose-end sprayer to the hose, connect the hose to the coldwater manifold, and then extend the hose with the sprayer (to serve as a stock-pot filler) to the field sink located in the kitchen TEMPER.
- h. Connect the water supply hose for the coffee urn to the cold water manifold and then extend the other end of the supply hose to the coffee urn.

16. Team B soldiers lay out and connect electrical service/feeder cables by doing the following (see Figure D-25):



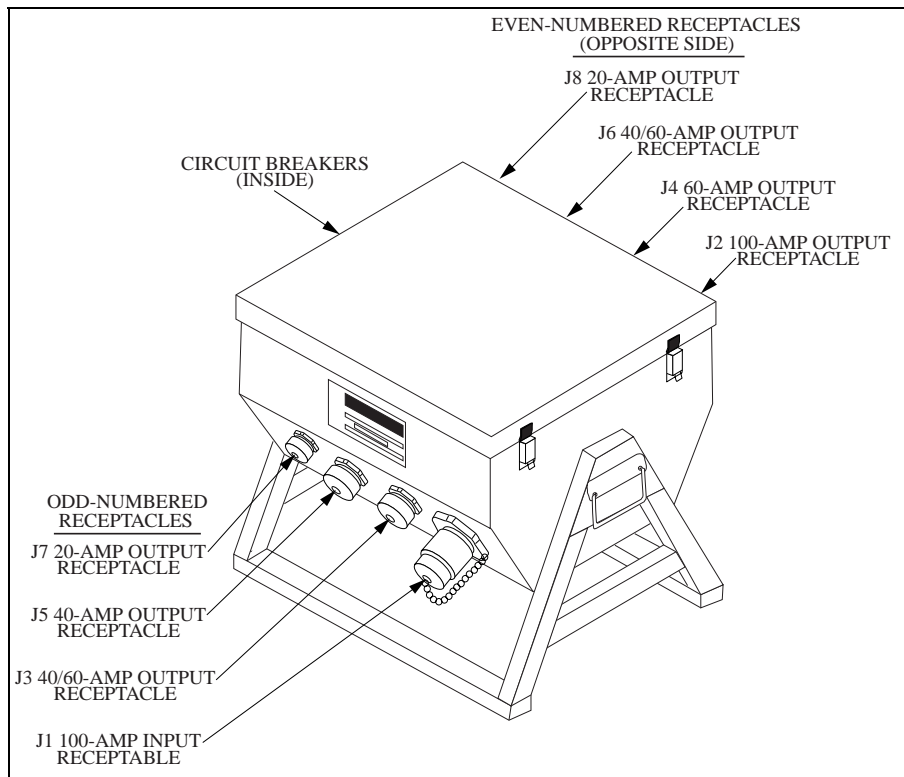
**Figure D-25. Layout of food service electrical power group components**

**NOTE:** The PDISE-M100s for the food service subsystem each have a letter (A, B, C, D, E, or F) stenciled on the top of the cover.

- a. Position the six PDISE-M100s according to the staking plan. See Figure D-25.

**WARNING:** LAY OUT ELECTRICAL SERVICE/FEEDER CABLES FROM THE POWER SOURCE TO THE POINT OF USE AND CONNECT THEM STARTING AT THE POINT OF USE (APPLIANCE, DISTRIBUTION PANEL, ETC.) TO THE POWER SOURCE. ONLY QUALIFIED TECHNICIANS FROM THE FACILITIES SUPPORT SECTION CONNECT THE ELECTRICAL SERVICE PIGTAILS TO THE POWER SOURCE.

- b. Lay out a 4-foot 100-amp pigtail and two 50-foot 100-amp service/feeder cables from the power source to each of the six PDISE-M100s (a total of six pigtails and 12 cables) with male ends of the cables facing the power source and female ends facing the PDISE-M100. See Figures D-25 and D-26.



**Figure D-26. PDISE-M100**

**COACHING POINT:** Ensure soldiers run all electrical service/feeder cables under tent flaps and between liner and

outside canvas to the appliances, and secure them to the TEMPER frame as necessary. Lay out extra lengths of cable in parallel; do not coil it. Run cables close to the side of the TEMPERs, between the sidewalls and the stakes securing the TEMPER. Ensure that cables are out of the way of vehicular traffic or are placed inside culverts if cable must cross traffic paths.

**WARNING:** ENSURE THAT THE ELECTRICAL SERVICE PIGTAILS ARE NOT CONNECTED TO THE POWER SOURCE UNTIL ALL SERVICED APPLIANCES HAVE BEEN CONNECTED TO THEIR RESPECTIVE PDISE-M100 AND THE PDISE-M100S HAVE BEEN CONNECTED TO THE ELECTRICAL SERVICE PIGTAIL. ONLY QUALIFIED TECHNICIANS CONNECT THE PIGTAILS TO THE POWER SOURCE.

17. Team B soldiers connect appliances to the electrical service/feeder cables by doing the following:

- a. Ensure all appliances are OFF.
- b. Connect service/feeder cables to the PDISE-M100s by firmly inserting the female ends of 100-foot 60-amp service/feeder cables into output receptacles, secure the receptacles with the locking ring, and then connect all dust caps together. See Figure D-26.
- c. Make electrical connections to PDISE-M100 "A" by doing the following:
  - (1) Connect a 100-foot 60-amp service/feeder cable between the J3 output receptacle on the PDISE-M100 and the kitchen equipment power distribution box in the food preparation TEMPER. See Figures D-25 and D-26.
  - (2) Connect a 100-foot 60-amp service/feeder cable between the J4 output receptacle on the PDISE-M100 and one of the four ovens in the kitchen TEMPER. See Figures D-25 and D-26.
  - (3) Connect a 100-foot 60 amp service/feeder cable between the J5 output receptacle on the PDISE-M100 and another oven in the kitchen TEMPER. See Figures D-25 and D-26.
  - (4) Connect a 100-foot 60-amp service/feeder cable between the J6 output receptacle on the PDISE-M100 and one of the two tilt griddles in the kitchen TEMPER. See Figures D-25 and D-26.
- d. Make electrical connections to PDISE-M100 "B" by doing the following:
  - (1) Connect a 100-foot 60-amp service/feeder cable between the J3 output receptacle on the PDISE-M100 and the kitchen equipment power distribution box in the kitchen TEMPER. See Figures D-25 and D-26.
  - (2) Connect a 100-foot 60-amp service/feeder cable between the J4 output receptacle on the PDISE-M100 and the third oven in the kitchen TEMPER. See Figures D-25 and D-26.

- (3) Connect a 100-foot 60-amp service/feeder cable between the J5 output receptacle of the PDISE-M100 and the fourth oven in the kitchen TEMPER. See Figures D-25 and D-26.
  - (4) Connect a 100-foot 60 amp service/feeder cable between the J6 output receptacle of the PDISE-M100 and the remaining tilt griddle in the kitchen TEMPER. See Figures D-25 and D-26.
- e. Make electrical connections to PDISE-M100 "C" by doing the following:
- (1) Connect a 100-foot 60-amp service/feeder cable between the J3 output receptacle on the PDISE-M100 and the power distribution box in the sanitation TEMPER. See Figures D-25 and D-26.
  - (2) Connect a 100-foot 60-amp service/feeder cable between the J4 output receptacle on the PDISE-M100 and one of the steam kettles in the kitchen TEMPER. See Figures D-25 and D-26.
  - (3) Connect a 100-foot 60-amp service/feeder cable between the J5 output receptacle on the PDISE-M100 and the other steam kettle in the kitchen TEMPER. See Figures D-25 and D-26.
  - (4) Connect a 100-foot 60-amp service/feeder cable between the J6 output receptacle on the PDISE-M100 to the water site supporting the food service subsystem. See Figures D-25 and D-26.
  - (5) Connect a 100-foot 20-amp service/feeder cable between either the J7 or the J8 output receptacles on the PDISE-M100 and the T-cable that powers both the SEP and the grease trap. See Figures D-25 and D-26.
- f. Make electrical connections to PDISE-M100 "D" by doing the following:
- (1) Connect a 100-foot 60-amp service/feeder cable between the J4 output receptacle on the PDISE-M100 and the kitchen equipment power distribution box in the dining TEMPER. See Figures D-25 and D-26.
  - (2) Connect a 100-foot 60-amp service/feeder cable between the J5 output receptacle on the PDISE-M100 and the second power distribution box in the dining TEMPER. See Figures D-25 and D-26.
  - (3) Connect a 100-foot 60-amp service/feeder cable between the J3 output receptacle on the PDISE-M100 and a 600-cubic foot walk in refrigerator. See Figures D-25 and D-26.
  - (4) Connect a 100-foot 60-amp service/feeder cable between the J6 output receptacle on the PDISE-M100 and the

second 600-cubic foot walk in refrigerator. See Figures D-25 and D-26.

**NOTE:** The service/feeder cables to the refrigerator wall units will not be connected to the J3 and J6 outlets until the walk-in refrigerators are installed. The J7 and J8 output receptacles on PDISE-M100 "D" will be used to provide light to the refrigerator 600-cubic-foot refrigerators.

g. Make electrical connections to PDISE-M100 "E" by doing the following:

- (1) Connect a 100-foot 60-amp service/feeder cable between the J4 output receptacle on the PDISE-M100 and one of the steam tables in the kitchen TEMPER. See Figures D-25 and D-26.
- (2) Connect a 100-foot 60-amp service/feeder cable between J5 output receptacle on the PDISE-M100 and the other steam table kitchen TEMPER. See Figures D-25 and D-26.
- (3) Connect a 100-foot 60-amp service/feeder cable between the J3 output receptacle on the PDISE-M100 and a food preparation TEMPER ECU. See Figures D-25 and D-26.
- (4) Connect a 100-foot 60-amp service/feeder cable between the J6 output receptacle on the PDISE-M100 and the food preparation TEMPER ECU. See Figures D-25 and D-26.

**NOTE:** The kitchen equipment power distribution boxes are different from the standard TEMPER power distribution boxes in that can meet the power demands of some food service appliances.

h. Make electrical connections to PDISE-M100 "F" by doing the following:

- (1) Connect a 100-foot 60-amp service/feeder cable between the J4 output receptacle on the PDISE-M100 and the kitchen TEMPER power distribution box. See Figures D-25 and D-26.
- (2) Connect a 100-foot 60-amp service/feeder cable between the J5 output receptacle on the PDISE-M100 and the food preparation TEMPER power distribution box. See Figures D-25 and D-26.
- (3) Connect a 100-foot 60-amp service/feeder cable between the J3 output receptacle on the PDISE-M100 and one of the two self-heating griddles in the kitchen TEMPER. See Figures D-25 and D-26.
- (4) Connect a 100-foot 60-amp service/feeder cable between the J6 output receptacle on the PDISE-M100 and the other self-heating griddle in the kitchen TEMPER. See Figures D-25 and D-26.

i. Make connections of selected appliances and equipment to the kitchen equipment power distribution boxes and standard power distribution boxes in the food service TEMPERs.

- (1) Connect the ice makers in the food preparation TEMPER to the kitchen equipment power distribution box installed in the food preparation TEMPER.
- (2) Connect the coffee urn and the toaster to the kitchen equipment power distribution box in the dining TEMPER.
- (3) Connect the second dining TEMPER ECU to the kitchen equipment power distribution box in the dining TEMPER.
- (4) Connect the third dining TEMPER ECU to the power distribution box in the other end of the dining TEMPER.
- (5) Connect the fans in the kitchen and the food sanitation TEMPERs to the kitchen equipment power distribution boxes in those TEMPERs.

j. Make electrical connections for each PDISE-M100 by doing the following:

- (1) Connect two 50-foot 100-amp service/feeder cables together, secure with the locking ring, and connect their dust caps together. See Figure D-25.
- (2) Connect one end of the joined 100-amp service/feeder cables to J1 input receptacle on the PDISE-M100, secure with the locking ring, and connect their dust caps together. See Figure D-25.
- (3) Connect the other end of the male end of the joined 100-amp service/feeder cables to a 4-foot 100-amp pigtail cable, secure with the locking ring, and connect their dust caps together. See Figure D-25.

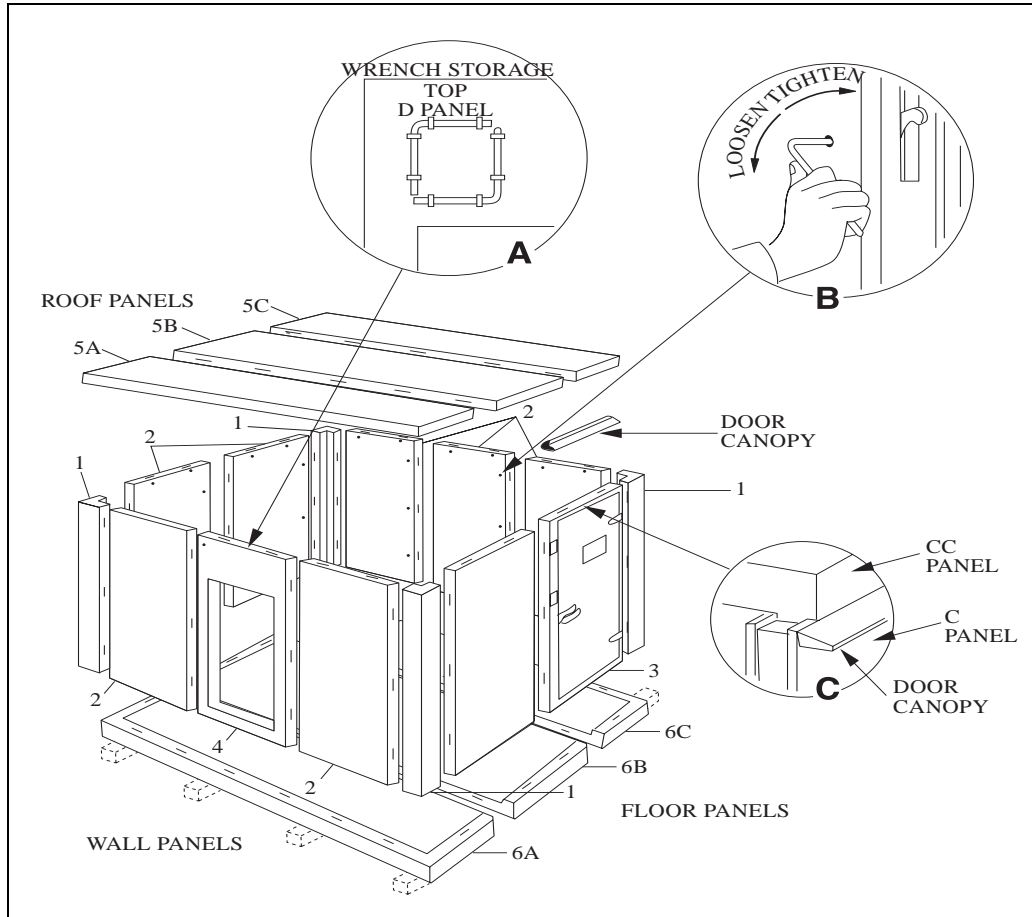
**COACHING POINT:** The site must be prepared prior to installing the refrigerators, IAW TM 9-4110-241-13, 1 July 1992. Prepare a 24-foot by 24-foot level hardstand, according to the staking plan, for the two refrigerators. The refrigerators will be placed beside each other as shown in Figure D-1. The hardstand must be able to withstand a pressure of 250 pounds per square inch. The refrigerator floors must have a structurally sound sub-base of 4-inch square timbers that are placed on a gravel base. The timbers must be longer than the width of the floor panels. The 4-inch square timbers should be laid parallel to each other with 12 to 18 inches between each piece so that air can circulate between the refrigerator floor panels and the ground.

18. Team A soldiers, with the assistance of a soldier qualified in MOS 52C, set up the 600-cubic-foot walk-in refrigerators by doing the following:



**COACHING POINT:** Soldiers must retract all clamps assemblies as far as possible by turning the wrench counter-clockwise until it stops.

- a. Place floor panels 6A, 6B, and 6C into position on the prepared hardstand.
- b. Push the floor panels together. See Figures D-27 and D-28.

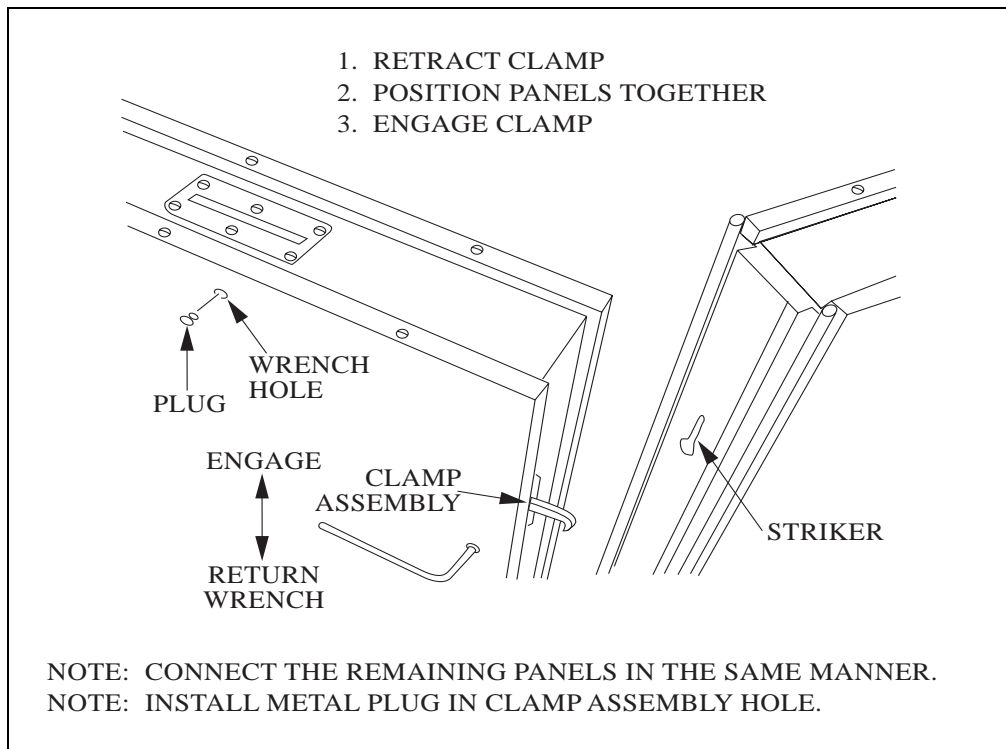


**Figure D-27. Refrigerator panel assembly**

- c. Install the wall and door panels. See Figure D-27.
- d. Using the wrenches attached to the panels, engage the clamp assemblies and rotate them in counter-clockwise direction as far as possible. See Figures D-27 and D-28.
- e. Lock the panels together by engaging the clamp assemblies with the wrench and turning it in a clockwise direction. See Figure D-27.

**COACHING POINT:** Do not lock the wall panels to the floor panels until all the wall panels have been locked together. The drill leader should designate the direction the door wall panel should face so that there is easy access to the refrigerators from the

food preparation TEMPER. The drill leader should also designate where the refrigeration wall unit panels (panel 4 in Figure D-26) are to be located. Since the two refrigerators in FP food service subsystem are usually placed side by side, the refrigeration unit mounting wall panels should be on opposite sides or mounted on the back side of the walk-in refrigerators to provide adequate space for mounting. Leave room in the refrigerator area to reposition the refrigerators if needed.



**Figure D-28. Panel connections and wrench**

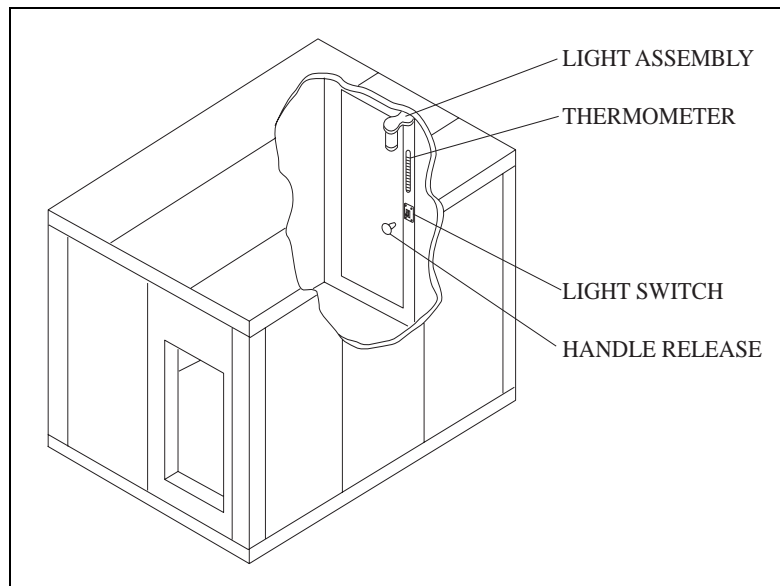
- f. Erect wall panels by placing all panels in position and have a soldier hold a corner panel in position while another soldier locks a wall panel to it.
- g. Continue locking panels together from the starting corner until all panels have been locked together back to the starting corner. See Figures D-27 and D-28.
- h. Lock the wall panels to the floor panels starting in any corner and continuing around the sides of the floor until reaching the start point.
- i. Mount a door canopy over the top of the walk-in door panel. See Figure D-27.

**COACHING POINT:** Ensure that the soldiers do not lock the ceiling panels to the wall panels until the ceiling panels have been locked to each other.

- j. Place ceiling panels 5A, 5B, and 5C in position and lock them together. See Figure D-27.
- k. Lock ceiling panels to the wall panels starting in any corner and continuing around the sides of the ceiling until reaching the start point.
- l. Cover all wrench holes with plugs.
- m. Seal exterior ceiling joints and wall joints with the 4-inch tape furnished with each refrigerator.
- n. Replace all wrenches onto their retaining clips on panel 4. See Figure D-27.

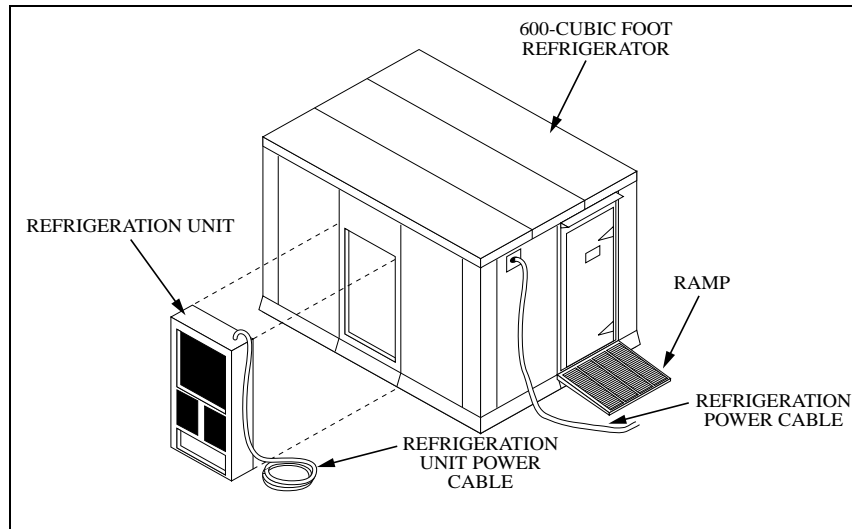
**WARNING:** ENSURE THAT NO ELECTRICAL POWER HAS BEEN APPLIED TO THE REFRIGERATORS PRIOR TO INSTALLING THEIR ELECTRICAL COMPONENTS.

- o. Install the interior light by connecting the wires to the light assembly and removing all wire tags. See Figure D-29.



**Figure D-29. Refrigerator interior light and thermometer**

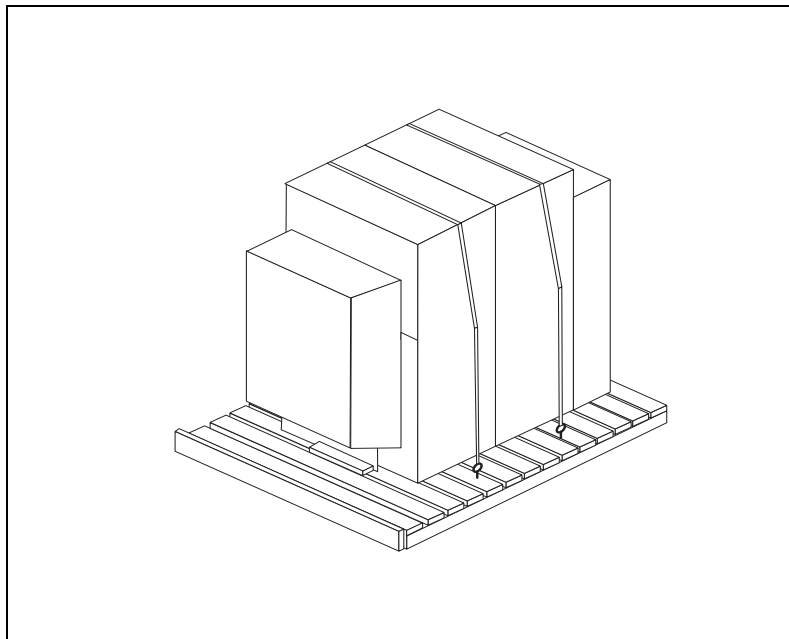
- p. Mount the light socket onto the wall using three screws.
- q. Mount the thermometer to the interior wall using two screws.
- r. Using a forklift, position the refrigeration unit near the mounting wall panel on the side of the walk-in refrigerator, leaving the power cable disconnected at this time. See Figure D-30..



**Figure D-30. Major components of the 600-cubic foot refrigerator**

- s. Remove the refrigeration unit shipping container's top panel and the side panels, securing the packing materials for later reuse. See Figure D-31.

**NOTE:** Soldiers leave the refrigeration unit resting on, but not attached to, the base platform of the refrigeration unit crate until the unit is secured to the side of the walk-in refrigerator.



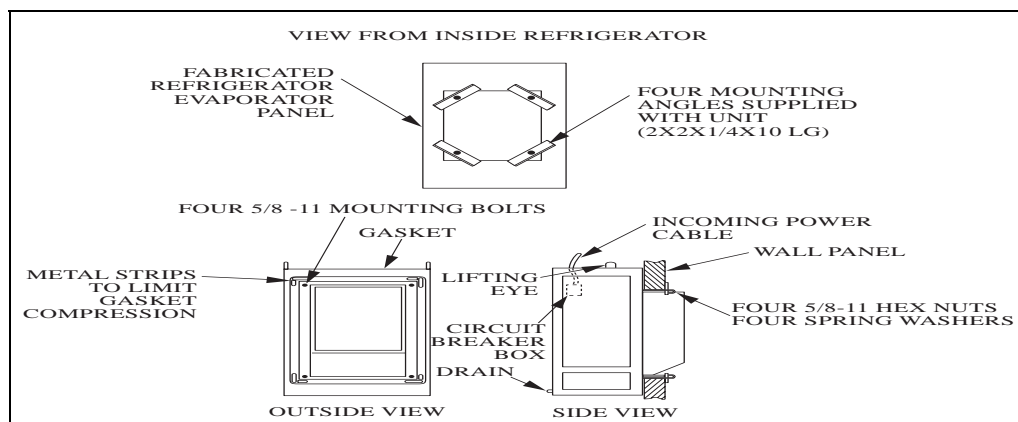
**Figure D-31. Refrigeration unit shipping components**

- t. Inspect the refrigeration unit for damage and for oil leakage from the compressor.
- u. Guide the fork lift operator to lift the unit and position it opposite the mounting hole in the side of the walk-in refrigerator.
- v. Locate the four mounting angles, four 5/8-11 hex nuts, and four spring washers supplied with the unit. See Figure D-32.
- w. Push the refrigeration unit into the hole in the wall panel and secure the unit to the inside of the wall using the mounting angles, bolts, and washers. See Figure D-32.
- x. From inside the walk-in refrigerator, tighten the unit to the maximum limit of gasket compression permitted by the metal limit strips attached to the side of the refrigeration unit.

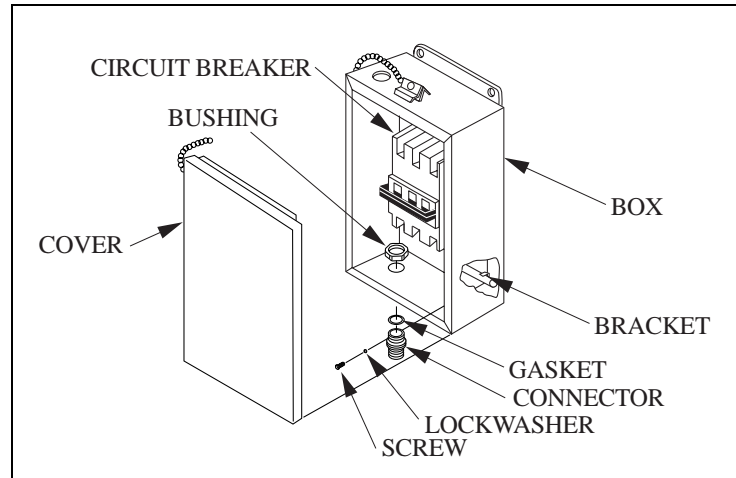
**COACHING POINT:** Ensure that the refrigeration unit is kept upright during installation and that it is securely mounted into the wall panel before the fork lift moves away.

- y. Attach the drain hose supplied with the refrigeration unit to the water drain tube found in the bottom of the refrigeration unit and lay the hose to a suitable drain site or to a container.
- z. The MOS 52C supervisor, with the assistance of Team A personnel, connects electrical power to the refrigeration unit by doing the following:

- (1) Ensures that the main circuit breaker on PDISE-M100 "D" is OFF.
- (2) Connects a 208-volt, three-phase, 60 Hz power source to the refrigeration unit's circuit breaker from the PDISE-M100 "D." See Figure D-33.
- (3) Turns the main circuit breaker on PDISE-M100 "D" ON.



**Figure D-32. Refrigeration unit installed into wall panel of walk-in refrigerator**



**Figure D-33. Refrigeration unit circuit breaker box**

- (4) Turns on refrigerator unit and the light inside the refrigerator, and checks for correct operation of compressor, lights, and door lock.
- (5) Ensures that connections and values are set correctly for operations, IAW TM 5-4110-242-14, 5 July 1985.

**DRILL LEADER ISSUES INSTRUCTIONS TO PERFORM PRE-OPERATIONS CHECKS.**

19. Team A and Team B soldiers visually inspect the food service subsystem electrical and water systems.
  - a. Inspect for damaged water pipes, valves, or hoses.
  - b. Inspect for loose clamps on hoses.
  - c. Ensure that water supply connections are secure.
  - d. Inspect for damaged electrical cables or connections.
  - e. Inspect for loose electrical connections.
  - f. Ensure that water supply hoses are connected and clean, and that the hoses' dust plugs and caps are connected together.
20. Team A and Team B soldiers conduct functions checks of the power, potable water, and graywater components for damage and proper connections.
  - a. Confirm, with the assistance of the preventive medicine NCO, that water has been certified as potable.
  - b. Open the gate valve at the user connection point of the potable water supply line to allow water to flow into all sinks, the M80 water heater, and the coffee urn.

- c. Connect one end of a 1-inch 25-foot hot water supply hose to the M80 water heater outlet port, and the other end to the manifold. See Figure D-23.
  - d. Turn on all cold and hot water faucets to ensure the availability of potable water.
  - e. Check the grease trap and SEP for proper functioning.
  - f. Turn off both hot and cold water once initial checks have been completed.
21. Team A and Team B soldiers perform initial operations and checks on kitchen equipment to ensure safe and proper operation.
- a. Turn on and inspect operation of appliances and equipment as specified in the commercial technical manuals supplied with the appliances and equipment.
  - b. Check for proper operation of TEMPER electrical and ECU operations by executing Drill-42-2-D0002, *Operate and Maintain the Four-Section TEMPER*.
22. Team A and B soldiers start the M80 water heater by executing the M80 portion of Drill 42-2-D0004, *Set Up and Maintain the Containerized Batch Laundry (CBL)*, and conduct pre-operations checks by doing the following:
- a. Check that the manual fuel valve is closed. See Figure D-21.
  - b. Set the load limit switch to the ON position. See Figure D-21.
  - c. Visually check that the blower fan at the rear of the fan housing is rotating in the direction of the arrow on the housing. See Figure D-21.
  - d. Turn the load limit switch to the OFF position. See Figure D-21.
  - e. Notify the drill leader if the motor rotation is incorrect.
- NOTE:** Notify the Facilities Support Section to correct the power phasing of the Power Group for the for M80 water heater, if the blower motor turns in the wrong direction.
- f. Open the water outlet valve on top of the M80 water heater. See Figure D-21.
  - g. Open the bleeder valve, observe for a steady stream of water escaping from the valve, and then close the bleeder valve. See Figure D-21.
23. Team A soldiers light up the M80 water heater by doing the following:

- a. Turn the load limit switch to the ON position. See Figure D-21.
- b. Check that the fuel pressure gauge reads 75 to 80 pounds per square inch (psi) (or 517 to 532 kilopascas [kPa]).
- c. If the fuel pressure gauge does not read 75 to 80 psi within 15 seconds, then turn the load limit switch to the OFF position and repeat Step 6 and Substeps a through b, above, until the gauge reads 75 to 80 psi.

**NOTE:** If the fuel pressure gauge does not read 75 to 80 psi (or 517 to 532 kPa) after three tries, the soldiers responsible must notify the drill leader.

- d. When the fuel pressure reaches 75 to 80 psi within 15 seconds, open the manual fuel valve one full turn.
- e. Observe burner ignition through the sight tube. See Figure D-21.
- f. If the burner ignites within 20 seconds, then open the manual fuel valve fully. See Figure D-21.

**COACHING POINT:** If combustion does not happen within a preset time, the control unit will cause a safety shutdown of the ignition spark. When a buzzer sounds on the control box, tell the soldiers that they must turn the load limit switch to the OFF position and wait two minutes. At the end of that time, the soldiers repeat Substeps e and f, above. If combustion still does not occur, they must follow the troubleshooting procedures in TM 10-4520-259-13 & P, *Operator's, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List, Heater, Water, Liquid Fuel, M80*.

- h. Check that exhaust gasses are transparent and smokeless; if necessary, adjust the air band on the blower motor assembly until no smoke is visible. See Figure D-22.

**COACHING POINT:** Soldiers must check for smoke in the exhaust gasses frequently because normal vibration of the water heater during operation may change the air band adjustment.

- i. Adjust the air band no wider than necessary to stop visible smoke.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.



ARTEP 42-424-30-MTP

PERFORM: When the soldiers can perform this drill according to the standards, their performance should be evaluated by the section leader.

**CREW DRILL 42-2-D0014****Dismantle the Food Service Subsystem for a Force Provider (FP)  
Module**

**TASK:** Dismantle the food service subsystem for a FP module

**CONDITIONS:** The food service subsystem is operating in its designated area. Components have been inventoried and inspected for serviceability. Unserviceable components have been tagged and reported to the Force Provider (FP) company or platoon higher HQ. The potable water, graywater collection, and power generation subsystems are in place, connected to the food service subsystem, and fully operational. The water distribution personnel have flushed the potable and gray water lines with highly chlorinated water. Adequate trash and garbage removal services are available. Eleven skill level one (SL1) soldiers from the Food Service Section are assigned to dismantle the food service facility. Fifteen additional SL1 soldiers are available to assist in dismantling the dining tent, extendable, personnel (TEMPER). One soldier qualified in military occupational specialty (MOS) 52C, Utilities Equipment Repairer, is available to supervise and assist in dismantling the 600-cubic-foot walk-in refrigerators. All remaining rations and condiments have been disposed of according to theater policy. Soldiers have cleaned and sanitized all items and prepared them for packing. The drill leader and the soldiers perform the Drill 42-2-D0003, *Dismantle the Four-Section TEMPER*, to provide practice on dismantling TEMPER tents, either during this drill or prior to the dismantling of the food service subsystem. Technical documentation, including all applicable technical manuals (TMs) and commercial instructions supplied with the food service subsystem, and tool kits are available.

**NOTE:** If the cold weather kit (CWK) was installed for operations when the ambient temperature was less than +32° Fahrenheit (F), then it must be dismantled with food service subsystem. See Drill 42-2-D0003, *Dismantle the Four-Section TEMPER*, and Drill 42-2-D0019, *Dismantle a Potable Water Storage and Distribution Site*, for steps on dismantling the CWK.

**STANDARD:** The food service subsystem is dismantled, in accordance with (IAW) TM 10-5419-200-12, *Operator's, Unit and Direct Support Maintenance Manual for Force Provider Modules 1 & 2*, without damage to equipment or injury to personnel within the time specified in the movement order.

**SUPPORTING INDIVIDUAL TASKS:** Prior to conducting the drill, the leader should be proficient in Soldier Training Publication (STP) tasks, 101-524-2163, *Direct Personnel Operating and Maintaining*

the Field Kitchen Equipment, 101-524-3255, and 101-524-3256, Supervise Food Service Personnel in a Field Kitchen, found in STP 10-94G25-SM-TG. The supervisor in MOS 52C should be familiar with tasks 091-181-5201, Maintain Air Conditioning Electrical Systems, and 091-181-5203, Maintain Air Conditioning Vapor Systems.

SETUP INSTRUCTIONS:

a. Resources.

(1) One completely set up and operational FP food service subsystem connected to the FP module's electrical power, potable water supply, and graywater collection subsystems.

(2) One five-ton fork lift to position food service components. (One of the soldiers should be qualified to operate the fork lift. If none is qualified, a fork lift operator will be needed.)

(3) Eleven MOS 92G SL1 Food Service Section personnel and a detail of at least 16 soldiers to assist with dismantling the food service TEMPERS.

(4) One soldier qualified in MOS 52C.

(5) CWK components if the ambient temperature is to be less than 32° Fahrenheit.

(6) Expendable cleaning supplies and equipment, including, at a minimum, one gallon of detergent and/or five pounds of soap, four brooms, four mops with heads, two mop stands, six scrub brushes, one pound of stainless steel polishing powder, and 30 pounds of clean rags.

(7) Trash and garbage removal service.

(8) General mechanic's automotive tool kit.

(9) Plumber's tool kit.

(10) Technical manuals and commercial manuals for food service subsystem components and appliances.

**NOTE:** The maximum number of soldiers required to dismantle the 96-foot dining facility TEMPER is 27. Once the dining facility TEMPER is dismantled, the additional soldiers may be released to perform other tasks.

b. Training Site. The size of the drill site should be at least 250 feet by 250 feet.

c. Unit Instructions. The food service subsystem is operational. Because of the relatively large number of soldiers required to dismantle the food service subsystem, teams of soldiers should be used to expedite the drill. Each team

should have an NCO in charge. There should be up to four teams, each with six or seven soldiers, with a letter designation such as Team A, Team B, Team C, and Team D. Team A and team B should comprise only soldiers in MOS 92G, since they will dismantle the food service appliances. All soldiers/teams are not required for the entire drill. After the dining facility TEMPER is dismantled, soldiers not in MOS 92G or 52C may be released. To fully exercise dismantling the food service subsystem, potable water supply, graywater collection, and electrical power support must be available.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains soldiers of the Food Service Section to dismantle the FP food service subsystem. Assign each soldier a different number or team during subsequent drill iterations so each learns all the steps and standards for dismantling a food service subsystem.

b. Environmental Stewardship. Brief all soldiers on the environmental stewardship requirements of executing this drill. Soldiers must accomplish final disposal of garbage, trash and graywater without pollution to the ground or water. Dispose of these items IAW the unit SOP and current directives. Properly contain and dispose of graywater that results from the final cleaning of appliances and kitchen equipment. Treat all graywater and fuel spill as hazardous waste (HW) and dispose of IAW current directives. Grease from the grease traps will be disposed of as HW. Backfill the holes used to hold the grease trap and the sewage ejection pump (SEP), and smooth over the surface of the ground.

c. Safety. Follow all safety warnings, cautions, and notes as required in TM 10-5419-200-12 and all other applicable manuals for the food service subsystem components. Ensure the food service subsystem remains properly grounded until the electrical power service is dismantled. Never attempt to dismantle any electrical component when the food service subsystem or its components are connected to a power source, without first shutting off power to the component IAW its applicable operating instructions. Appliances are heavy. If heavy equipment lifting equipment is not available, use a minimum of four persons to lift and move the appliance, using proper lifting procedures. Ensure water hoses, exhaust ducts, power cables or fuel lines do not come in contact with or cross over, each other. Damage can occur causing leaking fuel and water, or electrical hazards. If potable water supply hoses must cross over graywater collection hoses, the potable water hose must cross over the graywater hose to prevent water contamination. Route electrical cables and water hoses away from vehicular traffic to avoid damage to cables

and hoses. If electrical service/feeder cables must cross water lines, the electrical cable must cross over top of the water hoses. Do not disconnect water hoses from appliances until the system has been flushed. Ensure M80 water heater exhaust ducts are properly routed away from the TEMPER tents. Carbon monoxide can kill. Be alert to the symptoms of carbon monoxide poisoning.

d. Demonstration (optional). If soldiers from another Food Service Section have successfully dismantled a food service subsystem, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening, and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in dismantling the food service subsystem. The drill leader can illustrate the steps with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should explain their role in the drill, including the standards for which they are responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill should be conducted slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the crawl phase. The soldiers execute the drill at a deliberate pace on the first iteration as the walk phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the run phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

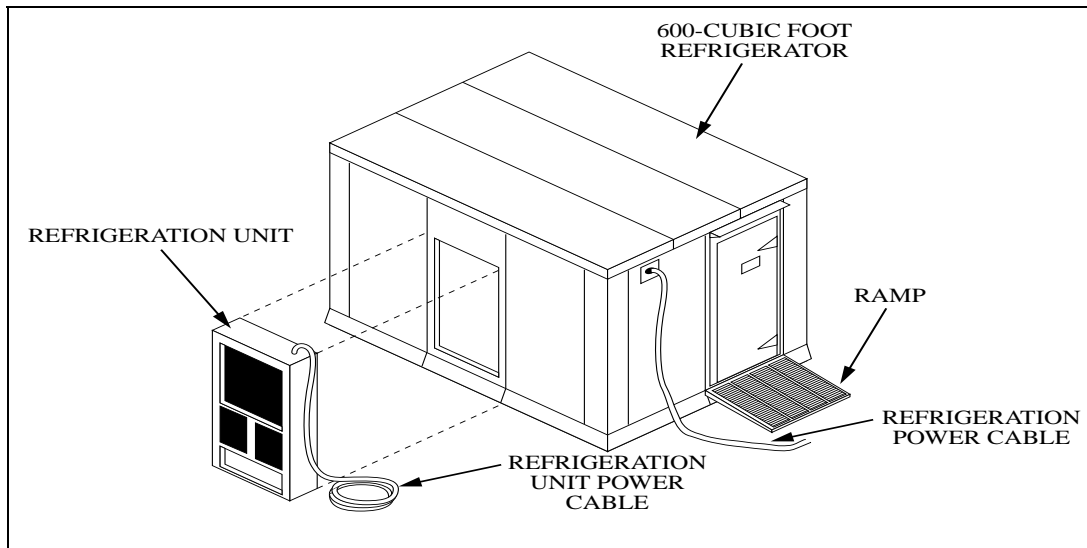
b. Initiating Cue. The drill leader gives orders to dismantle the food service subsystem.

Performance Measures:

**WARNING:** THE POWER SOURCE MUST BE DISCONNECTED BEFORE PERSONNEL MAKE ANY ATTEMPT TO DISASSEMBLE ELECTRICAL COMPONENTS. ONLY A QUALIFIED TECHNICIAN FROM THE FACILITIES SUPPORT SECTION WILL SHUT OFF AND DISCONNECT THE POWER DISTRIBUTION ILLUMINATION SYSTEM, ELECTRICAL (PDISE)-M100S FROM THE POWER SUPPLY.

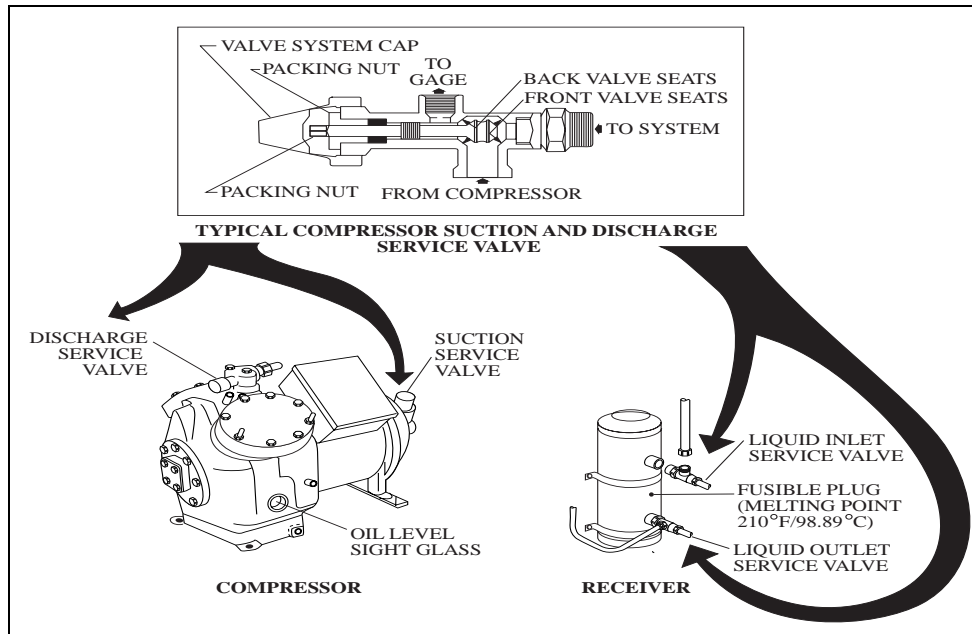
**COACHING POINT:** The electrical power to the refrigerators must be available during dismantling operations to shut down the refrigeration units properly. Leave PDISE-M100 "D," which services the walk-in refrigerators, connected to the power source during dismantling. Assign a second soldier to assist the MOS 52C-qualified soldier in dismantling the refrigerators.

1. The MOS-52C-qualified soldier, with the assistance of a second soldier, begins dismantling the two walk-in refrigerators by doing the following:
  - a. Ensures that the electrical power to the refrigerators is temporarily shut-off at PDISE-M100s "D" and "E" by setting their circuit breakers for the refrigerators' service/feeder cables to the OFF position.
  - b. Disconnects the power cables that provides power to the walk-in refrigerator. See Figure D-34.



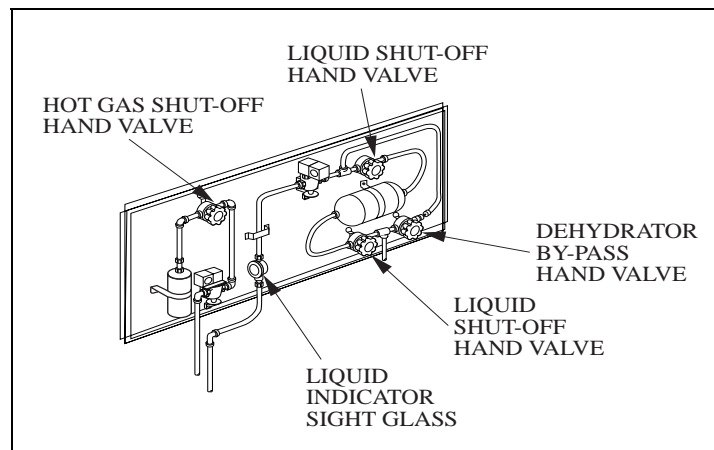
**Figure D-34. Refrigerator unit major components**

- c. Opens the access panels on the side of the refrigeration units mounted on the side of the walk-in refrigerators to gain access to the service valves on the compressor.
- d. Conducts pumpdown procedures prior to dismantling the units by checking that the discharge and suction service compressor valves are open. See Figure D-35.



**Figure D-35. Refrigeration unit service valves**

- e. Soldier 2 ensures the valves are open by "backseating and cracking" the valves on the compressor by turning the valve stem fully counterclockwise to backseat it and then turning it clockwise one turn to "crack" it. See Figure D-35.
- f. Soldier 2 closes the hot gas shut-off hand valves and then closes the receiver liquid outlet service valve. See Figures D-35 and D-36.



**Figure D-36. Hot gas shut-off valves and sight glass**

- g. Soldier 2 adjusts the thermostat, located on the outside of the refrigeration units, to a higher temperature so that the unit will not run continuously.

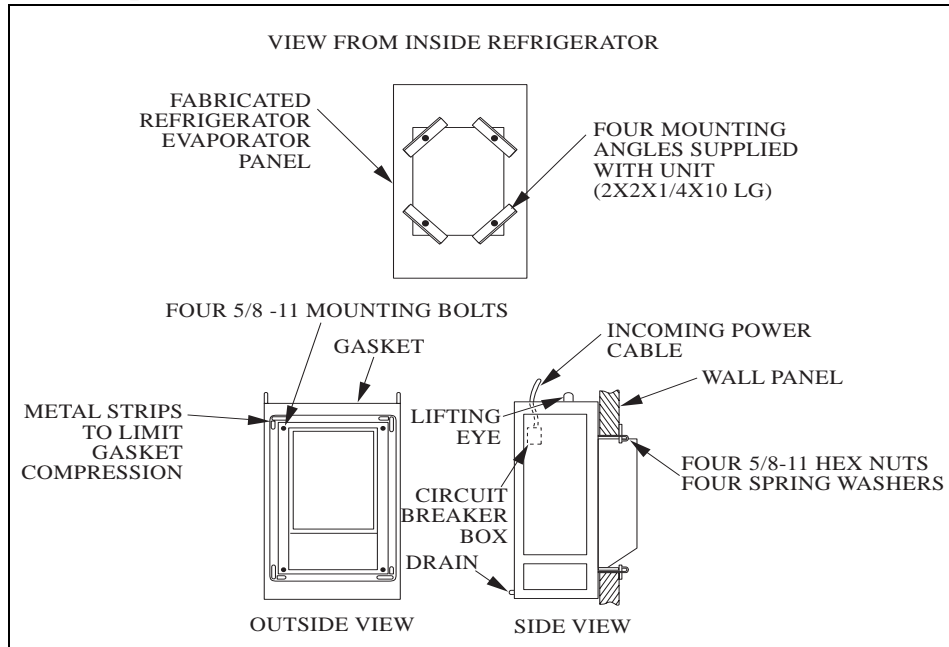
- h. MOS 52C-qualified soldier turns the circuit breakers on PDISE-M100 "D" and "E" for the refrigerators' service/feeder cables to the ON position.
- i. MOS 52C-qualified soldier turns the refrigeration units' power switches ON.

**WARNING:** SERIOUS DAMAGE CAN OCCUR TO THE EQUIPMENT IF THE SUCTION PRESSURE DROPS BELOW 0 POUNDS PER SQUARE INCH GAUGE (PSIG) (NEGATIVE PRESSURE READING) DURING PUMPDOWN. A LEAK WILL ALLOW AIR TO BE PULLED INTO THE SYSTEM.

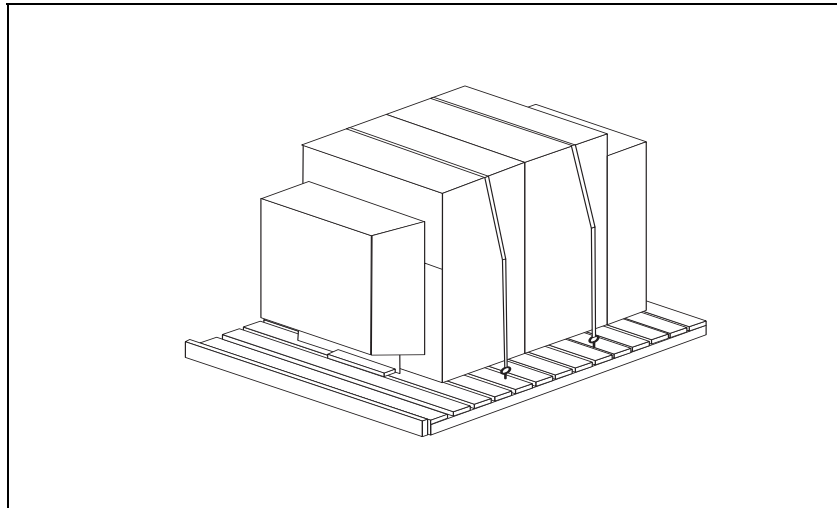
- j. Soldier 2 turns the power switches OFF when the suction pressure gage reaches the range of 0 to 2 psig, not permitting the pressure to drop below 0 psig.
  - k. Soldier 2 observes the suction pressure gage and when pressure increases to above 2 psig, turns the unit on again until the pressure falls back into the range of 0 to 2 psig.
  - l. Soldier 2 closes the receiver inlet valve and the compressor service valves, since the refrigerant charge is now contained in the receiver tank.
  - m. Soldier 2 resets the thermostat and tags the unit with a statement that "This Unit Has Been Pumped Down."
  - n. MOS 52C-qualified soldier places the circuit breaker switches in PDISE-M100s "D" and "E" for the service/feeder cables serving each refrigerator to the OFF position.
  - o. MOS 52C-qualified soldier disconnects the refrigeration units' service/feeder cables from the PDISE-M100s.
  - p. MOS 52C-qualified soldier and Soldier 2 carry the cables back to the refrigerator.
2. Team A soldiers continue the disassemble the walk-in refrigerators by doing the following:
- a. Remove the power cable through the top of the circuit breaker box on each refrigeration unit. See Figure D-37.
  - b. Obtain a forklift with operator and the original packing materials for the refrigeration units.
  - c. Position the bottom skid panel from the refrigeration unit packing crate on the tongs of the forklift and guide the forklift directly underneath and just touching the bottom of the refrigeration unit. See Figure D-38.
  - d. Enter the inside of the walk-in refrigerator and unfasten the bolts on the four mounting angles that hold the refrigeration unit to the wall panel. See Figure D-37.
  - e. Push the refrigeration unit out of the wall panel and onto the bottom packing skid positioned on the forklift tongues.
  - f. Direct the fork lift operator to lower the refrigeration unit to the ground.
  - g. Repack the unit with its original packing container components. See Figure D-38.



h. Remove any remaining items from inside the refrigerator.



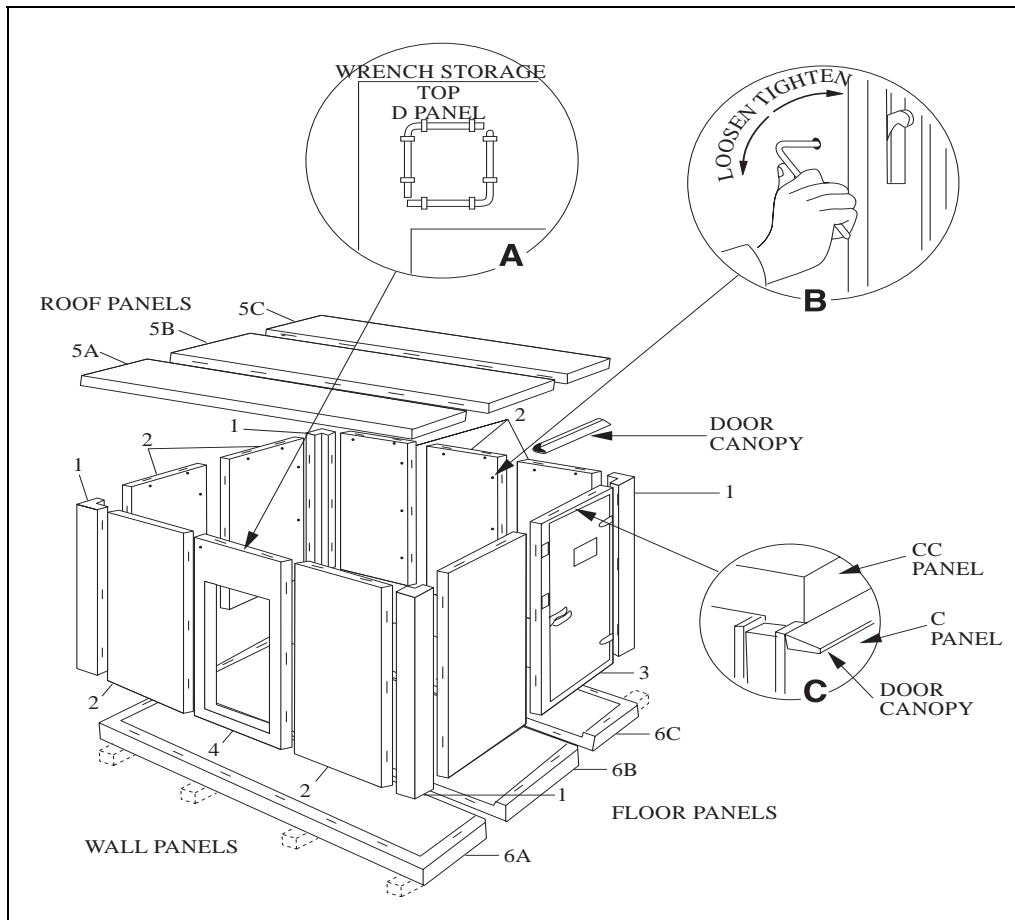
**Figure D-37. Dismount refrigeration unit**



**Figure D-38. Repack refrigeration unit**

- i. Wash and dry the inside walls and floor panels of the refrigerator. See Figure D-39.
- j. Remove any sealing tape from the panels and wash and dry the outside walls and the roof of the refrigerator.
- k. Remove the interior light and the thermometer from the refrigerator.
- l. Disconnect roof panels 5A, 5B, and 5C, then disconnect wall panels 1, 2, 3, and 4, and then disconnect floor panels 6A,

- 6C, and 6D using the wrenches stored above the refrigeration unit mounting panel. See Figure D-39.
- m. Move panels and refrigeration unit near their storage containers.



**Figure D-39. Refrigerator panels**

**NOTE:** Potable water support and graywater collection service must be operable during the breakdown of the food service subsystem. Water supply and distribution personnel must circulate chlorinated water through the potable water service and thus through the graywater collection components to properly clean these items before dismantling.

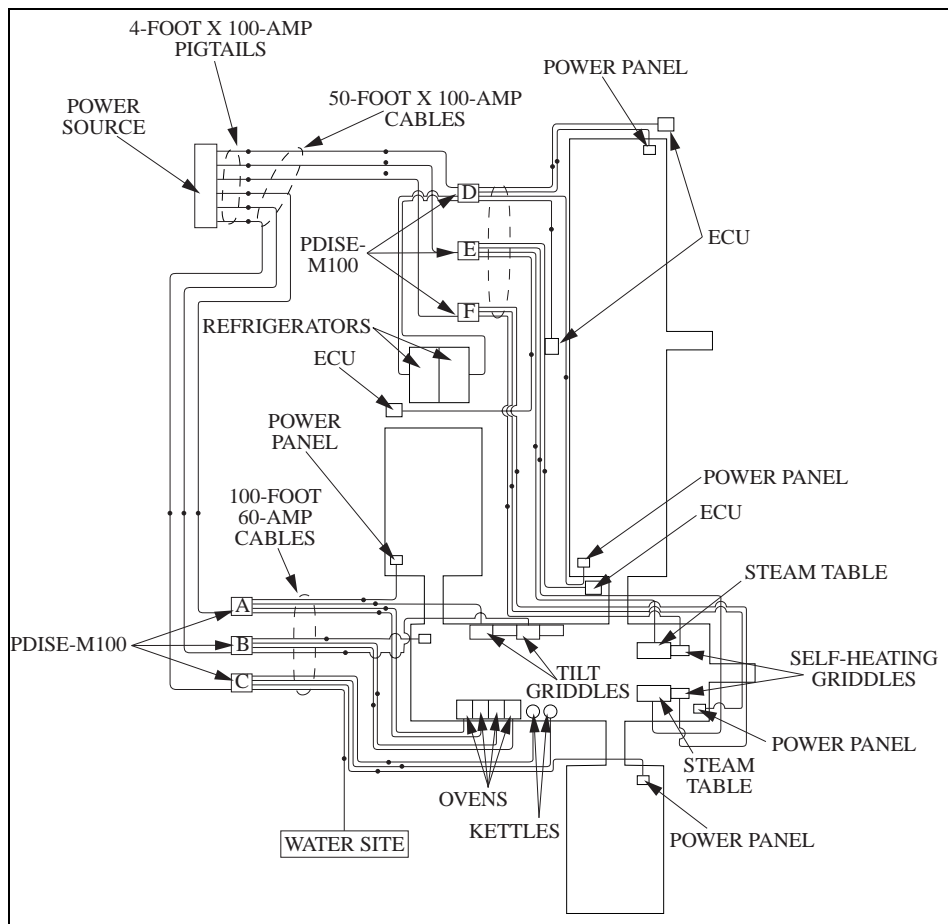
3. Team B soldiers flush the potable water supply and graywater collection hoses with highly chlorinated water by doing the following:
  - a. Shut down the M80 water heater.
  - b. Coordinate with Water Distribution Section personnel to flush the food service water system with highly chlorinated water.

- c. Turn on all water faucets, flushing the water lines with highly chlorinated water for several minutes to sanitize appliances, potable water lines, and connections to the graywater collection subsystem.
- d. Turn off the faucets.
- e. Coordinate with Water Distribution Section personnel to flush the system with normally chlorinated water.
- f. Turn on all water faucets, flushing the water system for five minutes with normally chlorinated potable water.
- g. Turn off the faucets and the gate valve at the food service facility's connection to the main water supply line.
- h. Drain the SEP by lifting the float switch.
- i. Notify the waste water vacuum tank/trailer (WWVT/T) crew to complete evacuation of any water remaining in the SEP and the grease trap.

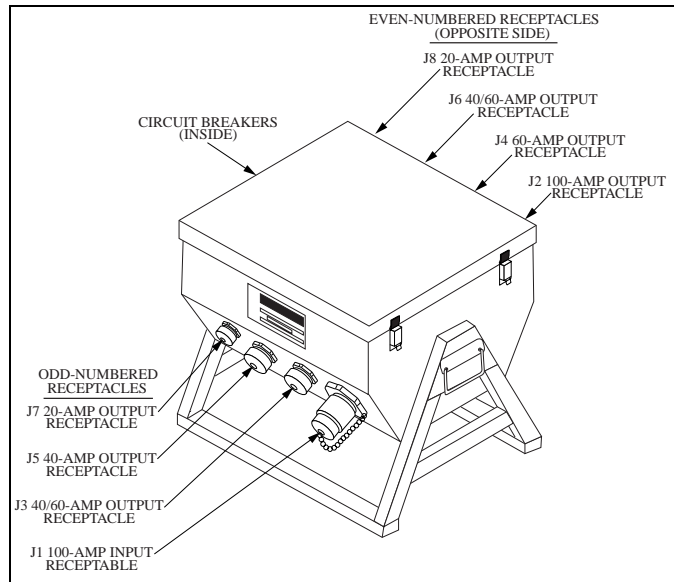
**WARNING:** THE SOURCE OF ELECTRICAL POWER MUST BE TURNED OFF AND DISCONNECTED BEFORE DISASSEMBLING ELECTRICAL COMPONENTS. ONLY A QUALIFIED TECHNICIAN FROM THE FACILITIES SUPPORT SECTION WILL SHUT OFF THE POWER AND DISCONNECT THE POWER DISTRIBUTION ILLUMINATION SYSTEM, ELECTRICAL (PDISE)-M100S FROM THE POWER SOURCE.

4. Team A and Team B soldiers dismantle the food service electrical power components by doing the following:
  - a. Coordinate with the Facilities Support Section to disconnect the 4-foot 100-amp pigtails from the power source to the PDISE-M100s "A," "B," "C," "E," and "F." See figure D-40.
  - b. Team A soldiers turn off all environmental control units (ECUs), electrical components, and TEMPER power distribution boxes. See Figure D-40.
  - c. Team B soldiers set all the circuit breaker switches on all food service PDISE-M100s to the OFF position. See Figure D-40.
  - d. Team B soldiers disconnect the 50-foot 100-amp service/feeder cables from the 4-foot 100-amp pigtails and from the PDISE-M100s, reconnecting all dust caps to the ends of disconnected cables and input receptacles.
  - e. Team A and B soldiers disconnect all service/feeder cables from the output receptacles connectors on PDISE-M100 "A" and from the food service electrical component, reconnecting all their dust caps. See Figures D-40 and D-41.
  - f. Team A and B soldiers disconnect all service/feeder cables from the output receptacles connectors on PDISE-M100 "B" and from the food service electrical component, reconnecting all their dust caps. See Figures D-40 and D-41.
  - g. Team A and B soldiers disconnect all service/feeder cables from the output receptacles connectors on PDISE-M100 "C" and

- from the food service electrical component, reconnecting all their dust caps. See Figures D-40 and D-41.
- h. Team A and B soldiers disconnect all service/feeder cables from the output receptacles connectors on PDISE-M100 "D" and from the food service electrical component, reconnecting all their dust caps. See Figures D-40 and D-41.
  - i. Team A and B soldiers disconnect all service/feeder cables from the output receptacles connectors on PDISE-M100 "E" and from the food service electrical component, reconnecting all their dust caps. See Figures D-40 and D-41.
  - j. Team A and B soldiers disconnect all service/feeder cables from the output receptacles connectors on PDISE-M100 "F" and from the food service electrical component, reconnecting all their dust caps. See Figures D-40 and D-41.



**Figure D-40. Layout of food service electrical power group components**



**Figure D-41. PDISE-M100**

**WARNING:** DO NOT ALLOW WATER OR SOAP INSIDE ELECTRICAL RECEPTACLES. CLEAN ELECTRICAL CONTACTS WITH DRY BRUSHES AND CLEAN, DRY RAGS ONLY.

- k. Team A soldiers clean all service/feeder cables with damp rags being careful not to get either dirt or moisture into receptacles.
  - l. Team B soldiers clean all food service PDISE-M100s of dirt, debris, and corrosion by wiping the outside with a clean, damp rag, and cleaning the circuit breaker panel with a clean, dry cloth.
  - m. Team A and B soldiers position all service/feeder cables and PDISE-M100s in the staging area for repacking.
5. Team B soldiers dismantle the food service subsystem's potable water components by doing the following:
- a. Disconnect the cold water hose from the coffee urn in the dining TEMPER and the cold water manifold. See Figures D-42 and D-43.

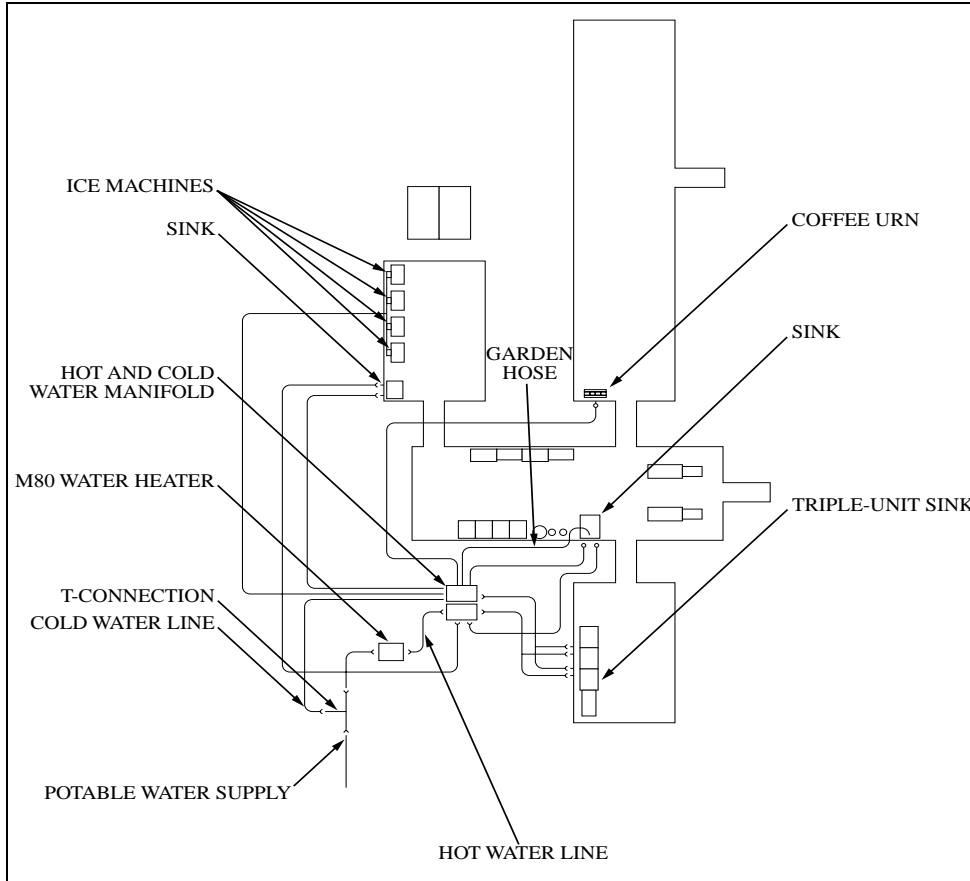


Figure D-42. Layout of potable water supply hoses

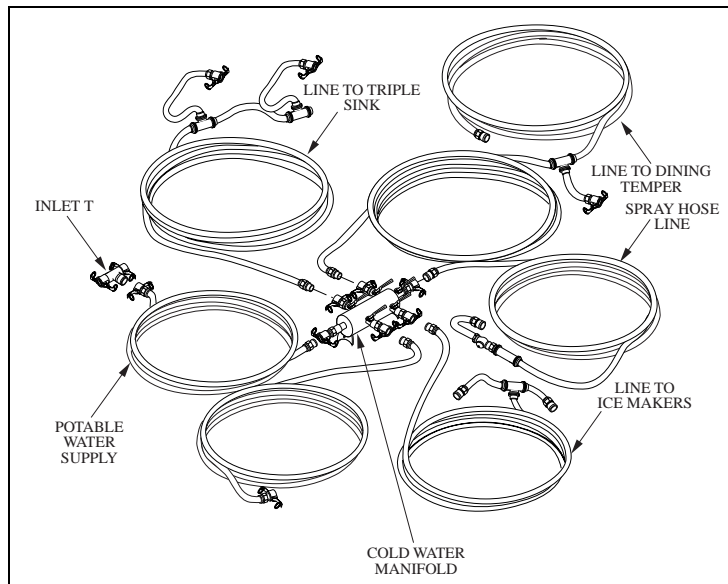


Figure D-43. Cold water supply hose connections

- b. Disconnect the cold water hose from the sink in the food preparation TEMPER and the cold water manifold. See Figures D-42 and D-43.
- c. Disconnect the cold water hose from the sink in the kitchen TEMPER and the cold water manifold. See Figures D-42 and D-43.
- d. Disconnect the cold water hoses from the triple sink in the food sanitation TEMPER and the cold water manifold. See Figures D-42 and D-43.
- e. Disconnect the cold water hose line in the kitchen TEMPER from the cold water manifold.
- f. Contact Petroleum Distribution Section personnel to collect the 55-gallon drum used to fuel the M80 water heater and to dispose of any remaining fuel.

**WARNING:** WATER MAY REMAIN VERY HOT FOR SOME TIME AFTER THE M80 WATER HEATER HAS BEEN SHUT DOWN. EXERCISE CARE IN DISMANTLING THE WATER HEATER AND HOT WATER SUPPLY HOSE COMPONENTS TO AVOID BURNS.

- g. Disconnect the hot water hose from the sink in the food preparation TEMPER and from the hot water manifold. See Figure D-44.
- h. Disconnect the hot water hose from the sink in the kitchen TEMPER and from the hot water manifold. See Figures D-42 and D-44.
- i. Disconnect the hot water hose to the triple sink in the food sanitation TEMPER and from the hot water manifold. See Figures D-42 and D-44.

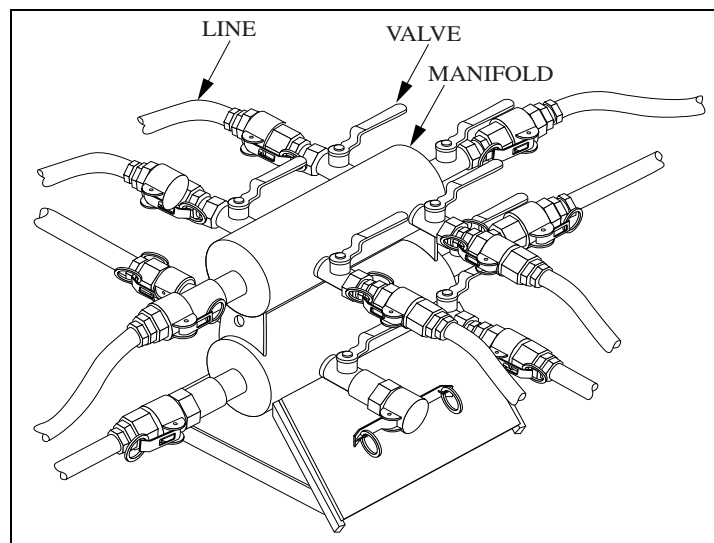
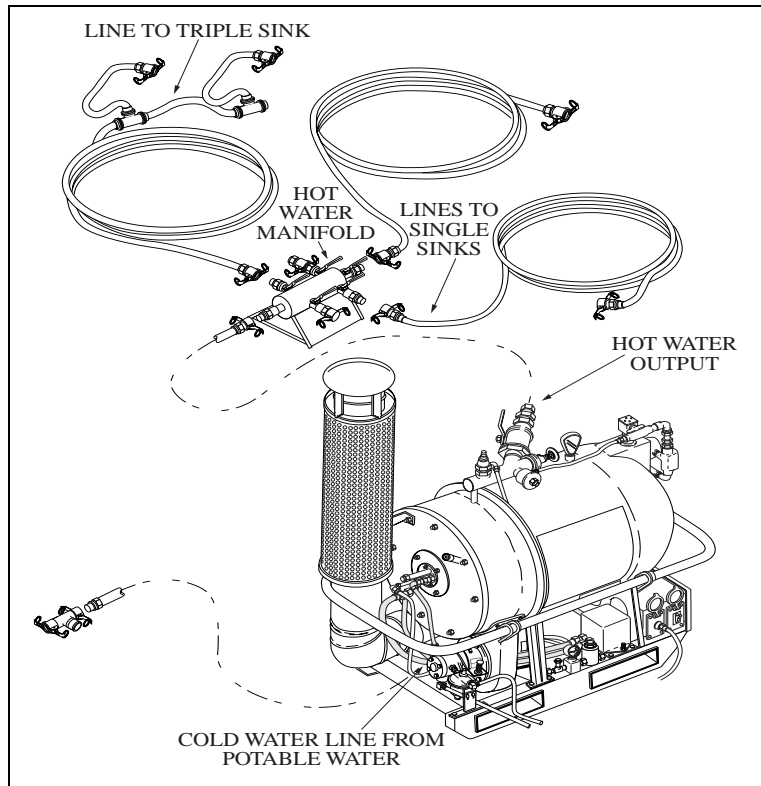


Figure D-44. Hot and cold water manifolds (hot water on bottom)

**NOTE:** Execute Drill 42-2-D0005, *Dismantle the Containerized Batch Laundry (CBL)*, to prepare the M80 water heater for movement.

- j. Drain the M80 water heater and prepare it for movement.  
See Figure D-45.



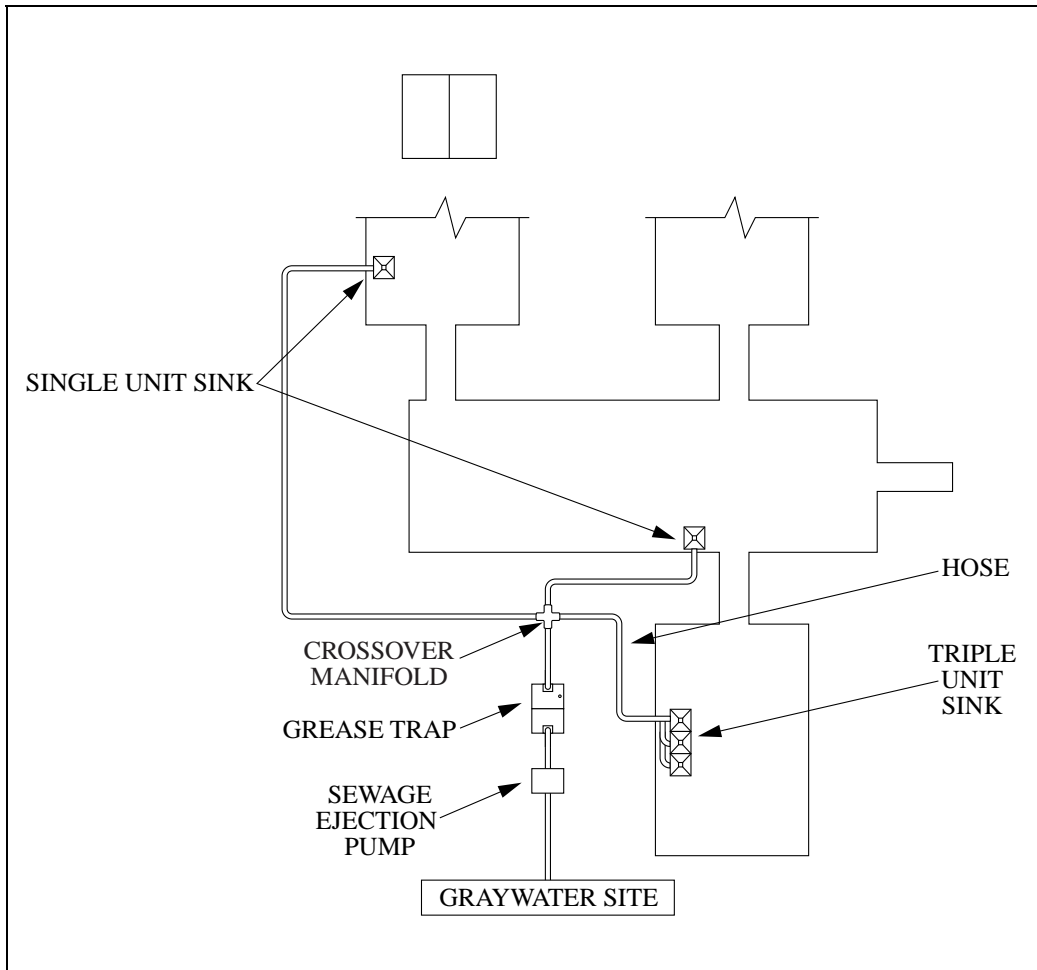
**Figure D-45. M80 water heater and hot water supply hoses**

- j. Roll all cleaned and dried hoses neatly, keeping the hose ends from contacting unclean surfaces. See Figure D-43.  
k. Close all valves on the water manifold and install all protective caps on each port. See Figure D-45.  
l. Carry all potable water supply components to the staging area for repacking.

**COACHING POINT:** Dismantle the grease trap, the SEP, and all connecting graywater collection hoses only after they have been disconnected from all electrical power sources and highly chlorinated water has been circulated through all graywater collection hoses. Treat remaining graywater, grease, or sludge as HW, and dispose of it IAW current directives.

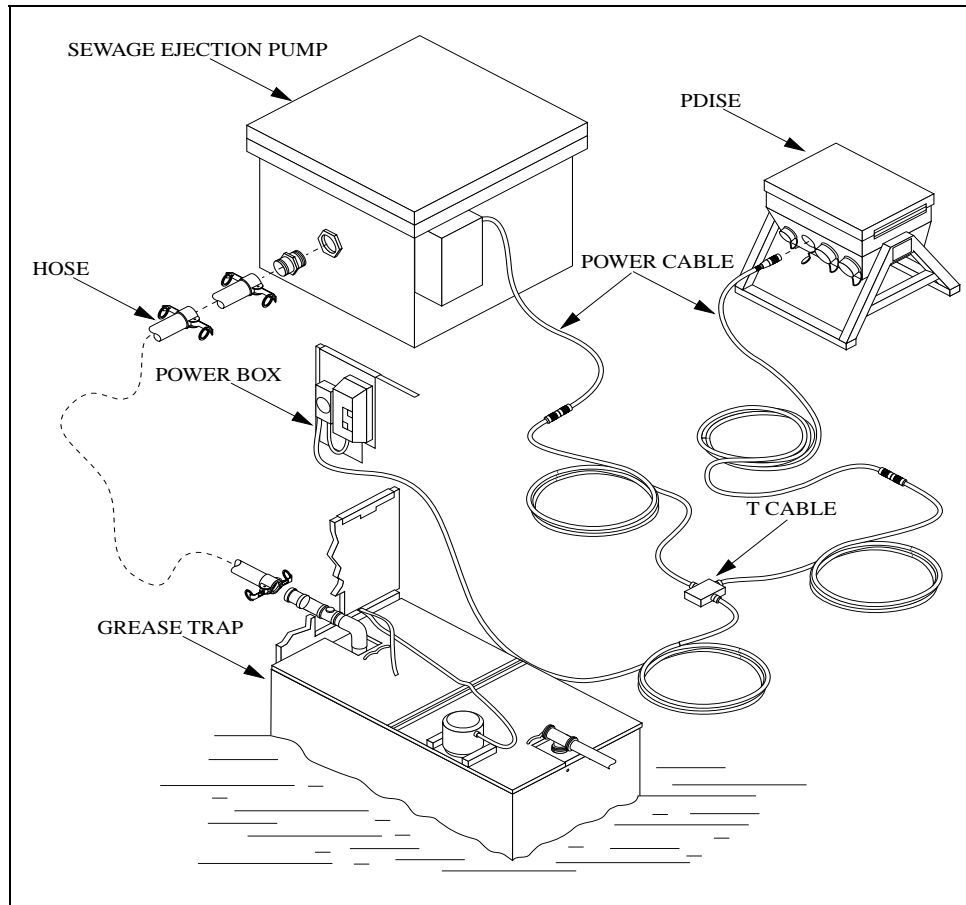
6. Team A soldiers dismantle graywater components by doing the following (see Figure D-46):





**Figure 46. Layout of graywater collection components**

- a. Check that the SEP and grease trap have stopped automatic operation and their tanks are nearly empty. See Figure D-47.
- b. Insure that the power switches on the grease trap and the SEP are OFF. See Figure D-47.



**Figure D-47. Grease trap and SEP graywater collection and electrical connections**

- c. Separate the T-cable from both the SEP and the grease trap. See Figure D-47.
- d. Disconnect the graywater hoses from the inlet and outlet ports on the SEP, and then clean and coil the hoses. See Figure D-47.
- e. If there is any residue in the SEP and grease trap, contact the WWVT/T support team to remove it.
- f. Dig the SEP out of the ground and then lift it out of its pit using at least four soldiers.
- g. Clean the SEP with soap and clear water and dry it.
- h. Disconnect the grease trap from the inlet and outlet graywater hoses. See Figure D-47.
- i. Dig the grease trap out of the ground.
- j. Dispose of the wooden components of the grease trap as HW.
- k. Clean all non-wooden parts of the grease trap with soapy water and dry them.
- l. Fill in the holes occupied by the SEP and the grease trap and level the ground.

- m. Fill in any trenches or culverts that held water lines and smooth over the surface.
- n. Carry the graywater components to the staging area for repacking.

**NOTE:** Dismantling the kitchen and dining TEMPERS will require additional personnel. Make the detail of 16 additional soldiers available at this time. Form them into Teams C and D.

- 7. Teams A through D execute Drill 42-2-D0003, *Dismantle the Four-Section TEMPER*, to dismantle the kitchen and dining TEMPERS with the following exceptions:
  - a. Remove all equipment and supplies from all the TEMPERS.
  - b. Remove all vestibules before lowering any TEMPERS.
  - c. Dismantle the 12-section dining TEMPER first since it requires a minimum of 27 personnel to dismantle it and prepare it for movement.
  - d. Dismantle the six-section kitchen TEMPER next since it requires 15 personnel to dismantle it and prepare it for movement.
  - e. Dismantle the four-section field sanitation and the food preparation TEMPERS last.
  - f. Clean all TEMPER components IAW Drill 42-2-D0003 and carry them to the staging area for repacking.
- 8. Using a fork lift where necessary because of the weight of the equipment, Teams A through D move all cleaned food service equipment and components to the staging area for repacking.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

**PERFORM:** When the soldiers can perform this drill according to the standards, their performance should be evaluated by the section leader.

**CREW DRILL 42-2-D0015****Set Up a Power-Generation Cluster for a Force Provider (FP)  
Module**

**TASK:** Set Up a Power-Generation Cluster for an FP Module

**CONDITIONS:** The Force Provider (FP) company or platoon has occupied an operational site for an FP module. The site has been prepared in accordance with (IAW) the site plan and is secure. The generators and shipping containers containing the power generation components have arrived at the site and have been positioned IAW the staking plan. The precise location of each power-generation cluster has been staked out. The Power Generation Equipment Repairer Supervisor has ensured that all components are present, clean, and serviceable, and has reported all shortages and unserviceable components to company or platoon HQ. A berm has been constructed at each power-generation cluster site with a 500-gallon drum in place and will be maintained by 77F personnel. Six soldiers—three in MOS 52C or 52D and three in MOS 77F—have been assigned to set up one power-generation cluster. Three Tactical Quiet Generators (TQGs) are available for the site. Technical documentation, including all applicable technical manuals (TMs), and tool kits are available.

**STANDARD:** The power-generation cluster is set up IAW TM 10-5419-200-12, *Operator's, Unit and Direct Support Maintenance Manual for Force Provider Modules 1 & 2*, and TM 9-6115-645-10, *Operator's Manual for Generator Set, High Voltage, Skid Mounted, Tactical Quiet, 60kW, 50/60 and 400 Hz, MEP 806A, MEP 816A*. Set up and initial operations checks are accomplished IAW the above references with no damage to the equipment, injury to personnel, or fuel spills so that power generation operations satisfy user requirements within the time specified.

**SUPPORTING INDIVIDUAL TASK:** Prior to conducting the drill, the soldiers should be proficient in Soldier Training Publication (STP) tasks 091-182-0501, Maintain Diesel Engine Cooling System, 091-182-0603, Maintain Diesel Engine Control Panels and Instruments, 091-182-0301, Maintain Diesel Engine Fuel System, 091-182-0101, Maintain Diesel Engine Lubrication System, 091-182-6101, Maintain the Main Generator, 091-182-0601, Maintain Engine/Generator Electrical Systems, and, 091-182-2901, Maintain Power Generation Equipment, found in STP 9-52D12-SM.

**SETUP INSTRUCTIONS:**

## a. Resources.

- (1) One complete set of equipment for an FP power-generation cluster.

(2) Three TQGs.

(3) One forklift to position the TQGs. (One of the soldiers should be qualified to operate the forklift. If none is qualified, a forklift operator will be needed.)

(4) Four Power Distribution Illumination Systems, Electrical (PDISE)-M100s.

(5) Six soldiers, three of whom must be qualified in MOS 52D, and three qualified in MOS 77F.

(6) Slide hammer, grounding rod, and grounding cable.

(7) DA Form 2404, Equipment Inspection and Maintenance Worksheet.

(8) (Optional) Bulk fuel dispensing vehicle with two operators.

b. Training Site. The site should be at least a 60- by 40-foot level area that is accessible by the forklift with sufficient area to place the berm for the collapsible fabric fuel drum and the three TQGs.

c. Unit Instructions. The soldiers should be brought to the site. The drill leader has made a reconnaissance of the area and ensured that all equipment is present and operational, and that the site meets power-generation cluster requirements. Designate each of the six soldiers selected to set up the power-generation cluster by number (Soldier 1, Soldier 2, etc.). At least one of the soldiers must be a Power-Generation Equipment Repairer (MOS 52D). Three of the soldiers will be Petroleum Supply Specialists (MOS 77F). Soldiers in MOS 77F, from the fuel distribution and storage section, will execute steps 1-8 and 18-21. Release soldiers with MOS 77F-4, 5, and 6-after step 42.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains six soldiers to set up the power-generation cluster and complete before-operation preventive maintenance checks and services (PMCS) correctly. During subsequent drill iterations, assign each MOS 52 soldier a different number from 1 to 3 and each MOS 77F soldier a different number from 4 to 6, so each learns all the steps and standards for which they may be responsible in setting up the power-generation cluster and completing before-operations PMCS.

b. Environmental Stewardship. Brief all soldiers on the environmental stewardship requirements of executing this drill. Take all preventative measures to protect the environment during set up and initial-operations PMCS. If the 500-gallon collapsible fabric fuel drum will be filled with fuel during this drill, two personnel from the Petroleum Distribution Section will perform all fuel dispensing operations—one will dispense the fuel to the 500-gallon fuel drum, the other will operate the pump. All

personnel handling fuel will treat any contaminated fuel or dirt or water contaminated with fuel as hazardous waste (HW) and will dispose of it according to current directives. The drill leader and soldiers will take immediate action to reduce the effect of fuel spills and leaks, and to clean up and dispose of contaminated soil, water, and fuel IAW current directives.

c. Safety. Although the soldiers will be working with no electrical power for most of this drill, extreme care is required in following all safety precautions. No smoking is allowed. The collapsible fabric fuel drum and the TQG must be properly grounded to earth to ensure safe operation. Ground all equipment immediately once it is in position. Soldiers must wear proper protective clothing and eye protection to eliminate injury hazards when driving grounding rods. Ensure electrical power is shut off before performing any maintenance actions. Wipe all fuel storage and distribution components clean of residual fuel and put on protective clothing before performing any maintenance actions on the fuel system.

d. Demonstration (optional). If other soldiers from the Facilities Support Section have successfully set up a power-generation cluster, have them demonstrate the drill. Using the performance standards as a guide, the drill leader should explain what is happening throughout the demonstration and why the task is being done that way. When the demonstration is complete, the drill leader should summarize what occurred during the demonstration.

e. Explanation. The drill leader should use the performance standards as a guide and explain the actions of each soldier in setting up the power-generation cluster. The drill leader should explain that this drill requires setting up only one of the nine power-generation clusters that support the FP module. All clusters are set up and operated the same. The drill leader may illustrate the steps and procedures with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should then explain his role in the drill, including the standards for which he is responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader conducts the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a deliberate pace on the first iteration as the "walk"

phase. Additional iterations of the drill provide practice so the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the sequence listed, but all soldiers perform their task steps simultaneously.

b. Initiating Cue. The drill leader gives the order to set up the power-generation cluster and prepare it for operation.

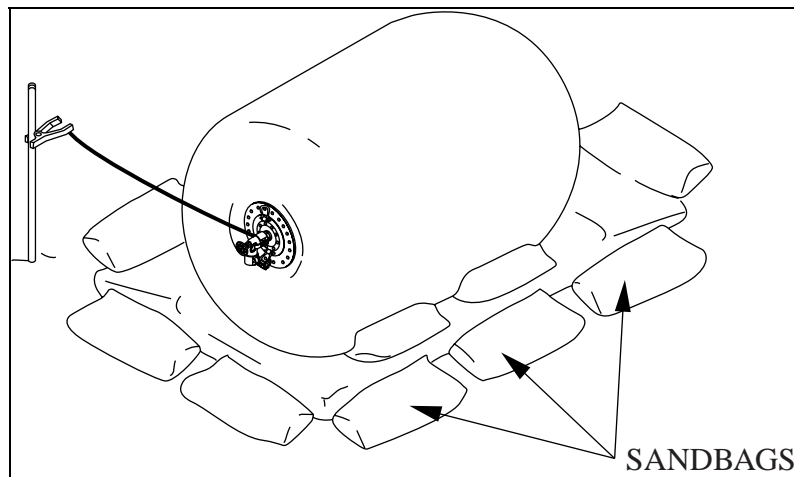
Performance Measures:

NOTE: The three soldiers in MOS 77F will accomplish steps 1-8, with the help of the other three soldiers.

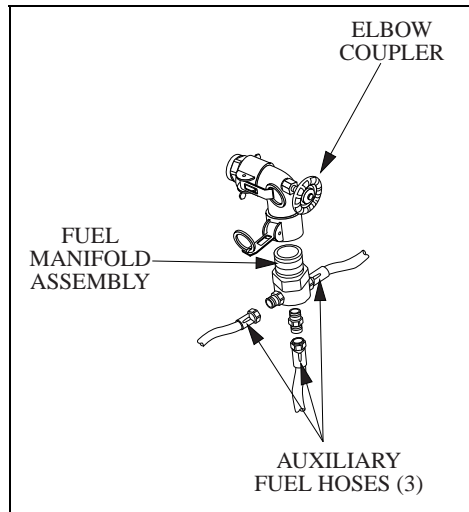
1. Soldiers 4 through 6 (MOS 77F) install the berm liner inside the berm, securing the edges of the berm liner with filled sandbags. See Figure D-1.
2. Using a forklift, Soldiers 4 through 6 position the 500-gallon collapsible fabric fuel drum over the berm liner.

**COACHING POINT:** Ensure that the discharge end of the fuel drum points toward where the soldiers will place the power generators.

3. Soldier 4 places a coupler elbow valve with adapter and the fuel manifold assembly next to the outlet port of the drum. See Figure D-2.

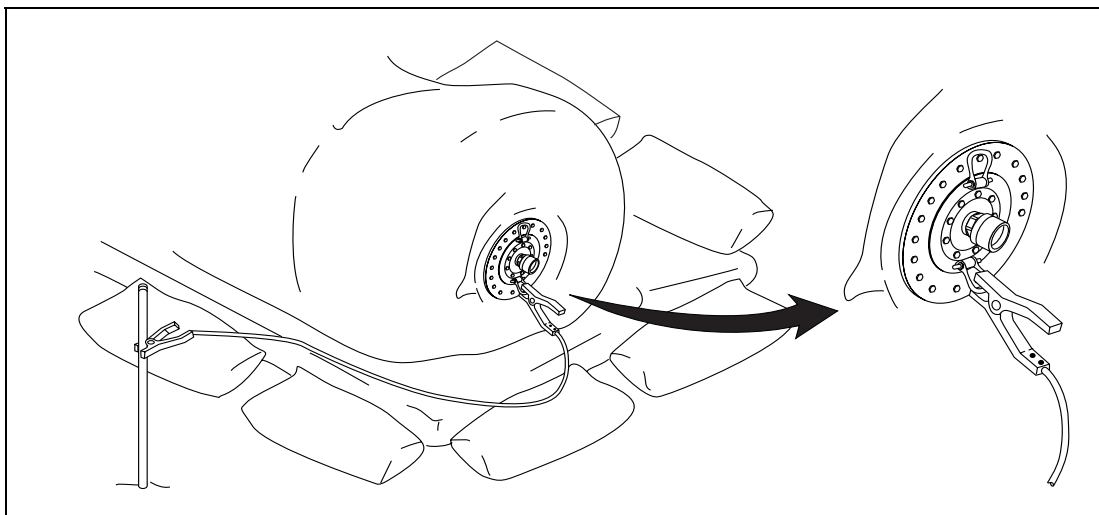


**Figure D-1. Sandbags secure the edges of the berm liner.**



**Figure D-2. Coupler elbow valve with adapter, fuel manifold assembly, and hoses**

4. Soldiers 4 through 6 layout three auxiliary fuel hoses from the outlet port of the drum. See Figure D-2.
5. Soldiers 4 and 5 obtain a grounding rod and grounding cable.
6. Soldier 6, just outside the berm and to one side of the fuel drum, drives the grounding rod into the ground to a depth of three feet.
7. Soldier 4 connects the grounding cable to the face-plate D-ring on the 500-gallon collapsible fabric fuel drum. See Figure D-3.



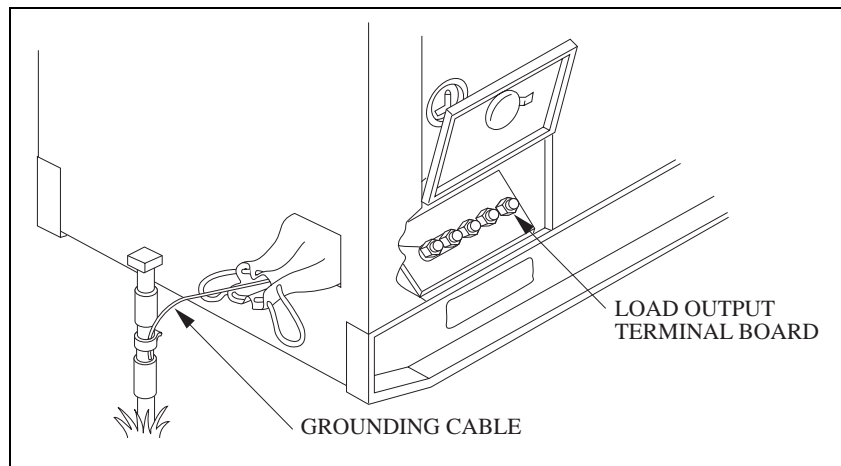
**Figure D-3. Grounding cable, grounding rod, and fuel drum face-plate ring**



8. Soldier 4 connects the grounding cable from the face-plate D-ring to the grounding rod. See Figure D-3.
9. Using a forklift, the soldiers center a TQG unit eight feet from the berm, with the unit's rear facing the berm and the discharge end of the 500-gallon fuel drum.
10. Using a forklift, the soldiers place the other two TQGs on each side of, in line with, and parallel to the first TQG.

**NOTE:** Each pair of TQGs are 21 feet apart, center to center. The fronts of all three TQGs point in the same direction. Each generator should be numbered, from right to left, as 1, 2, and 3.

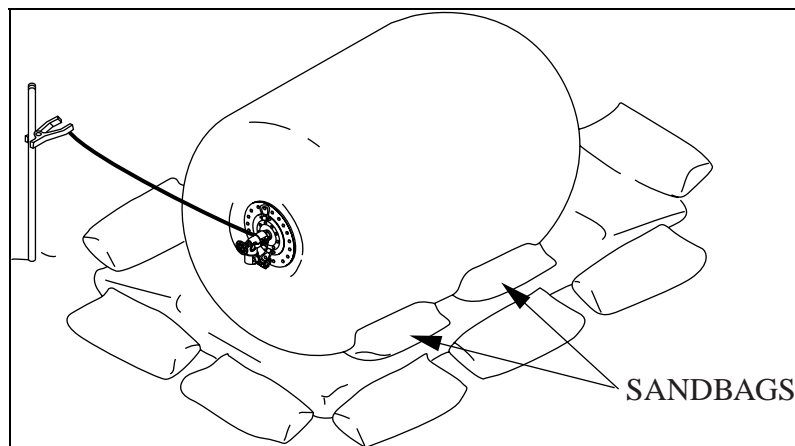
11. Soldiers 1, 2, and 3 open the access doors to the load output terminal board on each TQG. Each soldier then inserts a generator set grounding cable through the opening on the rear right side of the generator set. See Figure D-4.



**Figure D-4. Cable access port on the rear right side of the TQG**

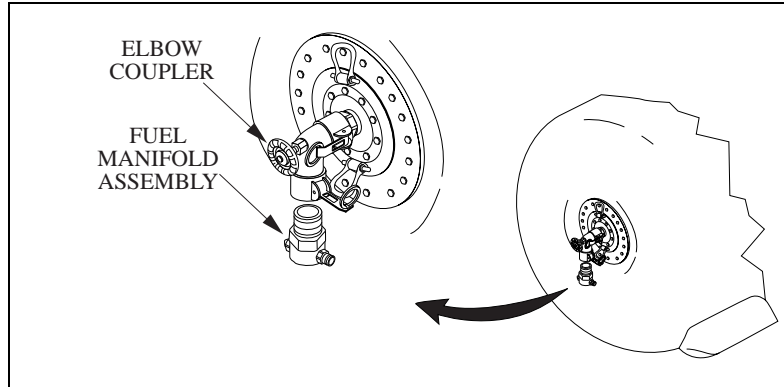
12. Soldiers 1, 2, and 3 loosen the terminal nuts to the ground (GND) terminal post on the load output terminal board.
13. Soldiers 1, 2, and 3 connect the grounding cables to the GND terminal posts and tighten the terminal nut securely.
14. Soldiers 4, 5, and 6 obtain grounding rods from the holding clips located inside the left side of the housing on each generator set, connect a coupling to one section of grounding rod, and install the driving stud.
15. Soldiers 4, 5, and 6 drive the grounding rods into the ground until the coupling is just above ground surface.

16. Soldiers 4, 5, and 6 remove the driving studs, connect another section of rod and another coupling, and reinstall the driving studs. The soldiers repeat this step until they have driven a grounding rod nine feet or deeper into the earth.
  17. Soldiers 1, 2, and 3 connect the cable clamps and the ground cables to the grounding rods, and tighten the clamp screws.
- NOTE:** If the power cluster were in actual use, the bulk fuel personnel now would attach the coupler elbow valve and fill the 500-gallon collapsible fabric fuel drum. For drill purposes, make all fuel manifold and hose connections with a dry system.
18. Soldier 4 places the drip pan with absorbent material beneath the outlet on the collapsible fabric fuel drum.
  19. Soldiers 5 and 6 block the fuel drum with two sandbags on each side to prevent movement and support the drum. See Figure D-5.



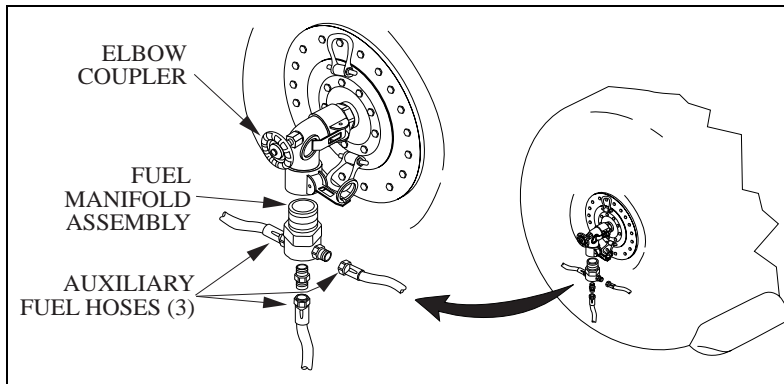
**Figure D-5. Two sandbags on each side block the fuel drum**

20. Soldier 4 attaches the coupler elbow valve and installs the fuel manifold assembly, with adapter, onto the coupler valve on the discharge side of the fuel drum. See Figure D-6.



**Figure D-6. Fuel manifold assembly, with adapter, and coupler elbow valve**

21. Soldier 4 connects three auxiliary fuel hoses to the manifold assembly. See Figure D-7.



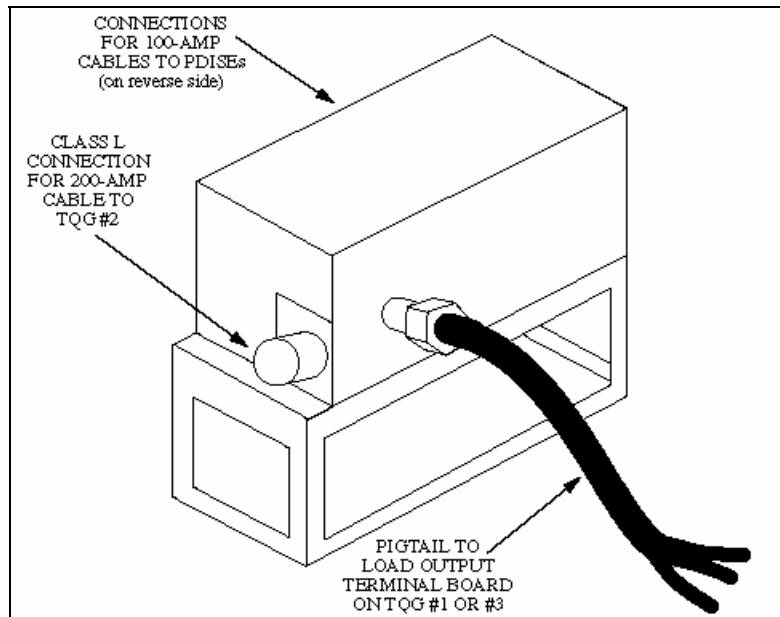
**Figure D-7. Fuel manifold assembly with three auxiliary hoses**

**COACHING POINT:** There must be enough slack in the auxiliary fuel hoses to allow the 500-gallon collapsible fabric fuel drum to collapse inward as it empties. If a hose is too short, it will be damaged when the drum collapses. If hoses are too short, and longer ones are not available, then the generator sets must be moved closer to the fuel drum.

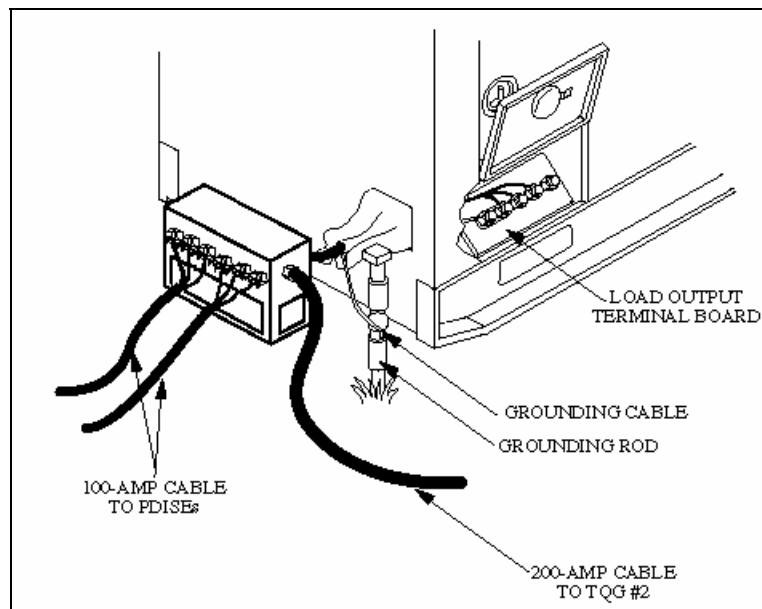
22. Soldier 5 connects each of the three auxiliary fuel supply hoses to the auxiliary fuel supply inlet on each of the TQGs.

23. Soldier 5 sets the Fuel Source switch to point to the EXTERNAL position on each of the TQGs.

24. Soldiers 2 and 3 position the two switchboxes (see Figure D-8) by the cable access ports on generators 1 and 3, and hard wire the pigtail leads from the switch boxes to generators 1 and 3. See Figure D-9.



**Figure D-8. Cable switch box**



**Figure D-9. Switch box positioned at generator 1 or 3, with pigtails attached to load output terminal board**

25. Soldier 2 lays out two 100-amp service/feeder cables, with pigtails on one end, from two of the four PDISE-M100s to the switch box on generator 1. The pigtails are at the switch-box end. See Figures D-10 and D-11.

26. Soldier 1 lays out a 200-amp cable from generator 2 to the switch box for generator 1. The class L connector on the cable is at the switch box at generator 1 and the pigtails are at generator 2. See Figure D-9.

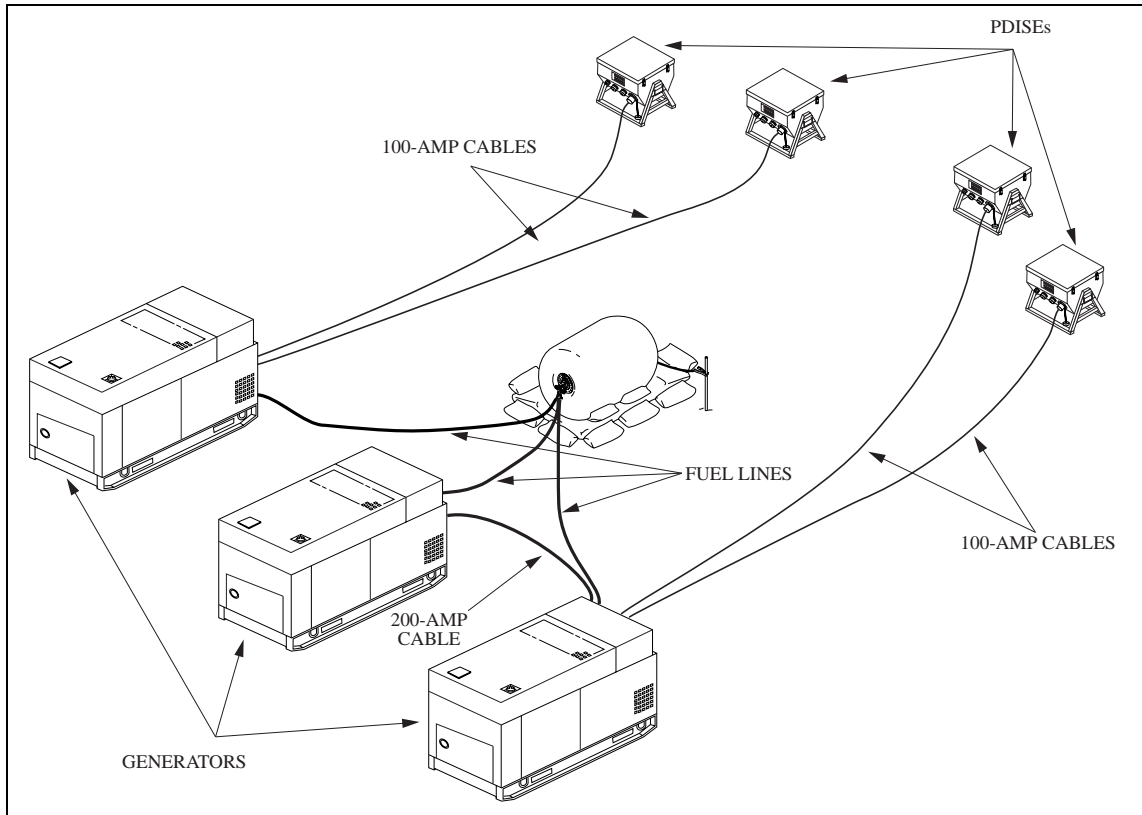


Figure D-10. Layout of service/feeder cables at a power-generation cluster (view 1)

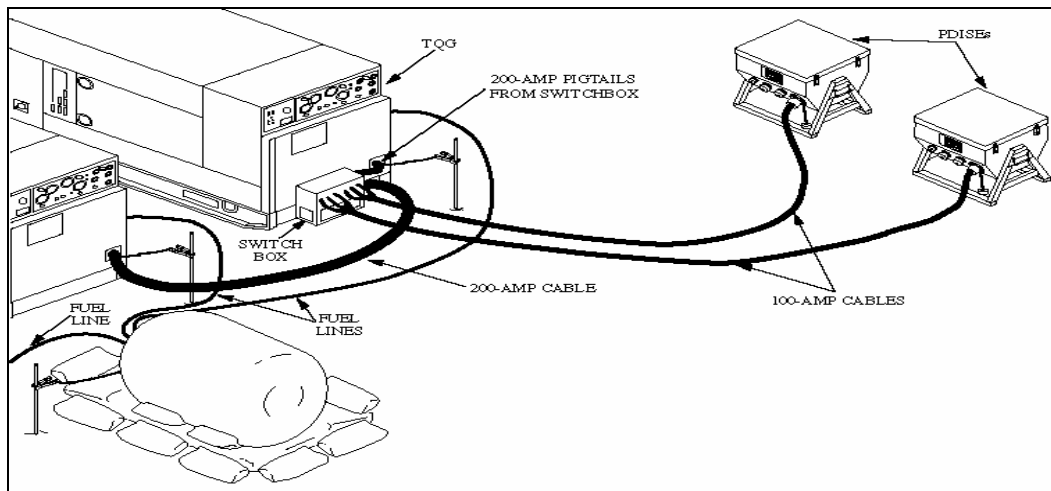


Figure D-11. Layout of service/feeder cables at a power-generation cluster (view 2)

27. Soldier 3 lays out two 100-amp service/feeder cables from the other two PDISE-M100s to the switch box at generator 3. The pigtails will be at the switch-box end. See Figure D-10.
28. Soldier 2 ensures all circuit breakers are set to the OFF position on the first two PDISE-M100s.
29. Soldier 3 ensures all circuit breakers are set to the OFF position on the other two PDISE-M100s.
30. Soldier 2 connects the L-class connector on each of the 100-amp service/feeder cables to each of the first two PDISE-M100s. See Figure D-10.
31. Soldier 3 connects the L-class connector on each of the 100-amp service/feeder cables to each of the other two PDISE-M100s. See Figure D-10.
32. Soldier 2 connects the pigtails on the two 100-amp service/feeder cables to the switch box for generator set 1. See Figure D-9.
33. Soldier 3 connects the pigtails on the two 100-amp service/feeder cables to the switch box for generator set 3. See Figure D-9.

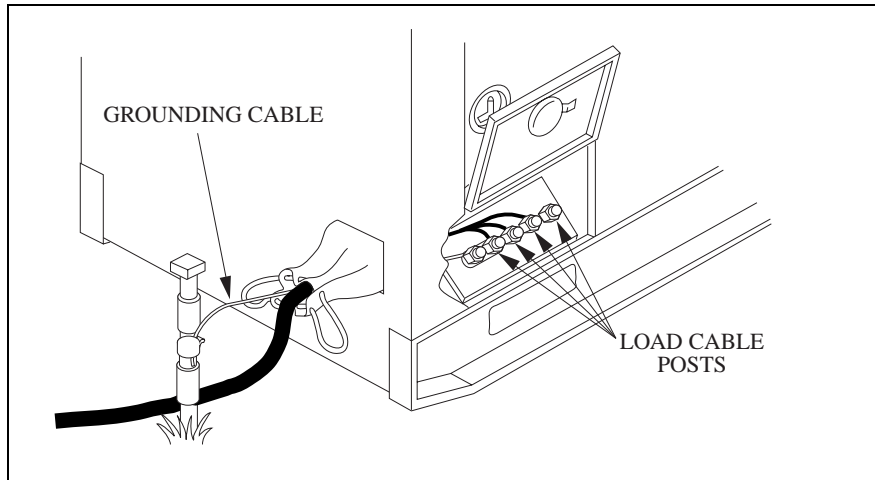
**COACHING POINT:** Check that soldiers follow a safe path when laying out service/feeder cables between the PDISE-M100s and switch boxes.

34. The MOS 52D soldier selects the required load output terminals.

NOTE: Refer to Table 2-4, TM 9-6115-645-10, TM 9-6115-663-13&P, and Table 2-23, TM 10-5419-200-12, for instructions on connecting the load pigtails to each of the three TQGs.

**WARNING:** ONLY MOS-QUALIFIED 52D AND 52C PERSONNEL WILL CONNECT LOAD CABLE PIGTAILS TO THE TQGS. IF CONNECTIONS MUST BE CHANGED AFTER THE TQGS ARE IN OPERATION, THE GENERATOR MUST BE STOPPED. EVEN AFTER THE GENERATOR IS STOPPED, IT CAN STILL CARRY AN ELECTRICAL CHARGE. FAILURE TO OBSERVE THESE WARNINGS CAN RESULT IN SEVERE INJURY OR DEATH. THE TQGS AND SOME FP EQUIPMENT USE THREE-PHASE POWER. THEREFORE, EACH LOAD LINE MUST BE CONNECTED TO THE PROPER GENERATOR LINE LUG. FAILURE TO OBSERVE THIS WARNING MAY RESULT IN UNPREDICTABLE OPERATION AND DAMAGE TO CONNECTED ELECTRICAL EQUIPMENT.

35. The MOS 52D soldier loosens the nuts on the selected terminal posts on the output load terminal board. See Figure D-12.



**Figure D-12. Load cable posts, at the TQG's right rear**

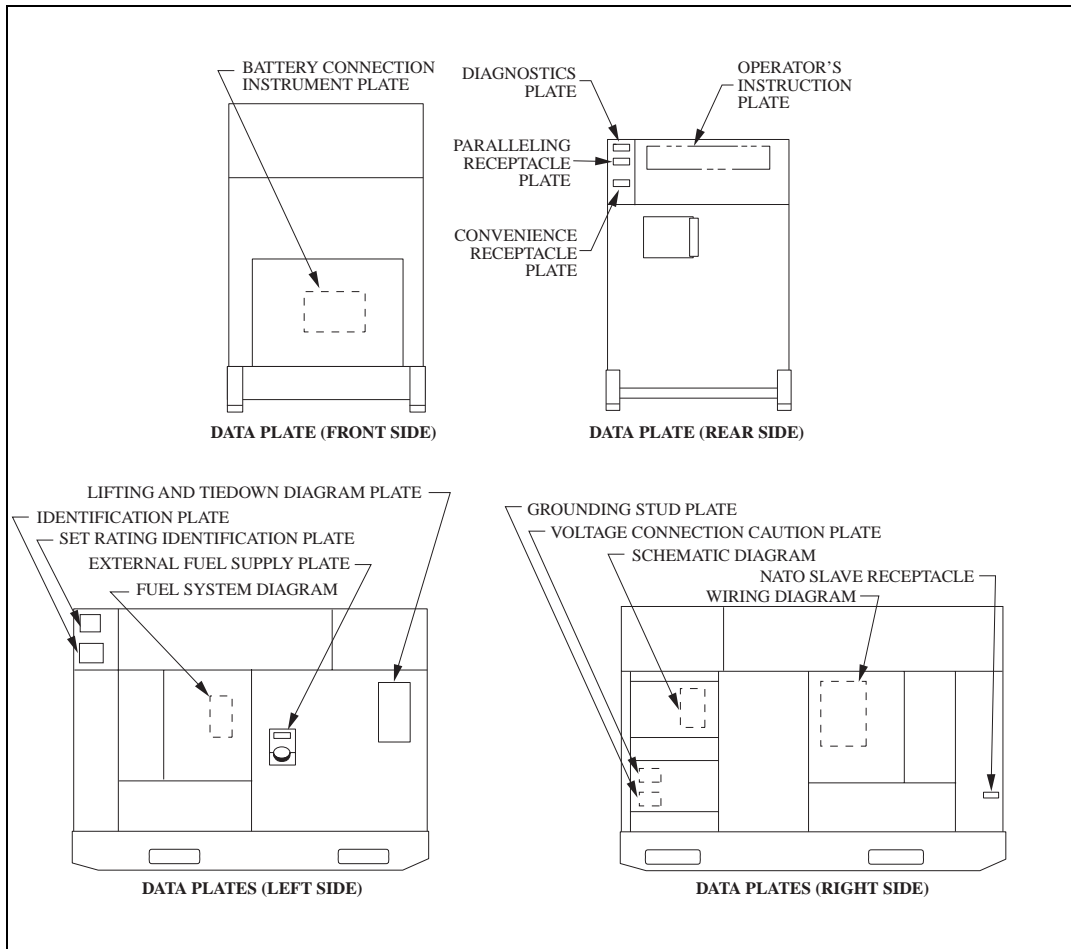
- 36 The MOS 52D soldier inserts the load cables (from the switch boxes for generators 1 and 3, or from the 200-amp feeder cable on generator 2) through the opening on the rear right side of the generator set. See Figures D-9 and D-12.
  37. The MOS 52D soldier inserts the load cable pigtails into the selected load terminal post slots on the output load terminal board, then tightens the load terminal nuts securely. See Figures D-9 and D-12.
  38. The MOS 52D soldier repeats performance measures 34 through 37 on each of the other two generator sets.
  39. Soldier 4 positions a 20-pound dry chemical fire extinguisher at the fuel-dispensing end of the 500-gallon collapsible fabric fuel drum.
  40. Soldiers 4, 5, and 6 each use 5-gallon fuel cans to fill the internal fuel tank on a TQG.
- NOTE:** If sustained operation will follow, fill the fuel drum now.
41. Soldier 4 opens the handwheel on the collapsible fabric fuel drum, permitting fuel to flow to the internal TQG fuel tanks.
- COACHING POINT:** Release the three soldiers with MOS 77F from the drill at this time.

THE DRILL LEADER GIVES THE ORDER TO PERFORM BEFORE-OPERATION PMCS.

**WARNING:** BEFORE STARTING THE TQG, CORRECT ANY IDENTIFIED OPERATING DEFICIENCY THAT WOULD CAUSE AN UNSAFE CONDITION. PERFORM ALL BEFORE-OPERATION PMCS IAW TM 9-6115-645-10.

42. Starting at each TQG, Soldier 3 walks the service/feeder cables of each power group serviced by the power generation cluster, ensuring that each cable is properly connected and follows a safe path.
43. Soldier 3 ensures all of the circuit breakers in each of the attached PDISE-M100s are set to the OFF position.
44. Soldier 1 checks the power-generation cluster to ensure that all three TQGs are properly grounded, and inspects for damage, corrosion, and loose connections to the grounding rods.
45. Soldier 2 checks that the 500-gallon collapsible fabric fuel drum is properly grounded, and inspects for damage, corrosion, and loose connections to the grounding rod.
46. Soldiers 1, 2, 3 perform before-operation PMCS on each TQG by doing the following:
  - a. Initiate a DA Form 2404 for each TQG, and complete entries for each of the following PMCS items.
  - b. Check all door panels, hinges, and latches for damage, and loose or corroded items.
  - c. Check all identification plates ensure they are secure. See Figure D-13.





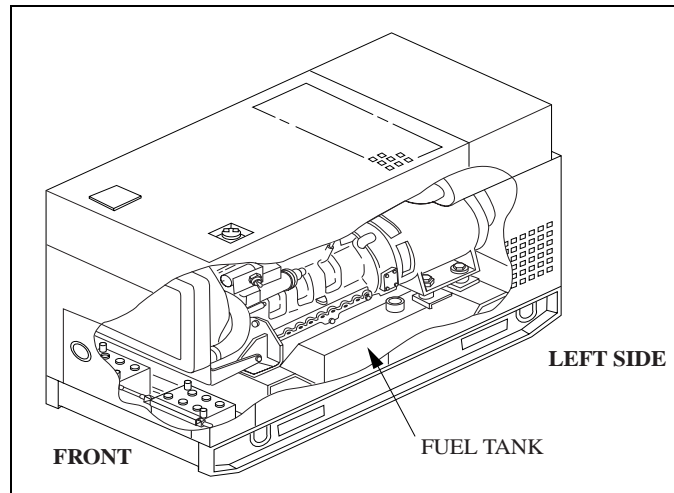
**Figure D-13. Data plates on the TQG**

- d. Inspect the skid bases for cracks and/or corrosion.
- e. Inspect all acoustical materials to ensure they are secure and to identify any missing or damaged materials.

**WARNING:** SOLDIERS OPENING THE ENGINE ACCESS DOOR WHILE THE GENERATOR IS OPERATING SHOULD WEAR HEARING PROTECTION. DO NOT SMOKE OR USE OPEN FLAME WHEN PERFORMING PMCS ON THE GENERATOR SET.

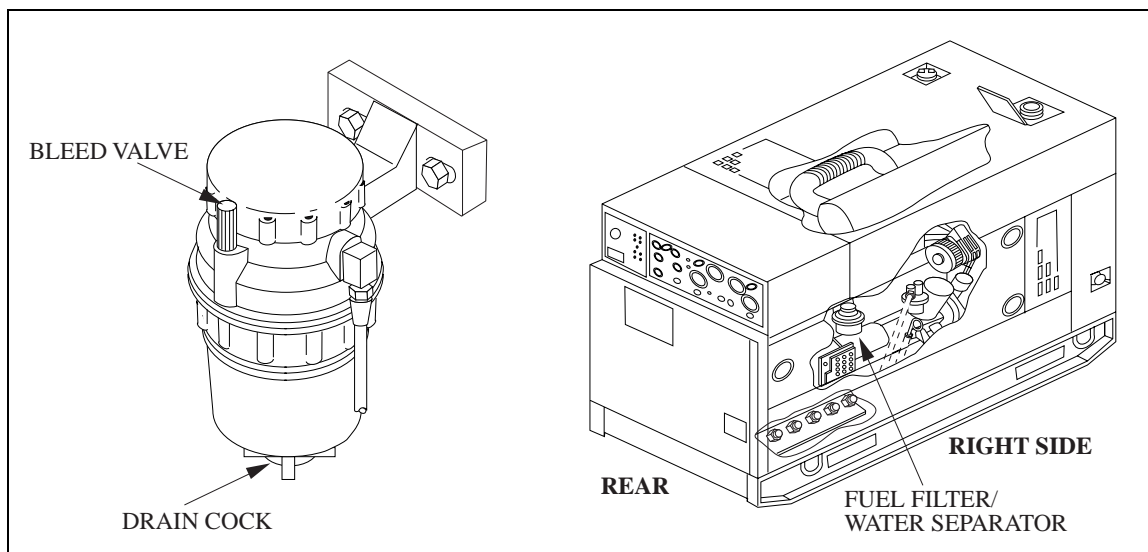
42. Soldiers 1, 2, and 3 perform before-operation PMCS on the engine assemblies by doing the following:

- a. Inspect the TQGs for loose, damaged or missing hardware.
- b. Inspect the fuel systems for leaks and damage, and loose or missing hardware. See Figure D-14.



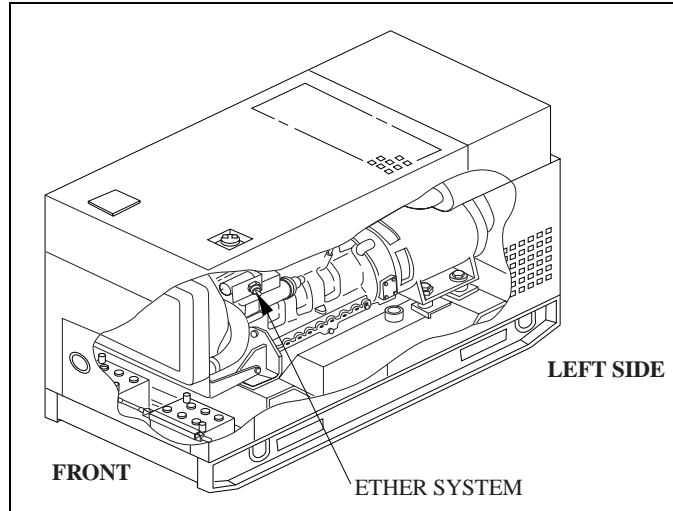
**Figure D-14. The TQG fuel system**

- c. Inspect the fuel filter/water separators for leaks and damage, proper mounting, or loose or missing parts. See Figure D-15.



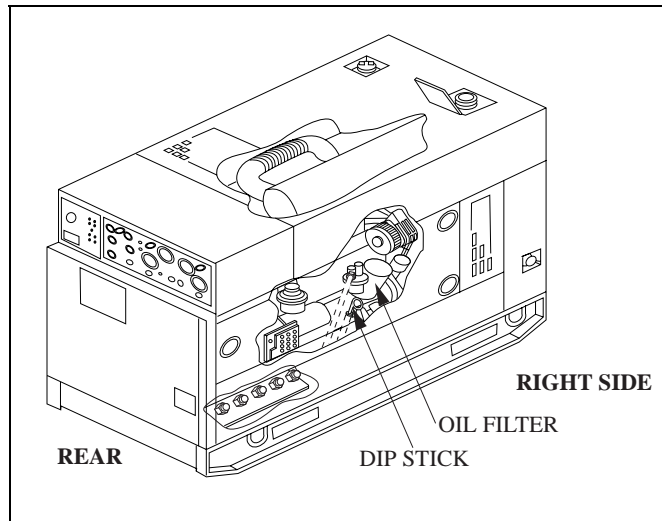
**Figure D-15. The TQG fuel filter/water separator**

- d. Inspect the ether starting systems for damage, missing hardware, and loose or improper mounting. See Figure D-16.



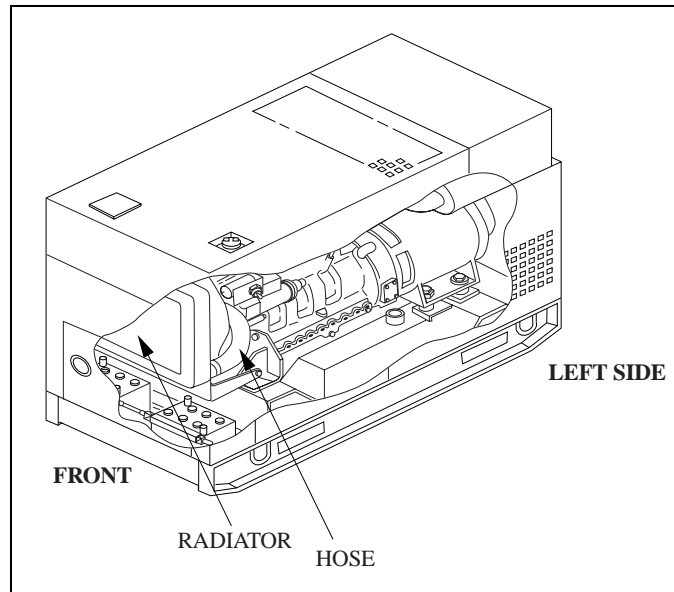
**Figure D-16. The TQG ether system**

- e. Inspect the lubrication systems for leaks and damage, and loose or missing parts. See Figure D-17.
- f. Inspect the lubrication systems for correct oil level.
- g. Inspect the lubrication systems for oil contamination.



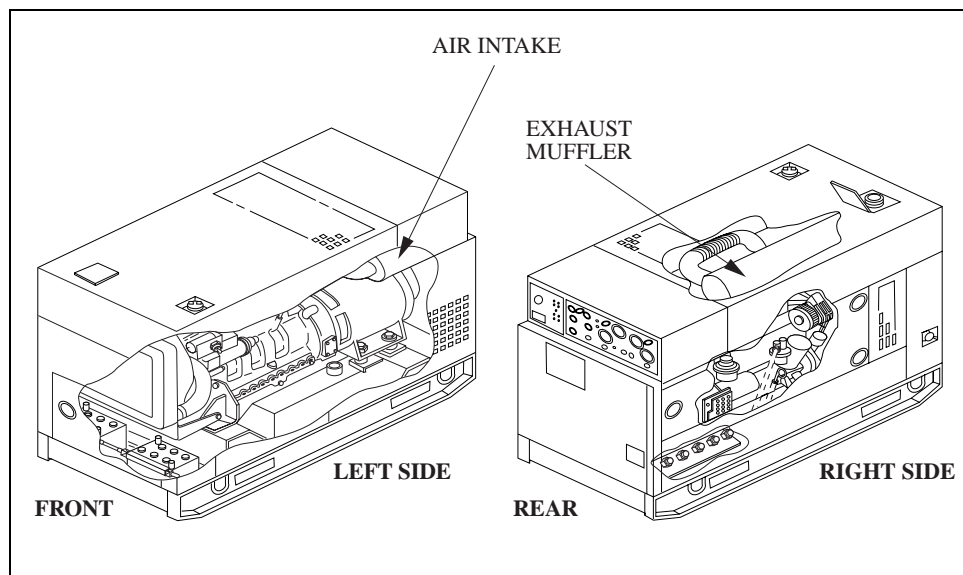
**Figure D-17. The TQG lubrication system**

- h. Inspect the cooling system radiators for dirt or grease on grills, and leaks, damage, and loose or missing parts. See Figure D-18.



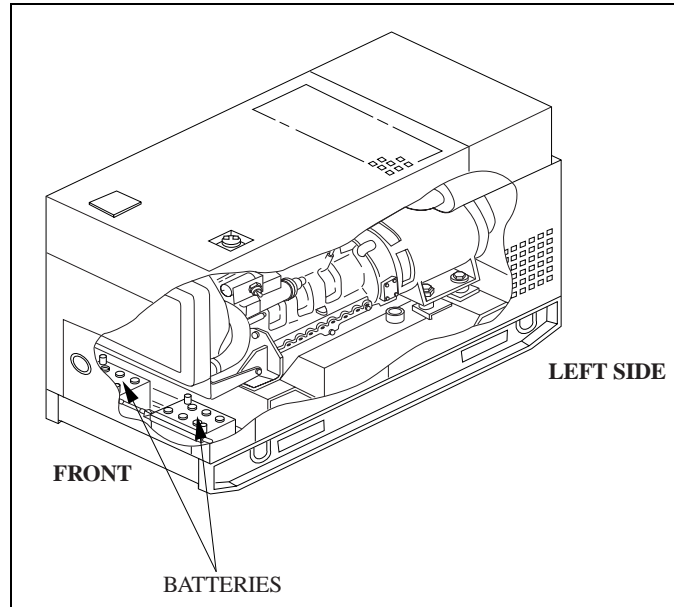
**Figure D-18. The TQG cooling system**

- i. Inspect the cooling system hoses for leaks, cracks, and missing parts.
- j. Inspect the cooling system cooling fans for obstructions, damage, or looseness.
- k. Inspect the cooling system fan belts for cracks, fraying, or looseness.
- l. Inspect the cooling system overflow bottles for proper mounting, leaks, or missing hardware.
- m. Inspect the exhaust/intake systems for leaks, corrosion, and missing parts. See Figure D-19.



**Figure D-19. The TQG intake/exhaust system**

- n. Inspect the exhaust/intake system air cleaner assemblies for loose, damaged, or missing parts.
- o. Inspect the exhaust/intake system restriction indicators for indications of a clogged air cleaner element.
- p. Inspect the electrical system batteries for correct electrolyte levels. See Figure D-20.

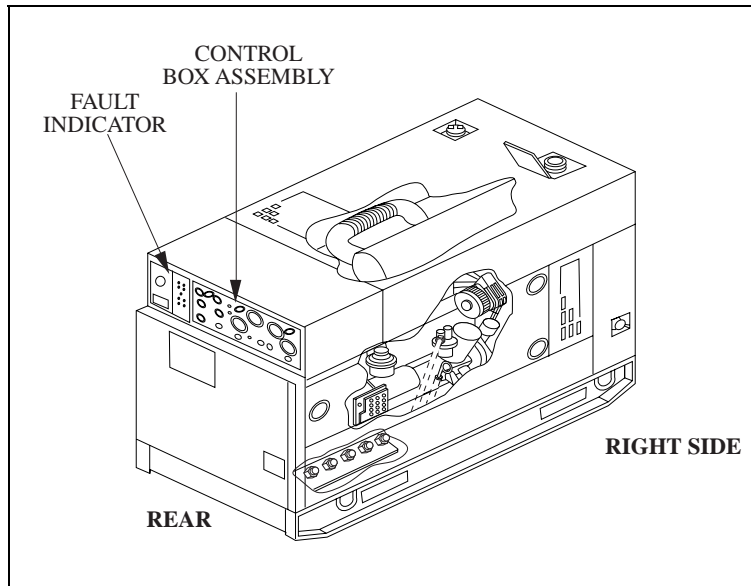


**Figure D-20. The TQG electrical system**

- q. Soldiers 1, 2, and 3 inspect the electrical system battery cables for corrosion, damage, loose connections, or missing parts. See Figure D-20.

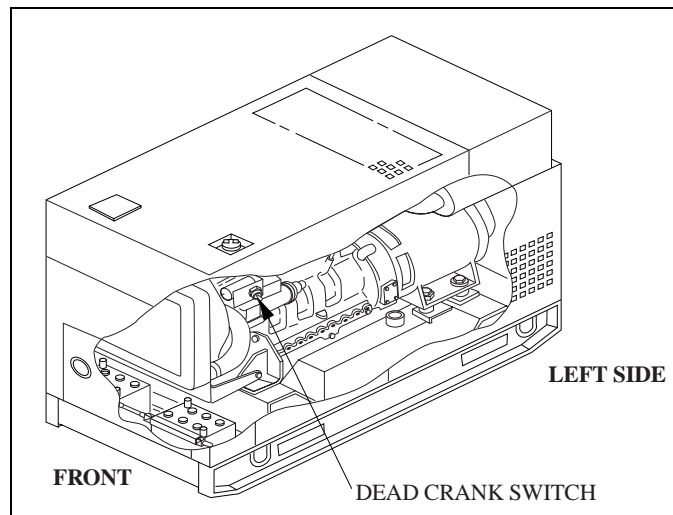
**WARNING:** THE GENERATOR CAN STILL CARRY AN ELECTRICAL CHARGE EVEN AFTER IT IS STOPPED. AVOID GROUNDING YOURSELF WHEN CONTACTING ITS ELECTRICAL COMPONENTS.

- r. Inspect the electrical system output box assemblies for damage to cables or loose connections, and the output terminals for damage or missing hardware. See Figure D-20.
- s. Inspect the control box assembly controls and indicators for damaged or missing parts. See Figure D-21.
- t. Inspect the control box harnesses for damage and looseness.
- u. Inspect the control box parallel cables for damage and proper connection.



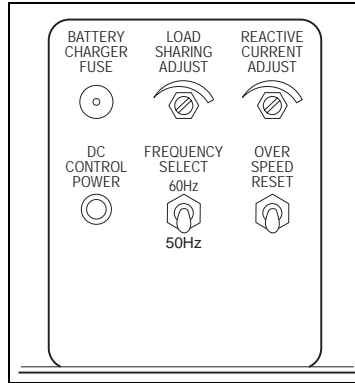
**Figure D-21. The TQG control box assembly controls and indicators**

42. To begin the initial adjustments, soldiers 1, 2, and 3 place the DEAD CRANK switch to the NORMAL position (see Figure D-22), and then do the following:



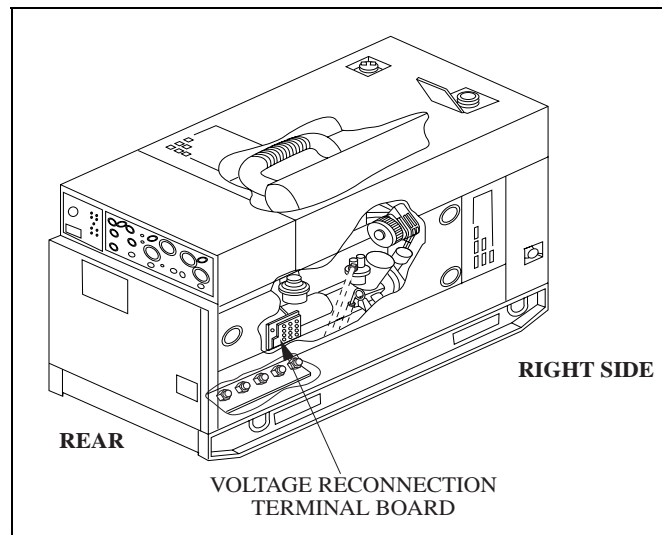
**Figure D-22. Dead Crank switch**

- a. Push the DC CONTROL POWER circuit breaker on the controls bracket assembly (located behind the control panel). See Figure D-23.
- b. Place the FREQUENCY SELECT switch, on the controls bracket assembly, to the required position. See Figure D-23.



**Figure D-23. Controls bracket assembly, located behind control panel**

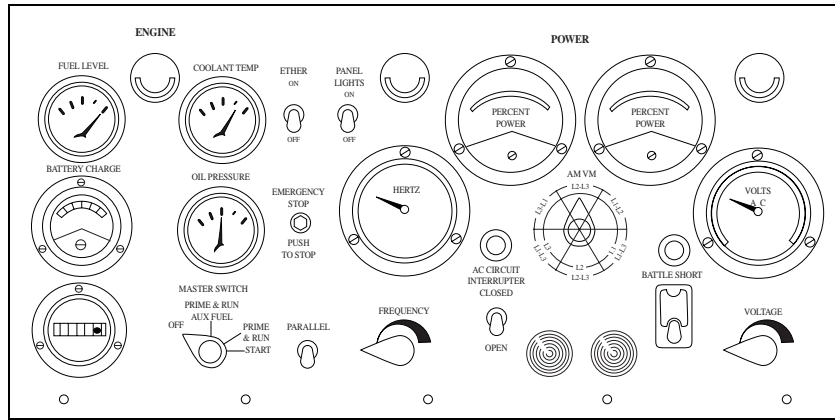
- c. Soldiers 1, 2, and 3 inspect the voltage reconnection terminal board to ensure it is positioned to match voltage requirements. See Figure D-24.



**Figure D-24. Voltage reconnection terminal board**

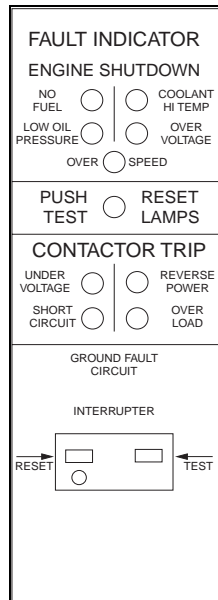
- d. If the voltage reconnection terminal board on any TQG must be changed, Soldiers 1, 2, or 3, as applicable, notify the next higher level of maintenance.
  - e. Place the AM-VM transfer switch in a position corresponding to output load connections. (See Table 2-4, TM 9-6115-645-10, and Figure D-25.)
  - f. Place the PARALLEL /UNIT switch to the UNIT position. See Figure D-25.
42. To begin the TQG self-test, soldiers 1, 2, and 3 place the MASTER SWITCH to the PRIME AND RUN position. See Figure D-25.

- a. Press the PUSH TO TEST button on the Fault Indicator (malfunction indicator) panel.
- b. Ensure all lights are lit.



**Figure D-25. Switches and gauges on the control panel**

- c. All lights should go out when the PUSH TO TEST button is released. See Figure D-26.



**Figure D-26. Fault Indicator panel**

- d. Press the BATTLE SHORT switch to ON to test lights on the control panel assembly. See Figure D-25.
- e. Ensure all indicator lights are lit.
- f. All lights should go out when the BATTLE SHORT switch is turned OFF
- g. Set the AC CIRCUIT INTERRUPTER switch to ON to test lights on the control panel assembly. See Figure D-25.



- h. Ensure all indicator lights are lit.
- i. All lights should go out when the AC CIRCUIT INTERRUPTER switch is turned OFF.

RUN-THROUGH: The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

PERFORM: When the soldiers can perform this drill according to the standards, the section leader should evaluate their performance.

**CREW DRILL 42-2-D0016**  
**Operate and Maintain a Power-Generation Cluster for a Force  
Provider (FP) Module**

**TASK:** Operate and maintain a power-generation cluster for an FP module.

**CONDITIONS:** The Force Provider (FP) company or platoon is conducting operations at its site and the area is secure. The power-generation cluster with three tactical quiet generators (TQGs) is operational. One soldier has been assigned to operate and maintain the power-generation cluster. Two additional soldiers are available to assist in paralleling the TQGs. Technical documentation, including all applicable technical manuals (TMs), and tool kits are available.

**STANDARD:** The power-generation cluster is operated and maintained IAW TM 10-5419-200-12, *Operator's, Unit and Direct Support Maintenance Manual for Force Provider Modules 1 & 2*, and TM 9-6115-645-10, *Operator's Manual for Generator Set, High Voltage, Skid Mounted, Tactical Quiet, 60kW, 50/60 and 400 Hz, MEP 806A, MEP 816A*. Power is maintained without damage to equipment or injury to personnel.

**SUPPORTING INDIVIDUAL TASK:** Prior to conducting the drill, the soldiers should be proficient in Soldier Training Publication (STP) tasks 091-182-0501, Maintain Diesel Engine Cooling System, 091-182-0603, Maintain Diesel Engine Control Panels and Instruments, 091-182-0301, Maintain Diesel Engine Fuel System, 091-182-0101, Maintain Diesel Engine Lubrication System, 091-182-6101, Maintain the Main Generator, 091-182-0601, Maintain Engine/Generator Electrical Systems, and, 091-182-2901, Maintain Power Generation Equipment, found in STP 9-52D12-SM.

**SETUP INSTRUCTIONS:**

a. Resources.

- (1) One operational FP power-generation cluster with fuel.
- (2) Three TQGs.
- (3) Four Power Distribution Illumination Systems, Electrical (PDISE)-M100s.
- (4) One soldier from the Facilities Support Section to operate and maintain the power-generation cluster, and two additional soldiers to assist in paralleling the TQGs.
- (5) Container to catch water drained from water filters.
- (6) Absorbent materials.
- (7) DA Form 2404, Equipment Inspection and Maintenance Worksheet.

b. Training Site. The site should be at least a 60- by 40-foot level area that is accessible by the forklift.

c. Unit Instructions. The soldiers should be brought to the site. The drill leader has made a reconnaissance of the area and ensured that all equipment is operational. Designate each of the three soldiers selected to operate and maintain the power-generation cluster by number (Soldier 1, Soldier 2, etc.).

TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains a soldier of the Facilities Support Section to operate and maintain the power-generation cluster correctly. When paralleling the TQGs, assign each soldier a different number during subsequent drill iterations so each learns all the steps and standards for operating and maintaining the equipment.

b. Environmental Stewardship. Brief all soldiers on the environmental stewardship requirements of executing this drill. Take all preventative measures to protect the environment during operation and maintenance. All personnel handling fuel will treat any contaminated fuel or dirt or water contaminated with fuel as hazardous waste (HW) and will dispose of it according to current directives. The drill leader and soldiers will take immediate action to reduce the effect of fuel spills and leaks, and to clean up and dispose of contaminated soil, water, and fuel IAW current directives.

c. Safety. Soldiers must use extreme care when operating and maintaining electrical power generation equipment and components. No smoking is allowed. The collapsible fabric fuel drum and the TQG must be properly grounded to earth to ensure safe operation. Ground all equipment immediately once it is in position. Soldiers must wear proper protective clothing and eye protection to eliminate injury hazards when driving grounding rods. Ensure electrical power is shut off before performing any maintenance actions. Wipe all fuel storage and distribution components clean of residual fuel and put on protective clothing before performing any maintenance actions on the fuel system.

d. Demonstration (optional). If other soldiers from the Facilities Support Section have successfully maintained and operated a power-generation cluster, have them demonstrate the drill. Using the performance standards as a guide, the drill leader should explain what is happening throughout the demonstration and why the task is being done that way. When the demonstration is complete, the drill leader should summarize what occurred during the demonstration.

e. Explanation. The drill leader should use the performance standards as a guide and explain the actions of each soldier in operating and maintaining the power-generation cluster. The drill leader may illustrate the steps and procedures with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should then explain his role in the drill, including the standards for which he is responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader conducts the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a deliberate pace on the first iteration as the "walk" phase. Additional iterations of the drill provide practice so the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the sequence listed, but all soldiers perform their task steps simultaneously.

b. Initiating Cue. The drill leader gives the order to place the power-generation cluster into operation.

#### Performance Measures:

**WARNING:** CORRECT ANY IDENTIFIED OPERATING DEFICIENCY THAT WOULD CAUSE AN UNSAFE CONDITION BEFORE STARTING THE TQG. PERFORM ALL BEFORE-OPERATION PMCS IAW TM 9-6115-645-10.

1. Soldier 1 begins the starting procedure by rotating the MASTER SWITCH to the START position on each generator to be employed. See Figure D-27.

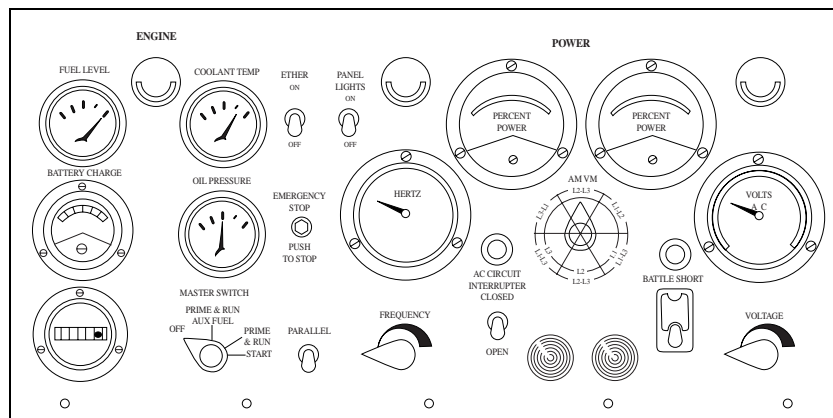


Figure D-27. Switches and gauges on the control panel

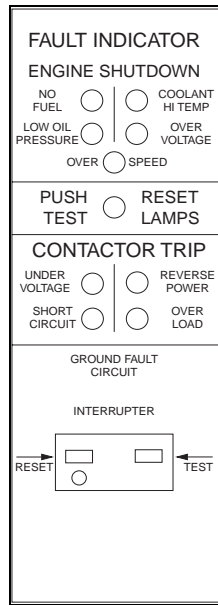
2. In cold weather (+40°F [+4°C] to -25°F [-31°C]), Soldier 1 pushes the ETHER switch to the ON position and keeps it on until the engine accelerates to the governed speed. See Figure D-27.

**COACHING POINT:** Do not attempt to start a generator set more than two consecutive times. If the TQG will not start after two attempts, then troubleshoot the system, IAW TM 9-6115-645-10.

3. Soldier 1 completes the start up procedure by doing the following:
  - a. Holds the MASTER SWITCH in the START position until the oil pressure reaches a minimum of 25 psi (172 kPa), voltage has risen to approximate rated value, and the engine has reached stable operating speed. See Figure D-27.
  - b. Turns the MASTER SWITCH to the PRIME AND RUN position.
  - c. When operating with an auxiliary fuel source, rotates the MASTER SWITCH to the PRIME AND RUN AUX FUEL position. See Figure D-27.

**COACHING POINT:** The operator should run the engine for five minutes before applying the load. In an emergency, the operator may apply the load immediately.

- d. Checks the COOLANT TEMP (+170°F [+77°C] to +200°F [+93°C]) and OIL PRESSURE (25 psi [77 kPa] to 60 psi [93 kPa]) indicators for normal readings. See Figure D-27.
- e. Turns the VOLTAGE adjust potentiometer to the required values for voltage (usually 208 volts, but check with the users). See Figure D-27.
- f. Turns the FREQUENCY adjust potentiometer to the required values for frequency (usually 60 hertz, but with the users). See Figure D-27.
- g. Presses the GROUND FAULT CIRCUIT INTERRUPTER TEST pushbutton on the Fault Indicator board and ensures the indicator light is red. See Figure D-28.



**Figure D-28. Fault Indicator panel**

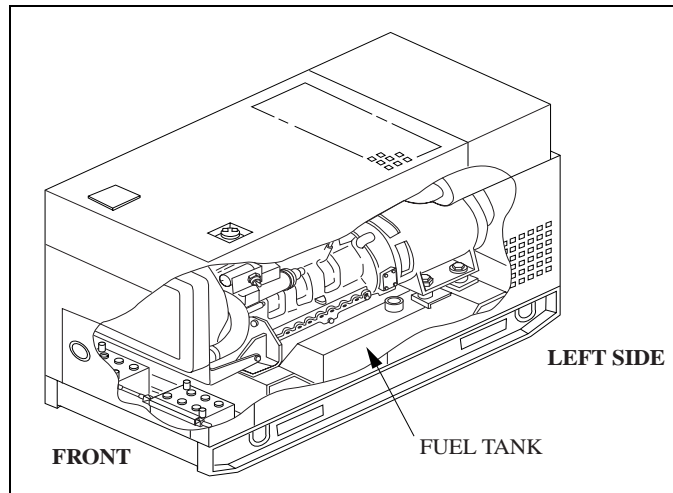
- h. Presses the GROUND FAULT CIRCUIT INTERRUPTER RESET pushbutton on the Fault Indicator board, ensuring the indicator light is red. See Figure D-28.
- i. Places the AC CIRCUIT INTERRUPTER switch to the CLOSE position and then releases it. See Figure D-27.
- j. Ensures the voltage and frequency are still at the required values, making any necessary adjustments.
- k. Rotates the AM-VM transfer switch to each phase position while observing the ammeter (PERCENT RATE CURRENT). See Figure D-27.
- l. If the ammeter indicates more than the rated load in any phase, reduces the load.
- m. Checks the kilowattmeter (PERCENT POWER) indicator. See Figure D-27.
- n. If the indication is more than 100-percent rated load, reduces the load to 100 percent or less.

THE DRILL LEADER GIVES THE ORDER TO PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

4. Soldier 1 performs during-operation PMCS by doing the following:
  - a. Checks the door panels, hinges, and latches on the housing of their TQGs for damage and loose or corroded items.
  - b. Inspects the engine assemblies for loose, damaged or missing hardware.

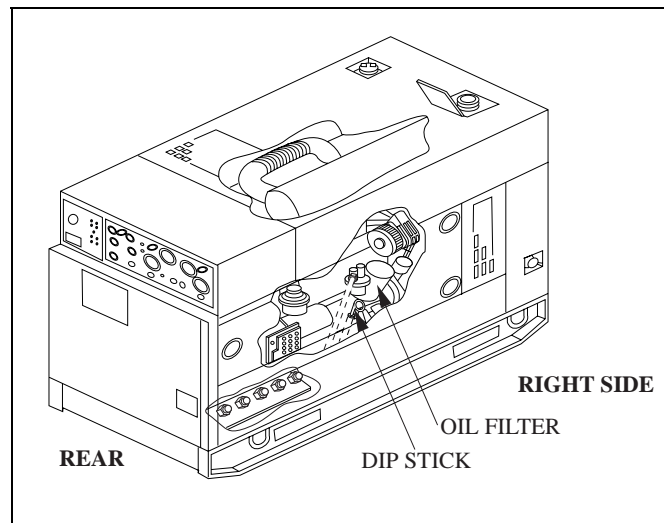
**COACHING POINT:** Fuel leaks or oil leaks are cause for shut down to correct the cause and prevent or correct environmental contamination problems.

- c. Inspects the fuel systems for leaks and damage, and loose or missing hardware. See Figure D-29.



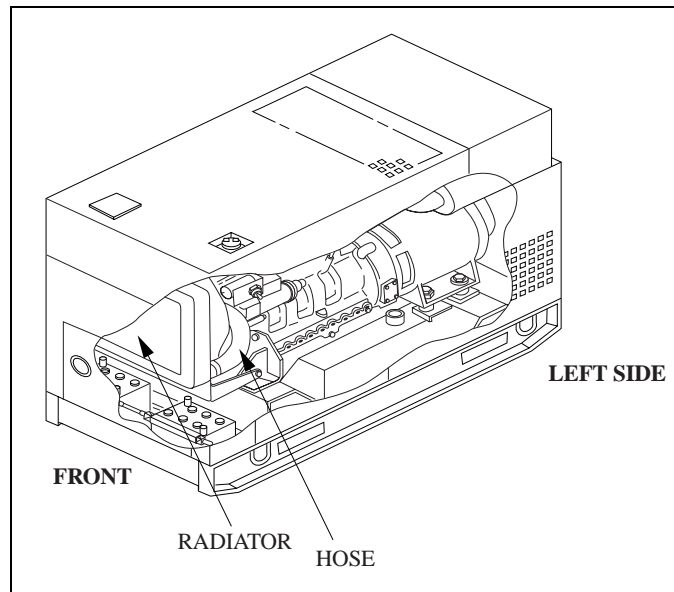
**Figure D-29. The TQG fuel system**

- d. Inspects the lubrication systems for leaks and damage, and loose or missing parts. See Figure D-30.



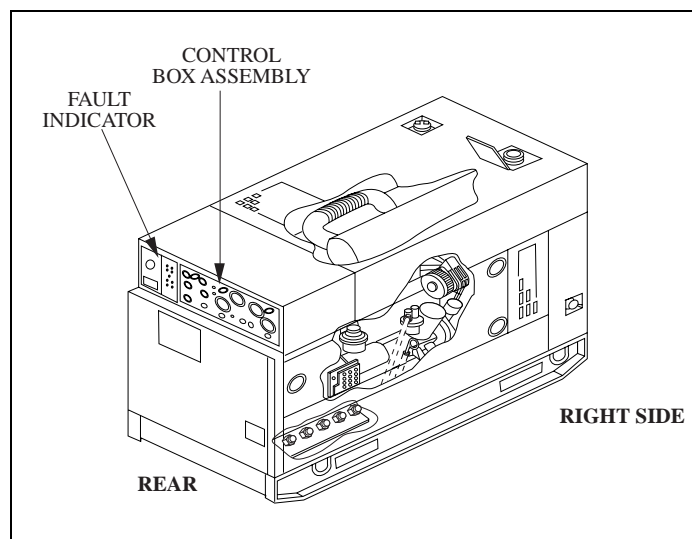
**Figure D-30. The TQG lubrication system**

- e. Checks the lubrication systems for correct oil level.
- f. Checks the lubrication systems for oil contamination.
- g. Inspects the cooling system fans for obstruction, damage, or looseness. See Figure D-31.



**Figure D-31. The TQG cooling system**

- h. Listens for any unusual noises in the fan areas.
- i. Checks the cooling system overflow bottles for proper mounting, leaks, or missing hardware.
- j. Inspects the grounding cables for damage, corrosion, and loose connections to the grounding rods.
- k. Checks the controls and indicators for proper operation. See Figure D-32.



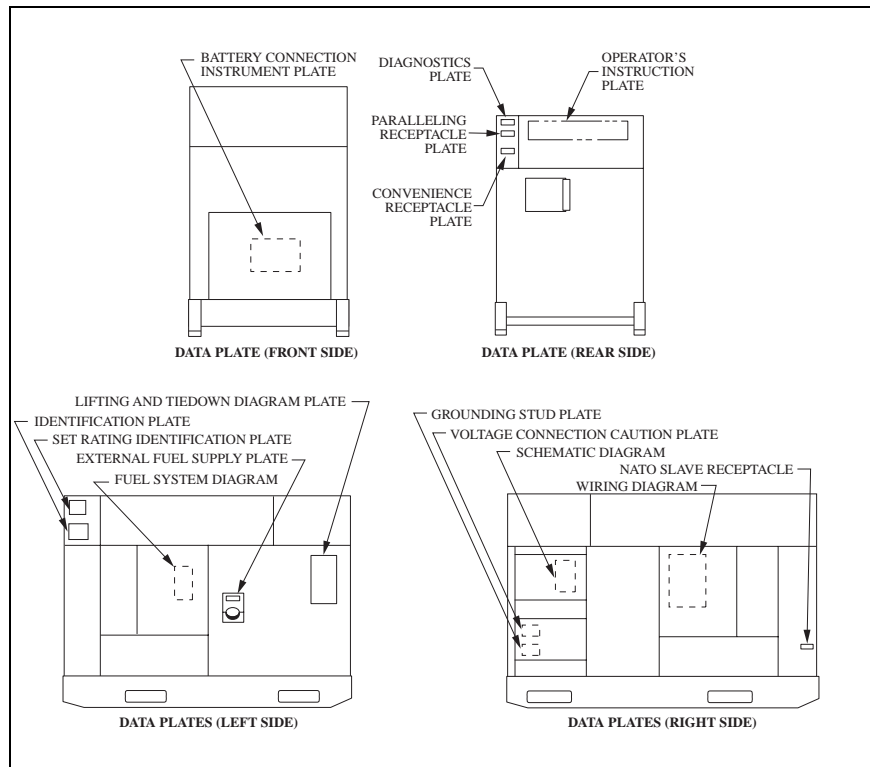
**Figure D-32. The TQG control box assembly controls and indicators**

THE DRILL LEADER GIVES THE ORDER TO SHUT DOWN THE GENERATOR SETS.



NOTE: Before shutting down the generators for paralleling, the supervisor should alert all users that the power will be cut off to change generators and bring the power back into phase.

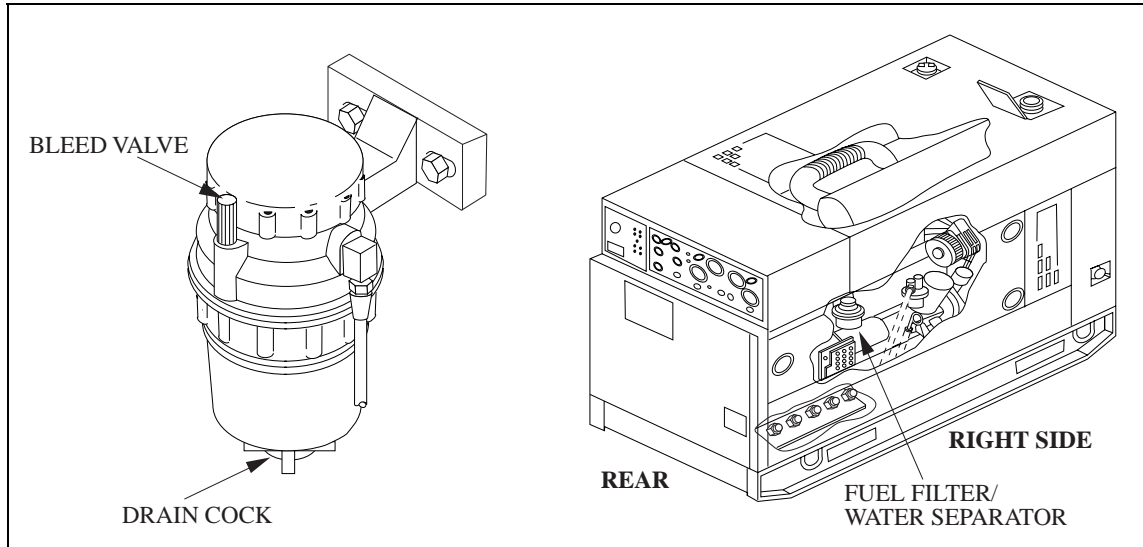
5. Soldier 1 places the AC CIRCUIT INTERRUPTER switch in the OPEN position and then does the following:
  - a. Allows the generator to operate for five minutes with no load applied.
  - b. Places the MASTER SWITCH in the OFF position. See Figure D-27.
  - c. Sets the main circuit breakers that the two PDISE-M100s that the TQG services to the OFF position.
  
6. Soldier 1 performs after-operation PMCS by doing the following:
  - a. Checks door panels, hinges, and latches for damage, and loose or corroded items.
  - b. Checks that the generator set identification plates are securely attached. See Figure D-33.



**Figure D-33. Identification plates on the TQG**

- c. Inspects the skid bases for cracks and/or corrosion.

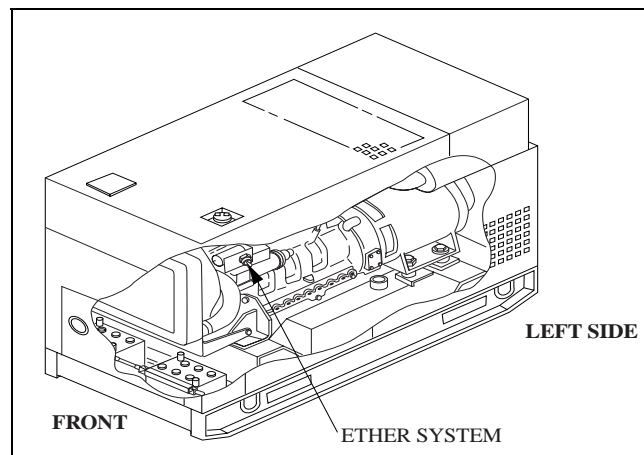
- d. Checks the engine assemblies for loose, damaged or missing hardware.
- e. Checks the fuel systems for leaks and damage, and loose or missing hardware. See Figure D-27.
- f. Inspects the fuel filter/water separators for leaks and damage, proper mounting, and loose or missing parts. See Figure D-34.



**Figure D-34. The TQG fuel filter/water separator**

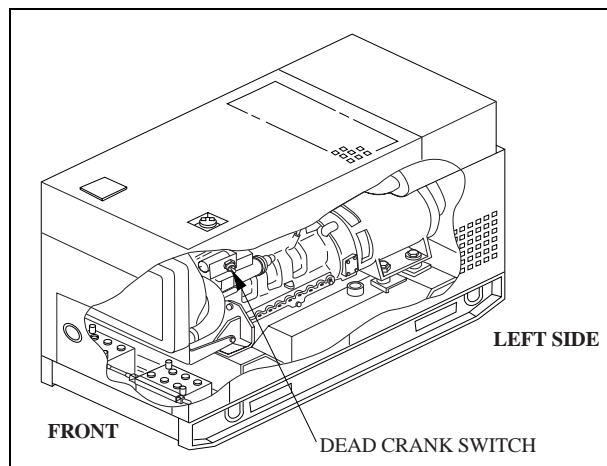
**COACHING POINT:** Soldiers collect the water from the fuel filter/water separator in a container and dispose of it as HW.

- g. Drains the water from the fuel filter/water separators into a container. See Figure D-34.
- h. Checks the ether systems for leaks and damage, missing hardware, and loose or improper mounting. See Figure D-35.



**Figure D-35. The TQG ether system**

- i. Checks the lubrication systems for leaks and damage, and loose or missing parts. See Figure D-30.
- j. Checks the lubrication systems for correct oil level.
- k. Inspects the lubrication systems for oil contamination.
- l. Checks the cooling system radiators for leaks, damage, and loose or missing parts. See Figure D-31.
- m. Checks the cooling system hoses for leaks, cracks, and missing parts.
- n. Checks the fan belts for cracks, fraying, or looseness.
- o. Inspects the controls and indicators for damaged or missing parts. See Figure D-32.
- p. Places the DEAD CRANK switch to the OFF position. See Figure D-36.



**Figure D-36. Dead Crank switch**

THE DRILL LEADER GIVES THE ORDER TO PARALLEL THE GENERATORS.

**COACHING POINT:** Make Soldiers 2 and 3 available at this time. Assign soldiers to generators (i.e., Soldier 1 to generator set 1, Soldier 2 to generator set 2, etc).

**COACHING POINT:** Ensure that generator sets are of the same size and mode prior to attempting parallel operation. Refer to TM 9-6115-645-10.

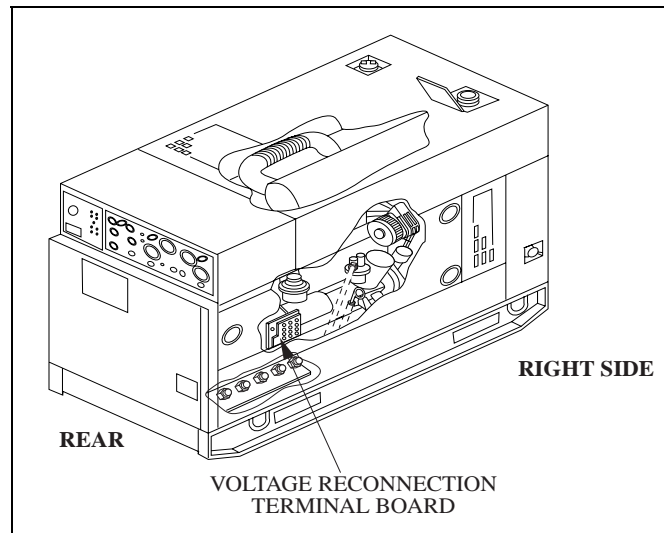
**WARNING:** BEFORE MAKING ANY CONNECTIONS FOR PARALLEL OPERATION, ENSURE THERE IS NO INPUT TO THE LOAD AND THAT THE GENERATOR SETS TO BE PARALLELED ARE SHUT DOWN.

7. Soldiers 1, 2, and 3 parallel the generators by doing the following:

- a. Ensure that the load requirement of each set of two PDISE-M100s attached to their generator set is equal to, or below, the rated capacity of their generator set.

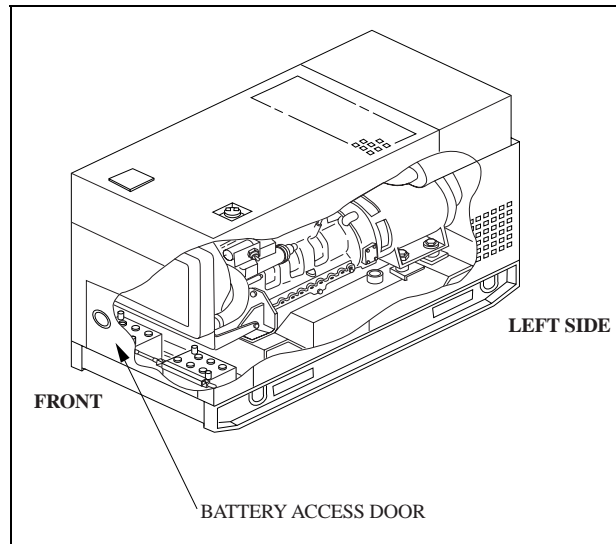
**COACHING POINT:** Determine the maximum amperage for all users of each PDISE-M100, and add the two figures. The maximum possible amperage for two PDISE-M100s is 200 amps.

- b. Determine the voltage requirements of the load for the switch box of their generator and position the voltage reconnection terminal boards to the required voltage connection. See Figure D-37.



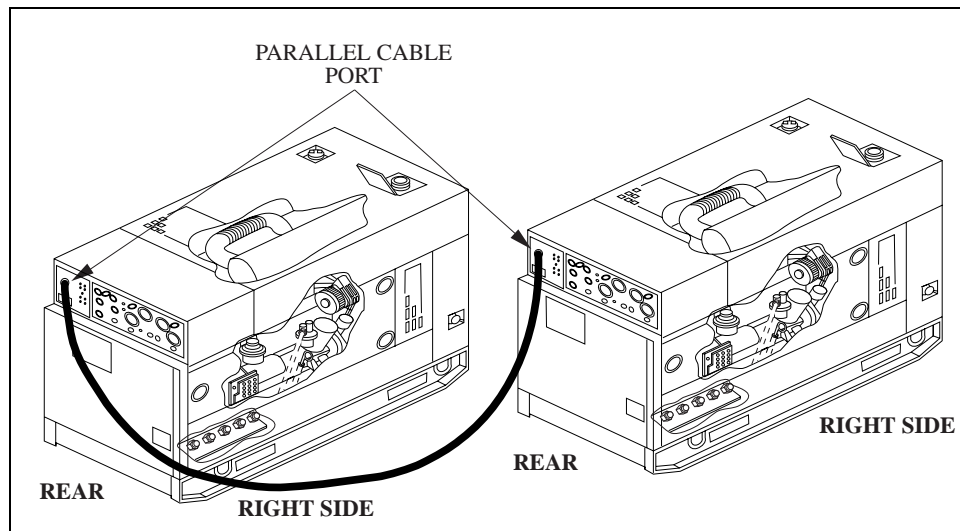
**Figure D-37. Voltage reconnection terminal board**

- c. Ensure the FREQUENCY SELECT switches for all three generator sets are positioned for the same HERTZ requirement. See Figure D-27.
- d. Soldier 1 removes the paralleling cable from the storage box located inside the battery access door of generator set 1. See Figure D-38.



**Figure D-38. Paralleling cable is inside the battery access door**

e. Soldiers 1 and 2 connect the paralleling cable between their generator sets. See Figure D-39.



**Figure D-39. Paralleling cable hooked between two TQGs**

**COACHING POINT:** Ensure that the AC CIRCUIT INTERRUPTER switch is not closed on either of the generator sets. Closing the switch on either generator before starting the generator set may severely damage one or both of the generators.

8. Soldiers 1, 2, and 3 each start their generator sets, following Steps 1 through 3, above.

9. When directed by Soldier 3, Soldier 1 or 2 closes the main circuit breaker at each of the two PDISE-M100s connected to the switch box for generator set 3.
10. Soldiers 1 and 2 each rotate their VOLTAGE adjust potentiometers on generators 1 and 2 to obtain the same voltage indication on each generator set. See Figure D-27.
11. Soldier 3 sets the main circuit breakers on the two PDISE-M100s attached to the switch box for generator 1 to the OFF position.
12. Soldiers 1 and 2 each rotate their FREQUENCY adjust potentiometer to obtain the same frequency indication on each set. See Figure D-27.
13. Soldier 1 positions and holds the AC CIRCUIT INTERRUPTER switch on generator set 1 to the CLOSE position until the indicator illuminates, and then resets the switch to OPEN. See Figure D-27.
14. Soldiers 1 and 2 each place the PARALLEL/UNIT switch to the PARALLEL position. See Figure D-27.
15. Soldier 2 observes the synchronizing lights on generator set 2. The lights should be glowing brightly, then going dark, in unison. See Figure D-27.

**COACHING POINT:** If the synchronizing lights on generator set 2 do not glow brightly, then go dark, in unison, the phasing is wrong. Notify power users that power will be shut down. Shut down both generator sets and check that load cables are connected properly. Notify users of shutdown. If you continue to operate the generator sets, damage to either, or both, of the generators could occur.

16. If the synchronizing lights are working, Soldier 2 adjusts the frequency of generator set 2 until the two lights glow brightly, then go dark, at 2 to 3 second intervals.
17. When both synchronizing lights are dark, Soldier 2 positions and holds the AC CIRCUIT INTERRUPTER switch on generator set 2 to the CLOSE position until the indicator illuminates, then releases the switch. See Figure D-27.

**COACHING POINT:** Generator sets 1 and 2 are now operating in parallel, but with no load. The soldiers now will apply the load to the generator that is to come on line.

18. Soldier 1 rotates the FREQUENCY adjust potentiometer of generator set 1 until the kilowattmeter (PERCENT POWER) reads approximately "0." See Figure D-27.
19. Soldier 1 rotates the VOLTAGE adjust potentiometer of generator set 1 until the ammeter (PERCENT RATED CURRENT) indicates approximately "0." See Figure D-27.
20. Soldier 1 changes the load feed by moving the switch from generator 1 to generator 2.
21. When directed by Soldier 1, Soldier 3 closes the main circuit breaker at each of the two PDISE-M100s connected to the switch box for generator set 1.

**COACHING POINT:** If the REVERSE POWER indicator of either generator set illuminates and the AC CIRCUIT INTERRUPTER relay opens, shut off the main circuit breakers on the two PDISE-M100s connected to the generator 1 switch box and resynchronize the generator sets by directing the soldiers to repeat Steps 9 through 21, above.

22. Soldiers 1 and 2 compare the ammeter (PERCENT RATED CURRENT) readings of the two generator sets. If readings are not within 10 percent, they should notify the drill leader or their supervisor.
23. Soldiers 1 and 2 compare the kilowattmeter (PERCENT POWER) readings of the two generator sets. If readings are not within 10 percent, they should notify the drill leader or their supervisor.
24. Soldier 1 turns the MASTER SWITCH on generator set 1 to the OFF position. See Figure D-27.
25. Soldier 1 places the DEAD CRANK switch on generator set 1 to the OFF position. See Figure D-36.

**COACHING POINT:** Under normal operating conditions, Soldier 1 would perform after-operation PMCS on generator set 1 at this time. The three TQGs in a power-generation cluster will operate on a rotating 14-hour-on/7-hour-off, 21-hour cycle. To accomplish this, the operators will use the TQGs' paralleling capability, allowing the off-line TQG to take up the load of one of the on-line TQGs. Although TM 9-6115-663-13&P does not specifically cover a three-TQG cluster, the procedures used to achieve this arrangement are essentially the same as those used for a two-TQG cluster.

26. At the end of the seven-hour period, Soldier 1 starts generator set 1, following Steps 1 through 3, above.

**NOTE:** The passage of seven hours is simulated. The warm-up time for the generator is five minutes. Allow the generators to operate five minutes before making the change.

27. Soldier 2 changes the load feed by moving the switch on the switch box connected to generator 1 from generator 2 to generator 1.

28. Soldiers 2 and 3 turn the MASTER SWITCH on generator sets 2 and 3 to the OFF position. See Figure D-27.

29. Soldiers 2 and 3 set the DEAD CRANK switch on generator sets 2 and 3 to the OFF position. See Figure D-36.

30. Soldiers 2 and 3 follow the instructions in TM 9-6115-663-13&P (Steps 7 through 25, above) to bring generator set 2 into parallel operation with generator set 3, put generator set 2 on-line to replace generator set 3, and then shut down generator set 3.

31. Soldier 1 conducts PMCS on the 500-gallon drum IAW TM 5-4930-229-12 & D.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

**PERFORM:** When the soldiers can perform this drill according to the standards, the section leader should evaluate their performance.



**CREW DRILL 42-2-D0017**

**Dismantle a Power-Generation Cluster for a Force Provider (FP)  
Module**

TASK: Dismantle a power-generation cluster for an FP module.

CONDITIONS: The three tactical quiet generators (TQGs) and other cluster components are operating at the designated power generation site. Components have been inventoried and inspected for serviceability. Unserviceable components have been tagged and reported to the Force Provider (FP) company or platoon HQ. Six soldiers have been assigned to dismantle the power-generation cluster. Technical documentation, including all applicable technical manuals (TMs), and tool kits are available.

STANDARD: The power-generation cluster is dismantled and prepared for movement IAW TM 10-5419-200-12, *Operator's, Unit and Direct Support Maintenance Manual for Force Provider Modules 1 & 2*, and TM 9-6115-645-10, *Operator's Manual for Generator Set, High Voltage, Skid Mounted, Tactical Quiet, 60kW, 50/60 and 400 Hz, MEP 806A, MEP 816A*.

SUPPORTING INDIVIDUAL TASK: Prior to conducting the drill, the soldiers should be proficient in Soldier Training Publication (STP) tasks 091-182-0501, Maintain Diesel Engine Cooling System, 091-182-0603, Maintain Diesel Engine Control Panels and Instruments, 091-182-0301, Maintain Diesel Engine Fuel System, 091-182-0101, Maintain Diesel Engine Lubrication System, 091-182-6101, Maintain the Main Generator, 091-182-0601, Maintain Engine/Generator Electrical Systems, and, 091-182-2901, Maintain Power Generation Equipment, found in STP 9-52D12-SM.

SETUP INSTRUCTIONS:

a. Resources.

- (1) One operational FP power-generation cluster with fuel.
- (2) Three TQGs.
- (3) One forklift to remove the TQGs. (One of the soldiers should be qualified to operate the forklift. If none is qualified, a forklift operator will be needed.)
- (4) Four Power Distribution Illumination Systems, Electrical (PDISE)-M100s.
- (5) Six soldiers, one of whom must be qualified in MOS 52D, and three of whom must be qualified in MOS 77F.
- (6) DA Form 2404, Equipment Inspection and Maintenance Worksheet.
- (7) Steam cleaner.
- (8) Absorbent material.

(9) Slide hammer to remove grounding rods.

(10) Fuel vehicle or drums into which fuel remaining in 500-gallon drum may be drained.

(11) Cans to contain water from fuel filter/water separators and to catch residual fuel from fuel lines.

b. Training Site. The site should be at least a 60- by 40-foot level area that is accessible by the forklift with sufficient area to place the berm for the collapsible fabric fuel drum and the three TQGs.

c. Unit Instructions. The soldiers should be brought to the site. Designate each of the six soldiers selected to set up the power-generation cluster by number (Soldier 1, Soldier 2, etc.). At least one of the soldiers must be a Power-Generation Equipment Repairer (MOS 52D), and three must be petroleum supply specialists (MOS 77F) to perform steps 2, 9-10 and 14-22.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains six soldiers to dismantle a power-generation cluster and complete before-operation preventive maintenance checks and services (PMCS) correctly. During subsequent drill iterations, assign each MOS 52 soldier a different number from 1 to 3 and each MOS 77F soldier a different number from 4 to 6, so each learns all the steps and standards for which they may be responsible in setting up the power-generation cluster and completing before-operations PMCS.

b. Environmental Stewardship. Brief all soldiers on the environmental stewardship requirements of executing this drill. Take all preventative measures to protect the environment during operation and maintenance. All personnel handling fuel will treat any contaminated fuel or dirt or water contaminated with fuel as hazardous waste (HW) and will dispose of it according to current directives. The drill leader and soldiers will take immediate action to reduce the effect of fuel spills and leaks, and to clean up and dispose of contaminated soil, water, and fuel IAW current directives.

c. Safety. Soldiers must use extreme care when operating and maintaining electrical power generation equipment and components. No smoking is allowed. The collapsible fabric fuel drum and the TQG must be properly grounded to earth to ensure safe operation. Ground all equipment immediately once it is in position. Soldiers must wear proper protective clothing and eye protection to eliminate injury hazards when driving grounding rods. Ensure electrical power is shut off before performing any maintenance actions. Wipe all fuel storage and distribution

components clean of residual fuel and put on protective clothing before performing any maintenance actions on the fuel system.

d. Demonstration (optional). If other soldiers from the Facilities Support Section have successfully dismantled a power-generation cluster, have them demonstrate the drill. Using the performance standards as a guide, the drill leader should explain what is happening throughout the demonstration and why the task is being done that way. When the demonstration is complete, the drill leader should summarize what occurred during the demonstration.

e. Explanation. The drill leader should use the performance standards as a guide and explain the actions of each soldier in dismantling a power-generation cluster. The drill leader may illustrate the steps and procedures with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should then explain his role in the drill, including the standards for which he is responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

**WALK-THROUGH INSTRUCTIONS:**

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader conducts the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a deliberate pace on the first iteration as the "walk" phase. Additional iterations of the drill provide practice so the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the sequence listed, but all soldiers perform their task steps simultaneously.

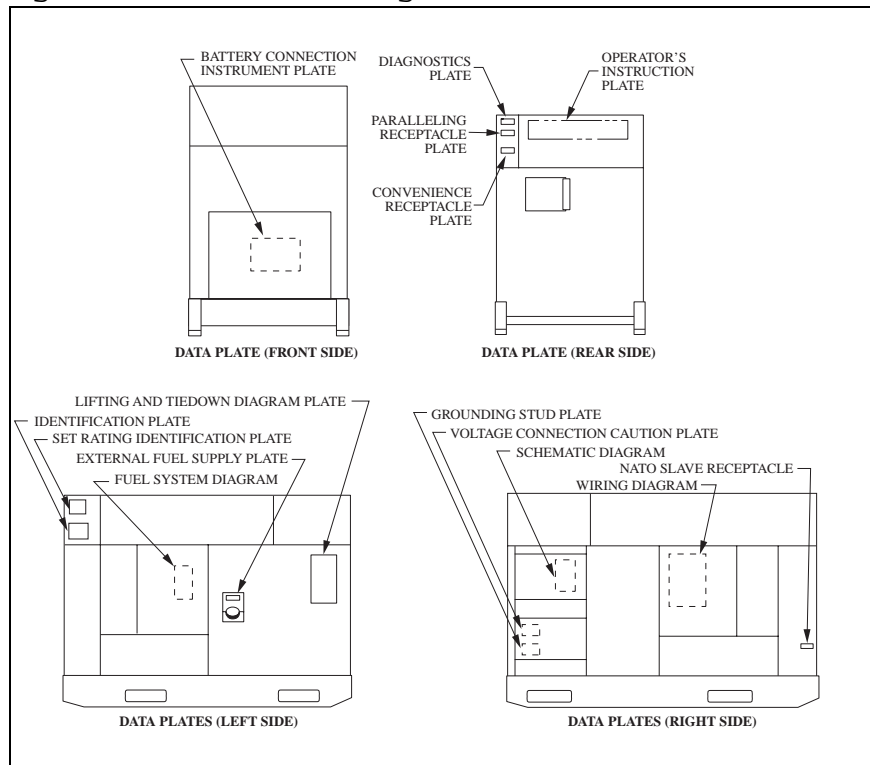
b. Initiating Cue. The drill leader gives the order to cease operation and dismantle the power-generation cluster.

**Performance Measures:**

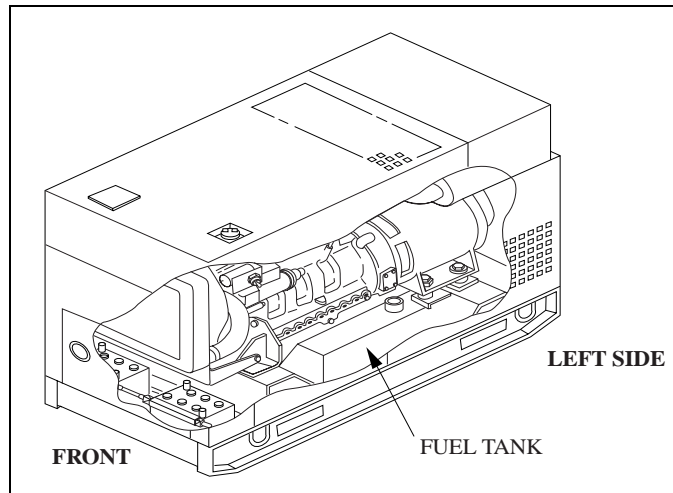
**WARNING:** THE GENERATOR CAN CARRY AN ELECTRICAL CHARGE EVEN AFTER IT HAS STOPPED RUNNING. OPERATORS MUST AVOID GROUNDING THEMSELVES WHEN IN CONTACT WITH ITS ELECTRICAL COMPONENTS.

**COACHING POINT:** Assign soldiers to generators (i.e., Soldier 1 to generator set 1, Soldier 2 to generator set 2, and Soldier 3 to generator set 3).

1. Soldiers 1, 2, and 3 perform after-operation PMCS on their assigned TQG, IAW TM 9-6115-645-10, by doing the following:
  - a. Check door panels, hinges, and latches for damage, and loose or corroded items.
  - b. Inspect the skid bases for cracks and/or corrosion.
  - c. Check the engine assemblies for loose, damaged or missing hardware.
  - d. Check that the generator set identification plates are securely attached. See Figure D-40.
  - e. Check the fuel systems for leaks and damage, and loose or missing hardware. See Figure D-41.

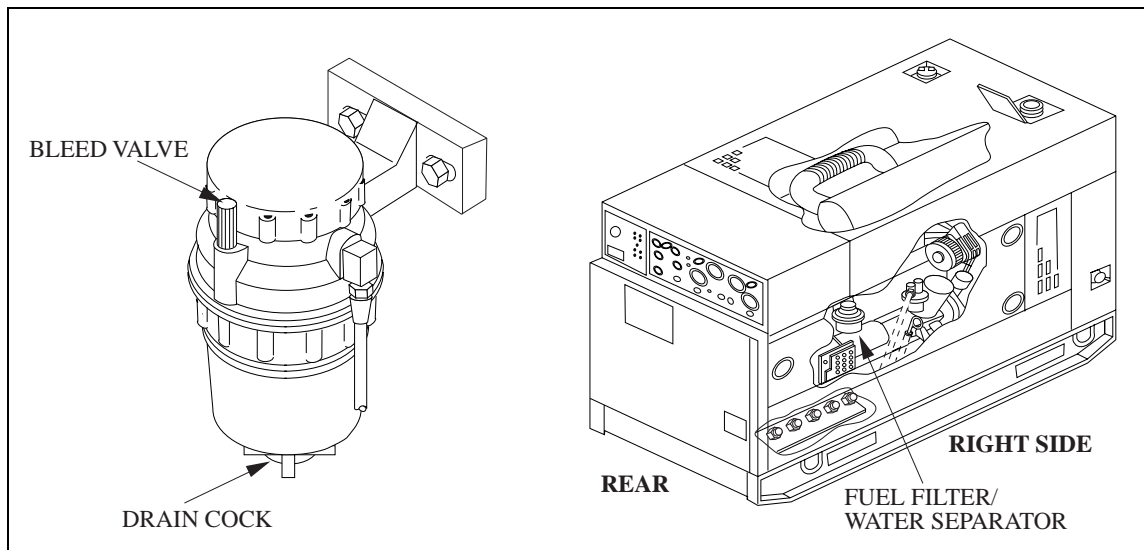


**Figure D-40. Identification plates on the TQG**



**Figure D-41. The TQG fuel system**

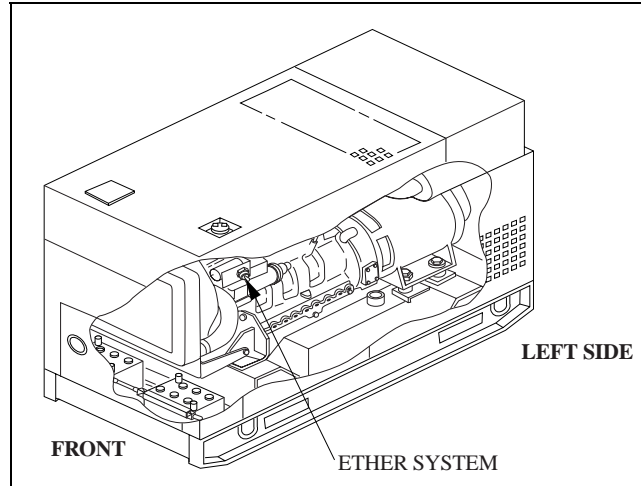
- f. Inspect the fuel filter/water separators for leaks and damage, proper mounting, and loose or missing parts. See Figure D-42.



**Figure D-42. The TQG fuel filter/water separator**

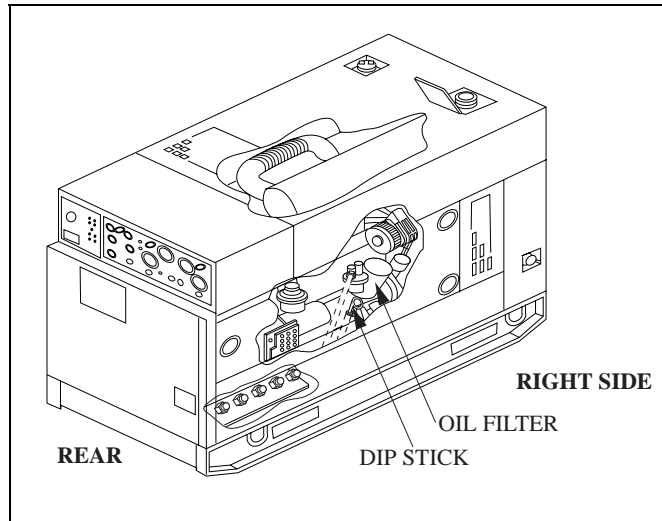
**COACHING POINT:** Soldiers collect the water from the fuel filter/water separator in a container and dispose of it as HW.

- g. Drain the water from the fuel filter/water separators into a container. See Figure D-42.
- h. Check the ether systems for leaks and damage, missing hardware, and loose or improper mounting. See Figure D-43.



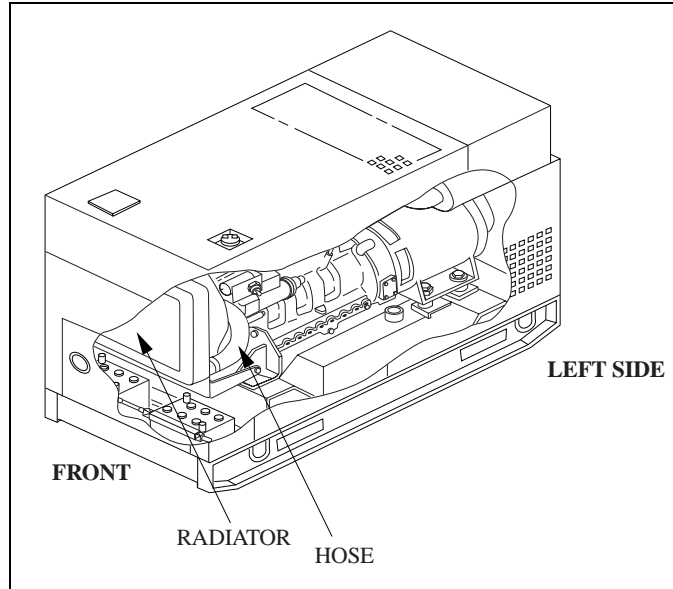
**Figure D-43. The TQG ether system**

- i. Check the lubrication systems for leaks and damage, and loose or missing parts. See Figure D-44.
- j. Check the lubrication systems for correct oil level.
- k. Inspects the lubrication systems for oil contamination.



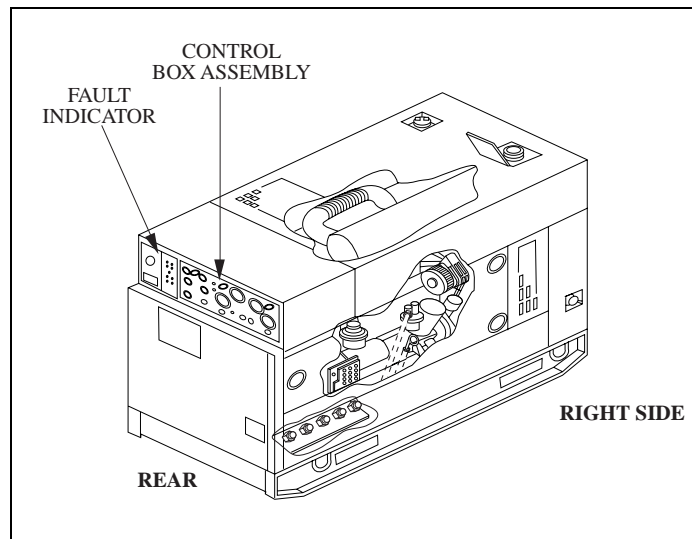
**Figure D-44. The TQG lubrication system**

1. Soldiers 1, 2, and 3 check the cooling system radiators for leaks, damage, and loose or missing parts. See Figure D-45.



**Figure D-45. The TQG cooling system**

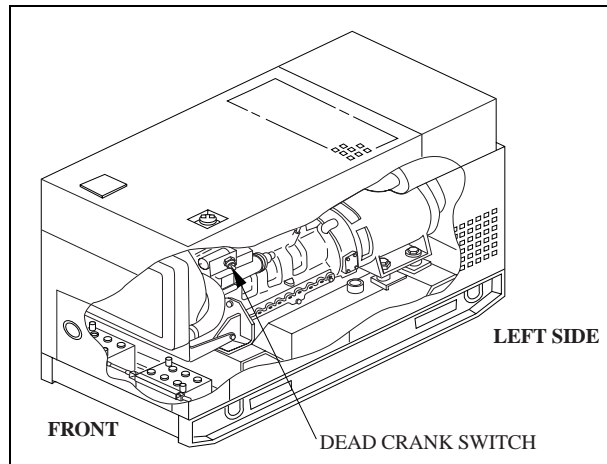
- m. Soldiers 1, 2, and 3 check the cooling system hoses for leaks, cracks, and missing parts.
- n. Soldiers 1, 2, and 3 check the fan belts for cracks, fraying, or looseness.
- o. Soldiers 1, 2, and 3 inspect the controls and indicators for damaged or missing parts. See Figure D-46.



**Figure D-46. The TQG control box assembly controls and indicators**

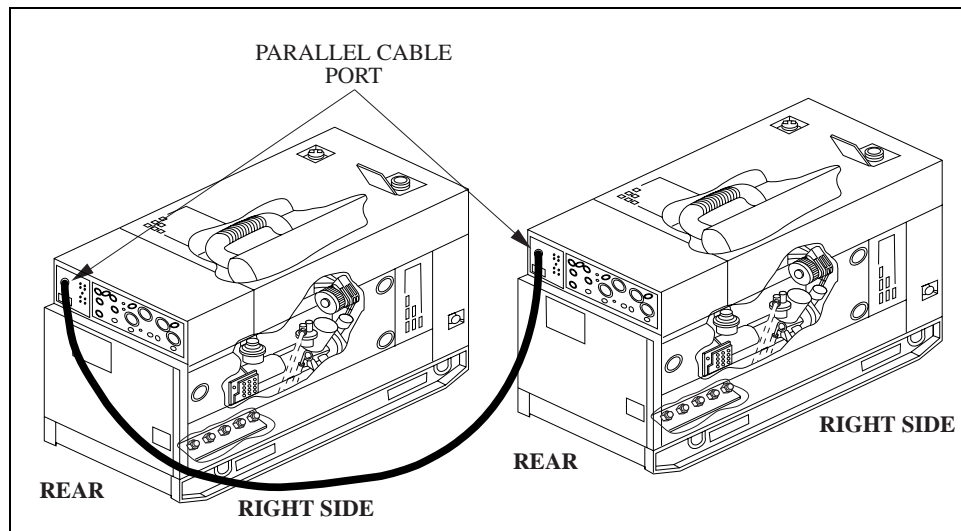
- p. Set the main circuit breakers on each of the PDISE-M100s to the OFF position.

- q. Places the DEAD CRANK switch to the OFF position. See Figure D-47.



**Figure D-47. Dead Crank switch**

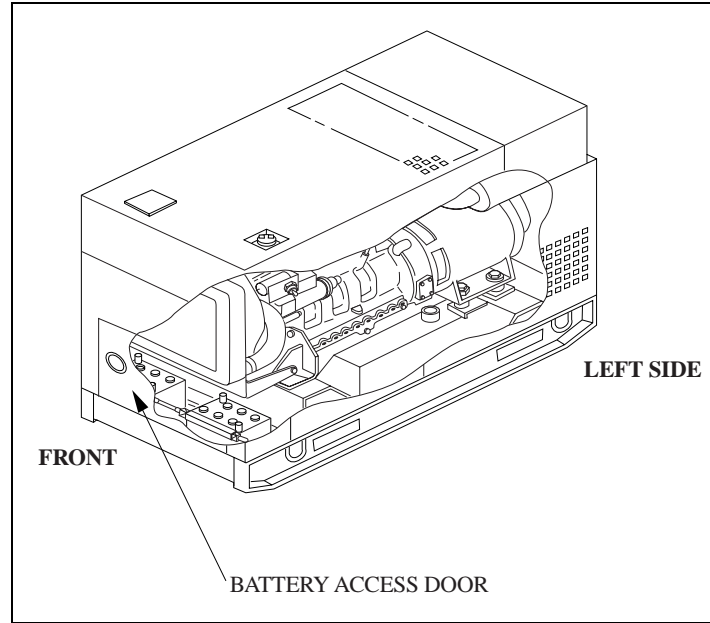
2. Soldier 4 closes the gate valve on the elbow coupler to the fuel drum.
3. Soldier 1 or 3, as appropriate, disconnects the paralleling cable from the TQGs to which it is attached. See Figure D-48.



**Figure D-48. The paralleling cable hooked between two TQGs**

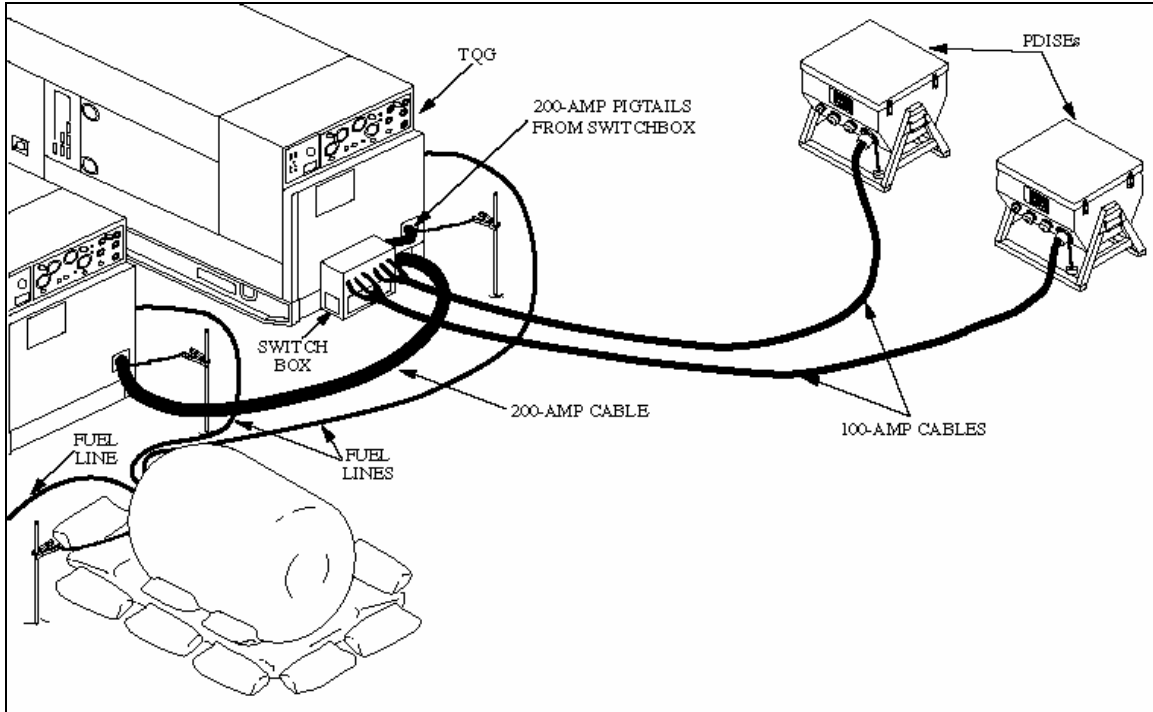
4. The soldier assigned to the TQG from which the paralleling cable came stores the cable in the storage box inside the battery access door of that generator set. See Figure D-49.





**Figure D-49. The paralleling cable is stored inside the battery access door**

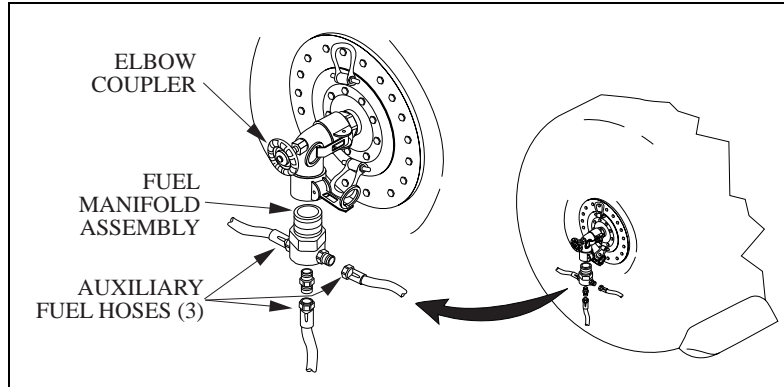
5. Soldiers 1 and 3 each disconnect the pigtails that run from the two switch boxes to generator sets 1 and 3. See Figure D-50.
6. Soldiers 1 and 3 each disconnect the pigtails on two 100-amp service/feeder cables from one of the switch boxes. See Figure D-50.



**Figure D-47. Service/feeder cable connections**

**COACHING POINT:** Make Soldiers 5 and 6 (MOS 77F) available at this time. Pair Soldier 1 with Soldier 4, Soldier 2 with Soldier 5, and Soldier 3 with Soldier 6.

7. Soldiers 2 and 5 each disconnect the class L fittings on the 100-amp service/feeder cables from two of the PDISE M-100s.
8. Soldiers 1 through 6 (in pairs) disconnect one of the three auxiliary fuel supply hoses from the auxiliary fuel supply inlet on each of the TQGs, and drain any residual fuel into a container.
9. Soldiers 1 through 6 (in pairs) disconnect one of the three auxiliary fuel hoses from the manifold assembly, drain the lines in a container, steam clean the fittings, air dry all items, and carry the hoses to the staging area for repacking. See Figure D-51.



**Figure D-51. Three auxiliary hoses with the fuel manifold assembly**

**COACHING POINT:** Request that the Petroleum Distribution Section personnel drain the fuel from the 500-gallon collapsible fabric fuel drum and the generators into a fuel carrier.

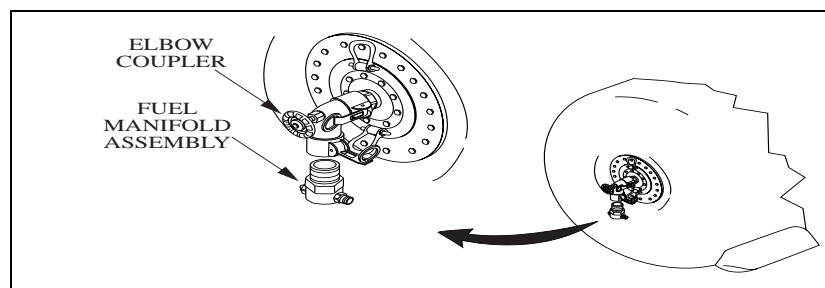
10. Soldiers 1 through 6 (in pairs) disconnect the cable clamps and the ground cables from the GND terminal post on the load output terminal board on the TQGs, and from the grounding rods, and store the clamps and cables inside the storage box on each generator set.

**COACHING POINT:** Items may require steam cleaning prior to repacking. If so, the soldiers must dispose of all run-off as HW and thoroughly air dry all items prior to repacking.

11. Soldiers 1, 2, and 3 pull the TQG grounding rods and store them in the holding clips located inside the left side of the housing on each generator set.

12. Soldiers 1, 2, and 3 secure all access doors and panels on each generator set.

13. Soldiers 4 and 5 remove the fuel manifold assembly, with adapter, from the fuel drum. See Figure D-52.



**Figure D-52. The fuel manifold assembly, with elbow coupler and adapter**

14. Soldiers 4 and 5 place the proper dust plug in the manifold assembly and the dust cap on the adapter.

15. Soldiers 4 and 5 use disposable materials to wipe any wet fuel from around the dispensing area on the face of the fuel drum, and dispose of the wiping materials as HW.

**COACHING POINT:** When inspecting the lubrication systems prior to dismantling and repacking the power-generation cluster, the soldiers must remove the contaminated oil and replace with it with fresh oil prior to repacking. They must dispose of the contaminated oil as HW, IAW current directives.

16. Soldier 6 empties the drip pan and the absorbent material into a specified container, dries out the drip pan with disposable material, and then disposes of any HW IAW current directives.

17. Soldier 6 disconnects the cable clamps and the ground cable from the fuel drum and the grounding rod.

**COACHING POINT:** Soldiers must completely drain and air dry all residual fuel from the fuel drum and from all fuel lines before moving them to the staging area for repacking.

18. Using a forklift, soldiers 3 through 6 move the fuel drum from the berm to the staging area for repacking.

19. Soldiers 1 and 2 pull up the grounding rod and uncouple the sections.

20. Soldiers 3 through 6 prepare the berm liner for packing.

21. Using a forklift, Soldiers 3 through 6 move the berm liner to the staging area for repacking.

22. Soldiers 1 and 2 move all other components and equipment to the staging area for repacking.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

**PERFORM:** When the soldiers can perform this drill according to the standards, their performance should be evaluated by the section leader.

**CREW DRILL 42-2 D0018**

**Set Up, Maintain, and Operate Potable Water Distribution and Storage Site**

**TASK:** Set up, maintain, and operate potable water distribution and storage site.

**CONDITIONS:** The Force Provider (FP) company or platoon has occupied an operational site for a FP module. The site has been prepared in accordance with (IAW) the site plan and is secure. The components of the water storage and distribution site have been unpacked and inventoried and are operational. The water treatment NCO has ensured that all components are present, clean, and serviceable, and has reported all shortages and unserviceable components to company or platoon HQ. The power generation and graywater collection subsystems are operational. A berm has been constructed at the water distribution and storage site and a berm drain installed with gate valve. The potable water distribution and storage site will be serviced by line haul tankers initially. For drill purposes, each site will extend water to one user facility and assemble one nozzle kit. Four soldiers and a drill leader have been assigned to set up, maintain, and operate one potable water distribution and storage site.. After the storage tank is set up, two soldiers may be released. Technical documentation, including all applicable technical manuals (TMs) and commercial instructions supplied with the potable water distribution and storage subsystem and components is available.

**NOTE:** If the drill is to be followed by actual operation of the potable water distribution and storage site, and the ambient temperature is to be less than +32° Fahrenheit (F), then the cold weather kit (CWK) must be installed with the subsystem (see Steps 26 through 31).

**STANDARD:** The potable water distribution and storage site is set up within two hours and IAW TM 10-5419-200-12, *Operator's, Unit and Direct Support Maintenance Manual for Force Provider Modules 1 & 2*.

**SUPPORTING INDIVIDUAL TASKS:** Prior to executing the drill, the drill leader should be proficient in Soldier Training Publication (STP) tasks 101-540-2004, Supervise Water Analysis Testing, 101-540-2012, and 101-540-2030, Supervise Completion of Water Reports/Logs/Forms, found in STP 10-77W14-SM-TG. Soldiers executing the drill should be proficient in STP tasks 101-540-1065, Conduct Water Analysis Testing, 101-540-1069, Complete Entries on Water Reports/Logs/Forms, found in STP 10-77W14-SM-TG.

## SETUP INSTRUCTIONS:

## a. Resources.

- (1) One complete potable water distribution and storage set.
- (2) Four soldiers and a drill leader.
- (3) One general mechanic's automotive tool kit.
- (4) Roll of Teflon tape.
- (5) Water Quality Analysis Kit-Purification (WAQD-P).
- (6) At least 25 pounds of calcium hypochlorinate granules.
- (7) One 4000 kilogram or heavier fork lift to position potable water distribution and storage site components. (One of the soldiers should be qualified to operate the fork lift. If none is qualified, a fork lift operator will be needed.)
- (8) Two Water Treatment Specialists and two additional soldiers to assist in setting up the potable water distribution and storage site.
- (10) Cold weather kit, if cold weather temperatures of +32° Fahrenheit (F) and below exist.

b. Training Site. The training site should be no less than 200 feet by 200 feet with a slope no greater than 3%. Position the 20,000-gallon collapsible fabric tank in the center of a 60-by 20-foot level area that is no more than 20 feet from an access road and no more than 85 feet from a potable water user site. A berm surrounding the 20,000-gallon tank will be constructed if needed, IAW higher HQ directives. A small trench for the tank drain hose must extend from the center of the bottom of the tank's location to the discharge end of the tank. A 2½-inch suction hose with gate valve must extend through the bottom of the discharge end of the area containing the tank.

c. Unit Instructions. The drill leader has made a reconnaissance of the site and ensured that all equipment is present and operational, that electric power and graywater support are available, and that the site meets potable water distribution and storage requirements. Designate the four soldiers selected to set up the site by number (i.e., Soldier 1, Soldier 2, etc.). Soldiers 3 and 4 can assist the others after the 20,000-gallon tank has been set up.

## TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains soldiers of the Water Distribution Section to set up the potable water distribution and storage site correctly, conduct the initial operation and checks, and maintain and operate the site IAW pertinent technical

publications. Assign each soldier a different number during subsequent drill iterations so each learns all the steps and standards for setting up a potable water distribution and storage site, performing the initial operation and checks, maintaining the site, and operating the site.

b. Environmental Stewardship. Brief all soldiers on the safety and environmental stewardship requirements for executing this drill. Soldiers must constantly monitor the supply lines, connections, and pump for leaks and rapidly shut off the pump if leaks are detected. Take all preventative measures to protect the environment during set up, maintenance, and operations. If required by higher HQ directives, berms will be constructed around the storage tank to contain leaks or spills IAW TM 10-5419-200-12. Berm liners will be used beneath the 20,000-gallon tank as a further means to contain any potable water leaks.

c. Safety. Follow all safety warnings, cautions, and notes as required in TM 10-5419-200-12, *Operator's, Unit, Direct Support and General Support Maintenance Manual for Force Provider*, and all other applicable manuals. Calcium hypochlorite is toxic to skin and eyes. Avoid direct contact with calcium hypochlorite. Do not swallow or inhale calcium hypochlorite dust particles. Stand upwind when handling calcium hypochlorite granules. Wear eye, ear, and skin protection when working with calcium hypochlorite. Failure to observe this warning may result in serious injury to personnel contacting calcium hypochlorite. Ensure water hoses and power cables do not come in contact or cross over each other. If water lines must cross, potable water hoses must cross over graywater hoses to avoid possible potable water contamination. If power cables must cross water lines, ensure the power cables cross over top of the water hoses. Do not lay water hoses or power cables across access or service roads. Only a qualified technician will connect the power distribution illumination systems equipment (PDISE)-M100 to the power source. To prevent contamination of the water supply and equipment, ensure that unconnected potable water hose coupling halves do not contact the ground or other surfaces. When priming the electric water pump, ensure that contaminants do not enter the system through open connections. The Preventive Medicine NCO must certify the potable water quality, IAW TB Med 577, before operation. Operators must continuously monitor the chlorine level and adjust the hypochlorination unit as required to maintain the desired chlorine level in the potable water (2 parts per million [ppm] at test valve on pump, 1 ppm at user facilities and nozzles, and 5 ppm for sanitizing water lines).

d. Demonstration (optional). If other soldiers from the Water Distribution Section have successfully set up a water distribution and storage site, have them demonstrate the drill.

Using the performance measures as a guide, the drill leader should explain what is happening, and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in setting up, maintaining, and operating the water distribution and storage subsystem. The drill leader can illustrate the steps with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should explain their role in the drill, including the standards for which they are responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

#### WALK-THROUGH INSTRUCTIONS:

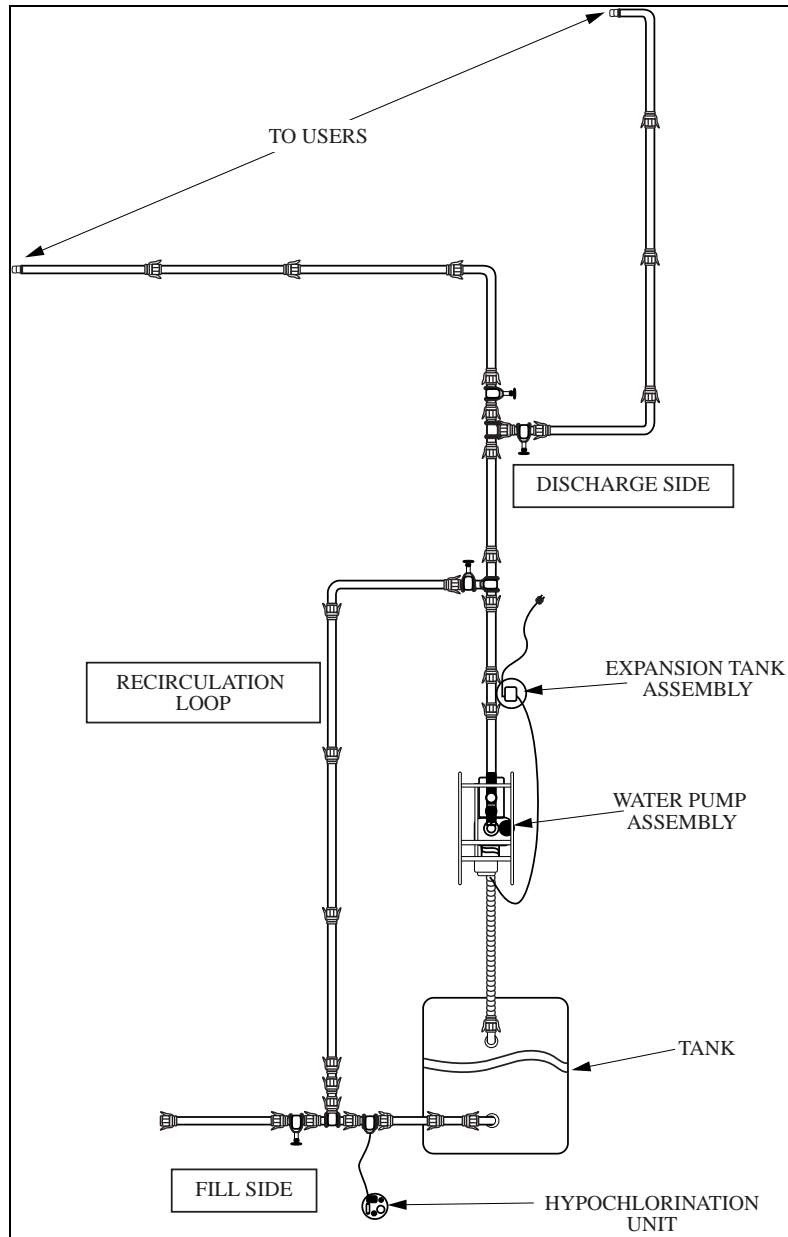
a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader conducts the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a deliberate pace on the first iteration as the "walk" phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

B. Initiating Cue. The drill leader gives order to set up and maintain the potable water distribution and storage site.

#### Performance Measures:

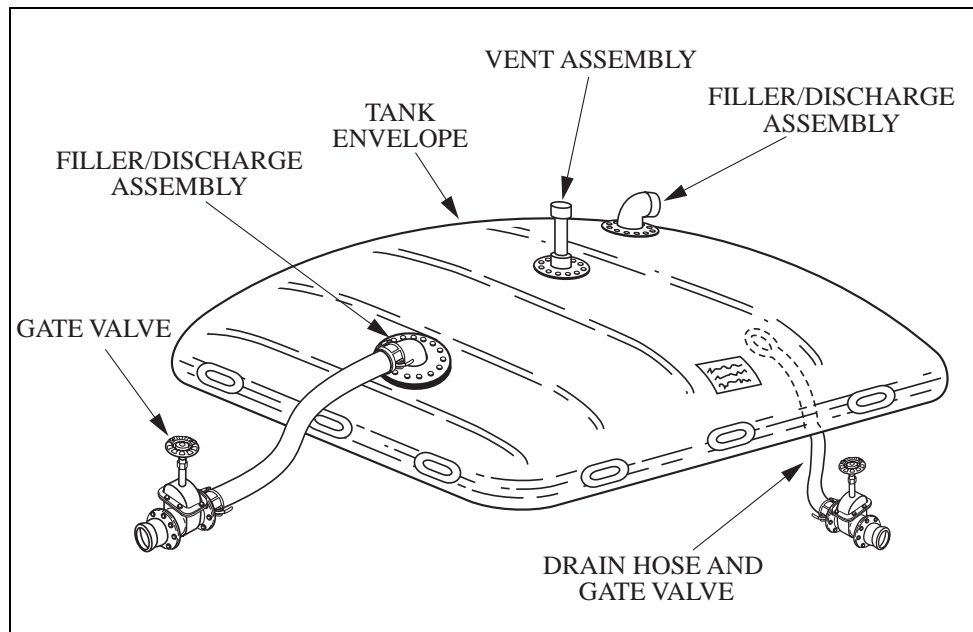
1. Using a fork lift, Soldiers 1, 2, 3, and 4 move the 20,000-gallon fabric tank to the tank site, leaving it outside the berm (if constructed). See Figure D-1.





**Figure D-1. Potable water distribution and storage site**

2. Soldiers 1, 2, 3, and 4 place the berm liner on the site so that it lines the bottom of the berm and lower part of the berm sides.
3. Soldiers 1, 2, 3, and 4 set up the 20,000-gallon fabric tank by doing the following:
  - a. Position the rolled tank in the center of lower end (down slope) of the site.
  - b. Unroll the tank toward the higher end (up slope), placing the drain assembly on the lower side of the tank. See Figure D-2.



**Figure D-2. Components of 20,000-gallon collapsible fabric tank**

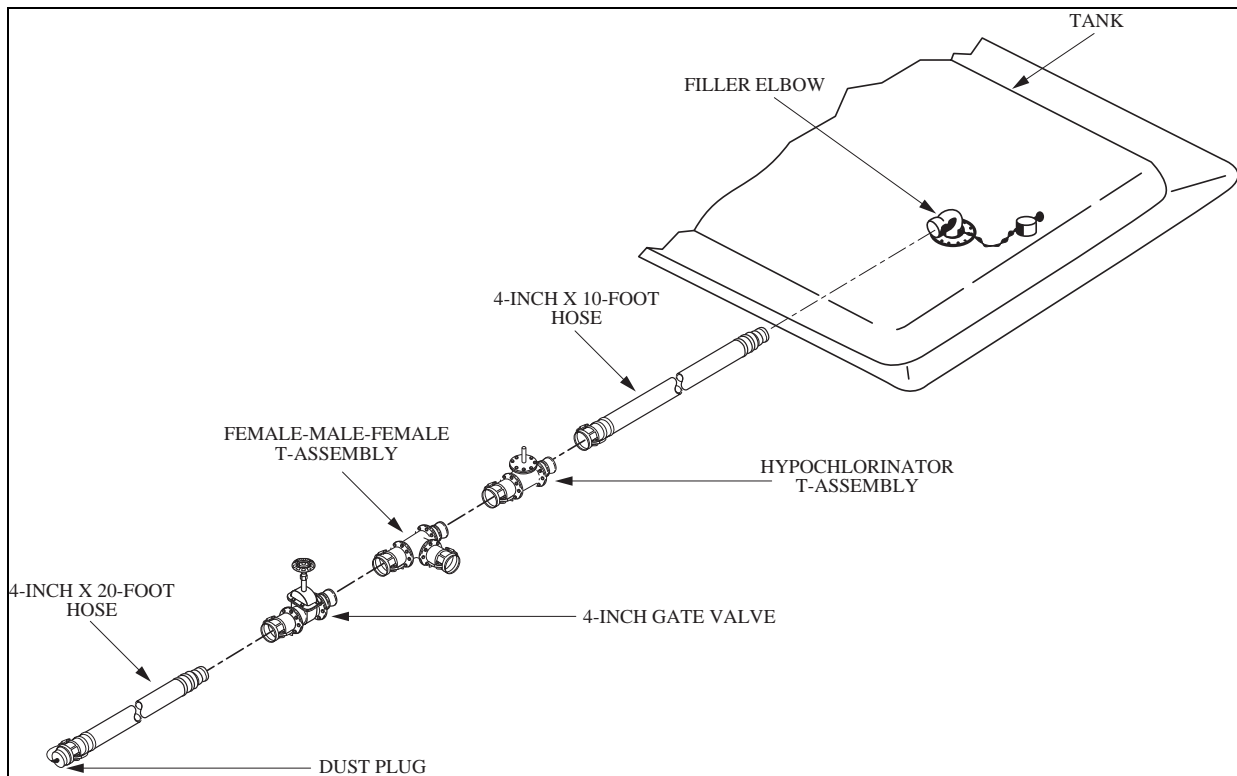
- c. Unfold the tank, using the handles to center the tank inside the site.
  - d. Check the tank for damage, punctures or tears.
  - e. Check that each female coupling on the filler/discharge assemblies and drain hose have a sealing gasket, cam arms that operate correctly, and gate valves that open and close correctly.
  - f. Install two poles on either side of the tank, joined by a taut rope or line four feet above the ground, to use as a visual check against overfilling the tank.
4. Soldiers 1, 2, 3, and 4 prepare the 20,000-gallon collapsible fabric tank for operation by doing the following:
    - a. Fold about six feet of the tank envelope back over the rest of the tank, exposing the drain assembly on the bottom of the tank. See Figure D-2.
    - b. Wrap the drain hose male threads with two or three layers of Teflon tape.
    - c. Attach the drain hose and gate valve (already in place at the site) to the drain connection, and check that the valve is closed and extends from the bottom of the tank.
    - d. Unfold the tank envelope to lie flat in its original position.
    - e. Remove dust caps and dust plugs from tank vent assembly, elbows, hose, and valve assembly, and clean any dirty sealing surfaces with a clean cloth. See Figure D-2.

- f. Install the vent assembly, 4-inch filler elbow, and 1½-inch discharge elbow with reducer (all part of the 20,000-gallon collapsible fabric tank kit) to the tank, close both cam arms at the same time to avoid misalignment of mating parts, and ensure that the arms close properly.

**COACHING POINT:** Release Soldiers 3 and 4 at this time.

**WARNING:** SOLDIERS MUST USE THE PROPER ASSEMBLY TECHNIQUES TO ENSURE THAT THE CAM-LOCK TYPE QUICK DISCONNECT (QDISC) COUPLING HALVES ARE KEPT CLEAN DURING ASSEMBLY.

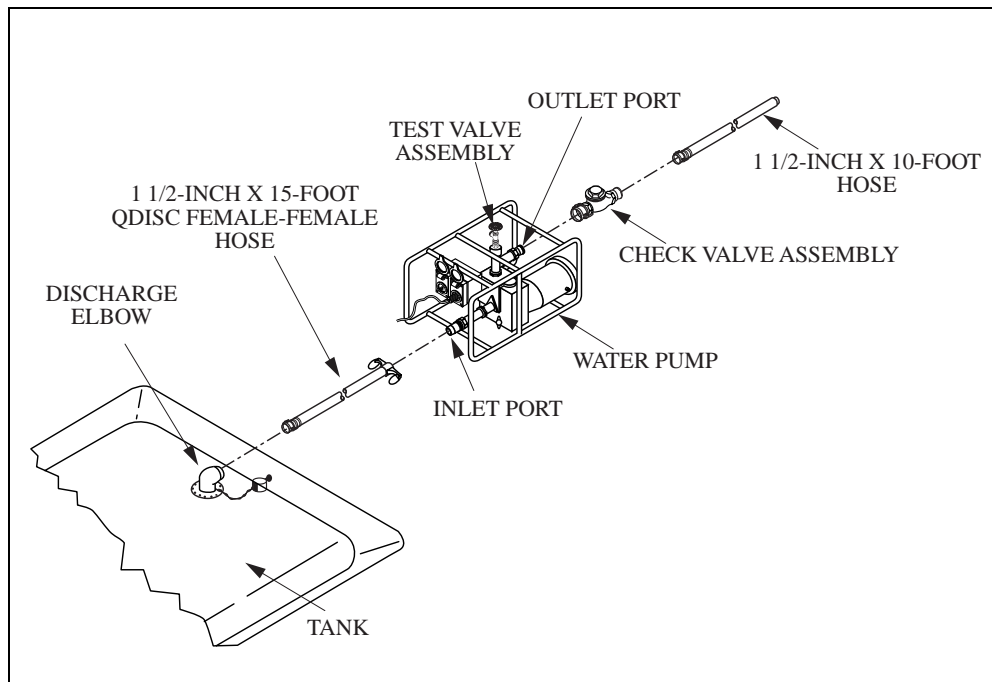
- 5. Soldiers 1 and 2 assemble the fill side of the potable water distribution and storage site by doing the following:
  - a. Connect a 4-inch x 10-foot potable water hose to the filler elbow already installed on the 20,000-gallon tank. See Figure D-3.



**Figure D-3. Fill side of potable water distribution and storage site**

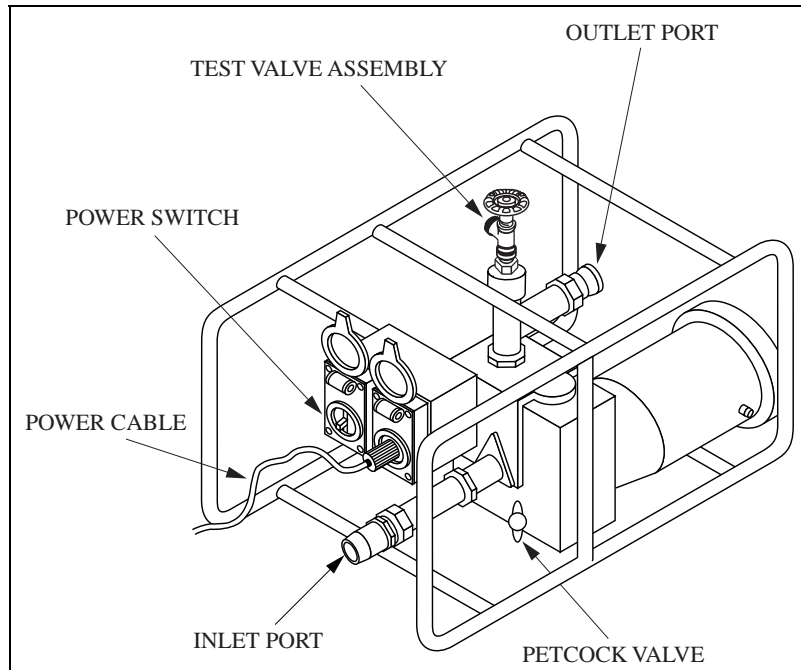
- b. Install the hypochlorinator T-assembly to the end of the hose. See Figure D-3.
- c. Connect the female-male-female T-assembly to the hypochlorination T-assembly, orienting the male fitting so

- that it points toward the discharge side of the tank. See Figure D-3.
- d. Install a gate valve to the opposite side of the female-male-female T-assembly. See Figure D-3.
  - e. Connect a 4-inch x 20-foot potable water hose to the gate valve, extending the hose toward the water source or delivery point and leaving the dust plug in place at the end of the hose until ready to fill the tank. See Figure D-3.
6. Soldiers 1 and 2 assemble the discharge side of the potable water distribution and storage site by doing the following:
- a. Connect the 1½-inch x 15-foot QDISC female-female potable water hose assembly to the 1½-inch reducer fitting on the discharge elbow already installed on the 20,000-gallon tank. See Figure D-4.



**Figure D-4. Discharge side of potable water distribution and storage site (1)**

- b. Install the electric water pump assembly by doing the following:
  - (1) Position the electric water pump assembly on the discharge side of the tank. See Figure D-1.
  - (2) Connect the 1½-inch x 15-foot QDISC female-female potable water hose to the inlet port of the pump. See Figure D-4.
  - (3) Remove the threaded plug from the priming port of the pump and store it for later use. See Figure D-5.



**Figure D-5. Electric water pump assembly**

- (4) Install the test valve assembly into the priming port where the threaded plug was removed, ensuring that the valve is left closed. See Figure D-5.
- (5) Install the check valve assembly into the pump's discharge port. See Figure D-4.
- (6) Connect a 1½-inch x 10-foot potable water hose to the check valve assembly. See Figure D-4.

c. Install the expansion tank assembly by doing the following:

- (1) Position the expansion tank assembly with its attached cross fitting. See Figure D-1.
- (2) Connect the 1½-inch x 10-foot potable water hose from the water pump to the female QDISC fitting of the expansion tank assembly's cross fitting. See Figure D-6.
- (3) Connect another 1½-inch x 10-foot potable water hose to the male QDISC fitting of the expansion tank assembly's cross fitting. See Figure D-6.

7. Soldiers 1 and 2 install the recirculation loop of the potable water distribution and storage site by doing the following:
  - a. Connect the recirculation T-assembly to the end of the 1½-inch x 10-foot potable water hose from the expansion tank assembly installed in Step 6c, above. See Figures D-6 and D-7.

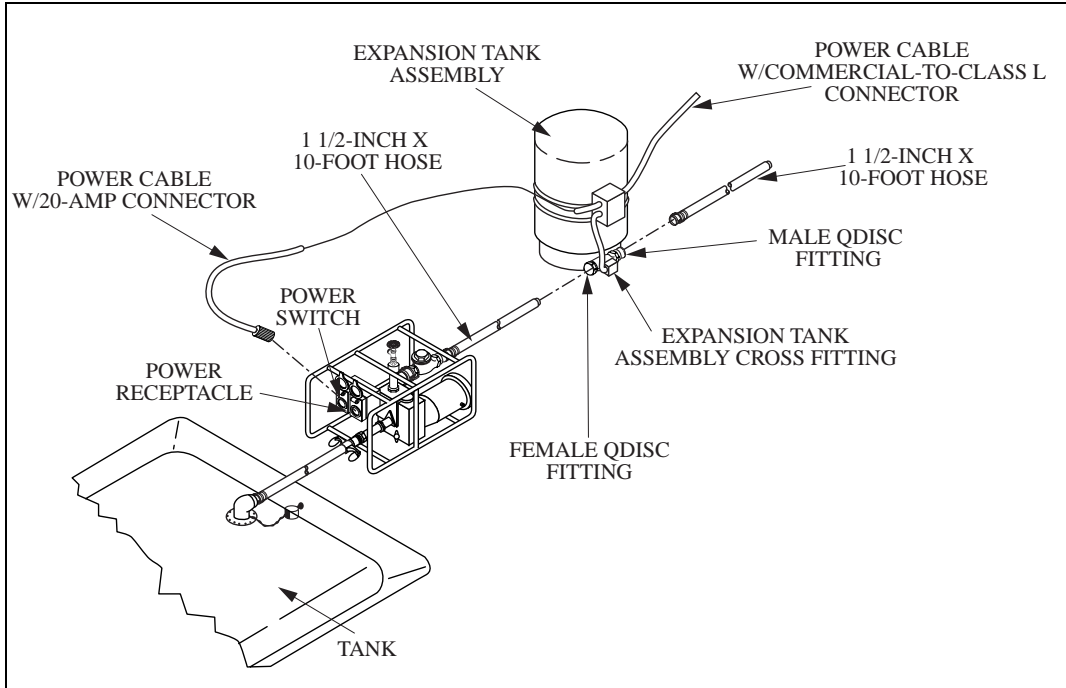


Figure D-6. Discharge side of potable water distribution and storage site (2)

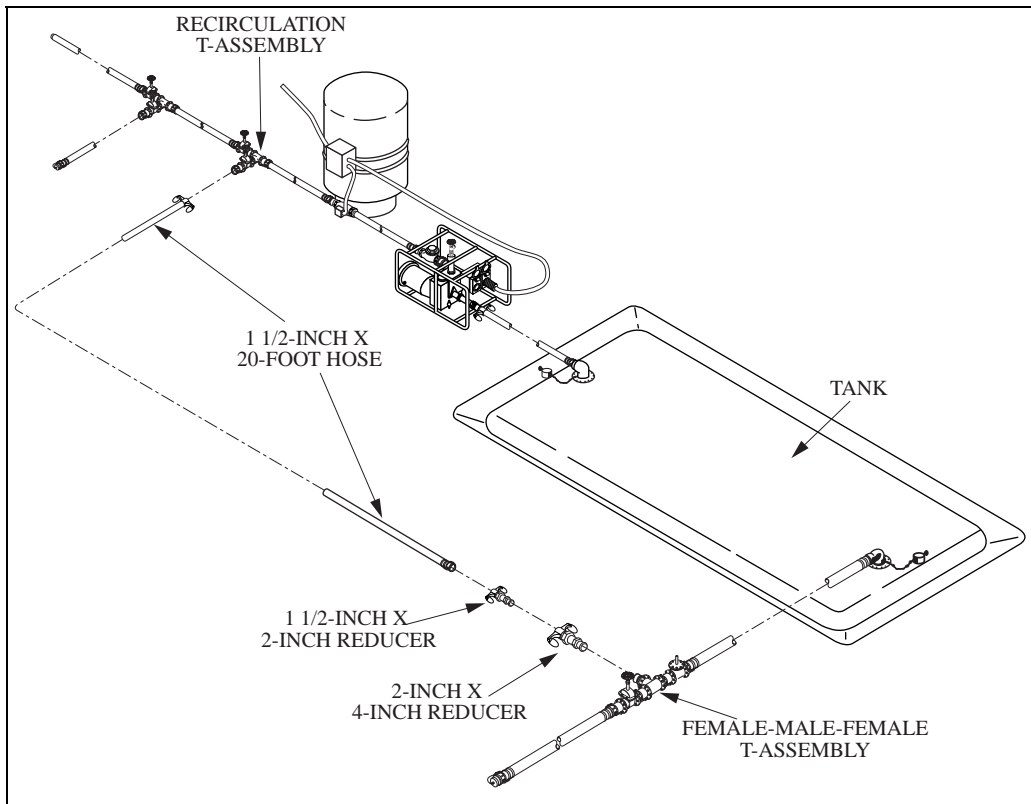
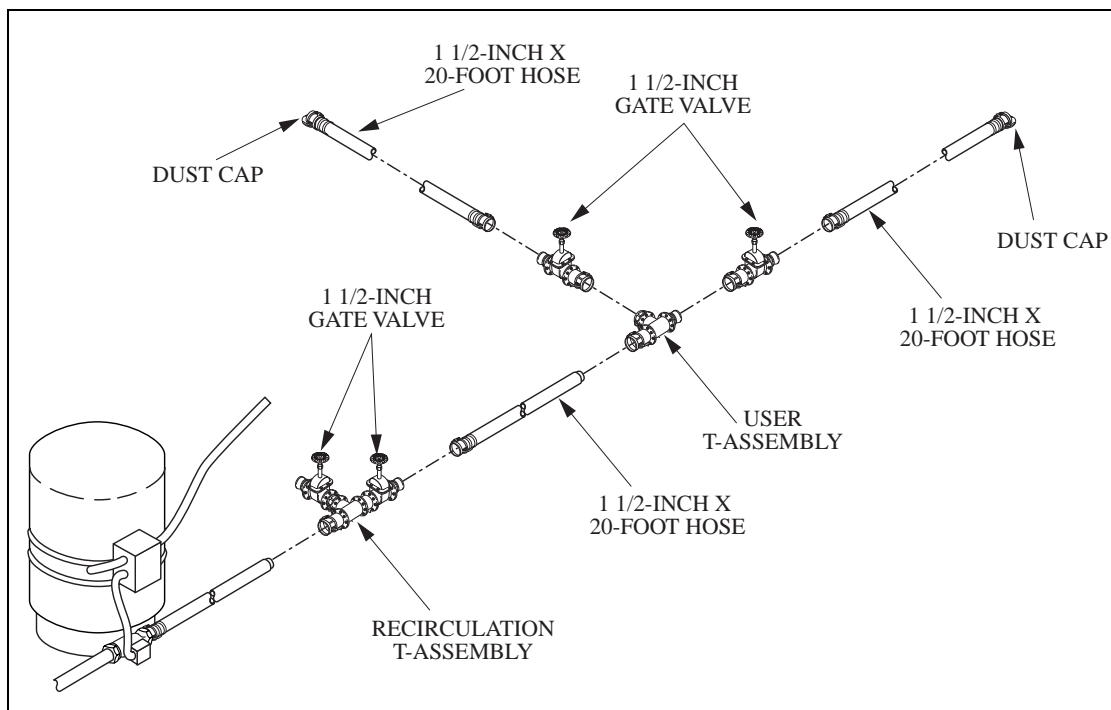


Figure D-7. Recirculation loop of potable water distribution and storage site

- b. Install two 1½-inch gate valves to the recirculation T-assembly (one on the side and the other on the end opposite the expansion tank assembly). See Figures D-7 and D-8.
  - c. Connect four 1½-inch x 20-foot potable water hoses from the side gate valve on the above recirculation T-assembly and extend the hoses back toward the fill side of the tank. See Figure D-7.
  - d. Install a 1½-inch x 2-inch reducer and a 2-inch x 4-inch reducer onto the open end of the fourth potable water hose. See Figure D-7.
  - e. Connect the 2-inch x 4-inch reducer to the female-male-female T-assembly installed on the fill side of the tank installed in Step 5, above. See Figure D-7.
8. Soldiers 1 and 2 extend the potable water supply to user connection point(s) by doing the following:
- a. Connect a 1½-inch x 20-foot potable water hose to the recirculation T-assembly. See Figure D-8.



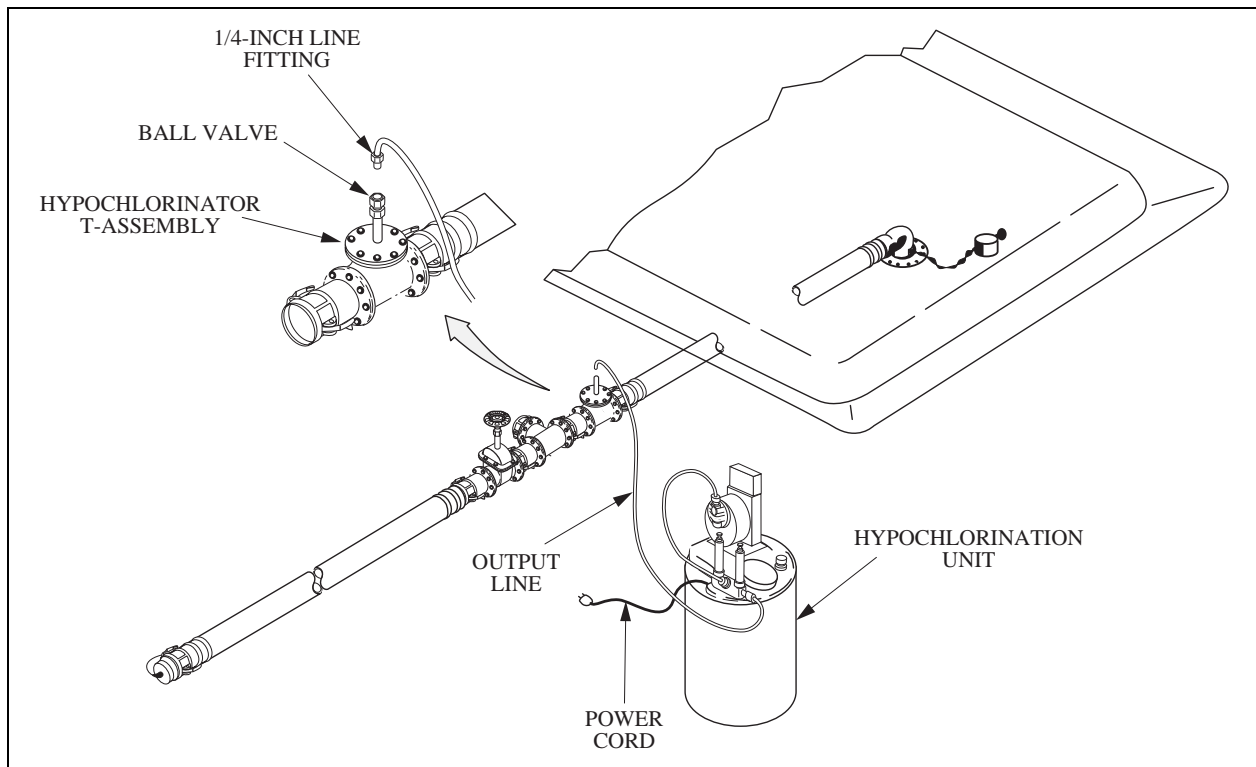
**Figure D-8. Water supply layout to user connection point(s)**

- b. Install a female-male-male user T-assembly to the opposite end of the above 1½-inch x 20-foot potable water hose. See Figure D-8.
- c. Install a 1½-inch gate valve onto each male QDISC coupling half of the user T-assembly. See Figure D-8.

- d. Connect as many 1½-inch x 20-foot potable water hoses as needed to extend from the gate valves to the staked potable water user connection point(s), leaving the dust caps on the end of the water hose(s) in place until ready to make the connection to the user facility.

**NOTE:** Personnel from each FP subsystem serviced by the potable water distribution and storage site make the connections from the staked connection point(s) to their facilities. Water Distribution Section personnel offer technical assistance when there are unique circumstances or deviations from the standard FP module layout.

9. Soldiers 1 and 2 install the hypochlorination unit to the fill side of the tank site by doing the following:
- Identify the hypochlorinator T-assembly installed in Step 5, above. See Figures D-3 and D-9.



**Figure D-9. Hypochlorination unit installation**

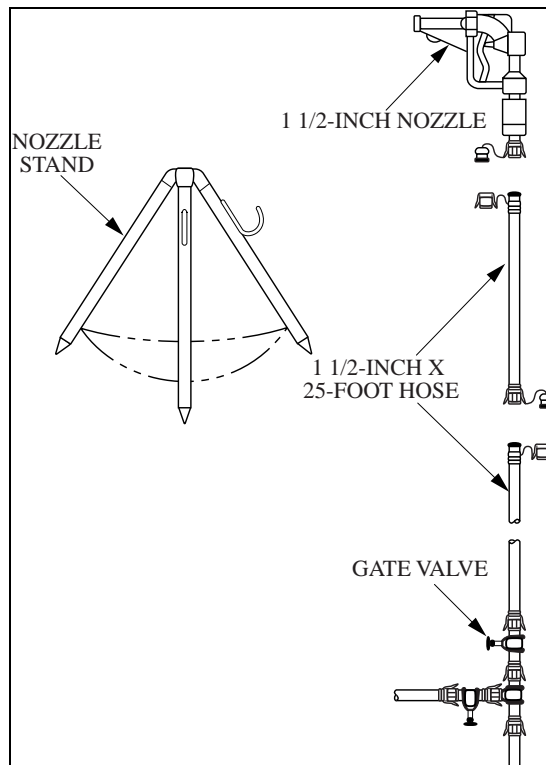
- Position the hypochlorination unit on stable ground close to the hypochlorinator T-assembly.
- Extend the output line from the hypochlorinator to the T-assembly. See Figure D-9.



- d. Thread the ¼-inch output line fitting onto the ball valve of the T-assembly, tightening the fitting. See Figure D-9.

10. Soldiers 1 and 2 assemble a nozzle kit by doing the following:

- a. Assemble a large nozzle kit at the designated location by
  - (1) Ensuring the gate valve at the male QDISC coupling half of the user T-assembly installed in Step 8, above, is closed. See Figure D-8.
  - (2) Positioning the nozzle stand at the designated location.
  - (3) Connecting a series of 1½-inch x 25-foot discharge hoses from the gate valve, above, to the nozzle stand. See Figure D-10.

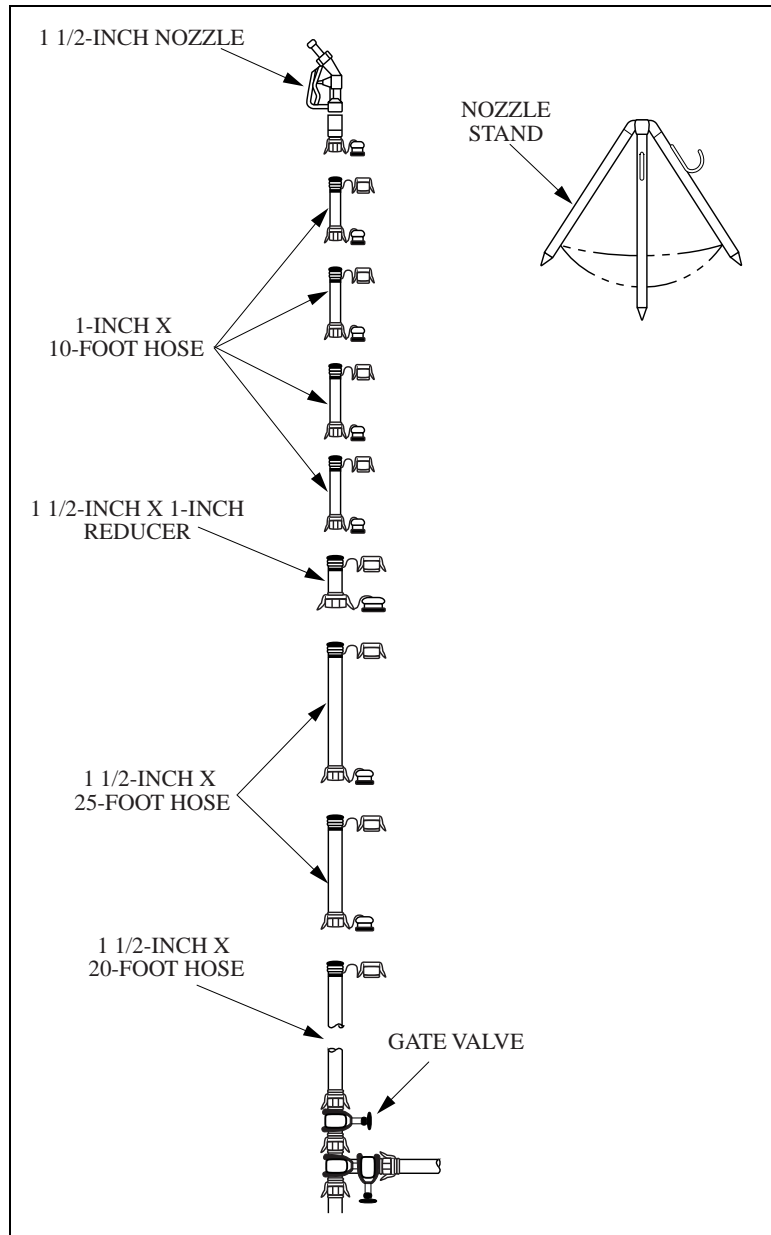


**Figure D-10. Large nozzle kit connection**

- (4) Connecting a 1½-inch nozzle to the end of the free end of the discharge hose at the nozzle stand. See Figure D-10.
- (5) Placing the nozzle on the nozzle stand.
- (6) Ensuring all loose dust caps are connected together.

b. Assemble a small nozzle kit at the designated location by-

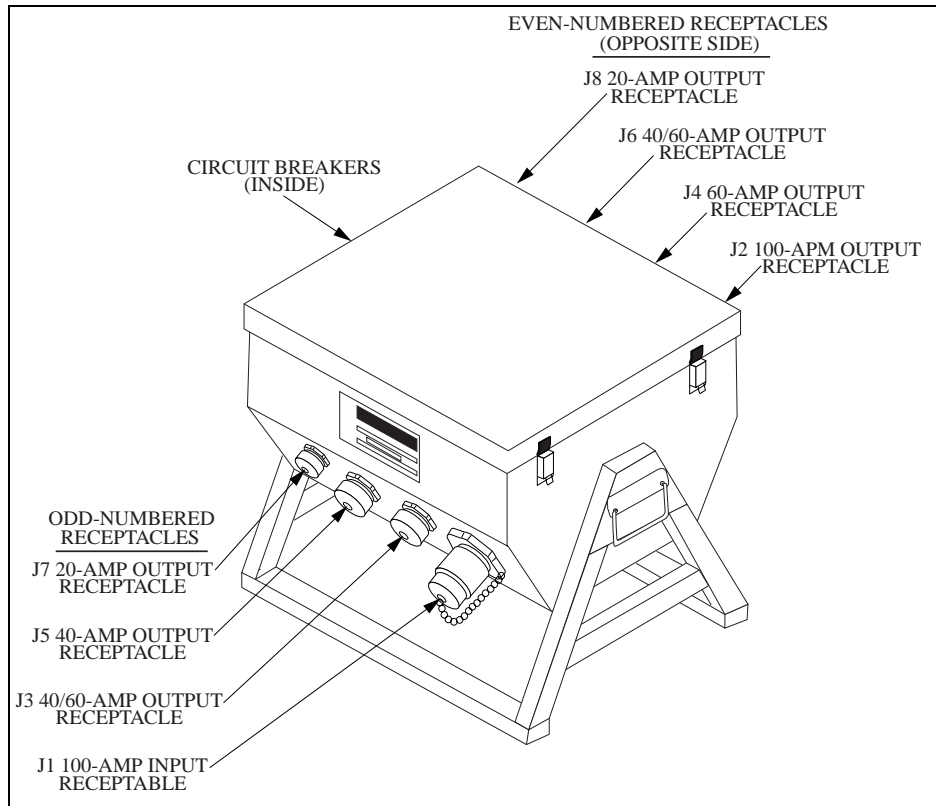
- (1) Ensuring the gate valve at the male QDISC coupling half of the T-assembly installed in Step 8, above, is closed. See Figure D-8.
- (2) Positioning the nozzle stand at the designated location.
- (3) Connecting a series of two 1½-inch x 25-foot discharge hoses, a 1½-inch x 1-inch reducer, and four 1-inch x 10-foot discharge hoses. See Figure D-11.
- (4) Connecting a 1-inch nozzle to the end of the free end of the discharge hose at the nozzle stand. See Figure D-11.



**Figure D-11. Small nozzle kit connection**

- (5) Placing nozzle on the nozzle stand.
- (6) Ensuring all loose dust caps are connected together.

11. Soldiers 1 and 2 make the electrical connections to the potable water distribution and storage site by doing the following:
  - a. Locate and identify the PDISE-M100 that supports the potable water distribution and storage site.
  - b. Check that the circuit breakers inside the PDISE-M100 for the 20-amp and 40- or 60-amp receptacle assigned to the site are in the OFF position. See Figure D-12.



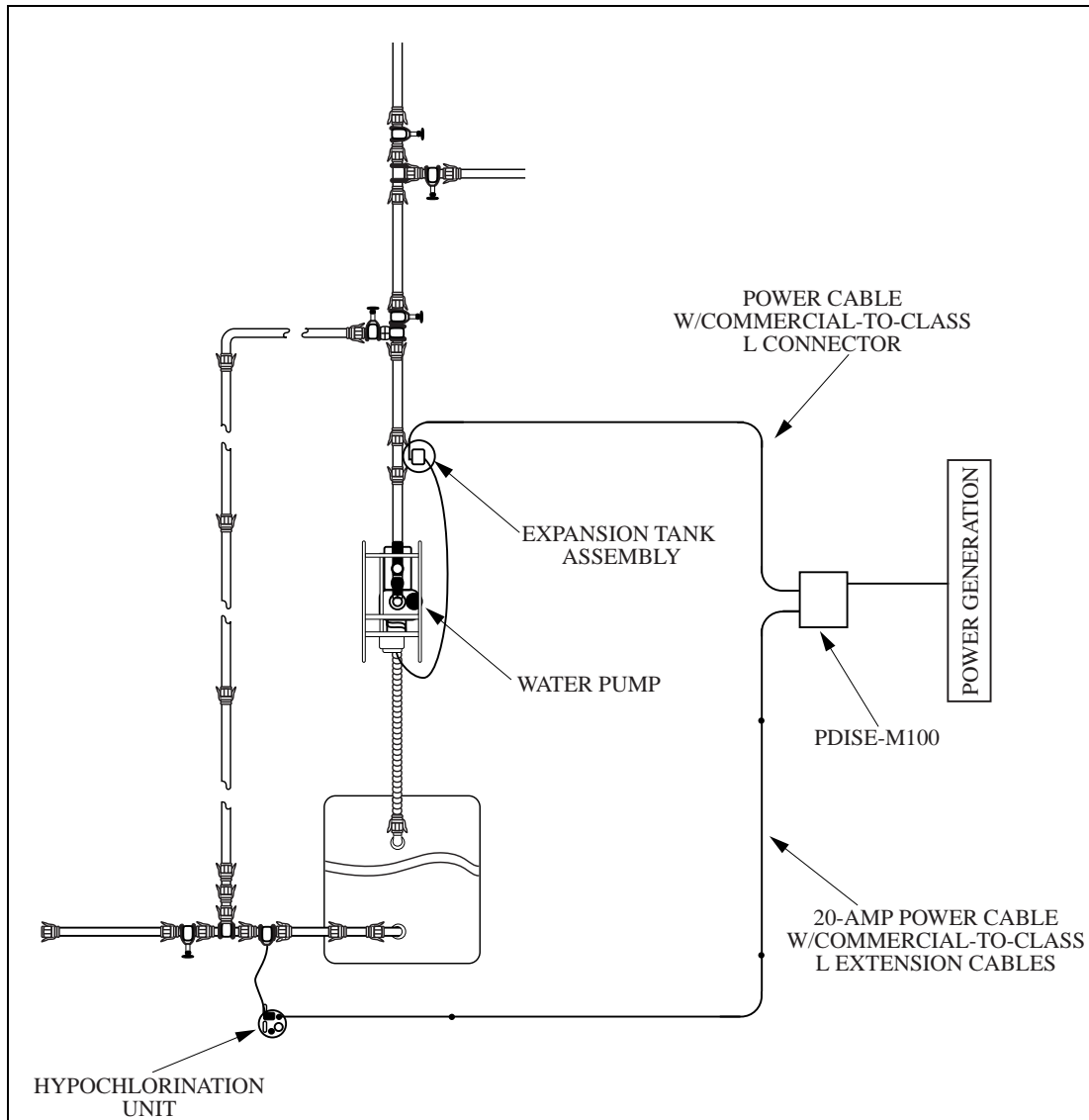
**Figure D-12. PDISE-M100 input and output receptacles**

- c. Lay out the power cable with the commercial-to-class L connector from the expansion tank assembly toward the PDISE-M100. See Figure D-13.
- d. Check that the electric water pump power switch is OFF. See Figure D-5.
- e. Check that the metering pump control unit on top of the hypochlorination unit is OFF (toggle switch in the EXTERNAL CONTROL [OFF] position).
- f. Connect the power cable with the 20-amp connector from the expansion tank assembly to the power receptacle of the electric water pump. See Figures D5, D-6, and D-13.

**COACHING POINT:** Commercial-to-class L extension cable(s) may be required to extend power to the hypochlorination unit from the PDISE-M100 J7 or J8 20-amp output receptacle, depending on the distance of the hypochlorination unit from the PDISE-M100.

- g. Connect the power cable with the commercial-to-class L connector from the expansion tank assembly to a 40- or 60-amp output receptacle (J3, J4, J5, or J6) on the PDISE-M100. See Figure D-12.
- h. Connect the 20-amp power cable (with commercial-to-class L extension cables, if used) from the hypochlorination

unit to the J7 or J8 20-amp output receptacle on the PDISE-M100. See Figures D-9 and D-12.



**Figure D-13. Power cable layout at potable water distribution and storage site**

**WARNING:** CALCIUM HYPOCHLORITE IS TOXIC TO SKIN AND EYES. WARN SOLDIERS THAT THEY MUST NOT INGEST OR INHALE CALCIUM HYPOCHLORITE DUST PARTICLES. SOLDIERS MUST STAND UPWIND WHEN HANDLING CALCIUM HYPOCHLORITE GRANULES. SOLDIERS MUST WEAR EYE PROTECTION, PROTECTIVE APRON, AND GLOVES TO PROTECT EYES, EARS, AND SKIN AND TO AVOID DIRECT CONTACT WHEN WORKING WITH CALCIUM HYPOCHLORITE. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY TO PERSONNEL FROM CONTACT WITH THE GRANULES OR THEIR DUST PARTICLES. **FIRST AID:**

TAKE THE FOLLOWING ACTIONS IN CASE OF CONTACT WITH CALCIUM HYPOCHLORITE:

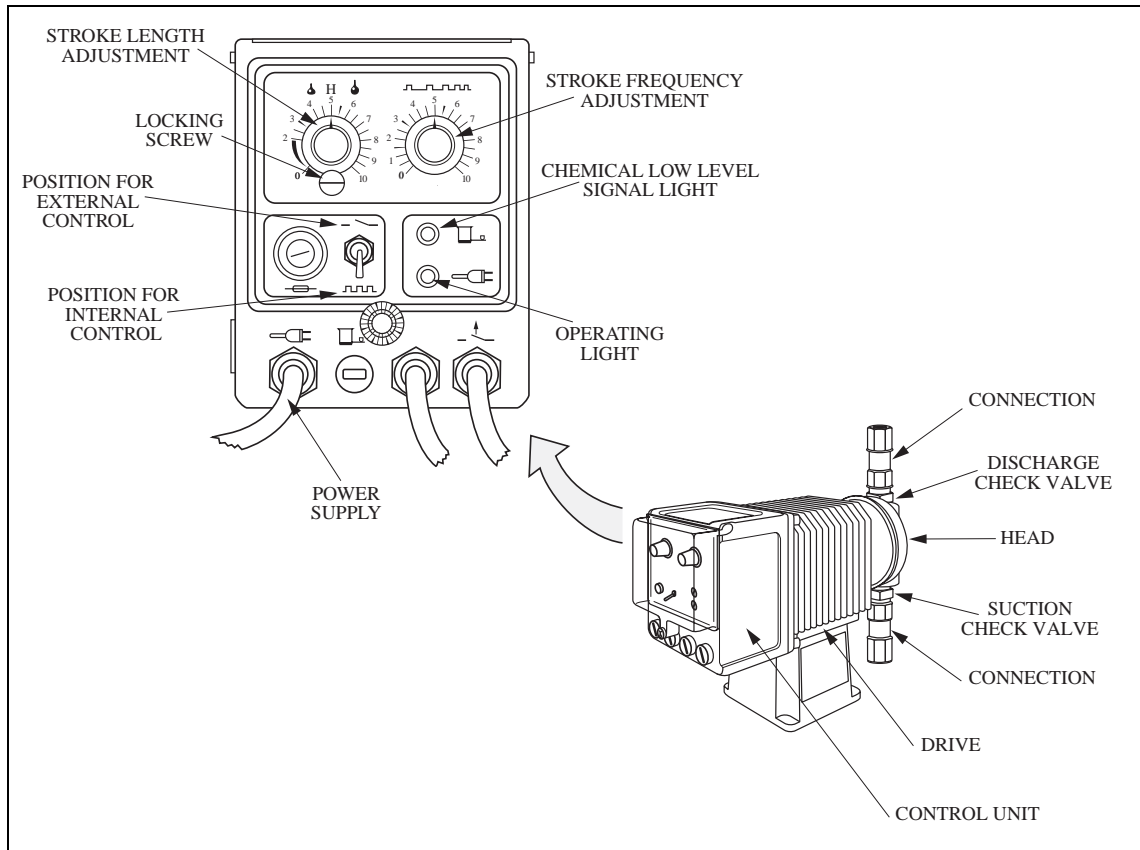
- EYE CONTACT: PROMPTLY FLUSH THE EYES WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL HELP PROMPTLY.
- SKIN CONTACT: PROMPTLY BRUSH OFF EXCESS AND FLUSH WITH WATER FOR 15 MINUTES. SEEK MEDICAL HELP PROMPTLY. WASH ALL CONTAMINATED CLOTHING BEFORE REUSE.
- INGESTION: IMMEDIATELY DRINK LARGE QUANTITIES OF WATER AND ANY COMMON COOKING OIL. DO NOT INDUCE VOMITING. SEEK MEDICAL HELP PROMPTLY.
- INHALATION: REMOVE VICTIM TO FRESH AIR. OBTAIN RESPIRATOR, IF NEEDED. SEEK MEDICAL HELP PROMPTLY. SEE FM 21-11, *FIRST AID FOR SOLDIERS*, FOR ARTIFICIAL RESPIRATION INSTRUCTIONS.

**COACHING POINT:** The toggle switch EXTERNAL CONTROL (up) position is in the OFF position for this hypochlorination unit.

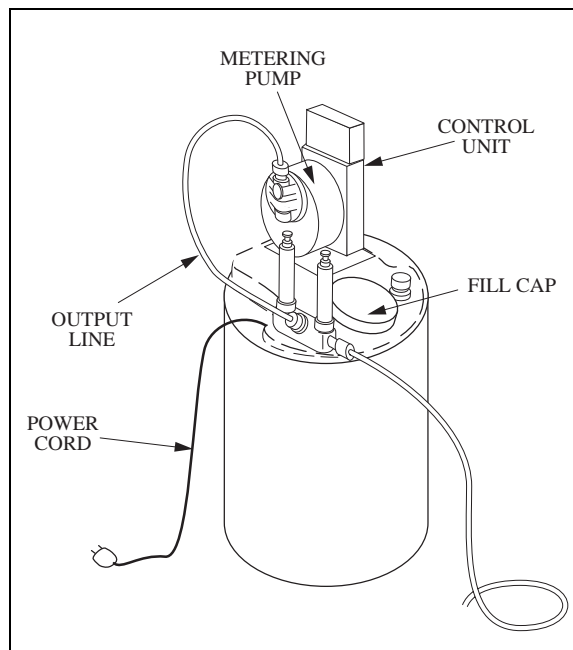
12. Soldiers 1 and 2 prepare the hypochlorination unit for operations by doing the following:

- a. Ensure the toggle switch on the metering pump control unit is placed to the EXTERNAL CONTROL (up) position. See Figure D-14.
- b. Add approximately 15 pounds of calcium hypochlorite to a 5-gallon bucket of potable water and mix until the granules dissolve.
- c. Remove the fill cap from the top of the hypochlorination unit. See Figure D-15.
- d. Add the calcium hypochlorite solution the 100-liter hypochlorination unit tank, mixing with the unit's hand mixer, and fill the tank to 50-liter mark with potable water.
- e. Replace fill cap. See Figure D-15.
- f. Loosen the locking screw on metering pump control unit. See Figure D-14.
- g. Set stroke length to "10." See Figure D-14.
- h. Re-tighten locking screw. See Figure D-14.
- i. Set stroke frequency to "10." See Figure D-14.
- j. Set the PDISE-M100 circuit breaker for the J7 or J8 20-amp output receptacle (whichever is connected to the hypochlorination unit) to the ON position.

**COACHING POINT:** The toggle switch in the INTERNAL CONTROL (down) position is the ON position for this hypochlorination unit.

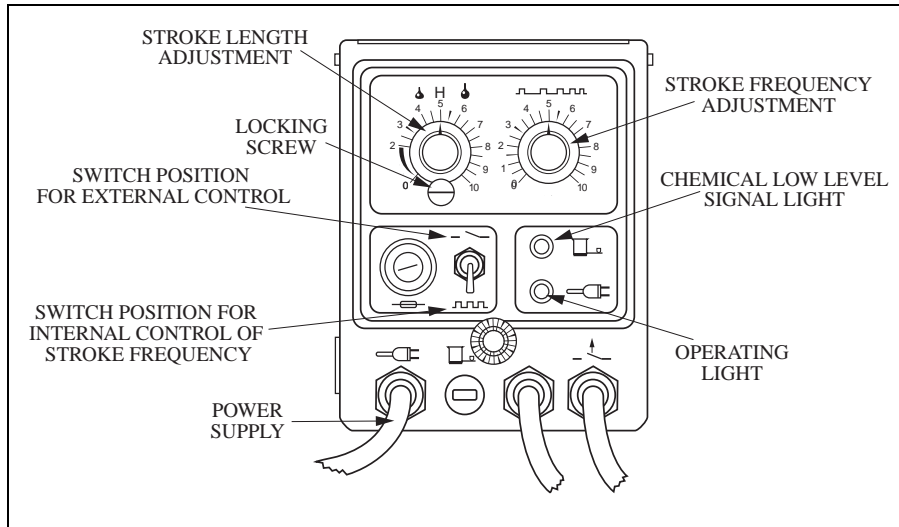


**Figure D-14. Metering pump control unit on top of hypochlorination unit**



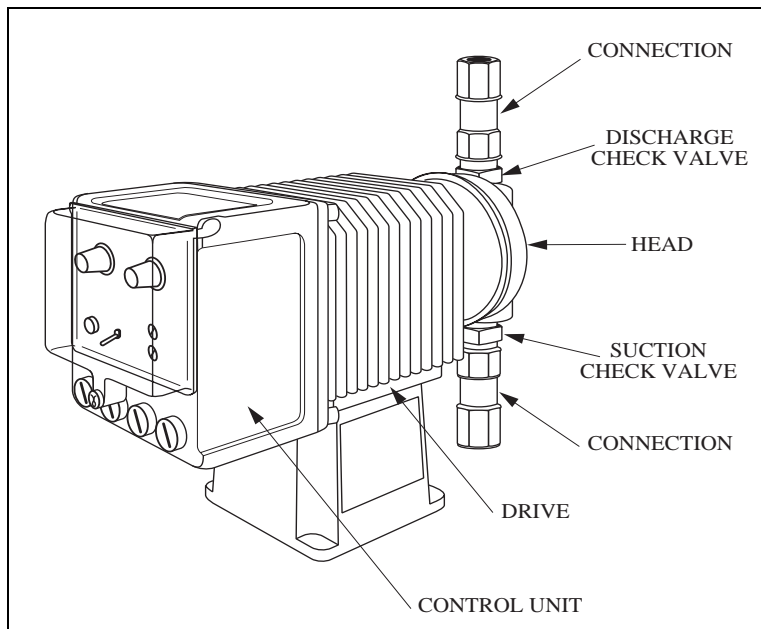
**Figure D-15. Hypochlorination unit components**

- k. Place the toggle switch to the INTERNAL CONTROL (down) position and observe for priming of the metering pump. See Figure D-16.



**Figure D-16. Control panel for metering pump control unit**

1. If the pump does not prime, then
  - (1) Place the toggle switch on the metering pump control unit to the EXTERNAL CONTROL (up) position. See Figure D-16.
  - (2) Detach the discharge check valve. See Figure D-17.



**Figure D-17. Metering pump control unit**



- (3) Pour potable water or chemical solution from Substep d, above, directly into the pump head. See Figure D-17.
  - (4) Replace the discharge check valve. See Figure D-17.
  - (5) Place the toggle switch on the metering pump control unit to the INTERNAL CONTROL (down) position, allowing the pump to prime again. See Figure D-16.
  - (6) Check for the flow of the solution through the metering pump and reprime the pump, if necessary.
- m. When the metering pump is primed, place the toggle switch on the metering pump control unit to the EXTERNAL CONTROL (up) position that turns the unit OFF. See Figure D-16.

DRILL LEADER ISSUES INSTRUCTIONS TO PERFORM PREOPERATIONS CHECKS.

13. Soldiers 1 and 2 perform initial checks on the potable water distribution and storage subsystem by doing the following:
- a. Check QDISC coupling halves for leaks, tightness, and cracked, bent, or broken locking arms.
  - b. Check suction and discharge hoses for cuts, tears, and deep abrasions.
  - c. Check T-assemblies for cracks, breaks, and severe corrosion.
  - d. Check gate valves for loose or missing handwheels.
  - e. Check that all gate valves in the potable water distribution and storage site are closed.
  - f. Check that all unused potable water supply hoses remained capped with dust caps or plugs.
  - g. Check for damaged or loose electrical cables or connections.
14. Soldiers 1 and 2 power up the potable water distribution and storage site by doing the following:
- a. Set the circuit breakers in the PDISE-M100 to the ON position. See Figure D-12.
  - b. Prime the electric water pump with potable water through its priming port. See Figure D-5.
  - c. Set the power switch on the electric water pump to the ON position. See Figure D-5.
  - d. Visually check that the impeller on the pump rotates in the direction of the arrow on the housing.
  - e. If the impeller rotates in the wrong direction, then turn OFF the power switch and notify the drill leader.

**NOTE:** Notify the Facilities Support Section to correct the power phasing of the power group or water pump.

- f. Turn the electric water pump power switch OFF. See Figure D-5.

**NOTE:** The potable water distribution and storage site must be sanitized IAW Technical Bulletin Medical (TB Med) 577, *Sanitary Control and Surveillance of Field Water Supplies*. Soldiers must coordinate with the Preventive Medicine NCO to check the site prior to beginning water distribution and supply operations.

15. Soldiers 1 and 2 receive potable water by doing the following:

- a. Record the geographic source of the potable water in the appropriate water supply record or log.

**NOTE:** It takes six hours and 40 minutes to remove or recirculate all water in the 20,000-gallon tank. Consequently, test and treat the potable water as it is delivered to the tank.

- b. Test the residual chlorine level of the potable water using the WQAD-P or other suitable test kit at the delivery source (tanker or municipal water system).
- c. Based on the test results, adjust the hypochlorination unit accordingly to achieve a residual chlorine level in the tank of 2.5 ppm.

**COACHING POINT:** A new 20,000-gallon tank will absorb some chlorine. If this is the first use of the tank, additional chlorination may be required to achieve the target of 2.5 ppm residual chlorine level in the tank.

16. Soldiers 1 and 2 start the hypochlorination unit by doing the following:

- a. Loosen the locking screw on the metering pump control unit. See Figure D-16.

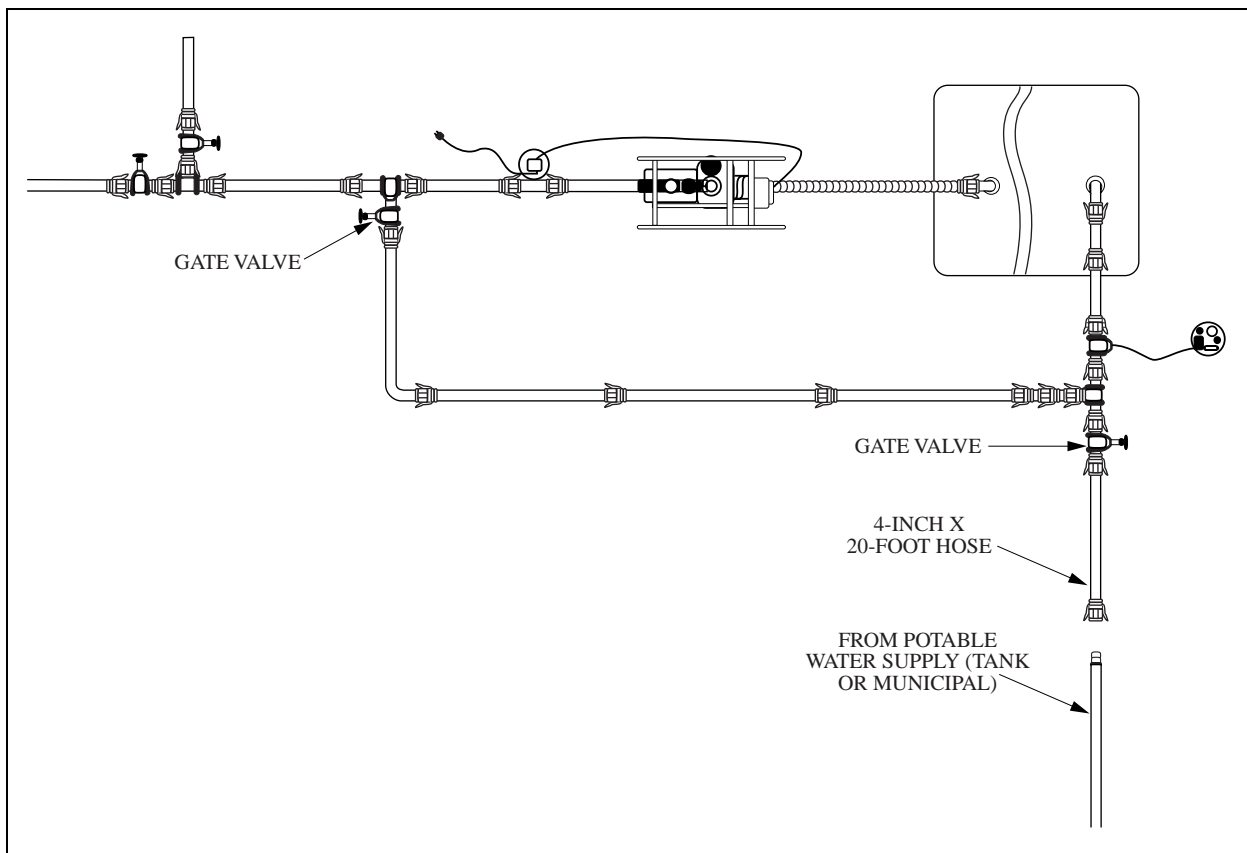
**NOTE:** The following pump stroke length and frequency settings should produce a chlorine level of 2.5 ppm at an expected flow rate of 200 gallons per minute. The actual chlorine level must be confirmed by testing.

- b. Set the stroke length to 7.5 on the meter. See Figure D-16.
- c. Tighten the locking screw.
- d. Set the stroke frequency to 7.5 on the meter. See Figure D-16.
- e. Place the toggle switch on the metering pump control unit to the INTERNAL CONTROL (down) position and observe that the metering pump starts the chemical solution through the line to the hypochlorinator T-fitting. See Figures D-9 and D-16.

- f. If the tested chlorine level is less than 2.5 ppm, then increase the stroke setting or increase the chemical concentration in the hypochlorination unit at the next chemical fill, and follow the instructions in the hypochlorination unit's commercial technical manual.
- g. If the tested chlorine level is higher than 2.5 ppm, then decrease the stroke settings and follow the instructions in the hypochlorination unit's commercial technical manual

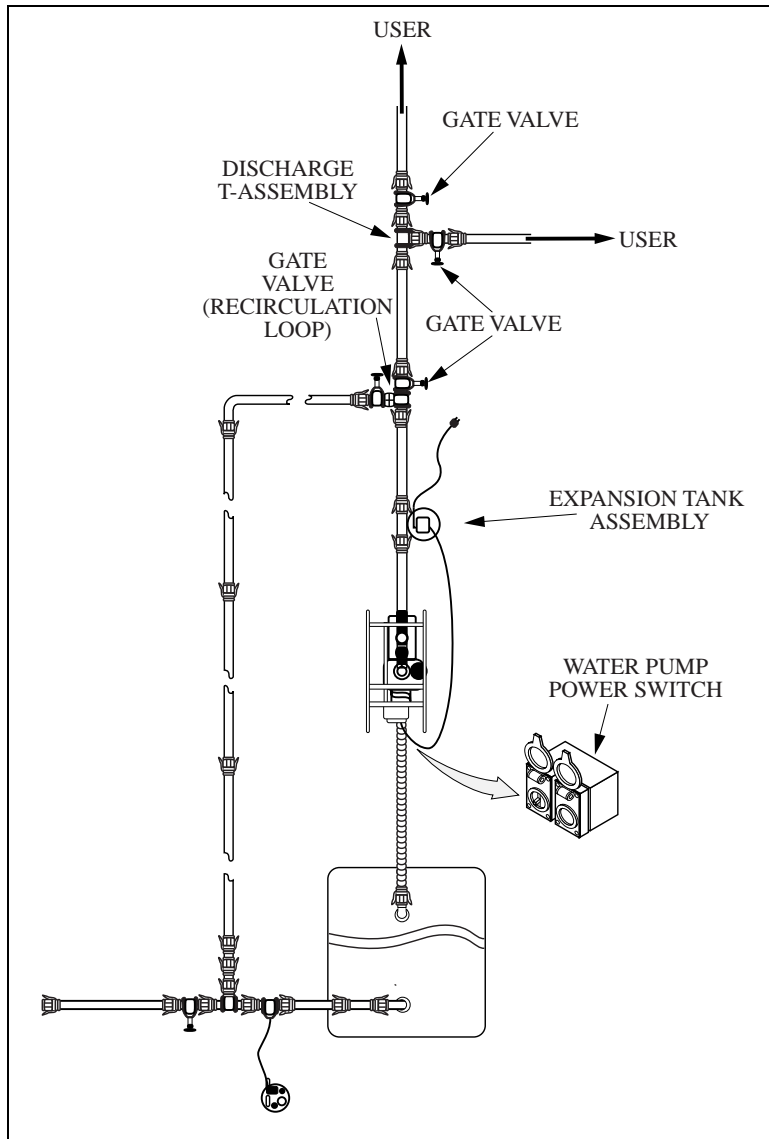
**COACHING POINT:** The tank should be filled with at least 5,000 gallons of potable water (tank height of approximately one foot) for initial operation and checks.

- 17. Soldiers 1 and 2 fill the 20,000-gallon collapsible fabric storage tank with approximately 5,000 gallons of potable water by doing the following:
  - a. Locate the appropriate adapter in the potable water accessory kit to connect the delivery tanker or municipal water system to the 4-inch x 20-foot potable water hose on the fill side of the site. See Figure D-18.



**Figure D-18. Potable water distribution and storage site fill connections**

- b. Ensure the gate valve on the fill side and the gate valve on the recirculation loop are closed. See Figure D-18.
  - c. Connect the water supply main (from the tanker or municipal system) to the 4-inch x 20-foot potable water hose on the fill side of the site, connecting or protecting the dust plug that was removed from the 20-foot water hose to make the connection.
  - d. Open the gate valve on the fill side. See Figure D-18.
  - e. Fill tanks to one foot in height (approximately 5,000 gallons) and then close the gate valve on the fill side when complete. See Figure D-18.
  - f. Disconnect the water supply main from the 4-inch x 20-foot potable water hose on the fill side of the site and then reinstall the dust plug.
18. Soldiers 1 and 2 perform the initial operation of the potable water distribution and storage site by doing the following:
- a. Check that the electric water pump is primed. See Step 14, above.
  - b. Ensure the gate valve on the user side of the discharge side T-assembly is closed. See Figure D-19.



**Figure D-19. Location of valves and assemblies for operations**

- c. Open the gate valve to the recirculation loop. See Figure D-19.

**NOTE:** The expansion tank switch will cycle the electric water pump on and off automatically in response to the water pressure in the system and user demand.

- d. Check that the electric water pump recirculates water through the recirculation loop until the expansion tank assembly is full, at which time it will automatically stop the electric water pump.
- e. Inspect the recirculation loop and fill side of the site for leaks, taking corrective action to turn the pump OFF

and repair or replace hoses or connections as necessary, and turning the pump back ON when repairs are completed.

**COACHING POINT:** Tell soldiers that they must not open gate valves to user facilities or nozzle kits until the user connections have been made and users are ready to accept water.

- f. Ensure gate valves to user supply lines are closed. See Figure D-19.
- g. Open the gate valve on the user side of the discharge T-assembly. See Figure D-19.
- h. Inspect for leaks up to the gate valve on the user side of the discharge T-assembly, taking corrective action to turn the pump OFF and repair or replace hoses or connections as necessary, and turning the pump back ON when repairs are completed.
- i. Close the gate valve to the recirculation loop. See Figure D-19.
- j. Open gate valves to each user facility and nozzle kit slowly, allowing air to escape during the filling process.
- k. Open gate valves to each user facility and nozzle kit completely.
- l. Inspect user facility and nozzle kit for leaks, taking corrective action to turn the pump OFF, close the appropriate user gate valve, repair or replace hoses or connections as necessary, turn the pump back ON when repairs are complete, and reopen the appropriate user gate valve.
- m. Close the user facility and nozzle gate valves when water displaces the air in the lines.

**WARNING:** SOLDIERS AT EACH POTABLE WATER SITE MUST COORDINATE WITH PREVENTIVE MEDICINE NCO TO CERTIFY THE SITE. FAILURE TO HAVE THE SITE CERTIFIED MAY RESULT IN DEATH OR SICKNESS TO PERSONNEL FROM A CONTAMINATED WATER SUPPLY.

**COACHING POINT:** Assume the role of Preventive Medicine NCO to certify the site or direct corrective action so that the site can be certified IAW TB Med 577.

19. Soldiers 1 and 2 sanitize the potable water distribution and storage site by doing the following:
  - a. Take corrective actions as required by the results of the TB Med 577 inspection;

**WARNING:** DO NOT FILL THE 20,000-GALLON COLLAPSIBLE FABRIC TANK TO A HEIGHT GREATER THAN FOUR FEET BECAUSE IT MAY CAUSE THE TANK TO RUPTURE INJURING PERSONNEL AND DAMAGING EQUIPMENT.

- b. Fill or refill the 20,000-gallon collapsible fabric tank with potable water to a height of no more than four feet (approximately 20,000 gallons) by following the procedures in Step 17, above.
- c. Check that the gate valves to the user facilities and nozzle kits are closed. See Figure D-19.
- d. Open the gate valve to the recirculation loop. See Figure D-19.
- e. Monitor the water circulating through the recirculation loop.
- f. Test the chlorine levels by doing the following:
  - (1) Use the WQAD-P or other suitable test kit to test the chlorine level at the electric water pump by collecting a sample from the pump's test valve assembly. See Figure D-5.
  - (2) Open the gate valve to each user facility or nozzle kit, taking a sample of the water.
  - (3) Use the WQAD-P or other suitable test kit to test the chlorine level at the user facility or nozzle kit.
- g. Adjust the stroke length and frequency on the hypochlorination unit metering pump to achieve the desired chlorine level of 2 ppm at the test valve of the electric water pump and 1 ppm at the user facilities and nozzles.
- h. Take the following actions when the desired residual chlorine levels are achieved:
  - (1) Open the valves within each user facility serviced by the site, flushing the facilities' potable water lines for three minutes and then closing the valves.
  - (2) Place, but do not immerse, nozzle ends in the nearest sewage ejection pump (SEP) or approved graywater collection point, flushing the nozzle and its lines for three minutes, turning off the nozzle when complete, and replacing it on its stand.
- i. When the preceding actions are complete, inform the drill leader that the site has been sanitized and is ready for certification.
- j. Perform any required corrective action directed by the drill leader so that the site can be certified.

THE DRILL LEADER GIVES THE ORDER TO OPERATE THE POTABLE WATER DISTRIBUTION AND STORAGE SITE.

**NOTE:** The hypochlorination unit is located on the fill side of the potable water distribution and storage site. Continuous recirculation will cause elevated chlorine levels. Bypassing recirculation (by closing the gate valve to the recirculation loop) can cause depressed chlorine levels. Soldiers operating the potable water distribution and storage site must monitor the chlorine level continuously and adjust the hypochlorination unit to maintain the desired chlorine level.

20. Soldiers 1 and 2 operate the FP potable water distribution and storage site by doing the following:

**COACHING POINT:** The FP hypochlorination unit does not have any chlorine level feedback capability. Operators must monitor chlorine residuals by testing and manually adjust the hypochlorination unit to maintain a safe potable water supply.

- a. Test the chlorine level at the electric water pump test valve assembly. See Figure D-5.
- b. Maintain desired residual chlorine level of 2 ppm at the electric water pump and 1 ppm at each user facility and nozzle by doing the following:
  - (1) Recirculate water through the recirculation loop by opening its gate valve to increase chlorine levels.
  - (2) Adjusting stroke length and frequency at the hypochlorination unit to increase or decrease chlorine levels, following the procedures in the unit's commercial technical manual.
  - (3) Adjust the chemical mixture in the hypochlorination unit to increase or decrease chlorine levels, following the procedures in the unit's commercial technical manual.
- c. Turn off the electric water pump if the potable water distribution and storage site (user facilities or nozzle serviced by the site) will not be used for 24 hours or more, as directed by the drill leader.

**COACHING POINT:** The potable water will not circulate during the period when the electric water pump is turned off. Soldiers must test the chlorine level and adjust it, if necessary, prior to reusing the site.

- d. Monitor the height of the 20,000-gallon collapsible fabric water tank so that it never exceeds four feet high nor drops below six inches in height.
- e. If the height approaches six inches, notify the drill leader that the tank requires refilling.



21. Refill the 20,000-gallon collapsible fabric water tank from the tanker or municipal water system by doing the following:
  - a. Receive the potable water refill by performing the procedures in Step 15, above.
  - b. Adjust the residual chlorine levels of the potable water by performing the procedures in Step 17, above.
  - c. Fill the 20,000-gallon collapsible fabric water tank to a height of four feet (approximately 20,000 gallons) by performing the procedures in Step 17, above.

THE DRILL LEADER GIVES THE ORDER TO PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS).

22. Soldier 1 and 2 perform PMCS on the 20,000-gallon fabric collapsible tank by doing the following:
  - a. Flush the tank exterior and its accessories with potable water to clean off any dirt.
  - b. Inspect the tank for the following:
    - (1) Leaks or punctures in the tank envelope.
    - (2) Damage or leaks to the vent, filler, discharge, and drain assemblies.
    - (3) Damage and leaks to the 4-inch valve and hose assemblies.
  - c. Report damaged components to the drill leader.
23. Soldiers 1 and 2 perform common checks on the potable water distribution and storage site equipment by doing the following:
  - a. Keep equipment and components clean.
  - b. Remove dirt, sand, and debris from all connections.
  - c. Check bolts, nuts, and screws for looseness and bent or broken condition.
  - d. Tighten all loose bolts, nuts, or screws.
  - e. Check hoses and T-assemblies for wear, damage, and leaks.
  - f. Ensure all couplings are tight.
  - g. Tighten all loose fittings and couplings.
  - h. Observe for wet spots or discoloration that indicates a leak and reporting them to the drill leader.
  - i. Inspect suction hoses for signs of collapse.
  - j. Inspect gate valve stems, bonnet, and flange gaskets for leaks.
  - k. Ensure gate valve hand wheels rotate freely.
  - l. Report worn out and broken parts or components to the drill leader.

24. Soldiers 1 and 2 perform periodic maintenance on potable water distribution and storage site components by doing the following:

- a. Perform periodic maintenance on the site's components, IAW TM 10-5419-200-12.
- b. Perform periodic maintenance on the 20,000-gallon tank, IAW TM 5-5430-226-12.
- c. Perform periodic maintenance on the hypochlorination unit, IAW TM 5-4610-228-13/13 & P and its commercial technical manual.
- d. Perform periodic maintenance on the electric water pump, IAW TM 10-3510-220-10.
- e. Perform periodic maintenance on the expansion tank assembly, IAW its commercial technical manual.

25. Soldier 1 or 2 replaces the chemical solution in the hypochlorination unit when the low chemical level light illuminates on the metering pump control unit (see Figure D-15) by following the procedures in Step 12, above.

THE DRILL LEADER GIVES THE ORDER TO SET UP THE COLD WEATHER KIT (CWK) EQUIPMENT FOR A POTABLE WATER DISTRIBUTION AND STORAGE SITE.

**COACHING POINT:** In cold weather temperatures of +32° F and below, soldiers must install the CWK equipment for four potable water distribution and storage sites. For each operational site, soldiers must dismantle the site, erect an eight section (64-foot) TEMPER to house the 20,000-gallon fabric tank, install a layer of extruded polystyrene (a minimum of 2 inches thick) inside the TEMPER floor for the fabric tank, and install two Army Space Heaters (ASHs). Soldiers must also erect a six section (48-foot) TEMPER to house the electric water pump, hypochlorination unit, and expansion tank assembly. Two soldiers have been assigned to install the CWK equipment for the potable water distribution system. Additional two to 16 soldiers are needed to set up the TEMPERS and the 20,000-gallon collapsible fabric tank. After all TEMPERS are set up, 12 of the additional soldiers may be released.

**NOTE:** Soldiers may need to set up additional TEMPERS to house equipment, such as 3,000-gallon collapsible fabric tanks, to keep them from freezing, and to provide shelter when performing maintenance.

26. Soldiers 1 through 4 execute Drill 42-2-D0019, *Dismantle Potable Water Distribution and Storage Site*, except for disassembling the QDISC couplings.

**NOTE:** Hoses that are to be replaced by heat tracer hoses should be stored in the appropriate TRICONS.

**COACHING POINT:** Assign Soldiers 1 through 18 to nine two-soldier teams to set up the eight section (64-foot) TEMPER. When staking the TEMPER to frozen ground, soldiers must use a rotary hammer drill and install the stakes at an angle slightly away from the TEMPER

27. Teams 1 through 9 execute Drill 42-2-D0001, *Set Up the Four-Section TEMPER*, to erect a 64-foot TEMPER to house one 20,000-gallon fabric tank with the following exceptions:
- a. Install a layer of extruded polystyrene on the ground inside the TEMPER.
  - b. Install two ASHs.
  - c. Mark all water hoses and power cables by placing 6-foot stakes 10 feet apart throughout the TEMPER site and connecting them with colored engineer tape.
  - d. Mark smaller components such as electrical distribution boxes and hazard areas such as culverts by placing a sufficient number of 6-foot stakes to identify the area.

**COACHING POINT:** Release Soldiers 15 through 18 (Teams 8 and 9) from the drill at this time.

28. Teams 1 through 7 execute Drill 42-2-D0001, *Set Up the Four-Section TEMPER*, to erect a 48-foot TEMPER to house one electric water pump, one hypochlorinator, and one expansion tank with the following exceptions:
- a. Install a layer of extruded polystyrene on the ground inside the TEMPER.
  - b. Install one ASH.
  - c. Mark all water hoses and power cables by placing 6-foot stakes 10 feet apart throughout the TEMPER site and connecting them with colored engineer tape.
  - d. Mark smaller components such as electrical distribution boxes and hazard areas such as culverts by placing a sufficient number of 6-foot stakes to identify the area

**COACHING POINT:** Release Soldiers 5 through 14 (Teams 3 through 7) from the drill at this time. Release Soldiers 3 and 4 (Team 2) after the 20,000-gallon tank has been set up.

29. Soldiers 1 through 4 follow Steps 1 through 12, above, to set up the potable water distribution and storage site with the following exceptions:
- a. Set up the 20,000-gallon water tank inside the eight section (64-foot) TEMPER.
  - b. Set up the electric water pump, the hypochlorination unit, and expansion tank assembly inside the six section (48-foot) TEMPER.
  - c. Install heat tracer hoses on the discharge side and fill side of the tank, and on the recirculation loop.

**NOTE:** Each subsystem serviced by the site must reposition the main water supply hose and all T-assemblies inside the heated tents to eliminate sections of hoses which could freeze during periods of little or no water use. Each subsystem is responsible for removing all potable water hoses and replacing them with the appropriate size heat tracer hoses. Water Distribution Section personnel offer technical assistance where unique circumstances or deviations from the standard FP layouts occur.

THE DRILL LEADER GIVES THE ORDER TO OPERATE AND MAINTAIN A POTABLE WATER DISTRIBUTION AND STORAGE SITE USING THE CWK EQUIPMENT.

30. Soldiers 1 and 2 execute Drill 42-2-D0002, *Operate and Maintain the Four-Section TEMPER*, to operate and maintain the six and eight section TEMPERs.

31. Soldiers 1 and 2 follow Steps 13 through 25, above, to operate and maintain the potable water distribution and storage site.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

**PERFORM:** When the soldiers can perform this drill according to the standards, their performance should be evaluated by the section leader.

**CREW DRILL 42-2-D0019**  
**Dismantle Potable Water Distribution and Storage Site**

**TASK:** Dismantle potable water distribution and storage site.

**CONDITIONS:** The potable water distribution and storage site is operating in its designated area. Components have been inventoried and inspected for serviceability. Unserviceable components have been tagged and reported to the Force Provider (FP) company or platoon higher HQ. For drill purposes, the site supports only one user subsystem and one nozzle kit. Coordination has been made with the site's users to flush the water lines with highly chlorinated water when the user's subsystem and the site shut down. Two soldiers have been assigned to dismantle the potable water distribution and storage site. Two additional soldiers are available to assist in dismantling and repacking the 20,000-gallon collapsible fabric tank. After the tank is moved to the triple container (TRICON) staging area for repacking, these two additional soldiers are released. Technical documentation, including all applicable technical manuals (TMs) and commercial instructions supplied with the potable water distribution and storage subsystem and components, is available.

**NOTE:** If the cold weather kit (CWK) was installed for operations when the ambient temperature was less than +32° Fahrenheit (F) then, then it must be dismantled with the subsystem (see Steps 18 through 21 of this drill.)

**STANDARD:** The potable water distribution and storage site is dismantled and prepared for movement IAW TM 20-5419-200-12, *Operator's, Unit and Direct Support Maintenance Manual for Force Provider Modules 1 & 2*, and commercial manuals supplied with its components. The potable water distribution and storage site components and equipment meet the sanitation and cleanliness standards for shipment established by higher HQ.

**SUPPORTING INDIVIDUAL TASK:** Prior to executing the drill, the drill leader should be proficient in Soldier Training Publication (STP) tasks 101-540-2004, Supervise Water Analysis Testing, 101-540-2012, and 101-540-2030, Supervise Completion of Water Reports/Logs/Forms, found in STP 10-77W14-SM-TG. Soldiers executing the drill should be proficient in STP tasks Conduct Water Analysis Testing, 101-540-1068 and 101-540-1069, Complete Entries on Water Reports/Logs/Forms, found in STP 10-77W14-SM-TG.

**SETUP INSTRUCTIONS:**

- a. Resources.

(1) One completely set up and operational potable water distribution and storage kit

(2) Four soldiers and a drill leader.

(3) Set up and operational user supply lines to one FP subsystem and one nozzle kit.

(4) One general mechanic's automotive tool kit.

(5) Water Quality Analysis Kit-Purification (WAQD-P).

(6) Calcium hypochlorite granules.

(7) Cleaning supplies (such as mops, cloths, brushes, soap, disinfectant).

(8) One five-ton fork lift to position potable water distribution and storage site components. (One of the soldiers should be qualified to operate the fork lift. If none is qualified, a fork lift operator will be needed.)

(9) Depot shelves, packaging, blocking, bracing tie downs, and dunnage.

(10) Technical documentation, including all applicable TMs and commercial manuals supplied with the FP potable water distribution subsystem components.

(11) One completely set up cold weather kit (CWK), if the water site was operating in sub-freezing temperatures.

b. Training Site. The water storage and distribution site is set up and operating. The site is accessible by fork lift.

c. Unit Instructions. Designate the four soldiers selected to dismantle the site by number (i.e., Soldier 1, Soldier 2, etc.). The residual chlorine level will be temporarily raised to 5 parts per million (PPM) at the start of the drill to support the cleaning and sanitizing of potable and graywater components used by the laundry, shower, and food service subsystems. Direct soldiers to move dismantled components to the vicinity of the storage containers for the potable water subsystem.

#### TALK-THROUGH INSTRUCTIONS:

a. Orientation. This drill trains the Water Distribution Section to dismantle one potable water distribution and storage site correctly. Assign each soldier a different number during subsequent drill iterations so each learns all of the drill steps.

b. Environmental Stewardship. Brief all soldiers on the safety and environmental stewardship requirements for executing this drill. Soldiers must check the supply lines, connections, and pump for leaks and rapidly shut off the pumps if leaks are detected. They must take all preventative measures to protect the environment during the site's dismantling. Spilled calcium hypochlorite granules and calcium hypochlorite solution will be

treated as hazardous waste (HW) and disposed of IAW current directives.

c. Safety. Follow all safety warnings, cautions, and notes as required in TM 10-5419-200-12, *Operator's, Unit, Direct Support and General Support Maintenance Manual for Force Provider*, and all other applicable manuals. Calcium hypochlorite is toxic to skin and eyes. Avoid direct contact with calcium hypochlorite. Do not swallow or inhale calcium hypochlorite dust particles. Stand upwind when handling calcium hypochlorite granules. Wear eye, ear, and skin protection when working with calcium hypochlorite solution. Failure to observe this warning may result in serious injury to personnel contacting calcium hypochlorite. Ensure water hoses and power cables do not come in contact or cross over each other. If water lines must cross, potable water hoses must cross over graywater hoses to avoid possible potable water contamination. If power cables must cross over water lines, ensure the power cables cross over top of the water hoses. Do not lay power cables across access or service roads. Only a qualified technician will disconnect the power distribution illumination systems equipment (PDISE)-M100 from the power source. Ensure that unconnected hose coupling halves do not contact the ground or other surfaces to prevent contamination of the water supply and equipment.

d. Demonstration (optional). If other soldiers from the Water Distribution Section have successfully performed the drill, have them demonstrate the drill. Using the performance measures as a guide, the drill leader should explain what is happening, and why. When the demonstration is completed, the drill leader should summarize what the demonstrating soldiers did.

e. Explanation. The drill leader should use the performance measures as a guide and explain the actions of each soldier in dismantling the potable water distribution and storage site's components and equipment. The drill leader can illustrate steps with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should explain their role in the drill, including the standards for which they are responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

#### WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill should be conducted slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a

deliberate pace on the first iteration as the "walk" phase. Additional iterations of the drill provide practice so that the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the sequence listed, and all soldiers should perform their task steps simultaneously.

b. Initiating Cue. The drill leader issues instructions to dismantle the potable water distribution and storage site. Notify the soldiers that potable water distribution operations have ceased and that users are ready to have their water lines flushed with highly chlorinated water.

Performance Measures:

**NOTE:** Potable water service will be terminated when the supported FP subsystem has ceased operations. The potable water supply lines and tanks, and graywater collection lines and storage tanks, must be flushed with highly chlorinated water prior to dismantling.

**WARNING:** CALCIUM HYPOCHLORITE IS TOXIC TO SKIN AND EYES. WARN SOLDIERS THAT THEY MUST NOT INGEST OR INHALE CALCIUM HYPOCHLORITE DUST PARTICLES. SOLDIERS MUST STAND UPWIND WHEN HANDLING CALCIUM HYPOCHLORITE GRANULES. SOLDIERS MUST WEAR EYE PROTECTION, PROTECTIVE APRON, AND GLOVES TO PROTECT EYES, EARS, AND SKIN AND TO AVOID DIRECT CONTACT WHEN WORKING WITH CALCIUM HYPOCHLORITE. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY TO PERSONNEL FROM CONTACT WITH THE GRANULES OR THEIR DUST PARTICLES. **FIRST AID:** TAKE THE FOLLOWING ACTIONS IN CASE OF CONTACT WITH CALCIUM HYPOCHLORITE:

- EYE CONTACT: PROMPTLY FLUSH THE EYES WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL HELP PROMPTLY.
- SKIN CONTACT: PROMPTLY BRUSH OFF EXCESS AND FLUSH WITH WATER FOR 15 MINUTES. SEEK MEDICAL HELP PROMPTLY. WASH ALL CONTAMINATED CLOTHING BEFORE REUSE.
- INGESTION: IMMEDIATELY DRINK LARGE QUANTITIES OF WATER AND ANY COMMON COOKING OIL. DO NOT INDUCE VOMITING. SEEK MEDICAL HELP PROMPTLY.
- INHALATION: REMOVE VICTIM TO FRESH AIR. OBTAIN RESPIRATOR, IF NEEDED. SEEK MEDICAL HELP PROMPTLY. SEE FM 21-11, *FIRST AID FOR SOLDIERS*, FOR ARTIFICIAL RESPIRATION INSTRUCTIONS.

1. Soldiers 1 and 2 elevate the site's potable water supply residual chlorine level, when directed by the drill leader, to 5 parts per million (ppm) by doing the following:



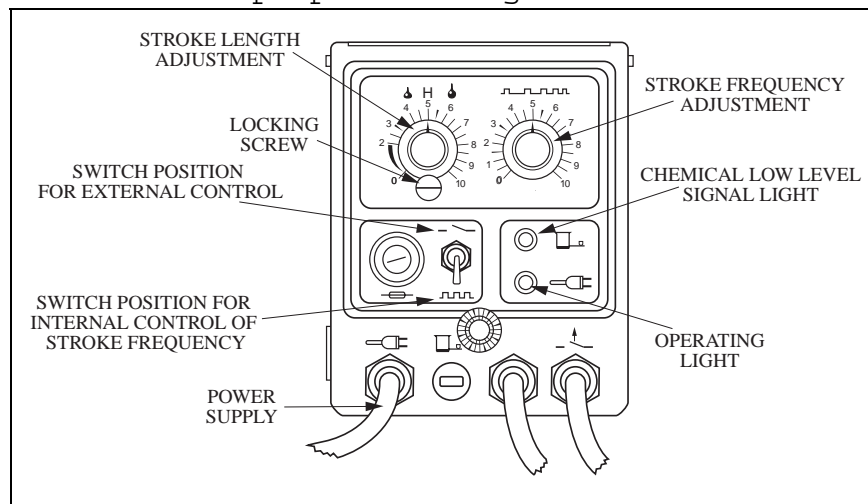
- a. Reduce the water level in the tank to a maximum of 5,000 gallons (tank height of approximately one foot) by draining or transfer to a tanker.
- b. Close the gate valves at the user T-assembly and open the gate valves on the recirculation loop.

**COACHING POINT:** The toggle switch EXTERNAL CONTROL (up) position is the OFF position for this hypochlorination unit.

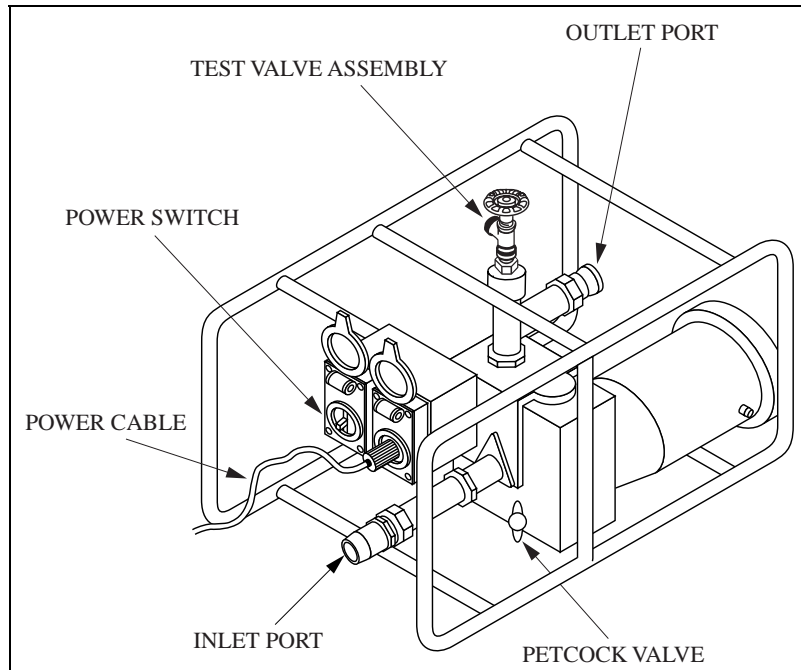
- c. Set the toggle switch on the hypochlorination unit metering pump control unit to the EXTERNAL CONTROL (up) position. See Figure D-20.
- d. Loosen the locking screw on the control unit. See Figure D-20.
- e. Increase the stroke length on the meter. See Figure D-20.
- f. Tighten the locking screw. See Figure D-20.
- g. Increase the stroke frequency on the meter to the same reading as the stroke length. See Figure D-20.
- h. Place the toggle switch on the metering pump control unit to the INTERNAL CONTROL (down) position.

**COACHING POINT:** The target residual chlorine level in the tank is 5 ppm at the test valve on the electric water pump. The actual chlorine level must be confirmed by testing.

- i. Test the chlorine level using the WQAD-P or other suitable test kit at the test valve assembly on the electric water pump. See Figure D-21.

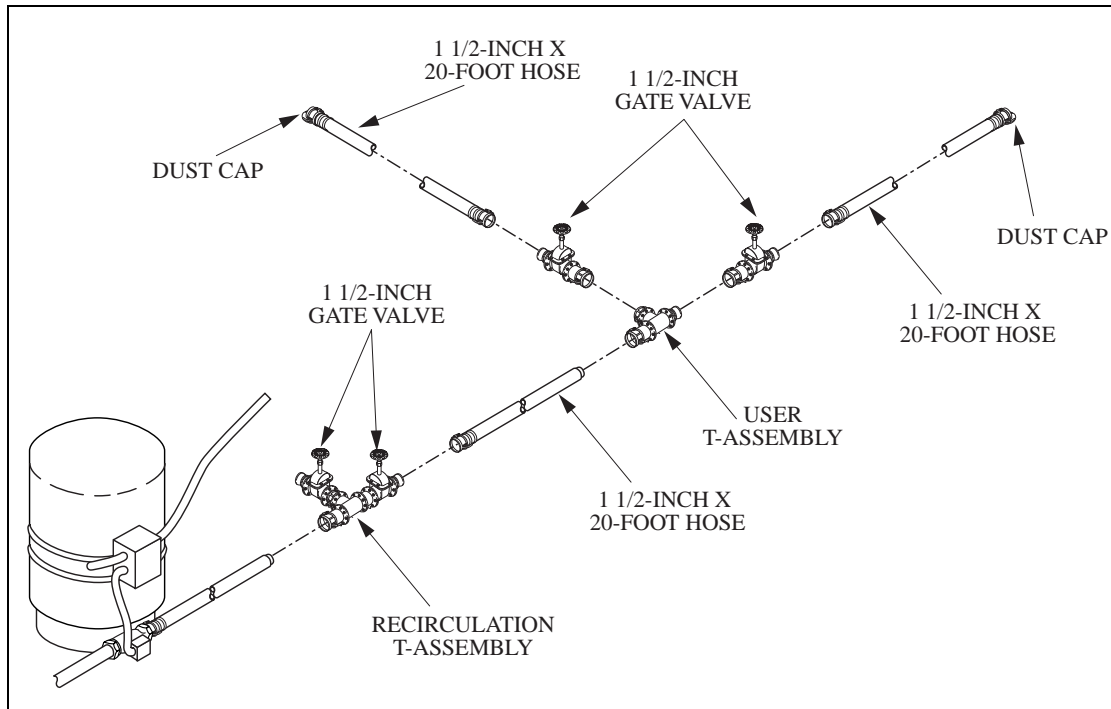


**Figure D-20. Control panel for metering pump control unit**



**Figure D-21. Electric water pump assembly**

- j. If the tested chlorine level is less than 5 ppm at the water pump, then increase the stroke setting or increase the chemical concentration in the hypochlorination unit at the next chemical fill and follow the instructions in the hypochlorination unit's commercial technical manual.
  - k. If the tested chlorine level is higher than 5 ppm at the pump, then decrease the stroke settings and follow the instructions in the hypochlorination unit's commercial technical manual.
2. Soldiers 1 and 2 take the following actions when the target superchlorinated levels are achieved:
- a. Open the gate valves at the user T-assembly and close the gate valves on the recirculation loop. See Figure D-22.



**Figure D-22. Water supply valves at recirculation loop and user connection point(s)**

- b. Direct users to open the valves within each facility serviced by the site, flush the facilities' potable water lines with highly chlorinated water for three minutes, and then close the valves.
- c. Place, but do not immerse, nozzle ends in the nearest sewage ejection pump (SEP) or approved graywater collection point, flush the nozzle and its lines with highly chlorinated water for three minutes, turn off the nozzle when complete, and then replace it on its stand.
- d. When there is no further requirement for highly chlorinated water, close the gate valves at the user T-assembly. See Figure D-22.
- e. Open the gate valves at the recirculation T-assembly. See Figure D-22.
- f. Refill the tank to the 5,000 gallon level with potable water from the municipal water system or tanker.
- g. Follow the procedures in Step 1, above, to reduce the residual chlorine level at the water pump to 2 ppm at the water pump test valve assembly.
- h. When the residual chlorine level has been achieved, open the gate valves at the user T-assembly, close the gate valves at the recirculation T-assembly, and flush the system using the procedures in Substeps b and c, above. See Figure D-22.

- i. When the system has been flushed, close the gate valves at the user T-assembly and the recirculation T-assembly. See Figure D-22.
  - j. Turn the hypochlorination unit off (place toggle in EXTERNAL CONTROL [up] position). See Figure D-20.
3. Soldiers 1 and 2 perform after-operation preventive maintenance checks and services (PMCS) on potable water distribution equipment and components by doing the following:
  - a. Check all quick disconnect (QDISC) coupling halves and dust plugs or caps for cracks and bent or broken locking arms.
  - b. Inspect all suction and discharge hoses for cuts, tears, and deep abrasions.
  - c. Inspect all T-assemblies for cracks, breaks, and severe corrosion.
  - d. Inspect all gate valves for loose or missing handwheel.
  - e. Report all broken, damaged, or missing parts to the drill leader immediately.
4. Soldiers 1 and 2 disassemble the electrical connections to the potable water distribution and storage site by doing the following:
  - a. Turn the circuit breakers inside the PDISE-M100 for the 20-amp and 40- or 60-amp receptacle assigned to the site to the OFF position. See Figures D-23 and D-24.

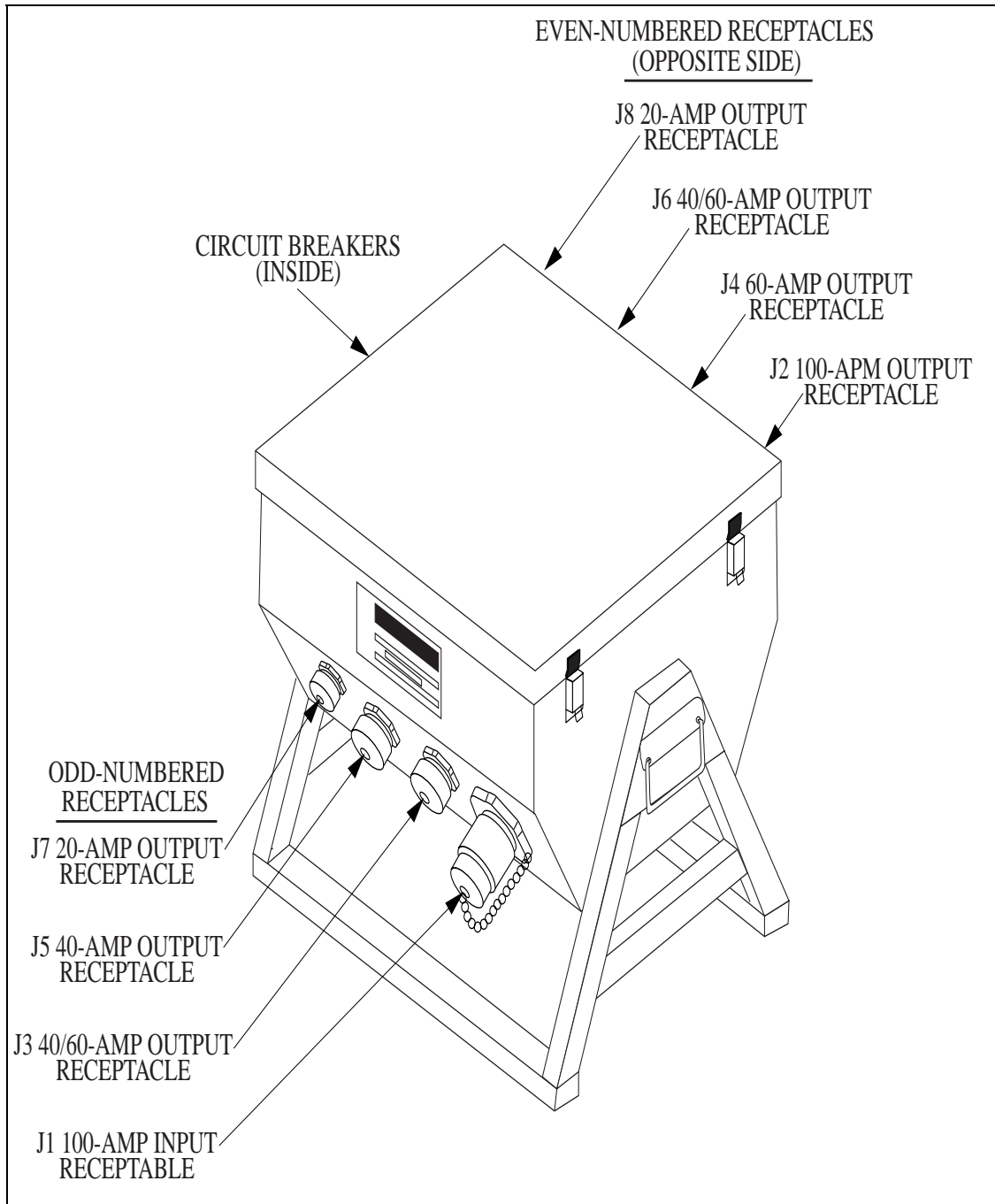
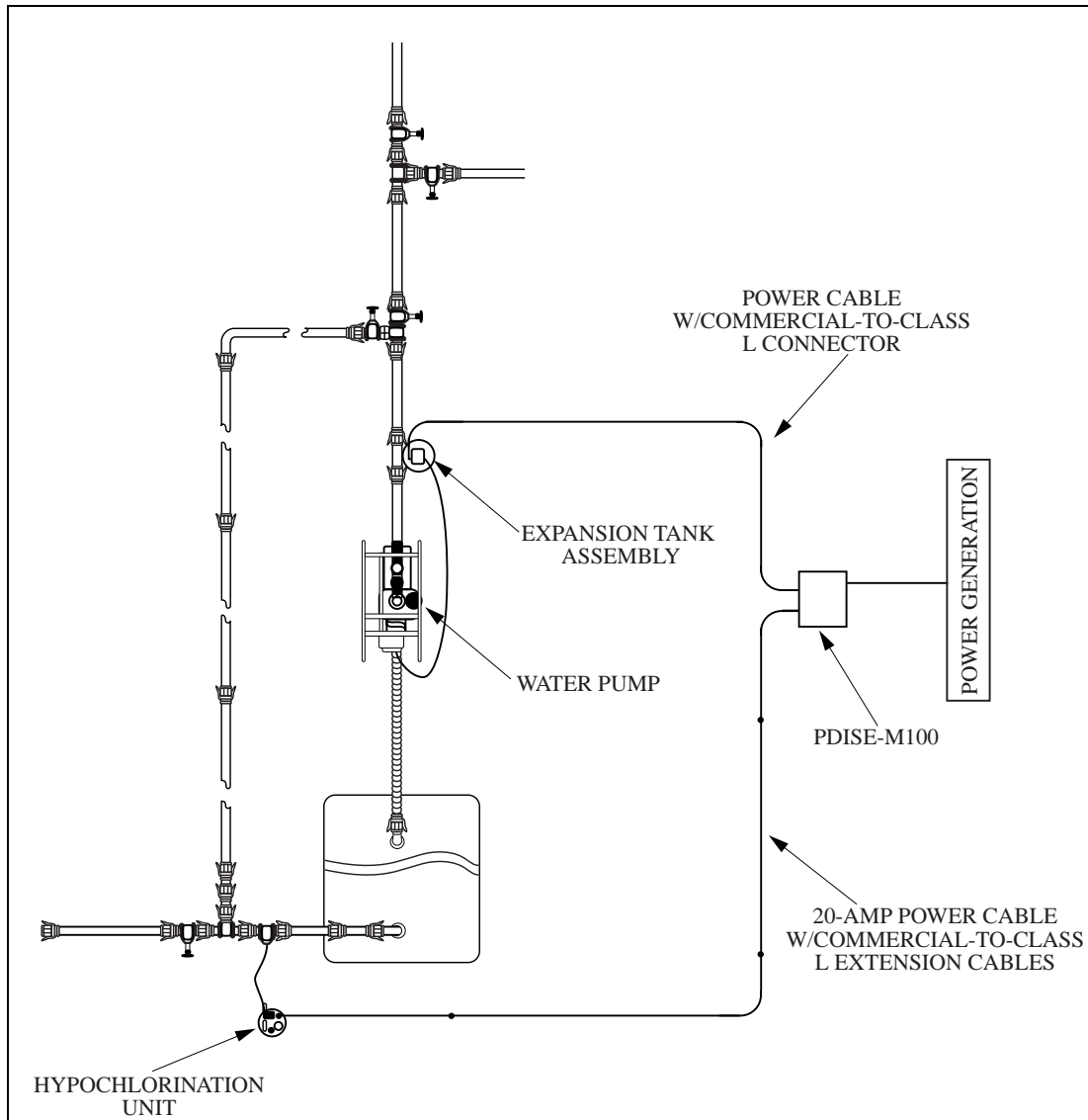


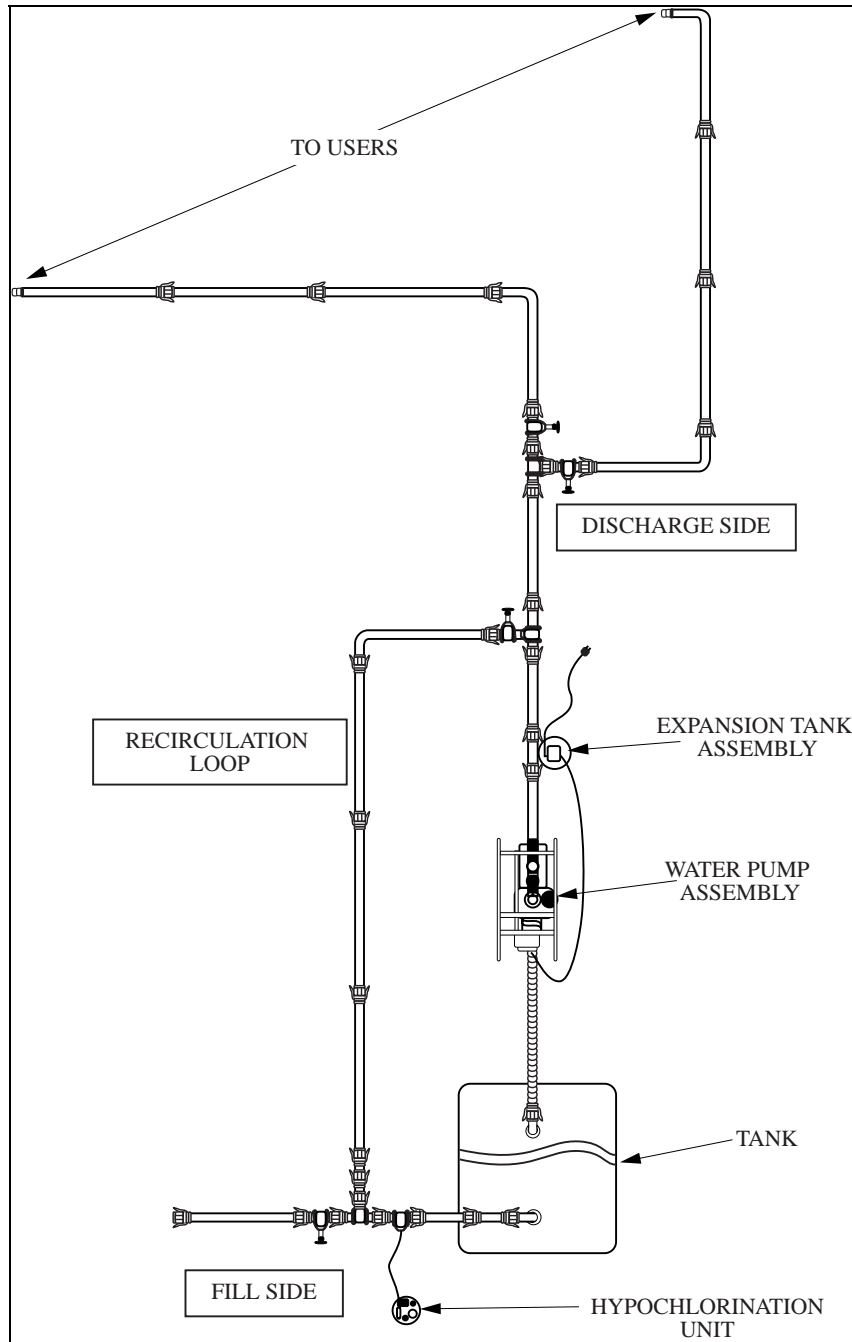
Figure D-23. PDISE-M100 input and output receptacles



**Figure D-24. Power cable layout at potable water distribution and storage site**

- b. Turn the electric water pump power switch OFF. See Figure D-21.
- c. Disconnect the power cable with the 20-amp connector from the expansion tank assembly from the power receptacle of the electric water pump, and then coil it neatly for repacking. See Figures D-21 and D-24.
- d. Disconnect the power cable with the commercial-to-class L connector from the expansion tank assembly from the 40- or 60-amp output receptacle (J3, J4, J5, or J6) on the PDISE-M100, and then coil it neatly for repacking. See Figures D-21 and D-24.

- e. Check that the metering pump control unit on top of the hypochlorination unit is OFF (toggle switch in the EXTERNAL CONTROL [OFF] position). See Figure D-20.
  - f. Disconnect the 20-amp power cable (with commercial-to-class L extension cables, if used) from the hypochlorination unit from the J7 or J8 20-amp output receptacle on the PDISE-M100, and then coil the cables neatly for repacking. See Figures D-21 and D-24.
5. Soldiers 1 and 2 begin disassembling the discharge side of the tank by doing the following:
- a. Close gate valves at the recirculation T-assembly and the user T-assembly. See Figure D-22.
  - b. Identify the lowest point on the discharge side of the tank. See Figure D-25.



**Figure D-25. Potable water distribution and storage site**

**WARNING:** DURING DISASSEMBLY OF HOSES AND FITTINGS EQUIPPED WITH QUICK DISCONNECT (QDISC) COUPLINGS, SOLDIERS MUST ENSURE THAT COUPLING HALVES DO NOT COME IN CONTACT WITH THE GROUND OR OTHER SURFACES. CONTACT WITH ANY UNCLEAN SURFACE OR OBJECT WILL CONTAMINATE THEM.

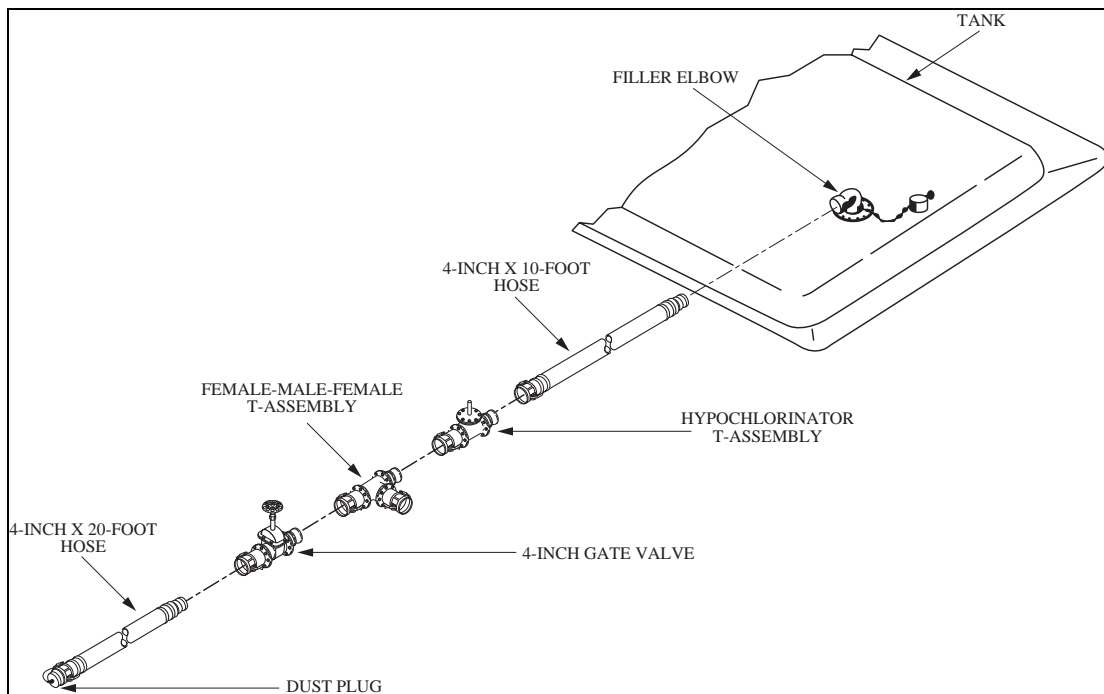
- c. Disconnect a hose section at this lowest point, permitting the water in the hoses to drain by gravity. See Figure D-25.



**NOTE:** If there is not one clear low point at the site, disconnect hose sections at several points to encourage gravity draining. Ensure that the slope of the ground at the spot or spots selected to drain the hoses will not carry the water into other FP facilities, power generation sites, or PDISE-M100 locations. Standing water may cause electrical shorts or damage to equipment.

**COACHING POINT:** Drill leader will specify which one of the following procedures the soldiers will follow to drain the 20,000-gallon tank.

6. Soldiers 1 and 2 drain the 20,000-gallon collapsible fabric tank completely by doing one of the following:
  - a. Drain the tank using a mobile tank and pump apparatus by doing the following:
    - (1) Soldier 1 directs or positions the mobile tank and pump apparatus on the fill side of the 20,000 gallon collapsible fabric tank. See Figure D-26.



**Figure D-26. Fill side of potable water distribution and storage site**

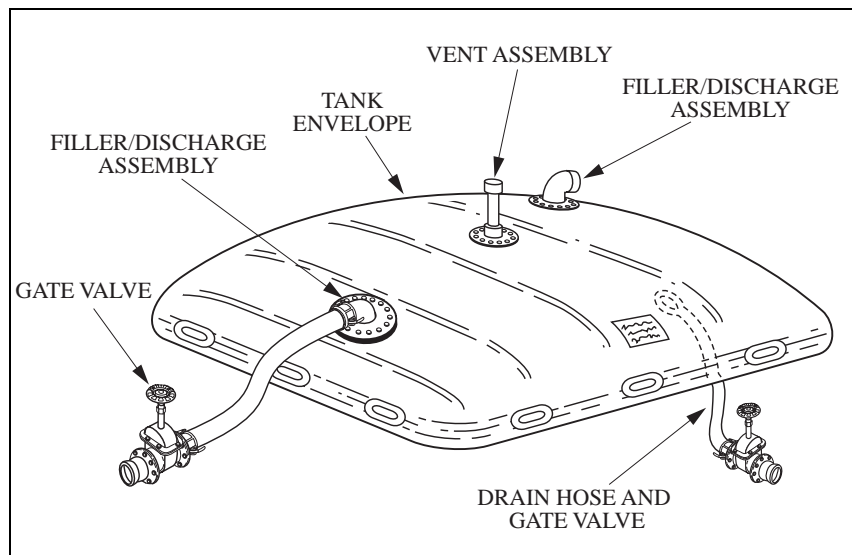
- (2) Soldier 2 connects the mobile tank and pump apparatus' suction hose to the end of the 4-inch x 20-foot hose on the fill side of the tank. See Figure D-26.

- (3) Soldier 1 opens the gate valve on the fill side of the tank. See Figure D-26.
- (4) Soldier 2 operates (or directs the operation of) the mobile tank and pump apparatus to remove the tank's contents.
- (5) Soldier 1 closes the gate valve when draining is complete or the mobile tank has reached its capacity.

**COACHING POINT:** You may direct the soldiers to use an electric or diesel pump (from the graywater collection and storage subsystem) to speed up draining the tank. Set the pump up with a suction hose attached to the tank's drain hose and attach as many discharge hoses as needed to carry the water to the selected drain point, sewer access, or field-expedient disposal site. Select a drain point where the slope of the ground will not carry the water into other FP facilities.

b. Drain the tank using a tank drain hose:

- (1) Soldier 1 ensures that the discharge or drain hose is properly positioned in the drain point, sewer access, or the field-expedient disposal site. See Figure D-27.



**Figure D-27. Components of 20,000-gallon collapsible fabric tank**

- (2) Soldier 2 opens the gate valve on the drain hose of the 20,000-gallon collapsible fabric tank. See Figure D-27.
- (3) Soldier 1 operates the water pump to drain water from the tank.

- (4) Soldier 2 checks that the water is flowing into the selected drain point, sewer access, or the field-expedient disposal site.

**WARNING:** THE WATER LEVEL IN THE TANK SHOULD NOT GO BELOW SIX INCHES TO PREVENT DAMAGE TO THE PUMP OR THE TANK ITSELF.

- (5) Soldier 1 monitors the water level in the tank by observation and stops the pump when the tank water level reaches six inches.
- (6) Soldiers 1 and 2 disconnect the drain hose from the water pump, allowing the residual water to drain from the tank.

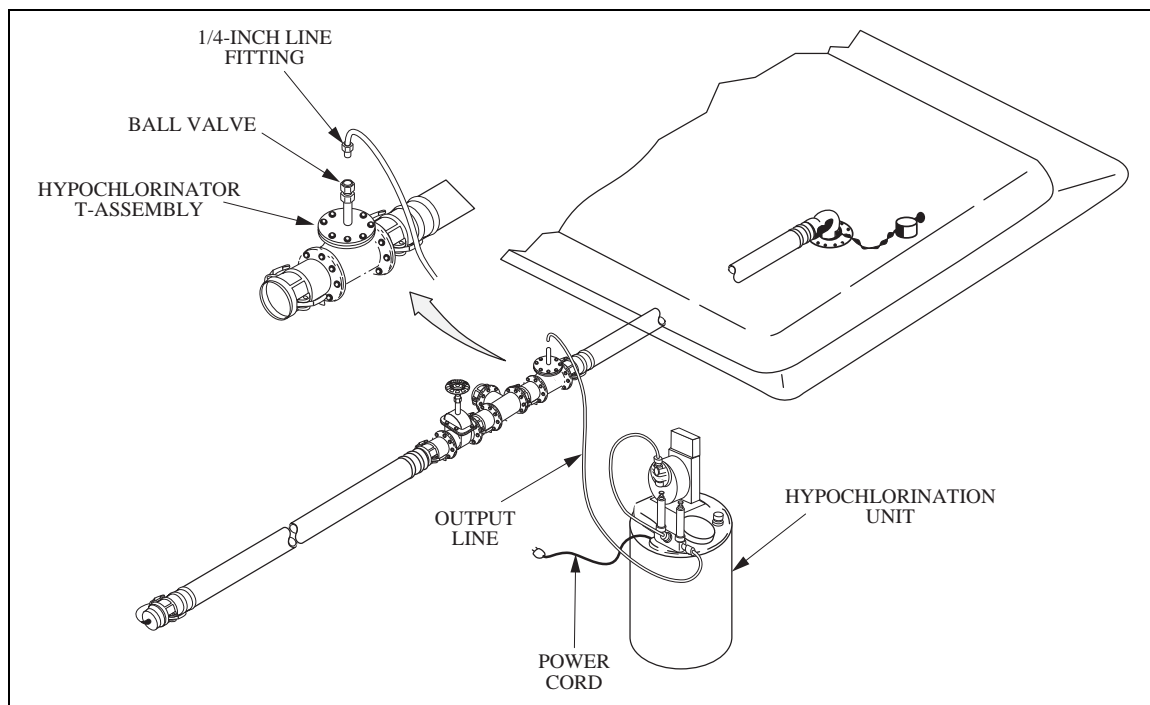
**COACHING POINT:** Soldiers can continue disassembling the site while the tank is draining.

7. Soldiers 1 and 2 disassemble the nozzle kits by doing the following:
  - a. For the large nozzle kit, disassemble the QDISC couplings on the nozzle, gate valve on the nozzle side of the user T-assembly, and 1½-inch x 25-foot hoses.
  - b. For the small nozzle kit, disassemble the QDISC couplings on the nozzle, gate valve on the nozzle side of the user T-assembly, 1½-inch x 25-foot hoses, 1½-inch x 1-inch reducer, and 1-inch x 10-foot hoses.
  - c. Carry the nozzle kit and gate valve to the TRICON staging area repacking.
8. Soldiers 1 and 2 disassemble the remaining user branch by doing the following:
  - a. Disassemble the QDISC couplings on the gate valve on the facility side of the user T-assembly, the user T-assembly, and 1½-inch x 20-foot hoses.
  - b. Carry the hoses, gate valve, and user T-assembly to the TRICON staging area for repacking.
9. Soldiers 1 and 2 disassemble the recirculation loop by doing the following:
  - a. Disassemble the QDISC couplings on the recirculation T-assembly, the four 1½-inch x 20-foot hoses, 1½-inch x 2-inch reducer, and 2-inch x 4-inch reducer.
  - b. Carry the hoses, T-assembly, and reducers to the TRICON staging area for repacking.
10. Soldiers 1 and 2 disassemble the discharge side of the tank by doing the following:
  - a. Disassemble the QDISC couplings on the 1½-inch x 10-foot hoses from the expansion tank assembly cross, check valve assembly, and electric water pump outlet port.

- b. Disassemble the QDISC couplings on the 1½-inch x 15-foot female-female hose connecting the tank discharge elbow to the electric water pump inlet port.
- c. Remove the test valve assembly from the electric water pump priming port, open the pump's petcock valve, and tip the pump up so that residual water can drain from the petcock. See Figure D-21.
- d. Leave the petcock and priming port open to allow the water pump to air dry.
- e. Carry the hoses, check valve, power cord, expansion tank assembly, test valve assembly, and electric water pump (when dry) to the TRICON staging area for repacking.
- f. Replace the threaded plug in the electric water pump priming port. See Figure D-21.

11. Soldiers 1 and 2 disassemble the hypochlorination unit by doing the following:

- a. Coil the unit's power cord neatly. See Figure D-28.



**Figure D-28. Hypochlorination unit disassembly**

- b. Loosen the ¼-inch output line fitting from the ball valve of the hypochlorinator T-assembly and remove the output line from the valve. See Figure D-28.
- c. Coil the output line neatly.

**WARNING:** CALCIUM HYPOCHLORITE SOLUTION IS TOXIC. SOLDIERS MUST WEAR EYE PROTECTION, PROTECTIVE APRON, AND GLOVES WHEN WORKING

WITH CALCIUM HYPOCHLORITE. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY TO PERSONNEL FROM CONTACT WITH THE SOLUTION, GRANULES, OR DUST PARTICLES.

**NOTE:** The calcium hypochlorite solution in the hypochlorination unit is HW and must be disposed of IAW current directives.

- d. Open the filler cap and drain the calcium hypochlorite solution into a bucket or other suitable container.
  - e. Dispose of the calcium hypochlorite solution IAW current directives for HW.
  - f. Rinse the hypochlorination unit tank with potable water, catch the rinse water in a suitable container, and then dispose of the rinse water as HW IAW current directives.
  - f. Replace the filler cap.
  - g. Carry the hypochlorination unit to the TRICON staging area for repacking.
12. Soldiers 1 and 2 disassemble the fill side of the tank by doing the following:
- a. Disassemble the QDISC couplings on the 4-inch x 10-foot and 4-inch x 20-foot hoses from the hypochlorinator T-assembly, the female-male-female T-assembly, and the filler elbow on the tank.
  - b. Carry the hoses, hypochlorinator T-assembly, and female-male-female T-assembly to the TRICON staging area for repacking.

**COACHING POINT:** Make Soldiers 3 and 4 available at this time to assist in disassembling the 20,000-gallon tank.

13. Soldiers 1, 2, 3, and 4 prepare the 20,000-gallon collapsible fabric storage tank for storage or shipment, IAW TM 5-5430-226-12, by doing the following:
- a. Reinstall all dust caps and dust plugs on the fill/discharge elbows and drain assembly. See Figure D-27.
  - b. Fold the up-slope end of tank to the opposite side.
  - c. Roll the up-slope end of the folded tank toward the drain assembly.
  - d. Collect all tank and remaining distribution and storage site components, and take them to the TRICON staging area for repacking.
  - e. Using a fork lift, move the rolled 20,000-gallon tank to the TRICON staging area for repacking.

**COACHING POINT:** Soldiers 3 and 4 are released from the drill at this time.

14. Soldiers 1 and 2 prepare potable water distribution and storage site components for movement and storage by doing the following:
- a. Perform PMCS on the site's components and equipment, IAW TM 10-5419-200-12.
  - b. Perform periodic maintenance on the 20,000-gallon tank, IAW TM 5-5430-226-12.
  - c. Perform periodic maintenance on the hypochlorination unit, IAW TM 5-4610-228-13/13 & P and its commercial technical manual.
  - d. Perform periodic maintenance on the electric water pump, IAW TM 10-3510-220-10.
  - e. Perform periodic maintenance on the expansion tank assembly, IAW its commercial technical manual.

THE DRILL LEADER GIVES THE ORDER TO DISMANTLE THE COLD WEATHER KIT (CWK) EQUIPMENT FOR A POTABLE WATER DISTRIBUTION AND STORAGE SITE.

**COACHING POINT:** The CWK is installed at each potable water distribution and storage site for operations in temperatures of +32° Fahrenheit (F) and below. For each potable water distribution and storage site to be dismantled, soldiers must remove the Army Space Heaters (ASHs), disconnect heat trace hoses, and disassemble an eight section (64-foot) TEMPER housing the 20,000-gallon fabric tank and the six section (48-foot) TEMPER housing the electric water pump, hypochlorination unit, and expansion tank. Two soldiers have been assigned to dismantle the CWK equipment for a potable water distribution system. Additional soldiers (two to 16 personnel), are needed to dismantle the TEMPERs and the 20,000-gallon collapsible fabric tank.

**COACHING POINT:** The CWK equipment is dismantled in reverse order of setting up. Soldiers 1 and 2 plus two additional soldiers are needed to dismantle the 20,000-gallon fabric tank.

15. Soldiers 1, 2, 3, and 4 follow Steps 1 through 12, above, to dismantle the 20,000-gallon fabric tank, the electric water pump, hypochlorination unit, expansion tank assembly, water and heat trace hoses, and QDISC couplings.

**COACHING POINT:** Make 14 additional soldiers available at this time to dismantle the eight section (64-foot) TEMPER. Assign the soldiers to two-person teams with Soldiers 1 and 2 in Team 1.

16. Teams 1 through 9 execute Drill 42-2-D0003, *Dismantle the Four-Section TEMPER*, to dismantle the 64-foot TEMPER and remove the two ASHs.

**COACHING POINT:** Release Soldiers 15 through 18 (Teams 8 and 9) from the drill at this time.

17. Teams 1 through 7 execute Drill 42-2-D0003, *Dismantle the Four-Section TEMPER*, to dismantle the 48-foot TEMPER.

**COACHING POINT:** Release Soldiers 5 through 14 (Teams 3 through 7) from the drill at this time.

18. Soldiers 1, 2, 3, and 4 follow Steps 13 through 14, above, and dismantle polystyrene panels beneath the TEMPER flooring, heat trace hoses, and 6-foot stakes marking power cables, hoses, electrical distribution boxes, and other hazard areas, and carry the equipment to the TRICON staging area for repacking.

**RUN-THROUGH:** The drill leader should have soldiers practice this drill until they can perform the drill according to the standards without the crew drill. The drill leader conducts the initial run-through slowly. To learn all the performance steps, the soldiers should change positions during subsequent iterations of the drill.

**PERFORM:** When the soldiers can perform the drill tasks according to the standards, the section leader should evaluate their performance.

**CREW DRILL 42-2-D0020****Set Up, Operate, and Maintain a Portable Floodlight Set for a Force Provider (FP) Module**

**TASK:** Set up, operate, and maintain a portable floodlight set for a FP module.

**CONDITIONS:** The Force Provider (FP) company or platoon has occupied an operational site for a FP module. The site has been prepared in accordance with (IAW) the site plan and is secure. The power generation subsystem is operational. A Model BX-4000 Portable Floodlight Set is available. The drill leader has ensured that all components are present, clean, and serviceable, and has reported all shortages through the platoon to company HQ. Four soldiers have been assigned to set up, operate, and maintain a portable floodlight set. Technical documentation, including all applicable technical manuals (TMs), commercial technical instructions supplied with the floodlight set, and tool kits are available.

**STANDARD:** The floodlight set is set up IAW its commercial technical instructions with no damage to the equipment or injury to personnel.

**SUPPORTING INDIVIDUAL TASK:** To be determined (TBD).

**SETUP INSTRUCTIONS:****a. Resources.**

- (1) One Model BX-4000 Portable Floodlight Set Trailer Assembly and components.
- (2) One FP power generation cluster of three generator sets, or other suitable power source.
- (3) One Power Distribution Illumination Systems, Electrical (PDISE)-M100.
- (4) Four soldiers to set up, operate, and maintain the floodlight set.
- (5) WD-40 and L-421 Multi-Purpose Grease Lithium #2.
- (6) Slide hammer (for driving grounding rod).

**b. Training Site.** The site should be level, adjacent to the FP power generation cluster, and at least 50 feet by 50 feet square.

**c. Unit Instructions.** The soldiers should be brought to the site. The drill leader has made a reconnaissance of the area and ensured that all equipment is present and operational, and that the site meets portable floodlight set requirements. Designate



each of the four soldiers selected to set up the portable floodlight set by number (Soldier 1, Soldier 2, etc.).

TALK-THROUGH INSTRUCTIONS:

a. Orientation. The drill trains four soldiers of the Facilities Support Section to set up the portable floodlight set, operate the set, and perform preventive maintenance checks and services (PMCS) correctly. Assign each soldier a different number during subsequent drill iterations so each learns all the steps and standards for setting up, operating, and maintaining the portable floodlight set.

b. Environmental Stewardship. Brief all soldiers on the environmental stewardship requirements of executing this drill. Take all preventative measures to protect the environment during set up, operations, and PMCS. All personnel handling fuel will treat any contaminated fuel or dirt or water contaminated with fuel as hazardous waste (HW) and will dispose of it according to current directives. The drill leader and soldiers will take immediate action to reduce the effect of fuel spills and leaks, and to clean up and dispose of contaminated soil, water, and fuel IAW current directives.

c. Safety. Although the section will be working with no electrical power for most of this drill, extreme care is required in following all safety precautions. No smoking is allowed. Soldiers must immediately ground all equipment once it is in position. Soldiers must wear proper protective clothing and eye protection to eliminate injury hazards when cutting the banding from the trailer assembly and when driving grounding rods. Ensure electrical power is shut off before performing any installation or maintenance actions. The system produces extremely high temperatures—the lens reaches a temperature in excess of 198° Fahrenheit (F) and can maintain a focused-heat level of 296° F at a distance of six inches from the fixture. Allow sufficient time for the lamp to cool before performing any maintenance procedures.

d. Demonstration (optional). If other soldiers have successfully set up a portable floodlight set, have them demonstrate the drill. Using the performance standards as a guide, the drill leader should explain what is happening throughout the demonstration and why the task is being done that way. When the demonstration is complete, the drill leader should summarize what occurred during the demonstration.

e. Explanation. The drill leader should use the performance standards as a guide and explain the actions of each soldier in setting up the portable floodlight set. The drill leader may

illustrate the steps and procedures with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should then explain his role in the drill, including the standards for which he is responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

WALK-THROUGH INSTRUCTIONS:

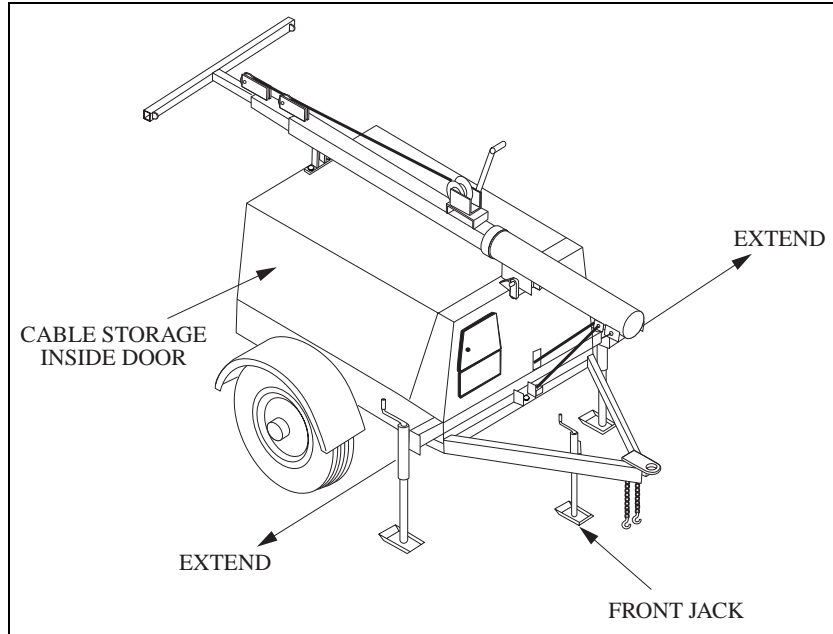
a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader conducts the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a deliberate pace on the first iteration as the "walk" phase. Additional iterations of the drill provide practice so the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the sequence listed, but all soldiers perform their task steps simultaneously.

b. Initiating Cue. The drill leader gives the order to set up the portable floodlight set.

Performance Measures:

**NOTE:** The trailer may be shipped in a partially assembled condition with no banding used. However, airlift or sealift directives may require that the trailer be banded. If received in a banded condition, when removing the banding, soldiers must use proper protective gear, including gloves, and eye and face protection. Ensure that the catch latches on the trailer engage anytime the door is raised.

1. Soldier 1 raises the side door on the trailer assembly, ensuring the catch latch has engaged and will hold the door in the up and latched position.
2. Soldier 1 removes the power cables from inside the trailer. See Figure D-1.

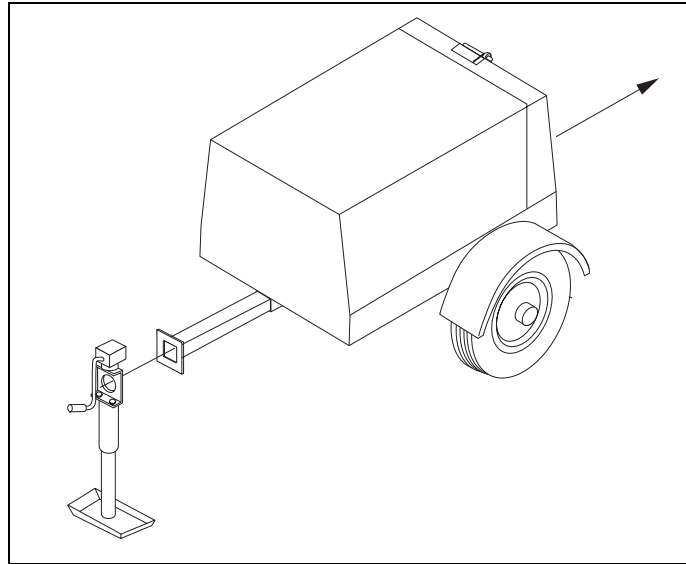


**Figure D-1. Side outriggers and front jack**

3. Soldiers 1 and 4 extend both outriggers beyond the sides of the skids and secure each with the outrigger T-screws. See Figure D-1.
4. Soldiers 1 and 4 rotate the outrigger jacks to the vertical, locked position.
5. Soldiers 1 and 4 extend the jacks so they slightly support the front of the unit.

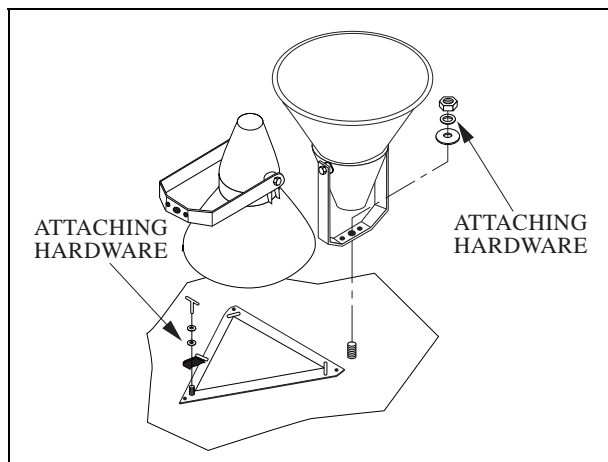
**COACHING POINT:** Ensure soldiers place 18-inch square, ½-inch plywood boards under jacks if the ground is soft or wet.

6. Soldier 1 withdraws the draw bar (identified as "rear outrigger" in the parts listing) from the draw bar socket on the rear of the trailer assembly.
7. Soldier 1 rotates the rear jack assembly on the draw bar to the vertical, locked position. See Figure D-2.



**Figure D-2. The draw bar with jack assembly on the rear of the trailer**

8. Soldier 1 extends the rear jack so it slightly supports the rear of the unit.
9. Soldier 4 rotates the jack assembly on the tow tongue to the vertical, locked position. See Figure D-1.
10. Soldier 4 extends the tow-tongue jack so it slightly supports the front of the unit.
11. Soldiers 2 and 4 remove the four floodlight assemblies from the trailer. See Figure D-3.

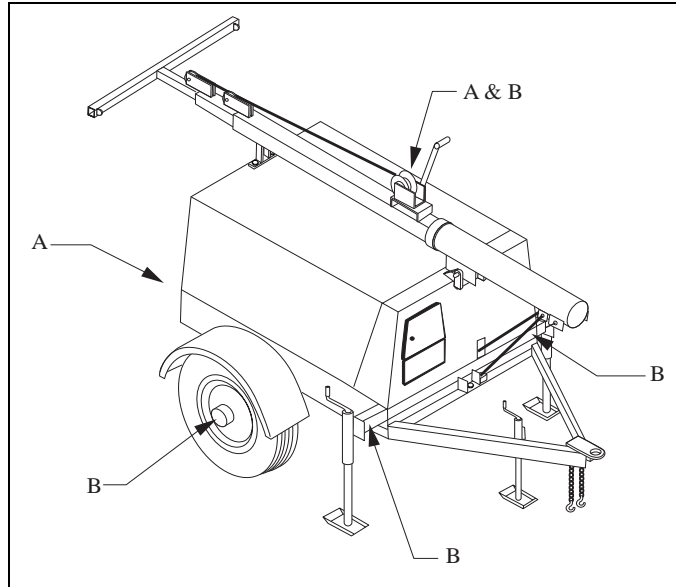


**Figure D-3. Floodlight assemblies as mounted inside the trailer assembly**

12. Soldiers 1, 2, 3, and 4 each inspect the reflector surface of one of the flood lamp fixtures for dents or cuts. Each soldier repairs or replaces the reflector surface, as required.
13. As part of the before-operation PMCS, Soldiers 1, 2, 3, and 4 each inspect one of the floodlight lenses for cracks.

**WARNING:** ALTHOUGH DENTS WILL NOT PREVENT LIGHTS FROM WORKING, THEY WILL REDUCE THE FIXTURE'S BEAM EFFICIENCY. CUTS OR BREAKS IN THE REFLECTOR SURFACE MAY SUBJECT THE LAMP TO DIRECT CONTACT WITH RAINWATER WHILE IN OPERATION, RESULTING IN POSSIBLE EXPLOSION OF THE LAMP.

14. If the reflectors are functionally intact, Soldiers 1, 2, 3, and 4 each use a clean, dry cloth to wipe the inner surface free of dust, dirt, or grease, being careful not to touch the lamp with their hands.
15. Soldiers 1 and 2 attach the four floodlights to the T-bar, using the attaching hardware and plug-in lights.
16. Soldier 4 checks the tires for proper inflation using a tire pressure gauge.
17. If this is the first use of the portable floodlight set, Soldiers 1, 2, 3, and 4 perform all weekly and timed PMCS, IAW the commercial technical instructions.
18. Soldier 1 checks the trailer enclosure for cleanliness, dents, distortions, and corrosion.
19. Soldier 1 checks all latches for proper adjustment and operation, and checks doors and hinges for distortion and security.
20. Soldier 2 checks all electrical power leads and connections at floodlights, tower, and ballasts for frayed or broken insulation, and checks the security of all electrical connections.
21. Soldier 4 lubricates all the chassis points identified in Figure D-4, except the winch and the wheel bearings.



**Figure D-4. Lubrication points on the trailer and tower assemblies**

22.Soldier 4 checks the wheel bearings to ensure they have enough grease.

**NOTE:** If the wheel bearings need to be repacked, follow the procedure given in the commercial technical instructions for the portable floodlight set.

**NOTE:** The A and B references in Figure D-4 are to the type of lubricant to use at each point. Table D-1 shows the type of lubricant to which each letter refers.

23.Soldier 1 lubricates the winch assembly, beginning by cleaning and lubricating the gears with automotive-type grease, as indicated by reference letter B in Table D-1.

Letter Reference	Recommended Lubricants
A	Primary - WD-40 or equal penetrating oil Alternate - Graphite
B	L-421 Multi-Purpose Grease Lithium #2 (Kendall #750-7863, or equal)

**Table D-1. Chassis lubricants for the portable floodlight set**

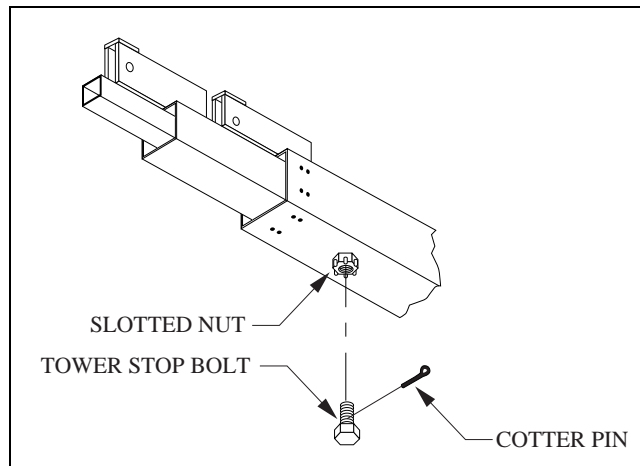
**WARNING:** WHEN LUBRICATING THE WINCH, DO NOT GET OIL OR GREASE ON THE FIBER BRAKE FACES. THIS WILL RENDER THE AUTOMATIC BRAKE

INOPERATIVE, RESULTING IN POSSIBLE PERSONAL INJURY, EQUIPMENT DAMAGE, OR BOTH.

24. Soldier 1 cleans and lubricates the shafts, bushings, and ratchet parts on the winch, as required, with oil, as indicated by reference letter A in table D-1 and Figure D-4.

25. Soldier 2 adjusts the tower stop bolt by doing the following:

- a. Removes the cotter pin that holds the stop bolt in place. See Figure D-5.



**Figure D-5. Adjusting the tower stop bolt ensures safe operation of the tower**

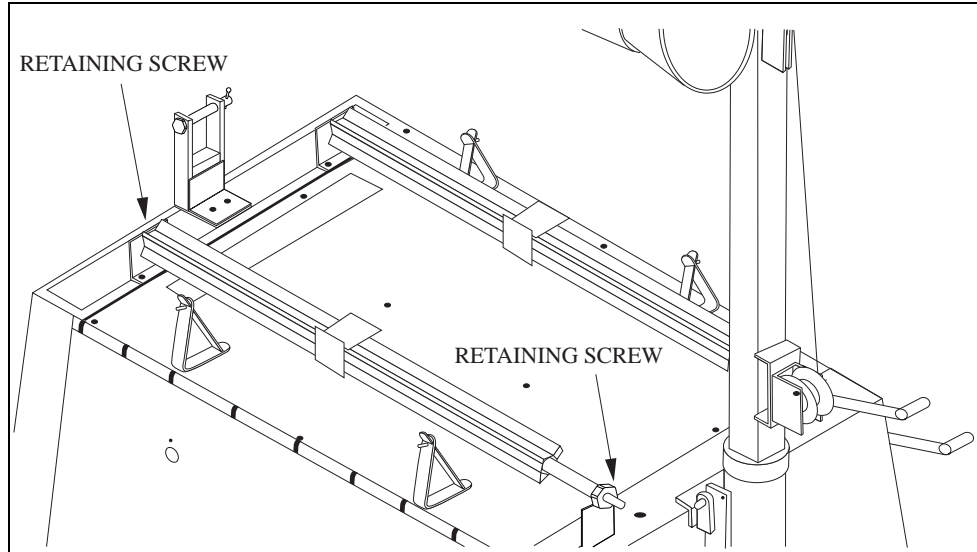
- b. Turns the stop bolt in a clockwise direction until it touches the middle section of the tower assembly.
- c. Turns the stop bolt in a counter-clockwise direction for one complete revolution
- d. Lines up the hole in the stop bolt with the nearest slot in the slotted nut, and replaces the cotter pin.

26. Soldier 3 grounds the trailer assembly by doing the following:

- a. Locates the grounding rod and grounding cable.
- b. Drives the grounding rod into the ground to a depth of, at least, three feet.
- c. Hooks a grounding cable from the grounding rod to the tow tongue of the trailer assembly, and ensures positive metal-to-metal contact between the cable clamps and the tongue.

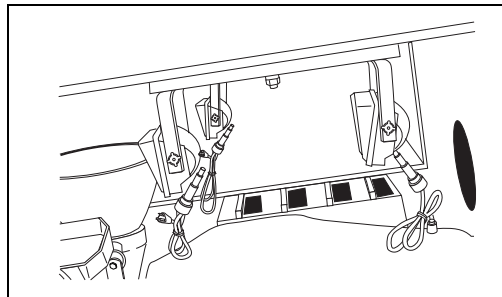
27. Soldiers 1 and 3 assemble the mast by doing the following:

- a. Loosen the screws that hold the two portable masts to the mounting brackets on the trailer assembly. See Figure D-6.



**Figure D-6. Bolts hold the portable masts in the mounting brackets**

- b. Slide the masts out of the brackets.  
 c. Raise one of the two doors on the trailer assembly and latch it in place.  
 d. Remove two auxiliary portable flood lights from their mountings inside the trailer assembly. See Figure D-7.



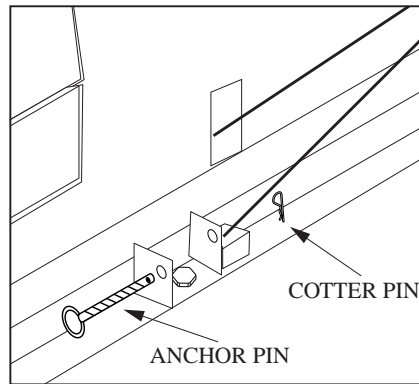
**Figure D-7. Auxiliary portable lights on their mountings inside the trailer**

- e. Secure two auxiliary portable flood lights to a portable mast.  
 f. Spread the tripod legs on one of the portable masts and raise the mast to the desired height.  
 g. Secure a wing screw on a portable mast that holds the legs at the desired height.  
 h. Plug a power cable from the auxiliary portable flood light sets into the power outlet on the power control panel on the front of the trailer assembly.



**COACHING POINT:** For the purpose of safety, one soldier will complete the remaining steps (here designated Soldier 1). The three remaining soldiers may be released at this time.

28. Soldier 1 removes the locking pin from the mast-base keeper assembly at the bottom of the trailer front. See Figure D-8.



**Figure D-8. The mast-base keeper assembly on the trailer**

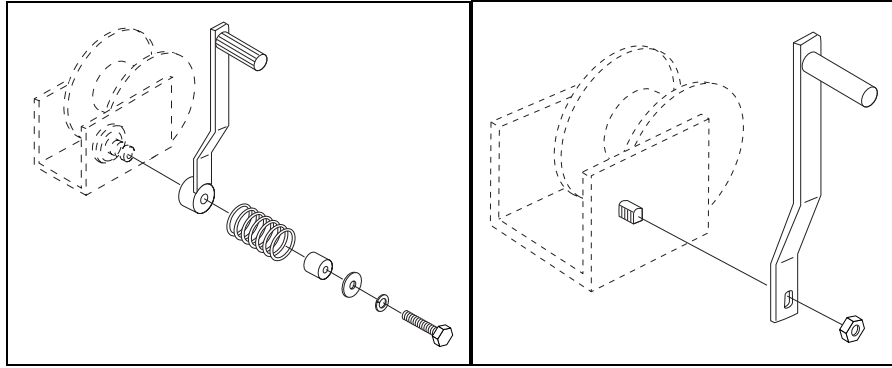
29. Soldier 1 uses the winch on the front of the right side of the trailer assembly to rotate the tower to a vertical (upright) position.

30. Soldier 1 places the locking pin into the mast-base keeper assembly at the bottom of the trailer front. See Figure D-8.

**WARNING:** DO NOT PUT THE TOWER IN AN UPRIGHT POSITION IF WINDS EXCEED 70 MPH. DO NOT EXTEND THE TOWER IF THE WINDS EXCEED 65 MPH.

31. Soldier 1 rechecks the installation of the tower winch handle against Figure D-9 to ensure the handle retainer is properly assembled.

**COACHING POINT:** There are two types of winch engagement shafts and winch handles. Proper assembly is important to obtain maximum braking performance. Soldiers must recheck the assembly before using the tower winch.



**Figure D-9. Two types of handles and handle retainers for the winch assembly**

32. Soldier 1 releases the lock bar on the tower winch.
33. Soldier 1 turns the handle clockwise until the mast self-locks.
34. Soldier 1 cranks the winch clockwise to raise the tower to the desired height.
35. Soldier 1 removes the dust cover from the 60-amp service/feeder cable.
36. Soldier 1 plugs the 60-amp service/feeder cable into the PDISE-M100.
37. A qualified technician connects the PDISE-M100 to the power source.
38. Soldier 1 plugs the 60-amp service/feeder cable into the main power inlet on the power control panel on the front of the trailer assembly.
39. Soldier 1 turns on the power breaker on the PDISE-M100.
40. Soldier 1 turns on the power switch on the power control panel.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

ARTEP 42-424-30-MTP

PERFORM: When the soldiers can perform this drill according to the standards, their performance should be evaluated by the section leader.

**CREW DRILL 42-2-D0021**

**Disassemble a Portable Floodlight Set for a Force Provider (FP)  
Module**

TASK: Disassemble a portable floodlight set for a FP module

CONDITIONS: A complete Model BX-4000 Portable Floodlight Set, including portable masts with floodlights, is set up and operational. Components have been inventoried and inspected for serviceability. Unserviceable components have been tagged and reported through platoon to company HQ. Four soldiers have been assigned to dismantle the portable floodlight set. Technical documentation, including all applicable technical manuals (TMs), commercial technical instructions supplied with the floodlight set, and tool kits are available.

STANDARD: The portable floodlight set is disassembled and prepared for movement in accordance with (IAW) its commercial technical instructions with no damage to the equipment or injury to personnel.

SUPPORTING INDIVIDUAL TASK: To be determined (TBD).

SETUP INSTRUCTIONS:

a. Resources.

- (1) One operational Model BX-4000 Portable Floodlight Set Trailer Assembly and components.
- (2) One FP power generation cluster of three generator sets, or other suitable power source.
- (3) One Power Distribution Illumination Systems, Electrical (PDISE)-M100.
- (4) Slide hammer (for removing grounding rod).
- (5) Four soldiers to disassemble the portable floodlight set.
- (6) Slide hammer (for removing grounding rod).

b. Training Site. The site should be level, adjacent to the FP power generation cluster, and at least 50 feet by 50 feet square.

c. Unit Instructions. The soldiers should be brought to the site. The drill leader has made a reconnaissance of the area and ensured that all equipment is present and operational. Designate each of the four soldiers selected to set up the portable floodlight set by number (Soldier 1, Soldier 2, etc.).

TALK-THROUGH INSTRUCTIONS:

a. Orientation. The drill trains four soldiers to disassemble the portable floodlight set and prepare it for movement. Assign each soldier a different number during subsequent drill iterations so each learns all the steps and standards for disassembling the portable floodlight set.

b. Environmental Stewardship. Brief all soldiers on the environmental stewardship requirements of executing this drill. Take all preventative measures to protect the environment during disassembly. All personnel handling fuel will treat any contaminated fuel or dirt or water contaminated with fuel as hazardous waste (HW) and will dispose of it according to current directives. The drill leader and soldiers will take immediate action to reduce the effect of fuel spills and leaks, and to clean up and dispose of contaminated soil, water, and fuel IAW current directives.

c. Safety. Although the section will be working with no electrical power for most of this drill, extreme care is required in following all safety precautions. No smoking is allowed. Soldiers must wear proper protective clothing and eye protection to eliminate injury hazards when cutting the banding from the trailer assembly and when driving grounding rods. Ensure electrical power is shut off before performing any installation or maintenance actions. The system produces extremely high temperatures—the lens reaches a temperature in excess of 198° Fahrenheit (F) and can maintain a focused-heat level of 296° F at a distance of six inches from the fixture. Allow sufficient time for the lamp to cool before performing any maintenance procedures.

d. Demonstration (optional). If other soldiers have successfully disassembled a portable floodlight set, have them demonstrate the drill. Using the performance standards as a guide, the drill leader should explain what is happening throughout the demonstration and why the task is being done that way. When the demonstration is complete, the drill leader should summarize what occurred during the demonstration.

e. Explanation. The drill leader should use the performance standards as a guide and explain the actions of each soldier in disassembling the portable floodlight set. The drill leader may illustrate the steps and procedures with a sketch or a simple diagram in the dirt. The drill leader should answer all questions concerning the drill performance. Each soldier should then explain his role in the drill, including the standards for which he is responsible. If any misunderstanding exists, the drill leader should make corrections immediately.

## WALK-THROUGH INSTRUCTIONS:

a. The drill leader should conduct the drill according to the crawl-walk-run concept. The drill leader conducts the drill slowly as a walk-through explanation at first, showing each action, and each soldier should carefully follow the performance measures. This is the "crawl" phase. The soldiers execute the drill at a deliberate pace on the first iteration as the "walk" phase. Additional iterations of the drill provide practice so the section can execute the drill rapidly to standard as the "run" phase. Soldiers do the performance measures in the sequence listed, but all soldiers perform their task steps simultaneously.

b. Initiating Cue. The drill leader gives the order to disassemble the portable floodlight set.

## Performance Measures:

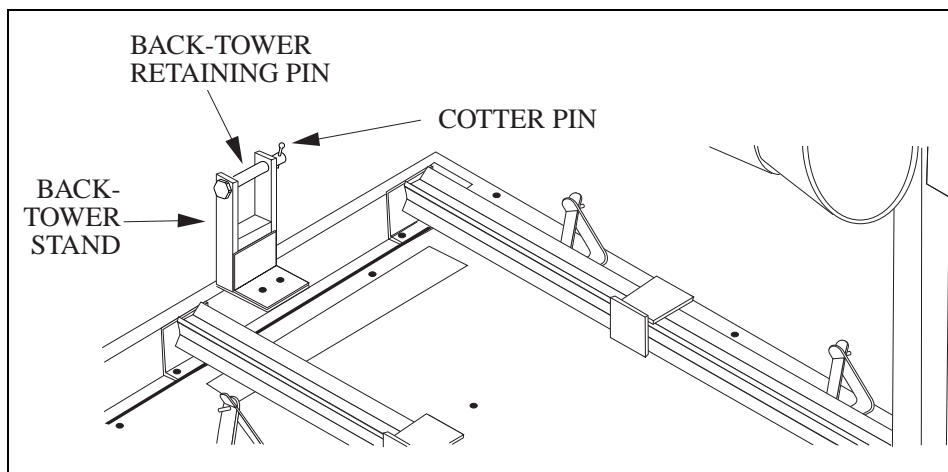
**WARNING:** THE FLOODLIGHTS AND AUXILIARY PORTABLE FLOODLIGHTS MUST BE ALLOWED TO COOL PRIOR TO DISASSEMBLY. FAILURE TO DO SO COULD RESULT IN SEVERE INJURY TO PERSONNEL AND DAMAGE TO EQUIPMENT.

1. Soldier 1 turns off the power switch on the power control panel on the front of the trailer assembly.
2. Soldier 4 turns off the power circuit breaker on the PDISE-M100.

**WARNING:** TURN OFF THE CIRCUIT BREAKERS ANYTIME YOU ARE DETACHING THE ELECTRICAL CABLES FOR THIS SYSTEM. THIS SYSTEM USES HIGH VOLTAGE. FAILURE TO OBSERVE THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH BY ELECTROCUTION.

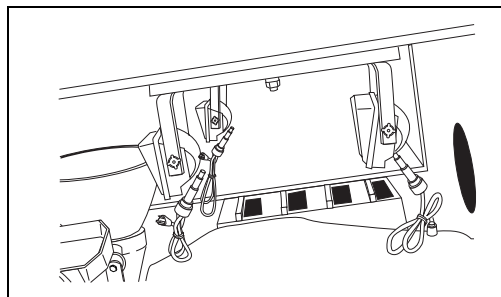
3. Soldier 1 unplugs the 60-amp service/feeder cable from the main power inlet on the power control panel on the front of the trailer assembly.
4. Soldier 1 installs the dust covers on the end of the 60-amp service/feeder cable at the trailer and on the power control panel.
5. Soldier 4 unplugs the 60-amp service/feeder cable from the PDISE-M100.
6. Soldier 4 installs the dust covers on the end of the 60-amp service/feeder cable at the PDISE-M100 end and on the PDISE-M100, itself.

7. Soldier 4 cleans the 60-amp service/feeder cable, rolls it, and stows it in the trailer assembly.
8. Soldiers 1 and 3 each unplug a power cable, connecting the auxiliary portable flood light sets, from the power outlet on the power control panel on the front of the trailer assembly.
9. Soldier 2 turns the mast winch counterclockwise to lower the mast until it is fully lowered.
10. Soldier 4 removes the cotter pin from the back-tower retaining pin on the back-tower stand. See Figure D-10.



**Figure D-10. The back-tower retaining pin on the back-tower stand**

11. Soldier 4 removes the back-tower retaining pin from the back-tower stand. See Figure D-11.



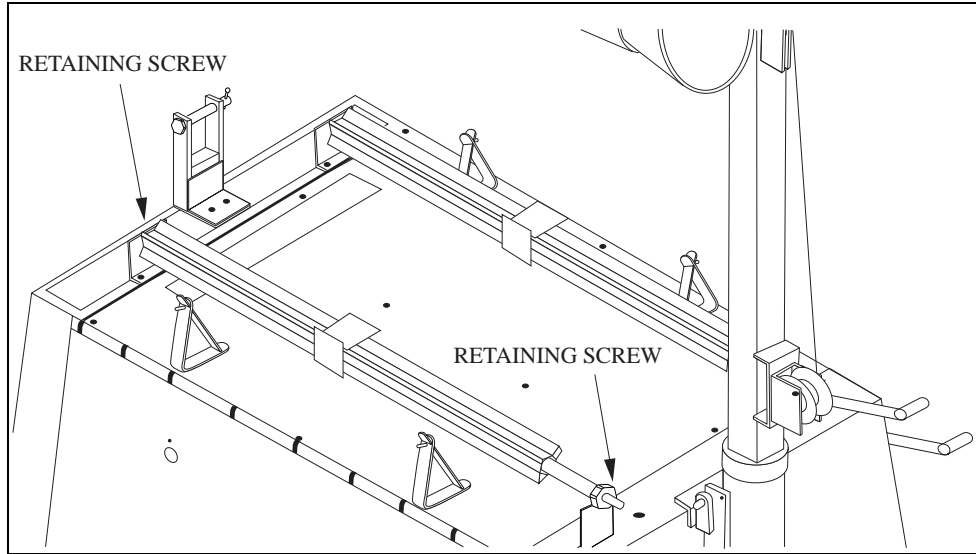
**Figure D-11. The 4 auxiliary portable flood lights reinstalled inside the trailer**

12. Soldier 2 removes the locking pin that retains the base of the tower in the keeper assembly at the bottom of the trailer.
13. Soldier 2 uses the winch on the front of the right side of the trailer to lower the tower to a reclining position.
14. Soldier 4 replaces the back-tower retaining pin on the back-tower stand.
15. Soldier 4 replaces the cotter pin in the back-tower retaining pin on the back-tower stand.
16. Soldiers 1 and 3 disassemble the mast by doing the following:
  - a. Unplug a power cable from an auxiliary portable light set.
  - b. Roll up a power cable for an auxiliary portable light set.
  - c. Loosen a wing screw on a portable floodlight mast that holds the legs at the desired height.
  - d. Collapse the tripod legs on one of the portable masts, and lay the masts horizontal.
  - e. Remove two auxiliary portable flood lights from a portable mast.
  - f. Raise one of the side doors on the trailer, ensuring the catch latch has engaged and will retain the door in the up and latched position.

**COACHING POINT:** Each soldier opening the trailer access door must ensure that the catch latches engage anytime the door is raised.

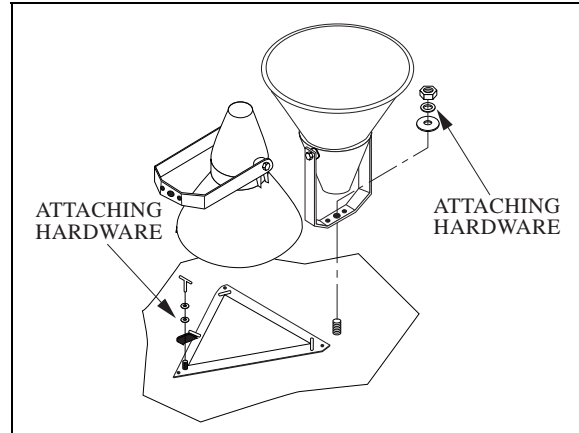
- g. Stow an auxiliary portable light power cable in the trailer.
- h. Reinstall two auxiliary portable flood lights on their mounting fixtures inside the trailer assembly. See Figure D-11.
- i. Close a side door on the trailer.
- j. Slide a portable mast into the retaining brackets that hold them on the top of the trailer assembly. See Figure D-12.





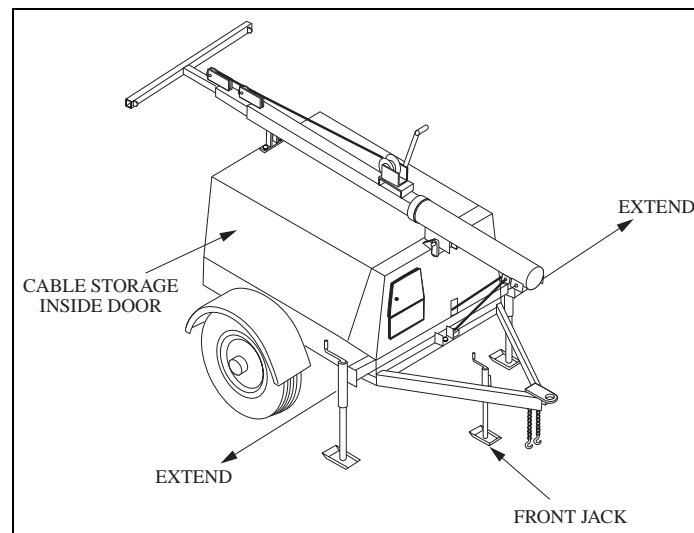
**Figure D-12. The portable masts in their retaining brackets**

- k. Retighten the screws that hold the two masts to the mounting brackets on the trailer.
  - 17. Soldier 4 unhooks the grounding cable between the grounding rod and the tow tongue of the trailer assembly.
  - 18. Soldier 3 pulls the grounding rod from the ground and stows it in the trailer.
  - 19. Soldiers 1 and 2 remove the four floodlights from the T-bar, using the attaching hardware to secure the floodlights to their mounts inside the trailer (Step 22).
  - 20. Soldiers 1 and 2 check each of the floodlight lenses for cracks.
- COACHING POINT:** Proper inflation range is shown on the sidewalls of the tires.
- 21. Soldier 4 checks the tire pressure on the trailer assembly using a tire pressure gauge.
  - 22. Soldiers 1 and 2 reinstall the four floodlight assemblies on their mounting fixtures inside the trailer. See Figure D-13.



**Figure D-13. The floodlights reinstalled on their mountings inside the trailer**

23. Soldier 4 retracts the tow-tongue jack and rotates the jack assembly on the tow tongue to the horizontal, locked position. See Figure D-14.

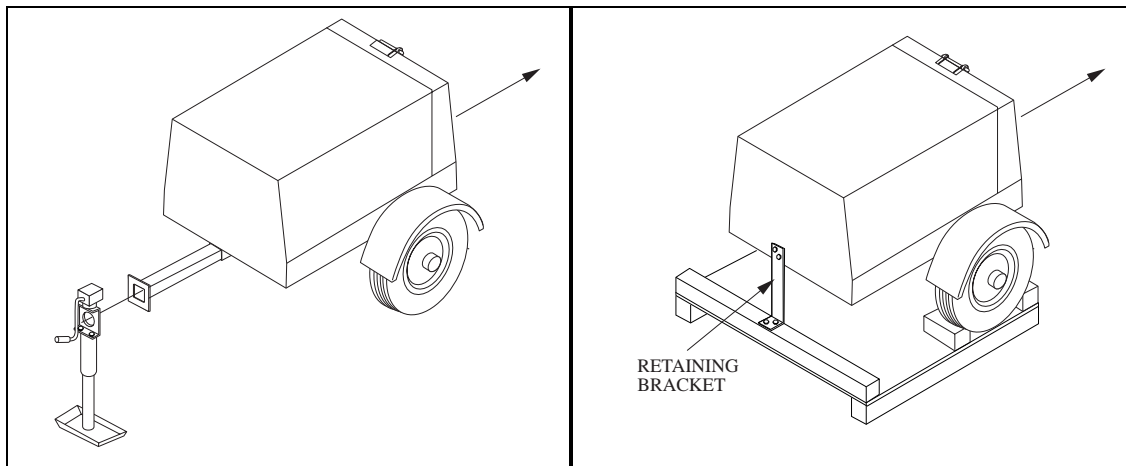


**Figure D-14. The trailer assembly with jacks**

**COACHING POINT:** Execute Steps 24 through 26, Step 31, and Step 33 if the trailer assembly is to be shipped, rather than towed, to a new location.

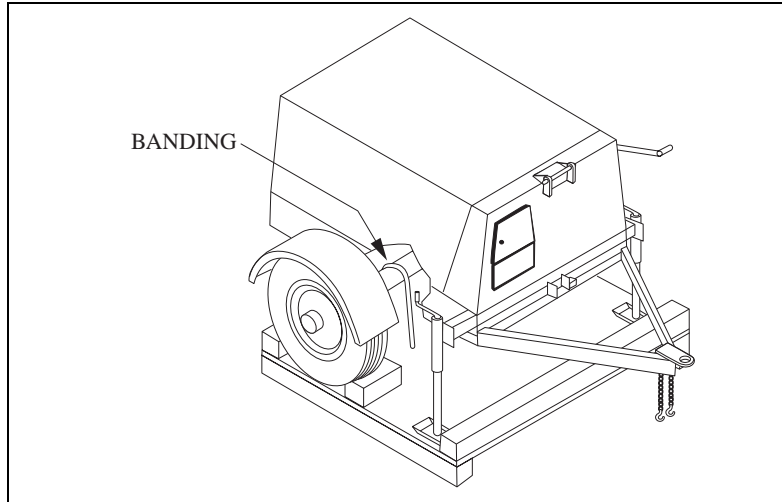
24. Soldiers 1, 2, and 3 raise the trailer assembly above the height of the shipping skid by each adjusting one of the three jacks on the side and rear outriggers.
25. Soldiers 1, 2, 3, and 4 replace the shipping skid by sliding it under the trailer assembly.

26. Soldiers 1, 2, and 3 lower the trailer assembly onto the skid by each lowering one of the three jacks on the side and rear outriggers.
27. Soldier 1 retracts the rear jack so it no longer supports the rear of the unit.
28. Soldier 1 removes the rear jack assembly from the draw bar and stows the jack inside the trailer assembly. See Figure D-15.



**Figure D-15. The rear draw bar and the draw bar shipping bracket**

29. Soldier 1 pushes the draw bar, on the rear of the trailer assembly (identified as "rear outrigger" in the parts listing), into the draw bar socket tube.
30. Soldiers 2 and 3 each loosen a side-outrigger T-screw.
31. Soldier 1 reinstalls the draw bar shipping bracket, covering the draw bar socket tube. See Figure D-15.
32. Soldiers 2 and 3 each retract a side-outrigger jack so it no longer supports the unit.
33. Soldier 4 bands the axle of the trailer assembly to the skid. See Figure D-16.



**Figure D-16. The trailer assembly reinstalled on a shipping skid**

34. Soldiers 2 and 3 each rotate a side-outrigger jack to the horizontal, locked position
35. Soldiers 2 and 3 each rehouse an outrigger into its socket tube and secure each with the outrigger T-screws. See Figure D-14.
36. Soldier 1 stows any remaining materials that are transported inside the trailer.
37. Soldier 1 ensures the catch latches on the side doors of the trailer are engaged.

**NOTE:** The trailer may be shipped in a partially assembled condition with no banding used. However, airlift or sealift directives may require that the trailer be banded.

**RUN-THROUGH:** The drill leader should have the soldiers practice this drill until they can perform it according to the standards without referring to the crew drill. The drill leader should conduct the initial run-through slowly. To learn all the performance steps and related standards, the soldiers should change positions during subsequent drill iterations.

**PERFORM:** When the soldiers can perform this drill according to the standards, their performance should be evaluated by the section leader.

**GLOSSARY****A**

A/SPOE.....	aerial/sea port of embarkation
AA.....	antiarmor
AACG.....	arrival airfield control group
AAR.....	after action review
AC.....	active component
ADC.....	area damage control
ALCE.....	airlift control element
AM.....	amplitude modulation
AMC.....	Army Materiel Command
AMMO.....	ammunition
ANN.....	annual
AO.....	area of operations
AOAP.....	Army Oil Analysis Program
APFT.....	Army Physical Fitness Test
APOD.....	area port of debarkation
APOE.....	area port of embarkation
AR.....	Army regulation
ARTEP.....	Army Training and Evaluation Program
ASG.....	area support group
ATMCT.....	air terminal movement control team
ATP.....	ammunition transfer point
ATTN.....	attention
ATWESS.....	antitank weapon effects signature simulator
AUEL.....	automated unit equipment list

**B**

BBPCT.....	blocking, bracing, packing, crating, and tie down
BCOC.....	base cluster operations center
BDAR.....	battle damage assessment and repair
BF	battle fatigue
BFA.....	blank firing adaptor
BLTM.....	battalion-level training model
BN.....	battalion
BOS .....	battlefield operating systems
BRST.....	burst
BSA.....	brigade support area

**C**

C2.....	command and control
C3CM.....	command, control, and communication counter measures
CA.....	combat arms
CAL.....	caliber
CAS .....	close air support
CBL.....	containerized batch laundry
CATS.....	combined arms training strategy
CCT.....	combat control team
CEOI.....	communications-electronics operations instructions
CFFS.....	combat field feeding system
CFX.....	command field exercise
CHS.....	combat health support
CL.....	containerized laundry
CMD.....	command
COA.....	course(s) of action
COMSEC.....	communications security
CO.....	company
COSCOM.....	corps support command
CP .....	command post
CPT.....	captain
CPX.....	command post exercise
CQ.....	charge of quarters
CS.....	combat support
CSG.....	Corps Support Group
CSS.....	combat service support
CT.....	common task
CTA.....	common table of allowances
CTC.....	combat training center
CTT.....	common task test
CTX.....	combined training exercise
CUST.....	customer

**D**

DA.....	Department of the Army
DACG.....	departure airfield control group
DAO.....	division ammunition officer
DE.....	directed energy
DECON.....	decontaminate/decontamination
DEL.....	deployment equipment list
DEPEX.....	deployment exercise
DISCOM .....	division support command
DMMC.....	division materiel management center

**D (continued)**

DMOIC..... division medical operations center  
 DODAC..... Department of Defense Ammunition Code  
 DODIC..... Department of Defense Identification Code  
 DS2 ..... Decontamination Solution Number 2  
 DS ..... direct support  
 DSA..... division support area  
 DZ ..... drop zone

**E**

EA..... each  
 ECCM..... electronic counter-countermeasures  
 EDRE..... emergency Deployment readiness exercise  
 EEFI..... essential elements of friendly information  
 ELSEC ..... electronic security  
 EOD ..... explosive ordnance disposal  
 EPW ..... enemy prisoner of war  
 EQUIP..... equipment  
 EW ..... electronic warfare  
 EXEVAL..... external evaluation

**F**

F..... fahrenheit  
 FARE..... forward area refueling equipment  
 FDC..... fire direction center  
 FHT..... field handling trainer  
 FLT..... floating  
 FM..... field manual  
 FP..... force provider  
 FRAGO ..... fragmentary order  
 FRIS..... field ration issue system  
 FSB..... forward support battalion  
 FSSP..... fuel system supply point  
 FST..... field sanitation team  
 FTX ..... field training exercise

**G**

GPH..... gallons per hour  
 GPM..... gallons per minute  
 GREN..... grenade  
 GRN..... green  
 GRND..... ground

**G (continued)**

GRREG ..... graves registration  
GS ..... general support

**H**

HE..... high explosive  
HHC..... headquarters and headquarters company  
HHD..... headquarters and headquarters detachment  
HN..... host nation  
HQ..... headquarters  
HSC..... headquarters and supply company  
HSS..... health service support

**I**

IAW ..... in accordance with  
ILLUM..... illumination  
INTSUM ..... intelligence summary  
IPB..... intelligence preparation of the battlefield  
ITEP..... individual training and evaluation plan  
ITO..... installation transportation officer

**J**

JFTOT..... jet fuel thermal oxidation test  
JINTACCS..... joint interoperability of tactical command and  
control systems  
JTX..... joint training exercise

**K**

KCLFF..... kitchen company level field feeding  
KIA ..... killed in action

**L**

LAW..... light antitank weapon  
LCX..... logistical coordination exercise  
LID..... light infantry division  
LIQ..... liquid  
LOC..... logistics operations center  
LOGCAP..... Logistics civilian augmentation program



LOMAH..... location of miss and hit  
**L (continued)**

LP..... listening post  
 LSE..... logistics support element  
 LT..... lieutenant  
 LTA..... local training area  
 LZ ..... landing zone

**M**

MA..... mortuary affairs  
 MA..... mission area  
 MACS..... multipurpose arcade combat simulator  
 MAINT..... maintenance  
 MAPEX..... map exercise  
 MCSR..... materiel condition status report  
 MCT..... movement control team  
 MED..... medical  
 METL..... mission essential task list  
 METT-T..... mission, enemy, terrain, troops, and time  
 MG..... machine gun  
 MHE..... material handling equipment  
 MIJI..... meaconing, intrusion, jamming, and  
 interference  
 MIL..... master incident list  
 MILES..... multiple integrated laser engagement system  
 MILVAN..... military owned demountable container  
 MKT..... mobile kitchen trailer  
 MM..... millimeter  
 MOBEX..... mobilization exercise  
 MOPP ..... mission-oriented protection posture  
 MOS..... military occupational specialty  
 MOUT ..... military operations on urban terrain  
 MP..... military police  
 MPMG..... multipurpose machine gun  
 MPRC..... multipurpose range complex  
 MQS..... military qualifications standards  
 MSB..... main support battalion  
 MSG..... master sergeant  
 MSR ..... main supply route  
 MST..... maintenance support team  
 MTA..... major training area  
 MTP..... mission training plan  
 MWR..... morale, welfare, and recreation

**N**

NBC ..... nuclear, biological and chemical  
NCO..... noncommissioned officer  
NCOIC..... noncommissioned officer in charge  
NCS..... net control station  
NLT..... not later than

**O**

OC..... observer/controller  
OCIE..... organizational clothing and individual  
equipment  
OCONUS outside the continental United States  
OEG..... operational exposure guidance  
OIC..... officer in charge  
OP..... observation post  
OPS..... operations  
OPCON..... operational control  
OPFOR ..... opposing force(s)  
OPLAN..... operation plan  
OPORD..... operation order  
OPSEC..... operations security

**P**

PAM..... pamphlet  
PEWS..... platoon early warning system  
PIR... ..... priority intelligence requirement  
PKG..... packaged  
PLL ..... prescribed load list  
PLT..... platoon  
PMCS ..... preventive maintenance checks and services  
PMI..... preliminary marksmanship instruction  
PMT..... preliminary marksmanship training  
POC..... Point of contact  
POL..... petroleum, oils, and lubricants  
POM..... preparation for overseas movement  
POV..... privately owned vehicle  
PSA..... port support activity  
PT..... physical training  
PREPO..... prepositioned  
PRCHT..... parachute  
PROJ..... projectile  
PVNTMED..... preventive medicine

PZ..... pickup zone  
 PZCO..... pickup zone control officer

**Q**

QM..... quartermaster  
 QUAL..... qualification

**R**

RAA..... redeployment assembly area  
 RC..... reserve component  
 RDF ..... radio direction finder  
 RECON ..... reconnaissance  
 RES..... Radiation exposure status  
 RF ..... radio frequency  
 RDS..... rounds  
 RON..... remain over night  
 RP..... release point  
 RT..... receiver transmitter  
 RTD..... return to duty  
 RWI..... radio wire integration

**S**

S&S..... supply and service  
 SA..... staging area  
 SALUTE ..... size, activity, location, unit, time, and  
 equipment  
 SAM..... soft-structural, aluminum, malleable  
 SARSS..... standard Army retail supply system  
 SASO..... stability and support operations  
 SCPE..... simplified collective-protection equipment  
 SEC..... section  
 SDT..... self development test  
 SFC..... sergeant first class  
 SGT..... sergeant  
 SHELLREP..... shelling report  
 SIG..... signal  
 SIGSEC ..... signal security  
 SIM..... simulator  
 SITREP ..... situation report  
 SM..... soldier manual.....  
 SMAJ..... sergeant major  
 SMCT..... soldier manual of common tasks  
 SMK..... smoke  
 SOI..... signal operating instructions  
 SOP..... standing operating procedures  
 SP ..... start point

SPOD..... sea port of debarakation  
 SPOE..... sea port of embarkation

**S (continued)**

SPOTREP..... spot report  
 SPT..... support  
 SSG..... staff sergeant  
 SSI..... standard signal instructions  
 STAFFEX..... staff exercise  
 STANAG..... standardized agreement  
 STF..... staff  
 STP..... soldier training publication  
 STRAC..... standards in training commission  
 STRIKEWARN .... strike warning  
 STX..... situational training exercise  
 SUP..... supply  
 SUPCOM..... support command

**T**

TA..... theater army

TAA..... tactical assembly area  
 TAACOM..... Theater Army Area Command  
 TACAIR..... tactical air (support)  
 TADSS..... training aids, devices, simulators, and  
 simulations  
 TAMCA..... Theater Army Movement Control Agency  
 TAMMS..... The Army Maintenance Management System  
 TB..... technical bulletin  
 TC..... technical circular  
 TC-ACCIS..... transportation coordinator automated command  
 control information systems  
 TCF..... tactical combat force  
 TEMPER..... tent, extendable, modular, personnel  
 TEMPEST..... compromising emanations controls  
 TEWT..... tactical exercise without troops  
 T&EO .... training and evaluation outline  
 TG..... trainer's guide  
 TM..... technical manual  
 TNG..... training  
 TOCEX..... tactical operations center exercise  
 TOE..... table of organization and equipment  
 TP..... target practice  
 TRADOC..... Training and Doctrine Command  
 TRC..... training readiness condition  
 TRICON..... triple containers  
 TSOP .... tactical standing operating procedures  
 TWDS..... tactical water distribution system

**U**

UCMJ ..... uniform code of military justice  
ULC ..... unit-level computer  
ULLS..... unit level logistics system  
UMA..... unit marshalling area  
UMC..... unit movement coordinator  
UMO..... unit movement officer  
UPW..... Unit proficiency worksheet  
US..... United States

**V**

VEH..... vehicle  
VIOL..... violet

**W**

WH..... white  
WHIS..... whistling  
WIA..... wounded in action  
WPN..... weapon

**X**

XO ..... executive officer

**Y**

YEL..... yellow

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#### **Soldier Training Publications (STP)**

9-51R12-SM-TG Soldier's Manual and Trainer's Guide, MOS 51R,  
 Interior Electrician, Skill Levels 1/2  
 (15 Oct 88)

9-52C12-SM	Soldier's Manual, MOS 52C, Utilities Equipment Repairer, Skill Levels 1/2 (30 Oct 89)
9-52C3-SM-TG	Soldier's Manual and Trainer's Guide, MOS 52C, Utilities Equipment Repairer, Skill Level 3 (30 Oct 89)
9-52D12-SM	Soldier's Manual, MOS 52D, Power Generation Equipment Repairer, Skill Levels 1/2 (30 Oct 89)
9-52D3-SM-TG	Soldier's Manual and Trainer's Guide, MOS 52D, Power Generation Equipment Repairer, Skill Level 3 (30 Oct 89)
9-63B12-SM	Soldier's Manual, MOS 63B, Light Wheel Vehicle Mechanic, Skill Levels 1/2 (17 Sep 90)
9-63B35-SM-TG	Soldier's Manual and Trainer's Guide, MOS 63B, Light Wheel Vehicle Mechanic, Skill Levels 3/4/5 (03 Oct 90)
10-57E14-SM-TG	Soldier's Manual and Trainer's Guide for MOS 57E, Laundry and Bath Specialist Skill Levels 1/2/3/4 (13 Jul 92)
10-77F15-SM-TG	Soldier's Manual and Trainer's Guide for MOS 77F, Petroleum Supply Specialist Skill Levels 1/2/3/4/5 (08 May 96)
10-77W14-SM-TG	Soldier's Manual and Trainer's Guide for MOS 77W, Water Treatment Specialist, Skill Levels 1/2/3/4 (12 Nov 93)
10-92ABDII-MQS	Military Qualification Standards II, Quartermaster Corps, Quartermaster General (92A), Supply and Material Management (92B), and Aerial Delivery and Material (92D) Company Grade Officer's Manual (16 Sep 91)
10-92Y1-SM	Soldier's Manual, MOS 92Y, Unit Supply Specialist, Skill Level 1 (23 Feb 94)
10-92Y24-SM-TG	Soldier's Manual and Trainer's Guide for MOS 92Y, Unit Supply Specialist Skill Level 2/3/4 (23 Feb 94)
10-92G1-SM	Soldier's Manual, MOS 92G, Food Service Specialist, Skill Level 1 (18 Mar 93)

10-92G25-SM-TG      Soldier's Manual and Trainer's Guide for MOS  
92G, Food Service Specialist Skill Levels  
2/3/4/5 (18 Mar 93)

21-I-MQS            Military Qualification Standards I, Manual of  
Common Tasks (Precommissioning Requirements)  
(31 May 90)

21-II-MQS           Military Qualification Standards II, Manual of  
Common Tasks for Lieutenants and Captains  
(31 Jan 91)

21-1-SMCT           Soldier's Manual of Common Tasks Skill Level 1  
(01 Oct 94)

21-24-SMCT          Soldier's Manual of Common Tasks Skill Levels  
2/3/4 (01 Oct 92)

#### **Technical Bulletin**

MED 577            Occupational and Environmental Health:  
Sanitary Control and Surveillance of Field  
Water Supplies (07 Mar 86)

#### **Training Circular**

20-401            Soldiers and the Environment (Jul 98)

25-6              Force-on-Force Collective Training Using the  
Tactical Engagement Simulation Training System  
(03 Oct 95)

#### **Technical Manuals**

5-5430-226-12      Operator's and Unit Maintenance Manual for  
20,000 Gallon Collapsible Fabric Tank  
(22 Jan 97)

5-4610-228-13      Operator's, Organizational and Direct Support  
Maintenance Manual for Water Distribution  
Systems Model WDS 20K (30 May 86)

9-6115-645-10 Operator's Manual for Generator Set, Skid Mounted, Tactical Quiet 60KW, 50/60 and 400 HZ MEP-806A (30 Jul 93)

9-6115-663-13&P Operator, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Power Unit, Diesel Engine Driven, 2 ½-Ton Trailer Mounted, 60 KW, 50/60 HZ, PU-805 (15 Oct 93)

10-3510-220-10 Operator's Maintenance and Maintenance Manual for Laundry Unit, Trailer Mounted, Model M85-100 (20 Apr 90)

10-3510-223-13&P Operator's, Unit and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for the Containerized Batch Laundry (CBL)

10-4520-259-13&P Operator's, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Heater, Water, Liquid Fuel M-80 (31 Aug 93)

10-5419-200-12 Operator's Unit, Direct Support and General Support Maintenance Manual for Force Provider (25 Dec 96)

10-4930-238-12&P Operator's and Unit Maintenance Manual Including Repair Parts and Special Tools List for Forward Area Refueling Equipment (30 Jun 93)

10-7360-208-13&P Operator's, Unit and Direct Support Maintenance Manual Including Repair Parts and Special Tool List from Modular Field Kitchen (9 Sep 91)

10-7360-211-13&P Operator's, Unit and Direct Support Including Repair Parts and Special Tools List for Food Sanitation Center (FSC) (30 May 91)

10-8340-224-13&P Operator's, Organization and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Tent, Extendable, Modular (28 Feb 86)

38-250 Packaging and Materials Handling: Preparing of  
Hazardous Material for Military Air Shipment  
(01 Mar 97)

**Required  
Documents**

DA Form 285	U.S. Army Accident Report (Jan 92)
DA Form 2028	Recommended Changes to Publications and Blank Forms (Feb 74)
DA Form 2062	Hand Receipt/Annex Number (Jan 82)
DA Form 2063-R	Prescribed Load List (LRA) (Jan 82)
DA Form 2404	Equipment Inspection and Maintenance Worksheet (Apr 79)
DA Form 2406	Material Condition Status Report (Apr 93)
DA Form 2407	Maintenance Request (Jul 94)
DA Form 3161	Request for Issue or Turn-In (May 83)
DA Form 3643	Daily Issues of Petroleum Products (Apr 85)
DA Form 3644	Monthly Abstract of Issues of Petroleum Products and Operating Supplies (Apr 85)
DA Form 4193	Petroleum Products Pump Station Hourly Operations Record (Jan 74)
DA Form 4765-R	Laundry Activity Record (LRA) (Mar 79)
DA Form 4818	Petroleum Products - Pump Station Operations Log Oct 79)
DA Form 5464-R	Petroleum Products Pipeline Leakage Report (LRA) Oct 85)

**Table of Organization and Equipment (TOE)**

42-424L000	Quartermaster Force Provider Company (01 Apr 98)
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ARTEP 42-424-30-MTP

**TRADOC Regulation**

350-25

Combined Arms Training Strategy  
Available from: Commander  
Headquarters TRADOC  
ATTN: AG Publications Stockroom  
Fort Monroe, VA 23651

**Miscellaneous**

ARTEP 63-422-30-  
MTP

Mission Training Plan for Headquarters Company  
Corps Support Group and Headquarters  
Detachment Corps Support Battalion (11 Mar 92)

STANAG 2024

Military Vehicle Lighting

**Questionnaire**

**Mission Training Plan User Feedback**

**MTP NUMBER:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**MTP TITLE:** \_\_\_\_\_

Request your recommendations to improve this training publication. To make it easier to make recommendations, a standard questionnaire has been provided for your use. Please answer all questions frankly and mail to: Commander, U. S. Army Combined Arms Support Command, Training Directorate, Quartermaster Team, ATTN: ATCL-AQ, 801 Lee Avenue, Fort Lee, Virginia 23801-61713.

**THE FOLLOWING QUESTIONS PERTAIN TO YOU.**

1. What is your position (CDR, XO, Plt Ldrs, Plt Sgt, Section Chief, Section NCOIC, Etc.)? \_\_\_\_\_
2. How long have you served in this position? \_\_\_\_\_
3. How long have you served in this unit? \_\_\_\_\_
4. What is your component? (A) AC (B) RC
5. What is your unit? (A) CONUS (B) USAREUR  
(C) USARPAC (D) 8TH USA  
(E) Other \_\_\_\_\_

**THE FOLLOWING QUESTIONS ARE ABOUT THE MTP IN GENERAL.**

6. How do you feel this document has affected training in your unit when compared to other training products?
  - A. Has made training worse. \_\_\_\_\_
  - B. Has made training better. \_\_\_\_\_



C. Has had no effect on training. \_\_\_\_\_

---

D. Do not know or do not have an opinion. \_\_\_\_\_

---

7. How easy is the document to use, compared to other training products?

A. More difficult. \_\_\_\_\_

---

B. Easier. \_\_\_\_\_

---

C. About the same. \_\_\_\_\_

---

D. Do not know or do not have an opinion. \_\_\_\_\_

---

8. What part of the MTP document was least useful?

A. Chapter 1, Unit Training. \_\_\_\_\_

---

B. Chapter 2, Training Matrix. \_\_\_\_\_

---

C. Chapter 3, Mission Outline. \_\_\_\_\_

---

D. Chapter 4, Training Exercises. \_\_\_\_\_

---

E. Chapter 5, Training and Evaluation Outlines. \_\_\_\_\_

---

F. Chapter 6, External Evaluation. \_\_\_\_\_

---

G. Do not know or have no opinion. \_\_\_\_\_

---

9. What part of the MTP document was most useful?

A. Chapter 1, Unit Training. \_\_\_\_\_

---

B. Chapter 2, Training Matrix. \_\_\_\_\_

---

C. Chapter 3, Mission Outline. \_\_\_\_\_

---

D. Chapter 4, Training Exercises. \_\_\_\_\_

---

E. Chapter 5, Training and Evaluation Outlines. \_\_\_\_\_

---

F. Chapter 6, External Evaluation. \_\_\_\_\_

---

G. Do not know or have no opinion. \_\_\_\_\_

---

10. What chapter of the MTP was the most difficult to understand?

A. Chapter 1, Unit Training. \_\_\_\_\_

---

B. Chapter 2, Training Matrix. \_\_\_\_\_

---

C. Chapter 3, Mission Outline. \_\_\_\_\_

---

D. Chapter 4, Training Exercises. \_\_\_\_\_

---

E. Chapter 5, Training and Evaluation Outlines. \_\_\_\_\_

---

F. Chapter 6, External Evaluation. \_\_\_\_\_

---

G. Do not know or have no opinion. \_\_\_\_\_

---

11. What was the easiest part of the MTP to understand?

A. Chapter 1, Unit Training. \_\_\_\_\_

---

B. Chapter 2, Training Matrix. \_\_\_\_\_

---

C. Chapter 3, Mission Outline. \_\_\_\_\_

---

D. Chapter 4, Training Exercises. \_\_\_\_\_

---

E. Chapter 5, Training and Evaluation Outlines. \_\_\_\_\_

---

F. Chapter 6, External Evaluation. \_\_\_\_\_

---

G. Do not know or have no opinion. \_\_\_\_\_

---

**THE FOLLOWING QUESTIONS PERTAIN TO THE TRAINING EXERCISES  
(STX AND FTX).**

12. The exercises are designed to prepare the unit to accomplish its wartime mission. In your opinion, how well did they fulfill their intended purpose?

A. They did not prepare the unit at all. \_\_\_\_\_

---

B. They helped, but only provide 20% or less of my unit's training requirements. \_\_\_\_\_

---

C. They helped, but only provide 21% to 50% of my unit's training requirements. \_\_\_\_\_

---

D. They helped, but only provide between 51% to 80% of my unit's training requirements. \_\_\_\_\_

---

E. They provide 81% or more of my unit's training requirements. \_\_\_\_\_

---

13. Would you recommend that any STX or FTX be added or deleted from the MTP (specify FTX or STX)? \_\_\_\_\_

---

14. What was the greatest problem you experienced with the exercises?

A. Too many pages. \_\_\_\_\_

---

B. Hard to read and understand. \_\_\_\_\_

---

C. Needs more illustrations. \_\_\_\_\_

---

D. Needs more information on how to set up the exercises.

---

---

E. Needs more information on leader training. \_\_\_\_\_

---

---

F. Needs more information on how to conduct the exercises.

---

---

G. Needs more information on support and resources. \_\_\_\_\_

---

---

H. Needs more information on normally attached elements.

---

---

I. Does not interface well with other training products,  
such as battle drills. \_\_\_\_\_

---

---

J. Do not know or have no opinion. \_\_\_\_\_

---

15. What was the second greatest problem you experienced  
with the exercises?

A. Too many pages. \_\_\_\_\_

---

B. Hard to read and understand. \_\_\_\_\_

---

C. Needs more illustrations. \_\_\_\_\_

---

D. Needs more information on how to set up the exercises.

---

---

E. Needs more information on leader training. \_\_\_\_\_

---

F. Needs more information on how to conduct the exercises.

---

---

G. Needs more information on support and resources. \_\_\_\_\_

---

H. Needs more information on normally attached elements.

---

---

I. Does not interface well with other training products,  
such as battle drills. \_\_\_\_\_

---

J. Do not know or have no opinion. \_\_\_\_\_

---

16. How many STX's or FTX's have you trained or participated in  
personally? \_\_\_\_\_

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**THE FOLLOWING QUESTIONS APPLY TO CHAPTERS 5 AND 6 OF THE MTP.**

17. What changes would you make to Chapter 5, Training and  
Evaluation Outlines?

A. Leave it out altogether. \_\_\_\_\_

---

B. Clarify how to use this chapter with the training exercises. \_\_\_\_\_

---

C. Clarify how to use this chapter with the external evaluation. \_\_\_\_\_

---

D. The performance measures are too detailed. \_\_\_\_\_

---

E. The performance measures are not detailed enough. \_\_\_\_\_

---

F. The performance measures do not adequately address those elements that are normally attached in wartime. \_\_\_\_\_

---

G. Do not change, chapter is fine. \_\_\_\_\_

---

H. Do not know or have no opinion. \_\_\_\_\_

---

18. What changes would you make to Chapter 6, External Evaluation?

A. Leave it out altogether. \_\_\_\_\_

---

B. Clarify how to use this chapter with the training exercises. \_\_\_\_\_

---

C. Clarify how to use this chapter with the external evaluation. \_\_\_\_\_

---

D. The performance measures are too detailed. \_\_\_\_\_

---

E. The performance measures are not detailed enough. \_\_\_\_\_

---

F. The performance measures do not adequately address those elements that are normally attached in wartime.

---

---

G. Do not change, chapter is fine. \_\_\_\_\_

---

H. Do not know or have no opinion. \_\_\_\_\_

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19. Additional Comments:

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Commander  
U.S. Army CASCOMFL  
Training Directorate  
Attn: ATCL-AQ  
401 First Street  
Fort Lee, VA 23801-1511

ARTEP 42-424-30-MTP  
17 MARCH 1999

By Order of the Secretary of the Army:

GORDON R. SULLIVAN  
*General, United States Army*  
*Chief of Staff*

Official:

  
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*Administrative Assistant to the*  
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