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	Construction RESIDENT ENGINEER MANAGEMENT GUIDE	
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DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

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Construction
RESIDENT ENGINEER MANAGEMENT GUIDE

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FOREWORD

This pamphlet is provided as an informational document for the resident engineer to assist in the organization and operation of the typical resident engineer office. This document is issued in various sections to provide a living reference document in looseleaf format, so that particular sections can be revised and updated at more frequent intervals than in the past. In this format, the Resident Engineer Management Guide can be easily supplemented with Division/District implementing procedures with direct reference to the applicable sections of this pamphlet. Any inquiries concerning the RE Management Guide should be addressed to HQUSACE, ATTN: CEMP-CP, Construction Division, Policy Branch, Washington, D.C. 20314-1000.

SECTION 1

INTRODUCTION

1-1. **Purpose**.

The purpose of this pamphlet is to provide resident engineers with information that will assist them in administering construction contracts. This pamphlet is offered strictly as a guide; Appendices B and C are provided as samples. This pamphlet supersedes the October 1973 issue of the Resident Engineer Management Guide, but does not supersede any regulations or contract requirements, or abridge command authority or responsibility.

1-2. **Applicability**.

This pamphlet applies to resident and area offices with either limited or full delegated authority to administer construction contracts. In addition, it applies to project or field offices with limited or no authority to act for the Contracting Officer. These guidelines are provided as assistance in carrying out the administrative responsibilities of construction work and are recommended for use by division and district agencies in developing more particular local regulations dealing with resident office functions.

1-3. **Regulatory Publications**. The regulations which govern the Corps of Engineers procurement of construction by contract are as follows:

a. Federal Acquisition Regulation (FAR). The FAR is the primary regulation for use by all federal executive agencies in their acquisition of supplies and services with appropriated funds. The FAR system has been developed in accordance with the requirements of the Office of Federal Procurement Policy Act of 1974; as amended by Public Law 96-83. The FAR is issued by the Administrator for Federal Procurement Policy.

b. Federal Acquisition Circular (FAC). The FAC supplements the FAR and is approved by the Administrator for Federal Procurement Policy.

c. Department of Defense FAR Supplement (DFARS). The DFARS is issued by the undersecretary of Defense for Research and Engineering. The DFARS establishes uniform DOD policies and procedures, implementing and supplementing the FAR.

d. Defense Acquisition Circular (DAC). The DAC supplements DFARS and is approved by the Defense Acquisition Regulatory Council.

e. Armed Services Procurement Regulation Manual No. 1 (ASPM No. 1). The Armed Services Procurement Regulation Manual for Contract Pricing is published as a training and instructional guide and is non-directive in nature.

f. Army Federal Acquisition Regulation Supplement (AFARS). Issued by direction of the Secretary of the Army pursuant to FAR Subpart 1.3. The AFARS supplements and implements the DFARS and FAR.

g. Engineer Federal Acquisition Regulation Supplement (EFARS). EFARS is issued by the Corps of Engineers to implement FAR, DFARS, AFARS, and establish uniform policies for contracting and administration of Corps contracts.

1-4. **Construction Bulletins (CB)**.

The Construction Bulletin (CB) is a means by which HQUSACE can provide current guidance to the FOA's in a timely manner. The CB does not replace any current regulations, but is a mechanism to enhance headquarters ability to provide responsive current guidance to the field. Each CB has an APPLICABILITY line (DIRECTIVE, GUIDANCE, or INFORMATION), and is sent hardcopy. CB's are numbered sequentially within the Calendar Year (e.g. 89-1), and expires automatically on 31 Dec, two years in the future (e.g. 31 December 1991). CB's do NOT replace ER's, EC's or EP's. They are used to improve HQUSACE'S responsiveness to current FOA issues and problems. An original CB should be maintained on file in all divisions, districts, and field offices. Copies for internal use can be made as necessary. If the guidance should be "locked in stone," it will be included in an appropriate ER. If the guidance is no longer necessary or appropriate, it will be allowed to expire.

1-5. **Definition of Terms**.

a. Contracting Officer. The Contracting Officer has authority to enter into, administer, or terminate contracts and make related contract determinations and findings. The CO is responsible for ensuring performance of all necessary actions for effective contracting, ensuring compliance with the terms of the contract, and safeguarding the interests of the United States in its contractual relationships.

b. Administrative Contracting Officer (ACO). The ACO (formerly referred to as Resident Contracting Officer) is an individual authorized by the Contracting Officer to administer a contract and execute modifications to that contract. The ACO's authorities to modify the contract and obligate the Government are limited to those defined in their certificate of appointment, as indicated in EFARS 1.602-1(100).

c. Contracting Officer's Representative (COR). The COR is a designated authorized representative of the Contracting Officer with authority to take all actions in connection with the administration of the contract with the exception of obligating the payment of money by the Government or authorizing a change in contract performance or completion time. The COR's specific authorities and limitations are limited to those defined in their letter of appointment as required by AFARS 42.90.

d. Chief of construction or construction operations division. At the district level, this term applies to the individual who is responsible to the district commander for the efficient organization, function, and execution of the military and civil construction program in the field and for the staff supervision of the field organization. The incumbent provides policy guidance and resources to area and resident engineers.

e. Area engineer. The area engineer is responsible for the supervision and administration of all construction contracts located within a set geographical area. The area engineer manages these projects directly, or by delegating responsibility to resident offices or project offices under his jurisdiction. The area office is an element of the district. The area engineer provides the staff supervision of the field organization in their area of control, as well as supporting management functions delegated by the District.

f. Resident engineer (RE). The resident engineer is the manager of the field office responsible to the area engineer and the District for the on-site administration and direction of one or more construction contracts. Area engineer or project engineer may be synonymous terms used under certain field conditions. "Resident engineer" as used in this pamphlet is intended to represent all of these individuals regardless of their title. The resident engineer may or may not have Administrative Contracting Officer (ACO) or Contracting Officer Representative (COR) authority. On contractual matters, resident engineers report directly to area engineers, district commanders, or deputy district commanders.

g. Using service or Using agency. The using service (e.g. Air Force, Army, Navy, Department of Energy) is any agency which occupies and ultimately accepts responsibility for the facility constructed under the administration of the area or resident office.

1-6. **Resident Engineer Responsibilities**.

It is important to recognize that establishing a good working relationship with our design and construction industry partners pays back many mutual benefits. The expertise, dedication, and professionalism that each party brings to the project team provides the basis for achieving our ultimate goal of providing our customers as quality product on time. The results which can be expected through good partnership are enhanced productivity, better quality, a safer job, fewer claims, reduced cost growth, and speedier construction.

The typical duties of a resident engineer include responsibility for the following:

a. Management of the resident office and on-site supervision and administration of construction at an installation or project.

b. May or may not have delegated ACO authority.

c. Enforce compliance with all contracts assigned to the resident office within delegated authority.

d. Understand procurement regulations (FAR system).

e. Monitor contractor quality control (CQC) activities and take appropriate action with the contractor to assure compliance with the quality control clauses of the contract.

f. Prepare and implement a quality assurance (QA) plan to assure compliance with contract plans and specifications in accordance with regulations.

g. Supervise project progress and timely completion.

h. Ensure that all materials and equipment installed by the contractor meet the contract requirements.

i. Manage project funds.

j. Manage within approved S ∧ I funding limits.

k. Safeguard the interests of the Government.

l. Recommend improvements in work which will result in total quality management and life cycle savings, deriving the recommendations from professional engineering experience and knowledge of construction procedures, methods, and materials.

m. Monitor and maintain safety standards, as required by EM 385-1-1, Safety and Health Requirements Manual, on all work under the resident engineers supervision.

n. Maintain and support an awareness of public relations and the public image of the U.S. Army Corps of Engineers (USACE).

o. Negotiate and issue modifications within the monetary limits stipulated in the authorization as the ACO.

p. Process contractor payment estimates promptly, after verifying their accuracy.

q. Assure accountability and security of all resident office property.

r. Manage a cost effective and efficient resident office.

s. Comply with DA and the local installation security requirements.

t. Manage and supervise the resident office and its personnel anticipating personnel needs as required.

u. Increase skills and capabilities of assigned personnel through appropriate training.

1-7. **Responsibilities with Respect to Designs.**

a. Biddability, constructibility, operability review. The resident engineer reviews all plans and specifications during the design period and prior to formal advertising. Comments are forwarded through proper channels to the designer for consideration and incorporation in the design, if applicable. The resident engineer is furnished feedback on the disposition of comments. A list of review items are in paragraph 6-2b of this pamphlet. ER 415-1-11, Biddability, Constructibility and Operability, is the governing regulation.

b. Design data. The resident engineer should request a copy of the design analysis or the engineering considerations for each contract under resident office supervision. The resident engineer or his staff should review each project with the designer either during or after the BCO review to make sure that all unique aspects of the project and/or site of work are known to the designer. A site visit to the project site prior to advertising is highly recommended. It is helpful to have the design representative discuss the project with members of the resident office staff.

c. Repetitive deficiencies. Information on repetitive deficiencies for the type of construction being performed may be obtained from the district or from the Construction Evaluation Retrieval System (CERS). CERS will provide feedback on project experiences collected during Headquarters, HQUSACE (CEMP-CE) design-construction evaluation team visits to project sites and from post completion and warranty inspections of facilities.

d. Differing site conditions. If a review of the contractor's correspondence and a review of field conditions indicate that changed conditions exist, the resident engineer should notify the district and prepare a statement of facts and recommendations on the situation.

e. Design improvement. The resident engineer should not hesitate to notify the district of conditions which seem to merit review. ENG Form 3078, Design or Project Deficiency Report and Recommendations, is recommended for design improvement suggestions.

f. Architect-Engineer Performance Evaluation. The resident engineer completes ENG Form 1421-R(Test), Sep 89 Performance Evaluation (Architect-Engineer) upon completion of construction. This is the resident engineers opportunity to evaluate the effectiveness of the design and provide feedback to the district and to other Corps offices on the capability, responsiveness, accuracy, and design quality provided by a particular A-E.

1-8. **Organization**.

a. Command channel. The established command channel for contractual matters is from the Commander, HQUSACE, to the division commander, to the district commander/contracting officer, to the area/resident engineer. For other than contractual matters, resident engineers usually report to the Chief of Construction Division. The resident engineer is responsible for all activities of the resident office.

b. Resident office organization. The customary organizational elements in the resident or area office are office engineering, contract administration, and quality assurance. The organization reflects project requirements and resources. The resident engineer continually reviews the organizations efficiency and makes recommendations to the Chief of Construction, if changes are necessary

1-9. **Contractor Relations**.

a. Ethics. The resident engineer and his staff occupy a position of public trust; therefore, they follow the highest standards of personal conduct in their relationships with contractors. The business ethics of all persons charged with administration and expenditure of Government funds must be above reproach. Many practices which are customary for private business are not exercised by Government employees. Accepting entertainment, gifts, or favors from anyone seeking or having business dealings with the Government is considered compromising to both parties. It is essential to retain public confidence in the integrity of business relations between the Government and private industry. Guidance is provided in FAR 3.101, Standards of Conduct, and AR 600-50, Standards of Conduct for Department of the Army Personnel. Further information on these requirements are available from each FOA'S Ethics Counselor or procurement division.

b. Government records and internal discussion. Access to, or release of,Government records, interdepartmental correspondence, and intradepartmental correspondence requires specific prior approval by the District Freedom of Information Officer under the "Freedom of Information Act." Differences of opinion among Government personnel should never be discussed in the presence of contractor representatives. Dissent among Government employees in the presence of contractor personnel may lead to claims, or in some instances, to Congressional inquiries. It is the responsibility of the resident engineer to assure that all resident office personnel understand the ramifications of such discussions.

c. Contract interpretation. Controversial items encountered while interpreting contract plans and specifications are clarified with the district office, as necessary, before being discussed with the contractor. Instructions and verbal agreements are confirmed by letter or memorandum of agreement and are signed by the resident engineer (as the COR) and the contractor's representative.

d. Contract performance. The resident engineer renders timely and unprejudiced decisions regarding the contractor's operations and gives the contractor the greatest possible latitude, within contract provisions, in the choice of equipment and methods. Equipment or methods advocated by the contractor for the work are not rejected if they fulfill contract requirements. However, deviations and/or changes to the contractual specifications, plans, and requirements should NOT be allowed. Should a contractor's methods or equipment endanger the completed structure or result in a major failure during construction, the contractor will be immediately warned in writing and the contracting officer will be notified by the most expeditious means.

e. Contractor's performance. The contract clauses require the contractor to either supervise the work in person or to have on the work site a competent superintendent empowered to act for the contractor. In the event the resident engineer determines that the contractor or the superintendent is unsatisfactory, the contractor will be promptly informed in writing. If corrective measures are not taken by the contractor, the facts, along with recommended actions, will be forwarded to the contracting officer.

f. Subcontractor relations. There is nothing contained in a contract which creates contractual relations between subcon-tractors and the Government.

The prime contractor is responsible for accomplishing all phases of the contract including coordinating subcontractor activities. The resident engineer makes every effort to establish and maintain professional and cooperative relations with the contractor. Each member of the resident engineer's staff should understand the scope of the resident engineer's authority in dealing with both the general contractor and subcontractor representatives. Controversial matters involving subcontractors should be discussed only with the prime contractor's authorized representative.

g. Contractor quality control. The resident engineer's staff must be aware that all dealings are conducted through the prime contractor. The resident engineers staff participates in preparatory and initial inspections in order to monitor CQC procedures since these procedures provide the basis for work placement in each phase of work. Follow-up inspections on a routine basis are more productive when preceded by joint contractor/USACE preparatory and initial inspections. Field instructions are given to the prime contractor's supervisor or CQC personnel, and recorded in the daily report not directly to the workmen, except when a safety hazard exists.

h. Claims. The resident engineer's decisions protect the Government's interest, but reflect fairness to the contractor. If controversial matters are not settled by mutual agreement on the job, the contractor may request a decision by the contracting officer. In such cases, the resident engineer furnishes a written report to the contracting officer covering all phases of the controversy. The resident engineer makes every reasonable effort to avoid claims, and when necessary, requests assistance from the district. In potential claim situations, the resident engineer makes a special effort to record and preserve all factual information. See paragraph 7-6j for further guidance.

1-10. **Relations with the Using Service.**

The extent and limitations of authority delegated to the resident engineer should be conveyed to the using service at the time of delegation by the district commander. The resident engineer must be prepared to discuss the project scope with authorized representatives of the using service. The resident engineer also provides advice and coordination with the using service on the following basic policies.

a. User changes. Army MCA ∧ MMCA projects. When the using service wants to change the plans or specifications, it will be requested to initiate prompt confirming actions through channels. For MCA and MMCA funded projects (with the exception of production base support), a corporate group has been established to manage user originated changes that are elective or enhancement in nature. Requests for corporate group consideration will originate at the installation and be forwarded to the major command with information c consists of three members, each with distinctly defined roles. The major command member is responsible for adequate justification of the changes. The USACE division member is responsible for properly classifying the change and evaluating that change from the standpoint of schedule, cost, and DD Form 1391 scope. The HQUSACE member will evaluate the proposal from the standpoint of policy, regulatory and statutory constraints, and availability of funds. In some cases, recommendations of the corporate group will be elevated to the next higher level at HQUSACE, for resolution. The district is advised immediately of the request and provided with the comments and recommendations of the resident engineer.

b. Local services. The district commander has no local jurisdiction over rights-of-way, real estate, or the right of entry and exit into or over installation properties. Cooperation with local authorities is essential in closing roads and other areas, in erecting barricades, and in similar construction matters. Particular emphasis should be placed on establishing and maintaining close coordination with the installation commander, his DEH organization representatives, and all other affected installation agencies. For civil works projects, the district commander has local jurisdiction as provided by license and easements.

1-11. **Life Cycle Project Management.**

a. Civil Works. Engineer Regulation 5-2-1 provides policy, guidance and procedures on the implementation and utilization of the Life Cycle Project Management (LCPM) system within the US Army Corps of Engineers (USACE). This project management system pertains to planning, design, and construction for Civil Works (CW). This regulation is applicable to all HQUSACE elements and all field operating activities (FOA) having Civil Works responsibilities. All Civil Works projects will be managed, planned and executed under the LCPM system in accordance with the requirements in ER 5-2-1. Projects under $5 million are not subject to upward reporting requirements unless otherwise directed. The objective of LCPM is to establish a system which focuses USACE's corporate leadership on the efficient implementation of quality projects within budget and on schedule.

b. Military and Support for Others. Life Cycle Project Management (LCPM) is in the implementation stage for Military and Support for Others work. Initial guidance and proposed regulations were distributed to all FOA's by letter, CEMP-M, dated 1 Feb 1990. LCPM implementation is a three phased process with full applicability scheduled for Feb 1991. The first phase will consist of one to three MCA projects per district with a PA of $20 million or higher and/or projects as designated as sensitive. The second phase will include three to five projects per district. Phase three will include all Military and Support for Others work. Separate implementation guidance for LCPM will be provided for the Superfund and DERP programs.

SECTION 2

OFFICE ADMINISTRATION

2-1. **Correspondence**.

a. All resident engineer office correspondence is prepared and handled in accordance with AR 25-50, Preparing and Managing Correspondence, and AR 25-400-2, The Modern Army Recordkeeping System (MARKS).

b. All contract-related correspondence issued from the resident office to the contractor is signed by the COR (within authority delegated by the Contracting Officer) using the signature block format of "Contracting Officer Representative," as prescribed by AFARS 42.9002, Authority and Limitations. Noncontractual and interorganizational correspondence is signed as "Resident Engineer." Correspondence committing the Government to contract changes in time and/or price must be signed in accordance with EFARS 1.603-3 (100) (Administrative Contracting Officer) with the title block of "Administrative Contracting Officer."

c. Incoming correspondence should be handled promptly. Items not completed on a daily basis, such as engineering studies and investigations, should be assigned a suspense date. When there will be a delay in answering correspondence, a letter of acknowledgment is issued to the sender explaining the causes for the delay in replying and offering an approximate date on which a reply can be expected. The resident engineer assures expedious action on requests for time extensions or requests for contracting officer decisions, since delays on these actions may result in claims for constructive acceleration or in compromising the Government's position on claims.

d. The resident engineer determines which letters require the reply of higher authority and forwards them to the district at the earliest possible date accompanied by comments and recommendations. Examples of matters requiring action by the district would be:

(1) Requests which require a CO's decision.

(2) Requests for contract changes involving design criteria or real estate easements.

(3) Requests for using agency changes and enhancements. (Army)

(4) Letters concerning policy and procedure.

(5) Letters from congressional authorities, public officials, or other dignitaries.

(6) Requests for time extensions which are beyond the authority of the resident engineer.

(7) Freedom of Information Act Requests.

f. Verbal discussions, interpretations which may arise in potential claim issues, or directives pertaining to contracts should be documented in a daily report or by memorandum for record.

2-2. **Filing and Records**.

a. The filing system used in the resident office is the Modern Army Recordkeeping System, governed by AR 25-400-2. Records are maintained according to AR 25-1, Army Information Resources Management Program, and assistance can be obtained from the district records management officer. Contract numbers are used for file identification and each contract file is maintained separately.

b. The master contract file is maintained by the FOA contracting office, however the RE should maintain a good working file. A copy of all correspondence or other data referring to multiple contracts is filed and cross-referenced under each contract.

c. The following list of records, files, and publications are items commonly required by higher authority to be kept current:

(1) Contract plans and specifications with modifications.

(2) Construction progress reports.

(3) Organization chart of resident staff.

(4) Organization chart of architect-engineer staff (Only for Title II, Architect-Engineer Management Contracts).

(5) Layout of the installation or project, indicating the location of construction work.

(6) Approved progress schedule of overall project and breakdown of the major items of work with actual up-to-date progress.

(7) Contractor payment estimates with supporting documentation.

(8) CQC/QA plan (Organizational)

(9) List of critical materials with delivery dates and current status.

(10) List of actual or anticipated delays and comments on action by the resident engineer.

(11) Record drawings.

(12) Latest safety records showing hours worked, hours of lost time due to accidents, number of lost time accidents, and related figures.

(13) Modification and claim status records.

(14) Status of funds for each project.

(15) Quality control and QA reports.

(16) Status of significant deficiency actions.

(17) Submittal registers and shop drawings.

(18) ACO's letter of delegated authority.

(19) COR's letter of delegated authority.

(20) Contractor's accident prevention plan.

(21) Contractor's environmental control plan.

(22) Contractor's certified payroll register.

(23) Contractor's affirmative action plan.

(24) Contractor's drug-free workplace statement.

(25) A-E and contractor performance evaluations.

(26) Minutes of prebid meeting, the preconstruction conference, and the CQC/QA coordination meeting.

d. Contract records and project files are forwarded to the district as soon as practical after contract completion, but in no case later than 1 year after contract completion. Prior to shipment, files are listed on SF 135 and SF 135A, Records Transmittal and Receipt, and prepared in triplicate. The original copy and one duplicate copy are forwarded to the records management officer of the district for approval. When the duplicate SF 135/135A is returned, it is placed in an envelope as the first item in the first box of the shipment. The third copy is retained in the resident office.

2-3. **Forms**.

a. An adequate stock of current, commonly used forms are typically maintained to ensure a 30 to 60-day supply. The district office can keep the resident engineer supplied with the latest forms. DA Pamphlet 25-30, Consolidated Index of Army Publications and Blank Forms, and EP 25-1-2, Index of Blank Forms, may be referenced for form numbers and titles.

b. Proposed forms must be forwarded to the USACE proponent through the district for approval. The USACE proponent may adopt them by submitting a DA Form 1167, Request for Approval of Form, and prescribing directive.

2-4. **Reports**.

a. Periodic and special reports are required by the resident engineer to record and report matters of importance. All reports by the resident engineer are prepared and submitted in accordance with the instructions furnished by the district, with emphasis placed on minimizing paperwork.

b. When the resident engineer receives a request for a formal report from higher authority, the district will supply, upon notification, the required instructions.

c. Construction data items used in AMPRS must be reported monthly to HQUSACE through the district.

2-5. **Visitors to the Resident Office**.

a. At the discretion of the resident engineer, United States citizens may be admitted to activities under direct supervision of USACE (provided no classified information is involved).

Due regard for the safety of such visitors and noninterference with the project work must be exercised. In addition, at military activities the rules prescribed by the installation commander must also be observed by the visitor(s). Foreign citizens will not be permitted to visit civil works activities without prior approval from the district.

b. The resident engineer extends every courtesy and cooperation to visitors and, when possible, gives them personal attention. If this is not possible, a suitable person for the event should be assigned. In such cases, the resident engineer arranges a meeting with the visitors before they leave the area.

c. Representatives of higher authority, other than the contracting officer for the ACO, are not empowered to verbally direct the resident engineer to make changes in contract requirements. The merit of visitors' opinions and suggestions will be carefully weighed and, if appropriate, action taken.

d. Inspections and visits by higher authorities are routinely reported to the district.

e. Identification and authorization of visitors are checked before allowing access to security matters or areas.

2-6. **General FOIA Procedures**.

a. The Freedom of Information Act (FOIA) requires federal agencies to make certain agency records available to any person that requests them. The request must be in writing and reasonably describe the records requested. The federal agency is only required to release existing documents and is not required to generate new documents to meet the request. The Act requires the agency to provide the information to the requester, or deny the request in ten working days. In practice, however the ten day deadline is hard to meet, and a response that a document search has been initiated will usually satisfy the immediate concerns of the requester.

b. When a FOIA request is sent directly to the area or resident office by the requester, it must be forwarded, as soon as possible, to the District/Division FOIA Officer. The FOIA Officer will process the request, and may send it back to the area/resident office for collection of the requested documents. The FOIA Officer may also ask that form DD 2086, "Record of Freedom of Information Processing Cost," be completed. It is important to fill out that form with the time spent searching and copying the requested documents.

c. Before a document can be withheld from a requester, the FOIA Officer must determine whether that document, or any reasonably segregable portion thereof, fits within one of the nine exemptions in the Act. All other material must be released. The area/resident office should provide the FOIA Officer with a contact point who can help determine if the documents are withholdable. Even though the FOIA Officer is required to make an independent determination, area/resident office input is important. Any questions regarding the type of information that is withholdable, should be directed to the FOIA Officer. FOIA procedures in the individual Districts/Divisions may vary. The area/resident engineer should contact the District/Division FOIA Officer to ensure that the proper procedures are being followed.

SECTION 3

PERSONNEL ADMINISTRATION

3-1. **Management**.

a. The resident engineer establishes and enforces standard operating procedures for the various elements of the resident office, through a knowledge of management principles and evaluation and classification standards.

b. The resident engineer supervises and schedules the resident office workload, minimizing work backlogs and overtime. Personal attention is given to providing adequate equipment, facilities, and working conditions that permit employees to work safely and effectively. Personnel are trained and developed as understudies to key jobs. The resident engineer must be familiar with, and support, the merit promotion plan, EEO/AA, upward mobility, performance awards, career programs, and the overseas priority placement policy.

c. The resident engineer applies the principle of equal employment opportunity (EEO) not only to employment, but to retention, training, and separation of civilian personnel in accordance with the district EEO plan of action. All employees are kept informed of the EEO policy of the district and its support is enlisted to achieve positive results. The resident engineer assures that any complaints involving issues of discrimination on grounds of race, color, religion, sex (including sexual harassment), age, national origin, or physical or mental handicap and reprisal are referred to appropriate EEO officials and expeditiously processed.

d. The resident engineer displays an attitude of neutrality toward employee unions and union membership. Cooperative relationships with employee organizations should be established and maintained. All negotiations with representatives of recognized employee organizations should be handled conjunction with the servicing personnel office as required under Title VII, the Federal Service Labor Management Relations Statute, P.L. 95-454. Training and assistance in the administration of labor agreements is provided by the servicing personnel office.

3-2. **Personnel Strength Forecast**.

a. The resident engineer forecasts the needed personnel strength for the resident office and requests an increase or decrease in personnel authorization in accordance with AR 570-3, Manpower Utilization and Requirements. The district is advised at least 180 days prior to the need for additional personnel or when it is anticipated that any personnel will become surplus to the needs of the resident office. Adequate time is thereby allowed for processing personnel actions.

b. When requesting additional personnel from the district, the following should be clearly stated:

(1) A brief description of duties or job number and special qualification requirements.

(2) The suggested designation and grade of the new employee.

(3) The construction on which the new employee is to be utilized and the location of the job.

(4) The length of time the employee will be needed.

3-3. **CERRAMS**.

a. General. The Corps of Engineers Resource and Military Manpower System (CERRAMS) provides the capability to forecast manpower and funding requirements quickly and accurately and to allocate the available resources to Divisions and Districts. CERRAMS combines computer models, management policy controls, and Department of the Army resource constraints. It enables managers to forecast manpower requirements, planning and design (P&D) funding requirements, and supervision and administration (S&A) funding requirements for all of USACE and its individual Divisions and Districts. It also enables managers to examine options for allocating manpower resources to the Divisions and Districts.

b. The USACE Manpower Forecasting Model - The multiple information requirements of USACE led to the development of CERRAMS as five interrelated models rather than a single large model. The models address the two primary USACE management needs - forecasting requirements and allocating resources.
The two forecasting models and the S&A and P∧D models quantify the requirements for manpower and funding and the allocation model apportions the available manpower and funding resources to USACE Divisions.

Consistency among the models is maintained through the use of common input files which ensures that the same assumptions and policies that drive manpower requirements are used to determine P∧D and S&A funding requirements.

(1) The outputs of the USACE manpower forecasting model are multiyear forecasts of the workyears required to provide engineering and construction services for the ongoing and planned military program. Workyear requirements are calculated by fund type and summarized in three customer categories: Army installation support, other Army support, and non-Army support. This functional display of manpower requirements facilitates the analysis of the impact of changes in specific fund types and readily supports the "what if" scenarios that are an integral part of manpower management. The manpower requirements generated by the USACE forecasting model serve as an input to the Total Army Analysis (TAA) process.

(2) The development of manpower forecasts begins with input of data and assumptions and ends with a presentation of manpower requirements by fund type. Workload is measured by inflation-adjusted PA's and is obtained from a combination of existing USACE automated data bases and estimates by program managers. The assumptions that the model considers are the number of available man-hours per man-year, the estimated amount of in-house design work that will be done, the number of projects that will not survive the budget review process, the amount of engineering not related to construction to be done in-house, the average number of active contruction projects that each District will experience, and the operation and maintenance Army (OMA) positions. Once the input data and assumptions are entered, the calculation of manpower requirements begins.

c. Manpower Allocation - Manpower resources are allocated to Divisions based on the requirements developed with the USACE manpower forecasting model, the Division and District manpower forecasting models, and the manpower resources made available through the TAA process. The USACE manpower forecasting model is used to develop the total manpower requirements for the USACE military program.

3-4. **Selecting Employees.**

One of the major responsibilities of the resident engineer is to select employees for the organization. The district civilian personnel office is responsible for implementing personnel placement policy within the district. When it is necessary to establish or fill a position, an SF 52 (Request for Personnel Action) is submitted through the construction division to the district personnel office. Attaching a proposed job description to the SF 52 will expedite filling the position. The resident engineer is furnished a list of qualified applicants for evaluation and selection by the date required to avoid adverse effect on resident office operations. Upon receiving the referral list of highly qualified candidates, the resident engineer should make a selection, and the selecting official must provide a written rationale for their selection. The selection decision must be based on merit factors and therefore job related. While interviews of candidates are not mandatory, they are encouraged prior to making a selection. If the RE requires information concerning placement of minority candidates, the RE should consult with the district EEO officer to discuss the AA goals and whether there is underrepresentation of minorities or women which needs attention. This discussion should occur as son as a vacancy is projected. In addition to AA goals the selecting official should determine whether any special recruitment efforts are required to reach highly qualified candidates to include minorities or women. The resident engineer contracts the highly qualified individuals on the referral list to arrange interviews, if desired, or secures additional information concerning the candidate's experience and past supervisory appraisals. Customarily after the individual is selected, the new assignment begins within 30 days. A shorter reporting period can be negotiated with the incumbent's organization.

3-5. **Personnel Utilization.**

a. The resident engineer informs employees of their job descriptions and associated performance standards which they are expected to meet. Employee duties are normally aligned with these standards and with job descriptions, though personnel may be temporarily assigned to other duties within their capabilities. When major changes are made in duty assignments, performance standards are revised. Performance standards for employees are usually prepared by the resident engineer with input from employees. Both quality and quantity of performance are realistically measured, and planned discussions with resident office personnel are conducted to

strengthen employee/employer relations and improve performance. As a result of the evaluation of resident office personnel, the resident engineer establishes the necessary training through an individual development plan (IDP) and recommends promotions, reassignments, or separations.

b. Through regular interviews, the resident engineer is aware of the short and long range goals of resident office personnel and provides them with assistance in obtaining these goals. The employees are assigned within the organization to assure maximum utilization is made of the highest skills the employee possesses.

c. When performance declines or conduct becomes a problem, several considerations should be reviewed by the resident engineer. Determining the cause of the performance or conduct deterioration is essential. A concerned, sincere discussion with the employee may surface the basis of the problem(s). If it becomes apparent that the immediate supervisor's efforts are not effective in resolving the problem, the Management-Employee Relations Branch, located in the Civilian Personnel Office, should be contacted for guidance and assistance. There are several options available for consideration, including referral to the Employee Assistance Program (EAP), counseling, disciplinary action, reassignment or even removal, if warranted. The resident engineer should strive to maintain a positive work environment to enhance employee morale and productivity. This may be one of the supervisors most challenging tasks.

d. Allegations of discrimination should be referred immediately to the district EEO office for proper and timely processing.

3-6. **Incentives & Awards**. (AR 672-20 & USACE Supplement #1)

a. There are various incentives available for resident office employees; for example, quality step increases, performance awards, special act or service awards length of service awards, letters of appreciation or commendation, on-the-spot cash awards, and promotions. The resident engineer initiates action to obtain awards for deserving persons. The resident engineer encourages suggestions and can assist resident office personnel in preparing them.

b. Three awards for construction field personnel are available. EP 690-1-12 dated 12 May 1987, established two of these awards for construction inspectors/representatives. The awards, are as follows:

(1) Quality Performance Certificate (QPC-Qtrly)

- QPC's should be selective

- No requirement exists that you must award a QPC.

- A QPC recipient MUST be outstanding.

- Notify HQUSACE of recipients for publication in Newsletter.

(2) Construction Insp/Construction Rep of the Year

- One CI/CR of the year per division will be awarded.

- The CI/CR recipient must stand head and shoulders above the rest.

- CI/CR award requires NO previous QPC awards.

- Give consideration to awarding QPC to CI/CR runners-up.

(3) USACE Hard Hat of the Year Award

- Hard Hat Award awarded to the most outstanding field employee in each Corps Division

- Nominations made by each Area/Resident Engineer

- Nominee must be permanently assigned to a field office. (Area/Resident/Project Office)

- Cannot be the Area or Resident Engineer.

- Grade cannot exceed GS-12.

- Must be in position at least one year.

- Principle duties must relate to management of construction.

- Performance standards must address quality management.

c. Selection and presentation of the first two awards are delegated to each District. The Hard Hat Award will be presented by HQUSACE, Chief, Construction Division. EP 690-1-12 outlines considerations for you in the selection process. Criteria for the HARD HAT AWARD was previously distributed and is available in each Division and District.

3-7. **Training**.

The resident engineer assures that personnel have the opportunity to attend training courses, either on regular duty time or during off-duty hours, that will develop their capabilities and meet their needs for future jobs. Personnel are encouraged to avail themselves of the many opportunities for self-development. Long term training opportunities should be emphasized, especially for employees in grades GS-11 and above. The district training or employee development officer can provide information on training and development opportunities and assist personnel in scheduling necessary training. The resident engineer should conduct routine professional development training in-house for resident office personnel based on their needs and abilities and on the nature of on-going future work. The RE should assist in selecting courses for the employee's professional progress through the IDP. Proponent Sponsored Engineering Corps Training (PROSPECT) program courses are available from the Huntsville USACE Training Management Division. Excellent courses in contract management, quality assurance, inspection, and mobilization are available. For information about the PROSPECT program, contact the personnel training officer at the USACE Training Management Division or the districts training officer.

3-8. **Time Administration**.

a. The resident engineer assigns, in writing, a timekeeper and an alternate timekeeper.

b. Approval of overtime, holiday work, and compensatory time is governed by district regulations.

c. The resident engineer schedules annual leave and compensatory time with consideration of employee desires insofar as possible. Sick leave is monitored as necessary.

3.9 **Travel**.

a. The governing regulation which prescribes the policy and procedures for processing and controlling travel performed by all USACE military and civilian personnel is ER 55-1-2, Travel Management.

b. Normally, travel orders are written prior to commencing official travel. In exceptional circumstances, confirmatory orders may be issued after travel has been performed as prescribed by current regulations. Travel orders are issued in the district office unless specific authority has been delegated to the resident engineer by the district commander.

c. The district transportation officer may designate the resident engineer as the transportation agent for issuing SF 1169, Transportation Request (Accountable Form - Civil Only).

SECTION 4

FISCAL ADMINISTRATION

4-1. **General**.

The Area/resident engineer assures proper utilization of Government funds, controls project funds to avoid an overobligated status, keeps accurate records of cost, and assures that costs are reported in accordance with established procedures. Cost reporting at the resident office includes employee time, requisitions, materials and services, travel, Government vehicles, and contractor earnings.

4-2. **Job Cost Control**.

a. Realistic and up-to-date current working estimates (CWE) are the keystone of the USACE system for administrative control of funds and for the prevention of violation of statutes governing limitation of obligations and/or costs. CWE's show the control and contingency amounts, the Government cost components (engineering and design (E∧D), supervision and administration (S&A), etc.), and any other appropriate items such as Government-furnished materials. The amounts shown are the official district estimates of the ultimate cost of the construction. A violation occurs when contractual obligations involving funds are in excess of statutory or programming authorizations.

b. In order to control and account for all costs for which the resident engineer is responsible, a running account of all job costs are maintained. The most effective means for administrative control of funds is a combination of (1) the district's local control procedures, (2) finance and accounting line item cost and obligation reports, and (3) up-to-the minute facts known by the resident office staff. These procedures provide line item control records which contain all details essential to control of costs at various levels such as field supervision and inspection.

c. The resident engineer advises the district (construction division) of any contemplated action which will result in changes to CWE's are recorded on project control records, such as anticipated changes in contract price, field office supervision and inspection costs, or possible claims.

d. Civil Works Projects Contingency Management

(1) Each project has an associated contingency that will be utilized during the management of the project. The project cost estimate is composed of all Federal and non-Federal costs to complete the project, including contingencies associated with various features/subfeatures. The prudent and judicial management of contingencies to accomodate uncertainties in the project is a shared responsibility of District and Division management. The limits of authority and mechanism for utilization of contingencies is described in ER 5-2-1. The goal is to have sufficient contingencies remaining after award to enter into and complete necessary construction contracts. As changes occur in the project development that impact cost, such as studies, investigations, in-house or A/E design costs, or estimated construction costs, the project cost estimate will be adjusted accordingly. Any revised costs in a feature/subfeature of the code of accounts will result in an equal and opposite change to the contingency. The net result to the project cost estimate will be zero as long as sufficient contingencies exist.

(2) At construction contract award, a minimum contingency allowance of 5 percent of the estimated construction cost of each construction contract must be available for potential construction changes. In the event there is a requirement to exceed the current project cost estimate, a new project cost estimate with contingencies (i.e., restored contingencies sufficient to complete the project) must be developed, and approval of the Director of Civil Works (DCW) must be obtained. (Including those actions where the contractor has indicated an intent to claim and those actions where, based on known considerations, there is a reasonable expectation of a contractor claim.)

e. The district keeps the resident engineer informed of all costs and estimates pertinent to each line item under the resident office jurisdiction. If necessary, the resident engineer may maintain informal supplemental accounts covering expenses chargeable to field supervision and inspection.

4-3. **Contract Costs**.

Contract costs are calculated monthly in a contract payment estimate based on the percentage of work accomplished. (Additional discussion on this subject is contained in sections 7-7, 7-8).

Contract cost accruals represent the estimated cost from the last ENG Form 93, Payment Estimate submitted, to the end of the current period. In addition, the resident engineer should inform the district of overruns or underruns in the quantity of unit price items in the contract. It is important that the district office be informed promptly when a variation in quantity is known if it will appreciably effect the cost of the contract. If the quantity variation exceeds the 15% threshold as provided for by FAR 29.972, then an equitable adjustment in the contract price may be demanded by either the Government or the contractor. The resident engineer assures that regulatory or statutory limitations on construction contracts are not exceeded. The monthly construction placement must be reviewed and related to the projected S&A expenses for the resident office, in order to manage the projected workload and staffing levels.

4-4. **Auditor Visits.**

a. The district internal review staff will perform internal reviews of resident office operations. The auditor will discuss the findings and furnish a copy of the final audit report to the resident engineer.

b. The division contract audit staff will perform audits of cost or pricing data proposals for negotiated contracts and modifications when an audit is required or requested. The Defense Contract Audit Agency is responsible for auditing military contracts.

c. Visits to the project site may also be made by auditors from the Army Audit Agency (USAAA), the General Accounting Office (GAO), DODIG, DAIG, and the EIG. Normal procedures are that these visits be coordinated through the district and division prior to arrival at the project site.

4-5. **Supervision and Administration Costs.**

a. General. The supervision and administration policy of the Corps follows the long-standing policy of DOD that all costs associated with a project at district level and below are considered as an investment in the project. All costs above district level are considered as an expense and should be paid out of operating funds. A new regulation prescribing the policies and procedures to be used in accounting and monitoring of supervision and administration (S&A) rates for construction will be published in the near future. It also prescribes the allowable costs and financial controls related to the S&A rate and flat rate accounts.

b. Methods of charging for work. Construction supervision and administration is charged in one of two ways, either at actual cost or at a flat rate. The flat rate may be either the Uniform Flat Rate or "Other" Flat Rate. Currently there are four Uniform Flat Rates (the MILCON Flat Rates-6.0% CONUS and 6.5% OCONUS; and the RPMA Flat Rates-- 8.0% CONUS and 8.5% OCONUS). RPMA (Real Property Maintenance Account) refers to Installation Support work paid for by a DEH, BCE or tenant customer. It includes funds provided by OMA, OMAF, OMAR and funds provided by installation tenants and activities, which do not come under Milcon or the other categories subject to Milcon flat rate charges.

METHODS OF CHARGING FOR WORK

A. Flat Rate

1. Uniform Flat Rate

	CONUS	OCONUS
MILCON	6.0%	6.5%
RPMA	8.0%	8.5%

2. Other Flat Rate

B. At Actual Cost

c. Costs Applicable to S&A. S&A includes the cost of performing supervision and inspection (S&I) plus the applicable district overhead (OH). Most of the S&A costs are for salaries and wages, including government benefits, and the remainder is for miscellaneous associated costs such as travel, Title II, trailers, vehicles, non-construction supplies, materials and transportation, communication services, rents and utilities, services, training and other distributive costs. Appendix I, Chapter 6, of ER 37-345-10 identifies the allowable military charges to S&A. Similar S&A charges for civil works are allowable as per ER 37-2-10.

d. Capital assets are defined as assets having an acquisition cost of $5,000 or more, and a useful life of two years or more. The flat rate S&A accounts will not, under any circumstances, be used for their acquisition. For acquisition of capital assets in support of Area Office operations, excluding structures to house offices, Other Procurement Army funds shall be used.

e. S&A Uniform Rate Procedures. The current procedure of funding S&A cost requirements for construction projects is to apply a fixed S&A flat rate percentage based on the Direct Construction Cost (DCC) of the project. This S&A income, together with the actual district/operating division's S&A expenses, are consolidated by the district/division in the appropriate S&A account. At the end of each month, the loss or gain in each of the accounts, i.e., the difference between the actual expenses incurred and the income (charges applied at the uniform rate), is transferred to (or from) the consolidated Corps S&A account, currently maintained in Omaha, Nebraska. In this way, the total Corps S&A costs are distributed to all projects regardless of the individual project cost. Management of the flat rate account is centralized at HQUSACE, (CEMP-CM).

f. Establishment of S&A ceilings. Annually, during the fourth quarter of the Fiscal Year (FY), HQUSACE requests divisions to submit placement and expense information for the next FY. Divisions in turn obtain this information from each of their districts. HQUSACE will evaluate the rates proposed by each division. Factors to be considered include budget constraints, current placement and expense cost, accuracy of previous estimates of placement and expense, size and complexity of program, manpower resources allocated, OCONUS costs, and other relevant items. HQUSACE issues ceilings to the Divisions by the beginning of the new fiscal year which is generally based on a percentage of the projected placement. Divisions, in turn, will assign ceilings to their districts and require a monthly schedule of placement and expense, showing how each district plans to stay within its assigned ceiling. The Chief of Construction will assign appropriate S & I ceilings to each Area office and the AE and/or RE is responsible to manage within these ceilings.

g. Authority to Deviate From Prescribed Rates. Uniform flat rates are established at HQUSACE. FOA Commanders are not authorized to negotiate separate rates. It is not acceptable to use a lower S&A rate in order to maintain a current working estimate (CWE) within the programmed amount. As a rare exception, minor deviations may be requested near the end of a project, to preclude minor reprogramming requests to Congress. Exceptions or deviations must be approved by HQUSACE (ATTN: CEMP-CM).

SECTION 5

PROPERTY ADMINISTRATION

5-1. **General**.

a. The resident engineer assures that Government real property, regardless of value, is accounted for and used only for the actual needs of the work being undertaken by USACE, and is not used for the benefit of any private contractor. The use of Government property for the advantage, comfort, convenience, pleasure, or for any private purpose is strictly prohibited.

b. The property administrator is the Government representative who is responsible to the contracting officer for reviewing the contractor's industrial property control procedures, for checking records maintained by the contractor for property that is Government furnished, for usage checks of industrial property, and for maintaining Government property records as required. A property administrator is designated for each Government contract involving Government property. Under normal conditions, the chief, property accounting section, who is also the district accountable property officer, is designated as the property administrator.

5-2. **Definitions of Property**.

a. Government-furnished property (GFP) are goods supplied by the Government to a contractor for use or installation under a construction contract (FAR 52.245-4, Government-Furnished Property).

b. Contractor-furnished property (CFP) are goods accepted by the Government under the terms of a satisfactorily completed contract.

c. Contractor-furnished material (CFM) are goods purchased by the contractor for use or installation as specified by a construction contract, but has become excess through no fault of the contractor. This material must be considered usable and acceptable in its current condition by a Government representative.

d. Government salvage property (GSP) are goods which a contractor removes from a facility undergoing alteration or repair which must be turned in to the Government (see AFARS 45.5).

e. Real property consists of land and capital improvements to land. It includes, but is not limited to, land; lesser interests in land; buildings, other than portable ones; structures; roads; and railways.

f. Personal property consists of items not considered real property. The regulations for accounting and controlling personal property can be found in ER 700-1-1, and ER 750-1-1 describes the maintenance procedures for all personal property owned or supported within USACE.

g. Common property terms such as accountable property officer or responsible employee are defined in ER 700-1-1, USACE Supply Policies and Procedures.

5-3. **Classification of Property**.

a. The following subparagraphs list classifications for personal property acquired through purchase, transfer, or other means for civil and military activities. Subsequent accountability actions are taken by the resident engineer.

b. The classifications of property as described in ER 700-1-1, USACE Supply Policies and Procedures, are as follows:

(1) Nonexpendable (N). A nonexpendable item is complete in itself, it does not lose its identity or become part of another article when put in use, it has an expected service life of one year or more, and it has a unit acquisition cost of $5,000 or more.

(2) Pilferable (P).

(a) Pilferable items are accounted for in the property account as nonexpendable property regardless of their cost.

(b) Pilferable items require tight control because they are susceptible to misuse and theft. This classification includes cameras, detachable camera lenses, binoculars, microscopes, telescopes, slide and movie projectors, calculators, tape records, portable typewriters, surveying equipment (such as levels and transits), portable radio transmitter-receivers, television sets, diving equipment, and firearms. The resident engineer controls these items by obtaining a written receipt or with a sign-out log.

(3) Minor nonexpendable/accountable (MP). This classification covers furniture, fixtures, and office equipment with a unit acquisition cost of $300 or more, but less than $5,000. Normally, these items are charged to expense accounts such as tool replacement and expense. If, however, the purchase cost is substantial or if the items are for the initial outfitting of an office or facility, Cost and Revolving Funds Accounting Branch determines whether they must be capitalized. The resident engineer controls these items by obtaining a written receipt or with a sign-out log.

(4) Minor nonexpendable/nonaccountable (M). This classification covers durable items that retain their original identity, are not consumed in use, are not classified as pilferable or as minor nonexpendable/accountable property, and have a unit acquisition cost of $50 or more, but less than $1,000. These items are charged to an expense account or are capitalized the same as minor nonexpendable/accountable property.

(5) Expendable (E). Expendable items are consumed in use or lose their separate identity when used in construction, maintenance, or operations. This classification includes construction materials, office supplies, office equipment (such as paper staplers and punches) that cost less than $50, and vehicle repair parts and accessories.

(6) Warehouse stock (WS). This classification includes all classes of property stored for future issue after acquisition in a warehouse or other storage area.

(7) Real property (civil). Real property consists of land and capital improvements to land. It includes, but is not limited to, land; lesser interests in land; buildings, other than portable ones; structures; roads; and railways.

(8) Real property (military). Real property consists of land and capital improvements to land. It includes, but is not limited to, land; lesser interests in land; buildings, other than portable ones; structures; roads; and railways. This classification includes buildings, structures, improvements, and other property as described in AR 415-28, Department of the Army Facility Classes and Construction Categories.

5-4. **Receipt of Property**.

a. The receipt of all property is handled as described in ER 700-1-1.

b. Favorable relationships with suppliers furnishing property or services to the Government are established by the timely payment of invoices. A receiving report is forwarded within one working day after receiving property or services.

c. Inspection of small purchases consists of examination of the following:

(1) Type and kind.

(2) Quantity.

(3) Condition.

(4) Operability, if readily determinable.

(5) Preservation, packaging, packing and marking, if applicable.

(6) Other QA actions as required.

5-5. **Inventory and Disposition of Property.**

a. Inventory. All accountable property is physically inventoried at least once each calendar year as prescribed in ER 700-1-1. When it is necessary for the contractor to have access to real and installed property at an installation where the district has property accountability or custody of the records, the resident engineer arranges a joint inventory with the contractor to fix responsibility. Discrepancies are referred to the district with recommendations.

b. Marking of property. The resident engineer assures that nonexpendable and pilferable items are marked or engraved, upon receipt, with the letters "US-CE-C" for civil property or "USA-CE-M" for military property.

c. Property excess, turn-in, or mishap. Reporting excess property and the turn-in or other disposition of property are handled according to ER 700-1-1. Incidents of loss, theft, damage, or destruction are reported on DA Form 4697, Report of Survey, as prescribed by the same regulation.

5-6. **Delivery of Property to Contractors.**

a. Normally, shipments from depots or other military installations will be accompanied by a shipping document. Two copies of this document are signed by the contractor's representative acknowledging receipt of GFP and then are

forwarded to the District. If shipments are not accompanied by a shipping document or if copies have not been received previously, a DD Form 250, Material Inspection and Receiving Report, is submitted in the same manner as shipments from commercial sources. For shipments from commercial sources, the resident engineer initiates the receiving report and submits to the district the original and three copies properly executed by the contractor's representative.

b. Receiving reports contain the signature of the contractor's representative, preferably in the body of that form, acknowledging receipt of the material in good condition for installation under the pertinent contract. Discrepancies or damages are annotated on the receiving report; this information should also appear on the bill of lading.

c. All property documents are forwarded to the district within one working day of receiving the property. Property documents reflecting credits of materials to the contract, shipments salvaged, excess or surplus materials turned in to the contract, or anything affecting the accounting of property are forwarded to the district so that accounting may be kept current.

5-7. **Salvaged, Excess, or Surplus Property.**

a. Construction projects have salvaged, excess, or surplus property for one or more of the following reasons:

(1) Changes in plans and specifications.

(2) Procurement or requisition beyond contract needs, through no fault of the contractor.

(3) Contract termination prior to completing the work or receipt of the title of property by the Government in accordance with the contract.

(4) A salvaged material clause in the contract or a pay item in the unit price schedule of the contract requiring the material to be salvaged.

b. A list of the excess property, in triplicate, is furnished to the district by the resident engineer. Excess property is then disposed of in accordance with FAR 45.6, Reporting, Redistribution and Disposal of Contractor Inventory, and EP 700-1-1.

5-8. **Purchasing**.

a. Purchase orders. The resident engineer receives from the district a copy of all purchase orders for supplies and services which will be consigned to the office. Upon receiving these supplies or services, receiving reports are prepared and submitted to the district in accordance with district regulations. Every effort is made to submit reports in time to take advantage of prompt payment discounts offered by vendors and to preclude interest penalty payments to vendors.

b. Ordering officer/imprest fund administration. Many resident offices that are distant from the district have ordering officer and/or imprest fund authorization. The purpose of these authorities is for procurement of small dollar amounts of supplies, equipment, and nonpersonal services. Guidance in these areas can be found in district procurement regulations.

SECTION 6

PREREQUISITES TO PROJECT CONSTRUCTION

6-1. General.

This chapter covers the functions of the resident office on construction projects that generally occur prior to the contractors notice to proceed (NTP).

6-2. Biddability, Constructibility, and Operability (BCO).

a. General. The BCO review, governed by ER 415-1-11, should occur twice. The first review occurs when the design is 35 percent complete, a point at which it is sufficiently complete for substantive comment, and the final review occurs at least 30 days prior to advertising, following final design completion. The BCO reviews serve to reduce costly, time consuming modifications. The resident engineer and/or staff personnel, who have extensive knowledge of the construction market place and experience in construction control, supervision, and management, should make the initial review of the plans and specifications, especially to incorporate past "lessons learned." An adequate number of copies of the plans and specifications are furnished for all reviewers to work simultaneously. Reviewers should be advised of the actions taken on their comments. The district chiefs of construction and engineering will certify in writing that all appropriate BCO review comments have been incorporated in the proposed solicitation document in accordance with ER 415-1-11.

b. First Review. The resident engineer and his office staff must assure that the contract documents include the following:

(a) Accurate depiction of site conditions and restrictions such as access, utility availability, drainage, storage, existing underground utilities, and general layout.

(2) Adaptation of design structures and features to site conditions and constraints.

(3) The RE should coordinate with the DEH and verify that appropriate comments have been forwarded to the project manager.

c. Final review. The final review assures that an accurate incorporation of all previous review comments has been made to the final drawings and specifications.

In addition, design features included since the first review are checked for comments against the items in paragraph b above, and examined for coordination with the entire design. It is this review that preempts early modifications to the contract. The following items should be considered in the final review:

(1) Appropriateness of contract sequencing and relationship to other work, contract performance time, CQC, submittal requirements and network analysis system (NAS) provisions for the specific project in accordance with ER 1180-1-6 (Construction Quality Management), ER 1-1-11 (Network Analysis System), and ER 415-1-10 (Contractor Submittal Procedures).

(2) Adequacy of space and access for all site contractors and Government operations as well as provisions for coordination to preclude onsite operational conflicts.

(3) Coverage, clarity, and consistency of specifications.

(4) Clarity, simplicity, and essentiality of items on the bid schedule.

(5) Availability of local and special materials and labor skills.

(6) Special project configurations, design features, equipment phasing, and long lead requirements.

(7) Comparative economy of selected materials and structural systems to others available in the area.

(8) Inclusion of all bench marks and baselines.

(9) Adequacy of O&M manuals, training procedures, and warranty clauses.

6-3. **Considerations prior to Award**.

a. Contractor coordination meetings. Provisions for coordination of work schedules may be included in contracts where existing facilities will be enlarged, where construction is complex, or where work areas overlap. A weekly or biweekly written work schedule, along with frequent coordinating meetings with all affected parties, are helpful management tools.

The resident engineer, in analyzing plans and specifications prior to construction, may request the inclusion of a written work schedule in certain contracts.

b. Prospective bidders/proposers. Visits by prospective bidders/proposers are encouraged by solicitation documents on every construction project. In these documents a contact point is given either in engineering division or at the resident office as a means for the interested contractors to make an appointment to visit the site. The resident engineer typically provides a knowledgeable representative to conduct the visits. The representative assures that all visitors get the same information and that the technical point of contact given in the solicitation document is advised of any special information provided during the meeting. It is the responsibility of the contractor to visit the site if there are questions regarding existing conditions. All solicitations are normally prefaced by the statement that it is the bidders responsibility to verify all conditions, as provided in the solicitation documents. Questions regarding the interpretation of drawings and specifications, the request for proposal, or the invitation for bids, must be requested in writing. The district must then allow sufficient time for a reply to reach all bidders/proposers.

6-4. **Award, Notice to Proceed, and Commencement of Work**.

a. Contract award. The contract documents are prepared in the district and mailed or delivered directly to the contractor. An authenticated copy of the contract is furnished to the resident engineer, who then issues a letter to the contractor providing guidance on contract and administrative items such as arrangements for the preconstruction conference, material submittals, safety, CQC, payrolls, shop drawings, or correspondence. At this time the RE should verify that the site of work is ready for construction to start.

b. Notice to proceed.

(1) The contracting officer issues the NTP, with a copy to the resident engineer, after receiving the properly executed documents from the successful bidder. Most often, the NTP will be delivered by certified mail, return receipt requested. The day following acknowledgment of receipt of the NTP by the contractor is considered the first day of the contract.

(2) Normally the contract provides for completion within a given number of calendar days after NTP. In some cases, the contract establishes a firm completion date with a provision that if the NTP is received after a certain date, the completion date will be adjusted. In these cases, adjustment of the completion date is spelled out in the contract in such a way that it is automatically established and does not require a contract modification.

c. Commencement of work. After the contractor acknowledges receipt of the NTP, the contract generally requires work to commence within a minimum number of days as required in FAR clause 52.212-3. For the record, the resident engineer informs the district, in writing, of the date on which the contractor begins work at the jobsite. Should the contractor fail to commence the work, as provided for in the contract, the resident engineer immediately files a report giving all essential facts to the contracting officer.

6-5. **Preconstruction Conference**.

a. General. After the contract is awarded, but before physical work begins the resident engineer arranges a conference to include the contractor, the resident office, the district office, and the using service, when appropriate. At this conference, the contractor will be oriented on Government procedures, contractual lines of authority, and administrative and construction matters. If the magnitude of the project demands, the preconstruction conference will be held in two parts for the convenience of the personnel involved. The first conference will cover district and user functions and the second will cover local administrative features between the resident engineer office and the contractor's local office.

b. Agenda. The agenda of this meeting covers introduction, safety, design briefings (if required), user coordination, labor relations, defense materials system, environmental protection, administrative and technical requirements, Government and contractor organizations, critical items, and problem areas. An attendance sheet and a detailed suggested agenda are shown in appendix B, sections I and II. Safety, and environmental protection plans are sometimes discussed at meetings separate from the preconstruction conference, if warranted. The CQC system should be discussed at a separate meeting with the contractor based on a set agenda.

c. Minutes. Detailed minutes of the meeting are prepared promptly to include all items discussed at the conference, but a verbatim report is not necessary. A sample of typical preconstruction conference minutes is shown in Appendix B, section III. The original minutes are forwarded to the contractor for review and formal written concurrence is requested typically within 5 days (there is no contract requirement for the contractor to respond). The final minutes of the preconstruction conference endorsed by both the resident engineer and the contractor are sent to the district with a courtesy copy to the contractor.

6-6. **Federal, State, and Local Regulations.**

a. The resident engineer is aware of using service, Federal, state, and local regulations required under the terms of the contract. These regulations are enforced by the resident office staff and must be obeyed by all contractor personnel over which the resident office has jurisdiction.

b. The contractor is responsible for conforming to all state and local laws and Federal regulations under the terms of the contract. Features of work typically requiring state and/or local permits are handling and storing of explosives, operating cranes near power lines and railroad tracks, and operating steam boilers, mines, quarries, and labor camps. In addition, permits are frequently required for overweight loading of trucks and temporary access to state and local roads. The contractor is responsible for securing the permit and for protecting all roadways, structures, utilities, and vegetation. Damage to Government or other property by the contractor is repaired by, or at the expense of, the contractor. The resident engineer keeps an accurate record of all damages. Emphasis should be placed on cooperation with state and local authorities.

SECTION 7

CONTRACT ADMINISTRATION

7-1. **General**.

Contract administration is the day-to-day activities required to accomplish the construction contract. This business relationship takes place between the authorized representative of the prime contractor and the resident engineer (as the ACO). Typically, the prime contractor does not authorize subcontractors or suppliers to do business directly with the resident engineer. Similarly, the resident engineer rarely allows any other agency of the Government or the resident office staff to do business with the prime contractor without specific knowledge and official authorization. All contractual communications, shop drawings, samples, reports, and cost proposals are exchanged directly between the prime contractor and the resident engineer. This professional approach is the basis of the relationship between the Government and the contractor to construct quality facilities within time and budget constraints.

7-2. **Inspection by Audit Agencies**.

The Corps of Engineers contract administration process is audited and inspected both by internal HQUSACE teams, and by a number of other agencies, such as Army Audit Agency (USAAA), DODIG, DAIG, EIG, and GAO. The negotiation and documentation procedures utilized in contract administration are an important area of concern to these agencies, The emphasis placed on Quality extends to actions in the contract administration process. Contract administration must be performed in accordance with ALL applicable Federal, DOD, and Army acquisition policies. The following modification actions are considered to be critical areas where the ACO should continue to place emphasis, in order to improve compliance with good DOD contract procedures:

a. Technical Analysis (TA)

b. Pre-negotiation Objectives (PNO)

c. Price Negotiation Memoranda (PNM)

d. Independent Government Estimates (IGE)

e. Proper use and disposition of audits

f. Business Clearance Memorandum (BCM)

7-3. **Defense Priorities and Allocations System (DPAS) & Materials Expediting for Military Funded Construction.**

a. DPAS is the implementing regulation of the Defense Production Act of 1950 which is designed to assure the timely availability of industrial resources to meet current national defense requirements and to provide a framework for rapid industrial mobilization in case of a national emergency. DPAS is generally thought of with respect to wartime mobilization, however, it can be a valuable tool in accomplishing our peacetime mission by preventing schedule slippages resulting from late material/equipment deliveries.

b. Guidance for implementation of DPAS is contained in Part 12 of the FAR and EFARS. During the final design biddability/constructibility review a determination must be made as to whether or not the project will be included in the system. This determination must be made so that the appropriate contract clauses can be included in the solicitation. Effective use of the system during construction can be assured by:

(1) Assigning appropriate ratings to orders

(2) Tracking rated orders to insure they are receiving the required priority treatment

(3) Providing timely response to requests for priority assistance

(4) When necessary, discussing the requirements of the law and potential penalties for noncompliance with suppliers

c. A detailed description of the system is contained in a pamphlet entitled DPAS published by the Department of Commerce. The ovwerview section of the pamphlet is particularly informative and is suggested reading for all contract administrators. Copies of the pamphlet can be obtained by contacting the office of Industrial Resource Administration, Room 3876, U.S. Department of Commerce, Washington, D.C. 20230. DPAS is another potentially valuable tool for accomplishing our goal of producing a quality product in a timely manner. Its application should be considered along with the other contract administration tools and utilized as appropriate.

d. If late arriving material causes an impact on national defense or critical operations of other Government agencies, the resident engineer is responsible for follow-up on the effectiveness of the DPAS procurement. The resident engineer must insist that the contractor and his subcontractors comply with the contract provisions requiring submittal of copies of all purchase orders.

e. Materials expediting.

(1) Construction contracts provide that the contractor be responsible for procuring the materials and equipment according to the contract specifications. Construction progress often falls behind schedule due to delays in the delivery of materials and equipment. The resident engineer ensures that the contractor does the following: Orders all materials and equipment promptly; specifies delivery dates that will meet the construction schedules; expedites the submissions of required shop drawings; maintains a vigorous follow-up of all orders; and keeps the resident engineer informed of the progress of procurement. The resident engineer also maintains a follow-up system to ensure materials are ordered and delivered in sufficient time to avoid work delays.

(2) If the contractor is unable to obtain satisfactory delivery of materials and/or equipment through its own efforts, an expediting service is maintained in the district office to assist in such cases. When it becomes apparent that the efforts of the contractor will not obtain the desired results, the contractor should be advised to submit a request for assistance from the appropriate element in the district office. The following is a list of required items on the request for assistance:

(a) Contract number and name.

(b) Contractor's name and address.

(c) Name of subcontractor who ordered the material.

(d) Purchase order number.

(e) Distributor's name and address.

(f) Product name and model number.

(g) Required delivery date.

(h) Promised delivery date to job site.

(i) Project office contact point and phone number.

(j) Remarks (brief reasons for request; if overseas, state request for military shipment or shipment at contractor's expense).

(3) After a request for assistance has been submitted, it is essential that the contractor keep the district informed of any change which may alleviate the need for assistance or affect the delivery dates.

7-4. **Mobilization Areas**.

a. The resident engineer should request a plan from the contractor showing the use of the material storage and work areas. This should include a layout of the work area with the location of temporary sheds, buildings, utility connections, and project and safety signs. If the work areas shown on the drawings are unacceptable, the resident engineer should negotiate an acceptable area for the contractor's mobilization and storage requirements. The provisions of the contract regarding waste and borrow areas and all utility connections should be coordinated with both the DEH and the contractor to ensure that interruption and shutdown procedures are followed.

b. Temporary construction project and safety signs may be specified for individual construction contracts by the contracting officer. When signs for civil projects are specified, they must conform to EP 310-1-6, Graphic Standards Manual. Project signs for military projects must also conform to EP 310-1-6a & b, Signage Manuals, or they may be modified to meet user requirements. The location of these signs will be indicated on the area use plan. Additionally, information regarding the Davis-Bacon ACt. Drug-Free Workplace, EEO, etc. shall be prominently displayed on a jobsite sign.

7-5. **Buy American Act**.

a. The "Buy American Act" as stated in FAR clause 52.225-5 provides that the Government give preference to domestic construction material and this is a standard clause in all USACE construction contracts. With few exceptions, only domestic construction materials may be incorporated into civil and military construction work in the United States. The FAR 25.201 defines domestic construction material as:

(1) An unmanufactured construction material mined or produced in the U.S., or

(2) A construction material manufactured in the U.S., if the cost of its components mined, produced, or manufactured in the U.S. exceeds 50 % of the cost of all its components.

b. ACO's have the responsibility to actively enforce the "Buy American Act" requirements. When you have questions concerning the status of materials under the Buy American Act provision, consult your contracting and legal counterparts. Cofferdams and other temporary structures are to be treated as a permanent dam under the provisions of PL 100-371 and the provisions of the Buy American Act applies unless the temporary structures are detailed in the contract plans and specifications. (See CB # 88-9)

7-6. **Changes and Modifications**.

a. General. The basic construction contract expressly sets forth the rights and obligations of the parties signing the contract. The contractor is bound within the time specified to deliver a facility, as prescribed by the detailed technical plans and specifications, and he must do this in accordance with the provisions of the contract. The Government has a legally enforceable right to this performance. In return, the Government is bound to pay the contractor a firm fixed price for successful completion of its undertaking, and the contractor has a corresponding legally enforceable right to such payment. After the basic contract is awarded, any change within the general scope of the contract will be accomplished by a contract modification. Modifications can be executed only by the Contracting Officer or the Administrative Contracting Officer. Guidance for processing modifications and claims is treated in detail in EP 415-1-2, Modifications and Claims Guide; further applicable guidelines are issued by each division and district as local refinements in the administrative process.

b. Types of Modifications. FAR 43.101 defines a contract modification as: "any written change in the terms of a contract." Modifications are executed pursuant to the FAR clauses of the contract. The various types of FAR clauses under which modifications are processed is discussed later in this section. For the purpose of this discussion, a modification to a contract is a signed document altering a fixed-price construction contract. FAR 43.103 defines a contract modification as either:

(1) Bilateral. A bilateral modification, including a supplemental agreement, is a contract modification signed by the contractor and the Contracting Officer. Bilateral modifications are used to (a) make negotiated equitable adjustments resulting from the issuance of a change order, (b) definitize letter contracts; and (c) reflect other agreements of the parties modifying the terms of the contract.

(2) Unilateral. A unilateral modification is a contract modification that is signed only by the Contracting Officer. Unilateral modifications are used, for example, to (a) make administrative changes; (b) issue change orders; (c) make changes authorized by clauses other than a changes clause (e.g., Property clause, Options clause, Suspension of Work clause, etc.); and (d) issue termination notices. Sound contract administration practices require good faith efforts to execute bilateral modifications. However, there are instances when issuance of unilateral modifications is necessary. First, when all attempt to negotiate and execute a bilateral modification are exhausted, a unilateral modification should be issued. Second, if a contractor has submitted a claim on which the Government determines partial merit, a unilateral modification should be issued for that portion of the claim which has merit and for which a monetary amount can be determined with reasonable certainty. These procedures for unilateral modifications will facilitate the updating of schedules and recognition of the impact on overall project completion.

c. Definitions.

(1) Change Order. FAR 43.101 defines a "change order" as "... a written order, signed by the contracting officer, directing the contractor to make a change that the Changes clause authorizes the contracting officer to order without the contractor's consent." The Government's right to make such changes is provided for in the Changes clause at the time the basic contract is awarded. The contractor and the surety have agreed under the terms of the contract to execute changes that are within the general scope of the contract. The "without the contractor's consent" provides the contracting officer with a powerful tool. This written order is binding upon the contractor whether or not it contains an adjustment of price and time, and the contractor is obligated by the basic contract to proceed with the work as changed. This definition of change order differs from the terminology previously used by the USACE. Historically, the USACE referred to any within scope contract modification as a

change order. This was used for bilateral as well as unilateral modifications. The use of "change order" to describe a unilateral directed modification again matches other agencies terminology and is consistent with the FAR.

(2) Unpriced Changed Orders. An unpriced change order is a written order under the "Changes" clause of the contract requiring the contractor to accomplish the work prior to definitization of the modification. Specific procedures must be followed as required by EFARS 17.7503 and DFARS 217.75 when an unpriced change order is issued. These procedures should be used only when conditions of urgency or uncertainty dictate proceeding with the work prior to reaching final agreement on the change. Since forward pricing of contract actions, including modifications, is the preferred method of contracting.

(3) Supplemental Agreement. FAR 43.101 defines "supplemental agreement" as: "a contract modification that is accomplished by the mutual action of the parties" i.e., a bilateral agreement making a change to the terms or conditions of the contract. It may be either within or not within the scope of the contract. A supplemental agreement is added as a supplement to an existing contract simply as a matter of administrative convenience. Additional work outside the scope of the original contract should normally be avoided, however if required, it should be limited to the following cases, and must be a negotiated supplemental agreement.

(a) The work to be accomplished by supplemental agreement is so interrelated with that already being accomplished under the contract as to make utilization of a separate contractor impracticable.

(b) The site is so remote and the amount of the work so small, as to make obtaining bids from a contractor other than the one already on the site impracticable.

(c) There is an extreme urgency in the performance of the work and bids cannot be solicited immediately.

When approval is secured, the funds available, and the contractor's surety has consented, this alteration to the contract is processed in accordance with paragraph 7-6e.

(4) Scope.

(a) The proper medium for making changes within the general scope of a contract and within the physical limits of

the construction site is by a written order from the contracting officer to the contractor in the form of a bilateral or unilateral modification. Deletion of work is handled likewise, unless it is a major reduction. If it is a major reduction, the deletion of work will be handled under the Termination for Convenience of the Government clause of the contract

(b) The proper medium for making changes that are outside the general scope of the contract is by a supplemental agreement. The contractor has not agreed in advance to perform work outside the general scope of the contract and such work cannot be required without consent or acceptance by the contractor and his surety. A supplemental agreement is a new negotiated contract which must be founded upon offer, acceptance, and consideration; and therefore, by definition is a bilateral agreement. The magnitude, or scope, of a construction contract is determined by the physical characteristics of the work contracted for, as expressed in the basic contract. Enlarging the scope of the work or adding materially to the work by supplemental agreements is generally considered sole source actions, and have been criticized as circumventing the intent of the Competition in Contracting Act. The probability that additional work may be done more conveniently, or even at less expense by the original contractor, because the contractor is already on site, is not the controlling factor in determining whether or not the work should be obtained by competition.

d. Authorization to Issue Modifications. Modifications can be signed by the contracting officer or anyone directly authorized as an ACO, in accordance with AFARS 1.603.2 (91). The letter of authorization from the contracting officer will state the type of modifications the resident engineer can sign and the monetary limitations. The contractor will be furnished the same information.

e. Elements of the modification process. Modification preparation is in accordance with district guidelines. Modifications of a criteria or design nature are usually originated in the district or by the using service. User requested changes on military construction (Army) projects must be approved by the Corporate Group consisting of the military construction division, the using agencies major command, and HQUSACE. Modifications of a field nature are originated by the resident engineer. Justification for a design change requires that a definite benefit be derived by the Government as a result of the change. Benefit normally means a change in which the Government receives an improvement

in function or service, based on design requirements, or a reduction in time (check the contractor's schedule) or money in the contract without affecting established quality. Once a modification is deemed necessary, it is incumbent upon the Government to proceed expeditiously with the processing of that modification.

(1) Request for proposal (RFP). The originator of the alteration to the contract prepares the revised drawings and specifications. If these revisions inadequately describe the alteration, additional sketches and descriptive wording may be required to clarify the scope. The contractor may be required to submit the proposal, including detailed breakdown for cost and time, by a specific date (allowing a reasonable time). When the contractor fails to meet the date, and the RE is unsuccessful in securing a proposal, the contractor is advised that this constitutes noncompliance with the contract. If the situation persists, the matter should be forwarded to the district for contracting officer assistance which may require issuing a unilateral modification.

(2) Construction Funds Requests.

(a) Construction contract changes and cost increases, have always been a subject of management attention. One of the principle concerns of HQUSACE, the ASA(I∧L), customer organizations (such as Air Force, other DOD Agencies, etc.) and Congress has been whether appropriate actions are being taken to prevent recurrence of similar problems in the future. Unfortunately, many requests received by HQUSACE fail to address this and other critical issues. An impression may develop that there is a lack of concern in the Corps beyond simply getting the money to pay for the mistakes. Unless this impression is turned around, the ability to successfully respond to valid change requirements will be seriously jeopardized.

(b) There is no guarantee of funds approval for a construction change. However, a well prepared justification will enhance the process significantly. As a minimum, fund requests should contain, in addition to basic project information such as description, contract number, BAAN (for AF), etc., the following information:

- A category for each change: user request, differing site conditions, design deficiency, etc.

- The cost of each change.

- The status of each change.

- The cost for each change category executed.

- The cost for each change category pending.

- The ratio, expressed in percentage, of CWE/PA.

- Identification of those changes which can be accomplished by separate follow-on contract.

- The impact if the proposed work is not approved.

- If an A-E design is involved, identification of actions underway with regard to possible liability. The status of the Contracting Officer's evaluation will be provided, and, if a decision is made not to pursue recovery, the basis for that decision will be provided.

- If an in-house design is involved, the status of actions underway to preclude future recurrence.

- Special efforts to reduce cost growth associated with these changes, if any.

- Payment date upon which the agreement is predicated.

- The identification of follow-up actions intended, with respect to avoiding similar circumstances and when they will be accomplished.

(c) Timely Submittal of Requests. Certain funds requests will require reprogramming approval. Current DOD procedure is to make Congressional reprogramming submittals on the 10th of each month. Only in rare cases will submittals be made in the months of August and September. DOD processing time runs from 2-5 weeks. Field offices need to be aware of this schedule to minimize adverse impact on time sensitive reprogramming actions. Detailed justification is necessary to document prudent business practices and to assure customers, as well as the Congress, that efficient use of the taxpayer's dollar is being made. Thus, complete candor in analyzing all circumstances associated with overruns is essential.

(3) Government Estimate and Cost Analysis. An independent Government estimate must be prepared and approved prior to negotiating for any change order of $25,000 or more, or when the combined amount of increases and decreases alone is $25,000 in value. The resident engineer provides field

data needed to develop the estimate which will be prepared either in the resident office or in the district in accordance with district procedures. Changes for less than $25,000 may be evaluated using the detailed contractor's proposal and a cost analysis prepared by the resident office (see EFARS 36.203, Government Estimate of Construction Costs, for estimate requirements).

(4) Technical Analysis. The FAR defines technical analysis as the examination and evaluation by experienced personnel having specialized knowledge of the proposed quantities and kinds of materials, labor, processes, special tooling, facilities, and associated factors in the proposal; in order to determine and report on the need for and reasonableness of, the proposed resources assuming reasonable economy and efficiency (See FAR 15.801). For all proposals where cost and pricing data is required, a technical analysis should be prepared. If the contracting officer decides to waive the technical analysis, the modification file should be appropriately documented as to the reason for the waiver. The technical analysis should include all the items noted in FAR 15.805-4. The format for the portion of the technical analysis specifically addressing the proposal should clearly emphasize each item required by the FAR, even if to state that it is not applicable. This guarantees that all pertinent topics are addressed. Additional guidance on preparing a good technical analysis can be found in EP 415-1-2.

(5) Audits. When a proposal including cost or pricing data is received, the resident engineer reviews the proposal for completeness, prepares a technical analysis of the proposal, and forwards the proposal (with an SF 1411, Contract Pricing Proposal Cover Sheet, signed by the contractor) and the technical analysis to the construction division with a request for an audit. If the estimated value of the changes to the contract exceed $100,000, a written Business Clearance Memorandum (BCM) is required prior to initiating price negotiations in accordance with AFARS 15-807, Pre-negotiation Objectives. Negotiations on price cannot proceed until the audit is available. However, discussions concerning the technical analysis, regarding scope and other matters not involving price can be resolved with the contractor, insofar as possible, while the audit is in process to reduce the time required to negotiate the modification.

(6) Negotiation Objectives. The FAR requires that the administrative contracting officer (ACO) establish pre-negotiation objectives before negotiation of any pricing action. This requirement can be fulfilled in several

different ways. The scope and depth of the analysis supporting the objectives should be directly related to the dollar value, importance, and complexity of the pricing action. For all modifications over $100,000, and for most other types of negotiated contract acquisitions, AFARS 1.691 requires that a Business Clearance Memorandum (BCM) be prepared and retained in the contract file. For all other types of modifications under $100,000, it is encouraged that informal pre-negotiation objectives be prepared before proceeding with negotiations. The purpose of a Business Clearance Memorandum (BCM) is to document that a proposed contractual action represents good business judgment, conforms to Federal, DOD, and Army acquisition policies, and that the price established is fair and reasonable. The BCM serves as the historical record of the business and pricing aspects of a contract action. It shows the significant facts that were considered in reaching agreement and how these facts influenced the judgment of the contracting officer. The BCM must satisfy the requirements of FAR 15.807 and FAR 15.808. The BCM generally consists of two parts as follows:

(a) Pre-negotiation Business Clearance Memorandum (PreBCM). Upon receipt of the contractor's proposal, DCAA audit, pricing and contract administration reports, and upon the completion of a thorough evaluation of the technical aspects, price and proposed contract terms; a PreBCM shall be prepared setting forth all the significant details of the proposed contract action and the course the contracting officer proposes to pursue. The PreBCM demonstrates that the negotiator is adequately prepared to enter negotiations, that the significant facts have been evaluated, and the judgments made in arriving at the prenegotiation objective are sound. The PreBCM must meet the requirements of FAR 15.807.

(b) Post-negotiation Business Clearance Memorandum (PostBCM). Upon the completion of negotiations, the PostBCM shall set forth in detail the negotiation results obtained, in accordance with AFARS 1.691-3. The PostBCM completes the historical record and documents that the agreement reached is fair and reasonable. It reconciles the differences between the PreBCM objective and the negotiated settlement by presenting additional facts obtained during negotiations. The PostBCM must meet the requirements of FAR 15.808.

(7) Negotiations. The modification cannot be issued for a price greater than the Government estimate. (except in the case where the estimated credit is equal to or less than the contractor's proposal). The contractor's proposal, audit, and signed pre-negotiation memorandum of objectives are

compared with the Government estimate, and pricing is resolved by negotiations with the contractor. If it is determined that the contractor's proposal is in error, the contractor is requested to change the quotation, preferably on the face of the original, and sign the changes. If the Government estimate is in error, it may be revised in accordance with guidelines furnished in ER 415-345-42, Costs, Cost Estimating, and Reserves for Contingencies, and the EFARS. In addition, a statement is included in the record of negotiations stating specifically where and why the contractor's quotation or the Government's estimate was revised. At the conclusion of negotiations a complete price negotiation memorandum is prepared and signed by the negotiator. The negotiation record should clearly indicate the basis for agreements reached, any outstanding disagre Government estimate, reliance placed on the contractor's cost or pricing data in the negotiation, and the basis for any allowed time extension, preferably from an analysis of the contractor's construction schedule, material deliveries and any equipment changes.

(8) Preparation of the modification package. The final modification package should include the RFP, the funds reservation, the contractor's original and revised proposals, the original and revised Government estimates, the audit (if required), the pre-negotiation objectives, the price negotiation memorandum, and the BCM (if required). All records of negotiation are either included in the body of, or attached to, the price negotiation memorandum supporting the final settlement.

(9) Notice to proceed. A notice to proceed is effective the day the authorized representative of the Government signs the document. A notice to proceed cannot be issued on military construction until funds are certified available by the district. Civil works construction follows the requirements of EFARS 52.2/9109(d), Continuing Contracts. If a notice to proceed is needed prior to issuing the modification package, the district should be advised.

f. Changes clause. The "Changes" clause provides that the CO may unilaterally make changes to the contract within the general scope of the contract. The clause further provides that if such change orders affect the contract time and/or price, an equitable adjustment shall be made and the contract modified accordingly. If due to the urgency of work, the normal process as stated in the general paragraph above is inadequate, then a two-part change order may be used. The first part prescribes the work to be accomplished and/or an

amount for payment purposes, expressly stipulating that such amount is tentative. The second part will be issued at a later date and will include the final adjustment of the change in price and time. It is important when issuing a two-part change order to follow the first part with the second part as soon as possible, so that the contractor or the Government cannot figure the cost of the change on a cost-plus percentage cost basis, which is a prohibited practice.

g. Differing site conditions. It is the contractor's responsibility under the contract clause, "Differing Site Conditions," to notify the contracting officer in writing of a condition differing from that shown in the contract documents, and to preserve the site until a Government inspection is completed. The resident engineer promptly investigates the site, and records existing conditions in photographs and memorandums. The resident engineer usually notifies the district of the conditions, and relies on their expertise for support during the investigation. If the investigation deems the site to have differing conditions, the records of the investigation become the basis for an RFP.

h. Excusable Contract Delays.

(1) Time extensions due to weather. Time extensions in this context apply only to the contract clause entitled "Default" and more specifically to the time extensions for weather. When time extensions for weather delays are being considered, there are two fundamental principles that must be followed: (a) The contractor must have been actually hampered in a manner that would delay final completion of the job and, (b) the weather conditions must have been other than those which could have been anticipated in the approved schedule. Also, the contractor must not have willfully or negligently caused the delay. Generally, the contractor must notify the contracting officer of delays caused by unusually severe weather. The contracting officer bears the obligation of extending contract time for such delays. The basis for evaluating the length of time for the delay is described in ER 415-1-15, "Construction Time Extensions for Weather". The contract provisions should already contain data on weather normally expected to occur. The contractor is advised in writing on a monthly basis of the results of the evaluation and the allowable time delays. A suspense date is given the contractor for response. If the contractor's concurrence is not received, negotiations may be warranted. Negotiations with the contractor are based on the progress schedule, which is updated to determine the effects of the time extension on construction. At the conclusion of negotiations, the

evaluation of time delays and the progress schedule become the basis of the recommendation that a modification be issued. Any necessary modifications as a result of weather delays will be issued on not less than a quarterly basis. Under this contract clause, no consideration is given to cost.

(2) Time extensions due to material delay. It is the contractor's responsibility to notify the Government of any delays caused by suppliers. This notification includes specific features of work affected, the date material was ordered, the original scheduled delivery and the new anticipated delivery date. These dates should be tied to the construction progress schedule or critical features. Additionally, the contractor must demonstrate that negligence on the part of the prime contractor, subcontractor or supplier at any tier was not the cause of the delay by listing actions taken to improve delivery, and efforts made to secure the supplies from other sources. The resident engineer examines the facts and either informs the contractor, in writing, that the request has no merit, or forwards the entire package to the contracting officer with recommendations that a modification to the contract be issued.

i. Suspension of Work.

(1) Orders to suspend work under the "Suspension of Work" clause (FAR 52.212-12, Suspension of Work) of the contract should not be issued unless absolutely necessary, as the Government may be liable for any damages caused by issuing such orders. Partial rather than total suspension should be used whenever possible. Suspension orders must be issued by the contracting officer. The resident engineer should notify the district when a suspension order is necessary. Suspension orders may be necessary to prevent the contractor from proceeding with work that will have to be removed or changed.

(2) The clause allows the Government a reasonable time to make decisions and revise designs. Only after it is determined that a modification cannot be issued in a reasonable time to prevent stopping all or part of the contractor's work, will a suspension order be issued.

(3) The resident engineer establishes a suspense on all actions required to permit resumption of suspended work. The district is advised immediately to take necessary action to rescind the suspension as soon as work can be resumed. Partial lifting of a suspension should be requested when practicable. A delay in lifting a suspension of work may substantially increase the final cost and time for completion.

(4) Since the Government will be liable for additional costs and/or time resulting from an unreasonable suspension of the work, every effort should be made to investigate the the effect of the suspension. The resident engineer requests contracting officer action, if needed, to direct the contractor to reschedule or revise work procedures in order to reduce the effect of such suspensions.

(5) Immediately after issuing a suspension of work, the resident engineersupervises an inventory of equipment and personnel made idle or delayed bythe suspension. Careful records are established and maintained to accurately record the effects of the suspension.

j. Contract Requests, Disputes, and Claims.

(1) General. The resident engineer assumes responsibility to resolve all questionable areas of disagreement as soon as they arise. Correspondence and reports must properly identify actions on disagreements in accordance with the definitions that follow in paragraph (2). Improper identification of a "contract request" as a "claim" may result in triggering actions unnecessarily. Improper identification and action on a claim could have severe repercussions. If the first written request by the contractor disagrees with the resident engineer's on any subject, the resident engineer examines the facts and determines if the matter has merit. The contractor is given a written reply including complete justification of the resident engineer's position based upon plans and specifications. If complete merit is determined, the contractor is advised that a modification will be processed. If partial or no merit is determined, the agreement becomes a dispute. If the contractor responds with a request for a decision by the contracting officer, the contractor's letter is forwarded promptly to the district along with the resident engineer's comments and recommendations. The resident engineer always acknowledges letters from the contractor and states in the reply the disposition of them. Problems should be settled at the lowest possible level.

(2) Definitions. The following definitions are provided to assist in determining the legal level of disagreement, if any.

(a) Contract request. Any written request for time, money, or other relief for which a contracting officer's decision has not been requested.

(b) Dispute. A disagreement between the contractor and the contracting officer, or any of his authorized representatives, which is not a claim because it does not meet the precise criteria for a claim. Disputes must be handled expeditiously to avoid escalating a dispute to a claim. As soon as a dispute is known to exist, the resident engineer must begin recording all facts, keeping accurate records, and taking photographs where applicable.

(c) Claim. A "Claim" is defined in the FAR as a written demand by one of the contracting parties, as a matter of right, the payment of money in sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A written demand by the contractor seeking adjustments to the contract must meet the requirements of the Contract Disputes Act of 1978 for it to be properly classified as a claim. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim.

(3) Initiation of a Claim. A dispute can become a claim only when it fully meets the definition stated above. Contractor claims must be submitted in writing to the contracting officer for a decision. The CO must document the contract file with evidence of the date of receipt of any submission deemed to be a claim. However, a written demand or written assertion by the contractor seeking the payment of money exceeding $50,000 is not a claim under the Contract Disputes Act of 1978 until certified as required by the "Disputes" clause of the contract (FAR 52.233-1, Disputes). A contractor's claim exceeding $50,000 must be accompanied by a certification which includes the following:

- The claim is made in good faith;

- Supporting data is accurate and complete to the best of the contractor's knowledge and belief; and

- The amount requested reflects the contract adjustment for which the contractor believes the Government is liable.

The aggregate amount of both the increased and decreased costs must be used in determining when the dollar thresholds requiring claim certification are met. If the contractor is an individual, the certification must be executed by that individual. If the contractor is not an individual, the certification must be executed by a senior company official in charge of the project or an officer or general partner of the contractor. A contracting officer's decision must be issued

within 60 days of the date the Government receives a properly endorsed contractor's request for a CO decision. The resident engineer promptly advises the district of each claim and forwards the claim and all pertinent supporting data with his recommendation. If a determination is made by the contracting officer that the claim has merit, the claim then is subject to negotiation and is appropriately processed as a contract modification.

(4) Interest on Claims. The Government must pay interest on a contractor's meritorious claim on the amount found due and unpaid from the date the contracting officer receives the claim. If it is over $50,000, it must be properly certified in accordance with FAR 33.201(a) before receipt is acknowledged by the Government.

7-7. **Officer Engineering.**

a. General. Some of the main duties of a field office are as follows:

(1) Keep all engineering records.

(2) Maintain master sets of plans and specifications.

(3) Prepare partial and final contract payment estimates.

(4) Prepare progress reports.

(5) Review and check shop drawings, certificates, and samples of materials to be used by the contractor.

(6) Prepare cost estimates.

(7) Negotiate change orders and prepare modification packages.

(8) Solve engineering problems, within their capability.

(9) Disseminate engineering data to quality assurance personnel.

(10) Assure that drawings used to produce record drawings are current and factual.

(11) Keep abreast of potential claims.

(12) Monitor contract funds.

b. Payments to the contractor.

(1) The resident engineer reviews and approves all progress payment estimates. Payments to the contractor and payment frequency are set forth in the "Payments Under Fixed Price Construction Contracts" or an equivalent clause of the contract. Frequency of payment is usually specified as monthly, but the pay period date should be mutually agreed upon by the resident engineer and the contractor. The item to consider in establishing a pay period date is the workload of the resident engineer and the district. If possible, pay days for various contracts should be spread out over the month. The resident engineer must comply with the requirements of the Prompt Payment Act as described in paragraph 7-8.

(2) Progress payments to the contractor are based on the value of acceptable work the contractor has placed from one pay period to the next. Preferably, agreement is obtained with the contractor on progressive earnings through consultation prior to preparing the partial pay estimate. The contractors breakdown of the payment estimate should be compared to the appropriate line-item pay items in the NAS.

(3) Partial pay estimates are prepared by the resident engineer on ENG Form 93. Estimates are numbered consecutively and submitted for each pay period in which earnings accrue throughout the life of the contract, with the last estimate marked "final." If no money is earned during a pay period, that period is included in the next pay period in which earnings accrue. The date on the estimate is the inclusive period covered by this estimate. The estimate must be arithmetically correct. The estimates may be signed and approved by the resident engineer, if so authorized. The contractor or authorized representative should sign the original before forwarding the estimate for payment to the district, but this is a requirement only on "final" payment. The contractor does not have to agree with the amount being paid. When a NAS is used, it should provide the supporting data for interim pay estimates. When there is an unreconciled disagreement in the amount of contractor earnings, the resident engineer advises the contractor of the differences and forwards the estimate to the district for payment. The contracto "Disputes" clause. The resident engineer should submit a report of the facts relating to the protest to the district.

(4) The contractor may be paid for materials onsite which have not been incorporated into the construction, if an invoice is provided with the pay estimate. Material stored offsite may be included for payment only when the specific authority is provided. Payment for materials stored offsite is made against the contractor's furnishing of paid invoices. Only then does the Government have title to the material. Payment is made only on approved material to be incorporated in the job which is properly stored and protected. Care is taken to deduct the cost of the material previously paid for as such. When NAS is used, work activities may be broken down into material delivered and materials installed to permit easier control for payment purposes and to eliminate double bookkeeping, and the necessity of invoices to support payment for materials.

(5) Retainage is deducted in accordance with the provisions of the payments clause. If the performance date covered by the estimate extends beyond the established contract completion date as modified, liquidated or actual damages are deducted in accordance with the terms of the contract. When the contractor is entitled to additional time excusable under the terms of the contract, liquidated damages are not withheld from monies due the contractor merely because a formal modification was not issued. Should such a situation arise, the resident engineer attaches a statement of facts to the payment estimate form. Where liquidated damages are not stipulated by the contract, and it has been determined by the contracting officer or the authorized representative of the contracting officer that there are no actual damages due to delays in the work for which the contractor should be held liable, the following statement is submitted with the estimate: "No damage to the Government occurred as a result of delay in completion of the contract." A statement of facts is attached to justify having no requirements for assessment of damages. When a contractor is lagging behind schedule, when deficiencies or controversy exists over the amount of additional time that is excusable, enough pay is held back to cover all possible liquidated or actual damages or corrective work. The resident engineer possesses and may exercise the right to withhold monies for operation/maintenance manual submittals, defective workmanship, wage rate violations, failure to correct deficiencies, unsafe conditions, and poor administration of the contract. However, funds withheld will not exceed the value of the disputed items.

(6) When a contract contains estimated quantity payment items, the "Variation in Estimated Quantity" contract clause is operative (FAR 52.212-11, Variation in Estimated Quantity). The clause provides that when the actual quantity varies more than 15 percent above or below the estimated quantity in the contract bid schedule, an equitable adjustment in the contract price will be made on demand of either party. All appearances of overrun or underrun in costs of line items should be called to the district's attention when they are first discovered and again when submitting the pay estimate. Separate from the estimate, a report is furnished to the district giving the facts concerning the overrun or underrun of items of work and cost. An overrun or underrun occurs when it is determined that the estimated quantity given in the bid schedule is not the final quantity. The computations of the final price in excess of 115 percent of the original bid price should reflect the fact that the contractor has been paid fixed costs plus mobilization and demobilization costs. Therefore, the new unit cost will probably be less than the contract unit costs. Although the unit price may be increased for quantity underruns of 15 percent or greater, the total costs for the line item may not exceed the contractor's bid for the line item. Be aware that a large variation may be tantamount to a differing site condition. The cause of the variation must be considered. When added work is directed, a modification to the contract should be considered rather than a variation. This modification may include an adjustment for time only if the final quantity is between 85 percent and 115 percent of the original bid quantity and the adjustment delays contract completion.

(7) The final estimate is based on an exact summary of all work performed under the terms of the contract. Computation sheets are prepared to back up each final estimate. The computation sheets should contain necessary drawings, sketches, cross-sections, weight tickets, adding machine tapes, and computations. All items are indexed with the computation sheets and compiled for ready review and checking. All computations are checked, signed, and dated, and computation sheets are kept current as items of work are completed. The completed computation sheets and final estimates can be submitted to the district for review and final payment without lengthy delay. Delay in making the final payment may result in Government liability for interest on late payment. Accordingly, all final payment actions should be processed promptly. Outstanding claims should not delay final payment. The contractor should sign the final payment estimate and the release statement with a listing of claims as exceptions to the release.

c. Progress and progress reporting.

(1) Progress schedule. Within 5 days of commencing work, or a length of time otherwise specified, the contractor must submit to the resident engineer for approval a realistic progress schedule for the prosecution of the contract work. The schedule must be in the specified format and should include sufficient detail to indicate how the contractor plans to meet the required completion date or dates. It may be a modified network or a fully computerized NAS. As a minimum, the salient features of work under the contract must be shown. The planned operations for each feature having a separate completion date must be identifiable in the schedule. The resident engineer may guide the contractor by means of a sample schedule; however, the sample schedule should be for some other job to avoid directing the contractor's work sequence. The resident engineer carefully reviews the contractor's submitted progress schedule, and if it is found to be practical, adequate in detail, well balanced in regard to value, and in compliance with contract requirements, the schedule should be approved by the resident engineer. The magnitude and complexity of the project, will determine the level of detail that will be required from the contractor. The contractors NAS submittal should contain a realistic schedule, appropriate dollar distribution for the various sections of work and sometimes also manpower projections. This approach will assist the resident engineer in managing the contract schedule. If the schedule is not satisfactory, it is returned with comments to the contractor for correction.

(2) Schedule changes. To be effective, a progress schedule must be maintained up-to-date to reflect the current operating procedures and all changes in the contract work. The schedule submitted and approved must be followed by the contractor. When the contractor changes the sequence of actual operations from that shown on the schedule, the resident engineer requires the contractor to revise the schedule, at no additional cost to the Government, to indicate how the contractor currently plans to complete the work within the time allowed by the contract. The contract requires the contractor to modify the schedule to include any revision necessitated by alterations in the work for which a notice to proceed has been issued. After the change occurs, these revisions should be incorporated into the schedule by the contractor for the succeeding progress update. When the contractor fails to modify the schedule, the resident engineer directs the modification by the next update. Any major revisions to the schedule by the contractor are subject to the approval of the resident engineer or by the ACO.

(3) Network analysis. When a network analysis system (NAS) has been specified, the contractor is normally required to update the diagram or analysis periodically for progress and submit a narrative report explaining actual or anticipated delays and actions taken or proposed to overcome these delays. The resident engineer not only enforces the contract provisions for submitting the reports, but also carefully reviews the content of the contractor's report, checking it against the findings of the Government's QA inspections for comparative differences, veracity, appropriate actions, and notice of claims, among other considerations. When NAS is used for a schedule, the analysis of time impact on the job is determined by adding or deleting activities (time and value), entering actual progress to date as of the date the change was ordered, and making new analysis computations. This analysis should be used in negotiating the time which might be due to the contractor for an alteration to the contract, as it automatically considers "ripple" effects in the network process. Information on administering NAS is found in ER 1-1-11.

(4) Progress reporting. The resident engineer provides all necessary field input required for the Automated Management Progress Reporting System (AMPRS) in accordance with district policy and procedures. When requested, a special report of actual progress is forwarded to the district by the resident engineer. Actual progress versus scheduled progress should be adequately delineated and significant variations should be explained. Actual or anticipated delays should be mentioned along with actions which the contractor or resident engineer is taking or proposes to take to regain the schedule. When the contractor falls behind schedule, all facts concerning the progress, delays, laxity on the part of the contractor, estimated time extension, and estimated completion date should be reported to the contracting officer. Recommended actions to the contracting officer, if any, should also be shown on the report. It is very important that each resident office provide accurate and timely data input to the AMPRS system, since many other management levels use this data for reporting and forecasting of future requirements.

d. Submittal.

(1) Submittals referred to in this paragraph include all shop drawings, samples, letters of certification, tests, and engineering information that required by the contractor for quality control and by the contract documents. All submittals are processed in accordance with ER 415-1-10.

(2) During the design phase for each contract, the district engineering division or the A/E prepares a list of required submittals. This list should be available at the time of the constructibility review. It is prepared on ENG Form 4288 (Submittal Register) and is made a part of the special clauses of the specifications. The list notes the submittals considered to be an extension of design and shows the level of review required (government approved, or information only). During the constructibility review, this list may be edited. The notations in this list provide advance warning to the resident engineer and the contractor of items requiring additional time-consuming coordination.

(3) Submittals are classified as "Government approved" or "information only." Submittals which will always require government approval are: extensions of design, critical materials, deviations, or those involving equipment that must be checked for compatibility with the entire system. All submittals not requiring government approval are for information only. Government personnel shall perform quality assurance reviews of information only submittals to assure that the contractor's quality control program is properly handling submittals. The number of reviews will be at the FOA commander's discretion, however a minimum of 10 percent of all information only submittals will be reviewed. The resident engineer or his staff reviews all submittals and shop drawings submitted for Government approval, to verify conformance with contract requirements and should expedite those that are critical. All unsatisfactory shop drawings are returned to the contractor for correction and resubmission. When the resident engineer is unable to check the drawings, the technical expertise of the district is used. When the drawings have been carefully checked by personnel other than resident engineer staff, they must be returned to the resident engineer for approval action, then returned to the contractor. A predetermined policy establishes internal distribution among the resident and district offices and the using agency.

(4) One of the first administrative actions of the contractor after NTP is the submittal of ENG Form 4288, as given in the contract specifications, including any changes needed. This revised list is reviewed for approval and returned promptly to the contractor. Timely and complete submittals of shop drawings contribute materially to the successful completion of the job by the contract completion date. The submittal list in ENG Form 4288 provides a record indicating the status of submittals and should be checked at frequent intervals to ensure necessary approvals are provided sufficiently in advance of need to avoid delays.

If it is determined that the contractor is dilatory or negligent in furnishing shop drawings, the resident engineer requests in writing prompt action by the contractor to avoid delays. ENG Form 4025, (Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certificates of Compliance) is used as the transmittal document for all submittals.

(5) It is essential that shop drawings not only be submitted on time, but expeditiously handled by reviewers. To maintain adequate control of submittals, the resident engineer institutes a systematic suspense and follow-up procedure for handling shop drawings.

(6) Reviewing requests for approval of methods and procedures for accomplishing such work as blasting, ground water control, earthwork compaction, grouting, pile driving, and similar work utilizing certain equipment and materials; attention should be directed not only to the requested methods and procedures; but also to the flexibility of varying these to meet all possible conditions. Approvals of this type should be made contingent upon obtaining the satisfactory specified results from the proposed methods and procedures.

(7) Any office having the delegated authority to approve material submittals must maintain a technical reference library to serve as the basis for these official decisions. The district office technical library is available to resident engineers. However, each resident office should maintain sufficient reference materials to determine that materials and workmanship comply with applicable standards such as American Society of Testing Materials (ASTM), SMACNA, and American Association of State Highway and Transportation Officials (AASHTO), etc.; USACE specifications; manufacturer's descriptive information and installation instructions; estimating manuals; and other appropriate documents. Allowance are made in each annual budget to update and/or purchase technical publications.

e. Photographs.

(1) Each resident office should have a camera and supplies for taking construction photographs, or an agreement may be made with the using service to use their photography equipment. Photographs are usually taken of the following:

(a) Views of major construction projects during various stages of completion. These photographs are used later by HQUSACE, Divisions, and Districts to compile a supply of quality photographs for use in command presentations.

(b) Scenes of claim situations, potential claim areas, or changed conditions.

(c) Detailed views of work in place for which removal has been ordered because of noncompliance with plans and specifications.

(d) Construction in which unusual difficulties have been overcome or where the subject is of technical interest.

(e) New methods of construction.

(f) Property or material damages.

(g) Accident evidence and/or sites or potential safety hazards.

(2) HQUSACE occasionally requests 35mm color slides of completed military construction facilities be submitted when construction is completed. Black and white photographs and 35mm color slides which illustrate, in detail, phases and sequences of construction and new methods and equipment are particularly desirable, as are video taping and time lapse movies of certain projects or construction activities. This material can be used for construction training programs, special presentations, and accident analysis. A complete description and identification should be prepared for each picture. The district develops and files the photographs and provides guidance for photographing other non-routine items.

f. Record drawings.

(1) The contractor is responsible for maintaining at the job site a current set of record drawings (formerly referred to as as-built) marked up to indicate all changes to the original drawings. The contractor's record drawings should be reviewed monthly by the resident engineers staff to make sure that they are current. Additionally, it is advisable for the Government's representative on site to note changes as they are observed. Such changes should include, but are not limited to, sketches that are provided in modifications to the contract, approved deviations, and details on shop drawings varying from original drawing requirements.

As construction work nears completion, in its entirety or by major phase, the contractor must submit a marked-up set of record drawings to the resident engineer. This set is usally combined with other items not noted on the Government representative's marked-up set. When the contract does not require the contractor to maintain a set of record drawings.

(2) The resident engineer is responsible for assuring that the record drawings reflect final as-built conditions. Record drawings are forwarded to the district when the contractor's work is substantially complete or when phases of the work are complete. The district can then correct the original tracings and, if practicable, have the reproducible copies ready to return with the DD Form 1354, Transfer and Acceptance of Military Real Property, when completed construction is transferred to the using agency. It is not necessary to retain the drawings until such items as painting, seeding, and clean-up are completed.

7-8. **Prompt Payment Act**.

a. Public Law 100-496, The Prompt Payment Act Amendments of 1988, significantly changes the bill paying practices of the Federal Government. These changes apply to contracts awarded, contracts renewed, and contract options exercised after March 31, 1989.

b. Federal Acquisition circular (FAC) 84-45 contains changes to the Federal Acquisition Regulations to incorporate the required revisions. These revisions include elimination of the 15 day grace period during which the Government was entitled to make invoice payments without incurring interest penalties, and the establishment of an additional penalty if a contractor is not paid an interest penalty owed by the government.

c. In addition, the law contains provisions applicable specifically to construction contracts, which are in turn included in the FAR. The following paragraphs will synopsize the construction contract payment requirements and procedures for implementation of these regulations.

(1) The "designated billing office" is defined as the office or person designated in the contract to first receive the contractor's invoice or request for payment. In most cases, the designated billing office will be the Area, Resident or Project office that is administering the construction contract and should be so named in the solicitation. Add this item to your Biddability, Constructibility, Operability (BCO) review checklist.

(2) The payment "clock" starts to run on the date that a "proper invoice" is received at the designated billing office. (The law also provides for starting the clock upon "constructive acceptance", but this only applies to construction in cases in final payments and payments for partial deliveries that have been accepted by the government and are priced separately in the contract.) Each invoice shall be date stamped on its face immediately upon receipt by the office or individual named in the solicitation. If the designated billing office fails to stamp the invoice with the actual date of receipt, the "clock" starts on the date of the invoice.

(3) A "proper invoice" is defined by FAR clause 53.232-27 (a) (2) and must include, among other items, "substantiation of the amounts requested and certification in accordance with the requirements of clause 52.232-5". Payment will not be made

without contractor substantiation of the amounts requested; certification that previous amounts were expended in accordance with the contract; subcontractors and suppliers have been paid from previous payments, and will be paid promptly from the payment requested; and that the prime contractor's payment request does not include any amounts to be withheld or retained from a subcontractor. The certification must appear exactly as stated in the aforementioned clause and be fully executed by the contractor. The degree of substantiation required will depend upon the type of work involved and will be left to the discretion of the contracting officer. In most cases, however, an update of the approved contract price breakdown indicating itemized completion percentages that were established by mutual agreement between government and contractor project personnel would constitute substantiation of work-in-place.

(4) If an invoice is found to be improper or defective, as defined by FAR clause 52.232-27 (a)(2), the contractor must be notified of the defect within 7 days after receipt of the invoice. It is recommended that the initial notification be placed telephonically (see clause 52.232-27 (a) (2), (vii)) and then confirmed in writing. The "clock" is effectively stopped upon notification of the defect and the whole process starts over with the resubmission of the corrected invoice. Disagreement between the Government and the Contractor over the payment amount, issues of contract compliance or retainage does not form the basis for finding the invoice to be defective and requiring resubmission. However, since clause 52.232-27 (a)(4)(iv) states that "Interest penalties are not required on payment delays due to disagreement. . . . .", it is imperative that the ENG Form 93 be annotated to document the delay and alert the designated payment office not to pay interest during the delay period.

(5) If the Government takes longer than 7 days to notify the contractor of an invoice defect, the subsequent payment period for processing the corrected invoice is shortened by the number of days that the Government exceeded the 7 day requirement (e.g., if the specified due date is 14 days after receipt, and the Government takes 10 days to notify the contractor of a defect, payment of the corrected invoice is due 11 days after receipt).

(6) The due date for progress payments shall be 14 days after receipt of a proper payment request. This requirement is contained in P.L. 100-496 and is not subject to negotiation.

The FAC does provide for making a determination as to a contract or class of contracts and specifying, in the solicitation, "a period longer than 14 days if required to afford the Government a practicable opportunity to adequately inspect the work and to determine the adequacy of the contractor's performance....". The Office of Management and Budget (OMB) Circular A-125 states that, "extended payment periods would not be appropriate... for the mere convenience of government employees, or to avoid any possibility of making late payment." In order to carry out the Congressional intent, determinations to specify longer payment periods shall be made by the Contracting Officer and shall be documented by written justification in the contract file. Current feedback from the field indicates that where ENG Form 93's are transmitted electronically to the payment office, the "50 percent rule" (in the payment office by close of business on the day that represents half the pay period, or in this case, the 7th day) can usually be met.

(7) The release of retained amounts shall be based on the Contracting Officer's determination that satisfactory progress has been made. Payment is due within 30 days, or other specified period, after release is approved.

(8) On final payments, we don't have the latitude of specifying a longer payment period. Payment is due either the 30th day after receipt of the invoice or the 30th day after Government acceptance of the work, whichever is later. Where final payment is subject to settlement actions (e.g., release of claims), acceptance is deemed to have occurred on the effective date of settlement.

(9) If a contractor is overpaid (his performance is later found not in conformance with the contract specifications or he has held retainage from a subcontractor and was paid the full amount), the Government is entitled to interest, and the interest must be deducted from the next available payment to the contractor. Although clause 52.232-5(d) predicates such action upon the contractor's discovery of the "unearned amount", there may be instances where it is necessary for the Government to provide information for discovery.

(10) Another major revision is the addition of some very detailed provisions applying to the payment of subcontractors. The highlights are:

(a) The provisions flow down to subcontractors and suppliers at all tiers. The prime contractor must include a contract clause requiring each of its subcontractors to flow down these same requirements to each of their subcontractors.

(b) Contractors and subcontractors must pay their subcontractors within 7 days of receipt of their respective payment. They may not specify longer payment periods in their subcontracts.

(c) Contractors and subcontractors must pay interest to their subcontractors for payments made after the due date (7th day).

(d) Interest that the contractor pays a subcontractor cannot be charged to the Government.

(e) The Contracting Officer must be provided copies of retainage and withholding notices issued to subcontractors.

(11) While the section payments to subcontractors constitutes a large portion of FAR clause 52.232-27, the Congress did not indicate it intended to place the Government in an enforcement role between the prime and subcontractor on payment issues. Although the requirements to provide the contracting officer with copies of correspondence to subcontractors may indicate deeper involvement, the Office of the Chief Counsel has confirmed that neither OMB circular A-125 nor the FAR requires us to monitor and enforce activities between the prime and subcontractor as identified in subparagraphs (d), (e), (f), and (g) of clause 52.232-27. Compliance with subparagraph (c) will be implemented through a mechanism similar to the Statement and Acknowledgement Form used in the labor provisions.

7-9. **Contractor Performance Evaluation.**

a. The Construction Contractor Performance Evaluation system is fully described in ER 415-7-1(FR) and is a valuable management tool. The evaluation does influence contractor performance. The first step in documenting performance is explaining to the contractor, during the pre-construction conference, what is satisfactory and unsatisfactory performance. The contractor should clearly understand what is expected during the life of the contract and that the Contracting Officer (CO) intends to use interim and final performance evaluations to document contract performance.

b. Under normal circumstances, when a contractor's performance is unsatisfactory for a period of three months or longer, an interim evaluation must be initiated. The Contracting Officer Representative (COR) must be on the alert for indications of unsatisfactory performance. When unsatisfactory performance is noted, the contractor will be called into conference to discuss problem areas and their resolution. A Memorandum of Record (MFR) will be prepared on this conference. The contractor will be advised that performance must improve within 30 days. During this period, the COR will closely monitor problem areas. If no material improvement is noted, a letter will be sent to the contractor as notification of intent to issue an interim unsatisfactory performance rating. The letter will address the previous conference and identify the facts on which the interim unsatisfactory rating is based. A copy of this correspondence will be forwarded to the contractor's bonding company. The COR will insure that the CO is personally aware of the status of the contract at this time.

c. The contractor will be permitted at least 14 days to respond, in writing. At the end of the specified time period, if there is no response or evidence of improved performance, the interim unsatisfactory rating will be sent to the district's Construction Division for processing. Once again, the contractor's bonding company will be notified of the actions taken. If the contractor responds within the allotted time frame, all written comments will be included in the COR's report. If not, a comment regarding the contractor's lack of response will be included in the evaluation. In such cases, construction division will normally send another letter to the contractor, usually over the contracting officer's signature, offering an additional opportunity for contractor comment, before final processing. Any response will be treated as in paragraph (1) below.

(1) Should the contractor respond to the "letter of intent" within the allotted time frame, any written comments made by the contractor shall be included in the report and factural discrepancies alleged shall be discussed, resolved if possible, and made a part of the report.

(2) Item 14 of the SF 1420 must contain comments in sufficient detail, based on back-up material and using specific instances of deficiencies, as required, to back up the proposed unsatisfactory rating. This is particularly true of Item 9a, QUALITY OF WORK. That item reflects the contractor's management of the quality control program, as well as the quality of the work which is placed.

d. As stated in paragraph b above, the normal time frame for initiating interim unsatisfactory performance evaluations is three months. However, if there is a critical period of time where the contractor must perform satisfactorily and does not, or if the project is of short duration, an unsatisfactory rating may be issued for poor performance that occurs in less than the normal three month evaluation period. The contracting officer must be informed and should be involved in the processing of each unsatisfactory rating. Proper use of special interim unsatisfactory ratings can alert the contractor to his shortcomings and serve as a valuable tool to energize him to better his performance and to avoid a final unsatisfactory rating. After the issuance of an interim unsatisfactory rating, the COR must continue to document and to evaluate the contractor's performance. Documents can be in the form of memoranda of meetings, "cure" letters to the contractors, quality assurance reports, photographs, etc. The COR will re-evaluate the interim unsatisfactory rating every three months until the contract is complete.

e. Contractor Performance Appraisal Documentation. There are several reasons why it is extremely important to document the unsatisfactory performance of a construction contractor. The performance documentation can be used to establish in writing your case for possible future termination; to document possible justification for debarment; and also as a tool to prod the contractor to perform up to your expectations. However, the question that continues to get asked is, what constitutes adequate documentation for unsatisfactory performance appraisals? It is suggested that you ask yourself the following questions as a starting point when you evaluate a contractor's performance with respect to each rated element.

(1) Quality of Work (Contractor Quality Control): Has a quality product been provided? If not, specifically describe the deficiency in quality and the shortcomings in the contractor's quality control system responsible for it, for example:

- Inadequate inspection

- Failure to perform necessary testing

- Failure to implement 3-phase inspection process

- Inadequate or incomplete CQC documentation

- Failure to identify, and correct deficient work

- Inadequate reviews of materials and shop drawings

- Incorporation of unspecified materials

(2) Timely Performance:

- Is the contractor completing the construction activities in a timely manner? This includes administrative activities, as well as physical construction activities such as submittal management, response to RFP's etc.

- Did the contractor adequately plan and schedule the work?

- Has the contractor met milestone dates?

- Has the contractor met physical milestone dates either specified by contract or agreed to in the project schedule?

- If the schedule has slipped through the contractor's fault or negligence, has he taken appropriate corrective action of his own volition?

- Has the contractor furnished updated project schedules on a timely basis?

(3) Effectiveness of Management:

- Are the contractor's on-site and home office management personnel exhibiting the capacity to adequately plan, schedule, resource, organize and otherwise manage the work? If not, describe and relate to other rated elements.

(4) Compliance with Safety Standards:

- Has the contractor implemented an effective safety program; one which minimizes/mitigates potential accidents?

- Has the contractor provided appropriate personnel protective equipment and associated necessary training?

- Has the contractor taken necessary corrective actions when safety deficiencies are noted or are violations only corrected after significant Government intervention?

(5) Compliance with Labor Standards:

- Has the contractor complied with all required labor standards and provisions?

- Have necessary corrective actions been made without significant Government intervention?

- Are payroll records being submitted in a complete and timely manner?

(6) The above questions are not intended to be all inclusive, but should provide a point of departure to develop additional questions and responses which will result in the preparation of a well-documented performance appraisal. Also, Office of Counsel should be brought into the process as early as possible, so that they can assist in reviewing and developing adequate documentation.

g. Final ratings are processed in the same manner as described above with the exception of the 30 day period for noting improvement. There are no rigid rules governing the number of items on a performance evaluation which must be unsatisfactory before an overall unsatisfactory rating is issued. Unsatisfactory performance on one or more of the five items to be rated may be sufficient to justify an overall unsatisfactory rating. The final evaluation report must be issued within 60 days of substantial completion of the work. The process of documentation should involve the counsel and contracting staffs. Use their expertise to help with documentation. Further, the contracting officer must be aware of and comfortable with the justification and adequacy of documentation which supports each unsatisfactory rating.

(1) Within 60 days of substantial completion, an SF 1420 (Performance Evaluation Construction-Contracts) must be prepared and sent to the district and transmitted to CENPD-CT.

(2) It is important to note that the percentage of work accomplished by each subcontractor is required information, and that the signature of the resident engineer or appropriate official designated by the district commander is also required. The rating is forwarded by the district to higher authority and is marked "For Official Use Only."

(3) The resident engineer is usually the evaluating official who prepares the report. If the official concludes that a contractor's overall performance was unsatisfactory, the contractor is advised in writing that a report of unsatisfactory performance is being prepared (FAR 36.2, Special Aspects of Contracting for Construction). If there is no improvement, the district is informed of all the facts, with recommendations. Interim and final unsatisfactory performance evaluation reports prepared by the evaluating official are signed by the district commander or his designee.

(4) Final unsatisfactory ratings will be processed in the same manner as described above, except the thirty (30) day period stipulated for noting improvement is not applicable for final evaluations. Final unsatisfactory ratings can be amended, if warranted, after claim settlement.

h. Subcontractor Performance Ratings.

(1) Where a subcontractor is known to exert significant influence on or control progress through special agreement with the prime contractor, a performance evaluation will be prepared on the subcontractor, in addition to the evaluation prepared on the prime contractor. The following interpretations, as examples, are for information and guidance in determining if this type of evaluation is required.

- Significant Influence. Where the major portion of a construction contract is contained in the cost of the equipment and installation, such as a complex materials handling system for a munitions storage facility; the building or shell then becomes the minor portion of the contract.

- Special Agreement. Interpreted as the subcontractor's contract with the prime contractor for the purchase and installation of the complex mechanical equipment.

i. Outstanding Performance Ratings. When appropriate, contractors should be recognized for outstanding performance on projects. When submitting an outstanding rating, area engineers will include a draft letter of appreciation forwarding to the contractor a copy of the evaluation.

The construction division project manager shall review the draft and have it typed in final form for the contracting officer's signature.

j. The Construction Contractor Appraisal Support System (CCASS) is a centralized and automated data base containing performance evaluation information on DOD construction contractors. A copy of the SF 1420 Performance Report should be forwarded to the central database in accordance with the criteria in DFARS 236.201. The completion of the SF 1420 construction contractor performance evaluation report is an important management tool for determining the contractor's past performance.

(1) When any ratings are processed, provide a name and telephone number on the SF 1420 of the individual most knowledgeable of the rated contractor. This information will enable CCASS users to contact the person having first-hand experience with the contractor's performance.

(2) A copy of the completed SF 1420 should be formally transmitted to the contractor. This action is especially important for contractors who are performing in an unsatisfactory manner. Unsatisfactory contractors should be given a copy of the performance appraisal as soon as it has been processed and signed by the Contracting Officer. The fact that the form is classified "FOUO" does not preclude you from sending the contractor a copy, since the contractor clearly qualifies as a party with a "need to know".

(3) Contracting Officers will be using CCASS as a valuable source of pre-award information, therefore it is imperative that the data included in the performance appraisal package be accurate and current. If you need any additional assistance on the operation of the CCASS System, contact USACE, CENPD-CT, P.O. Box 2870, Portland, Oregon 97208.

7-10. **Value Engineering Incentive Clause. (FAR 52.248-3)**

a. This clause is applicable to all firm fixed-price construction contracts over $100,000 or more, and may be included in lesser contracts when the contracting officer determines there is potential for cost reduction. Value engineering arrangements are also mandatory in all subcontracts of $50,000 or greater and may be included in contracts of less value. The clause provides for Value Engineering Change Proposals (VECP) initiated and developed by the contractor for changing the drawings, designs, specifications, or other requirements of the contract.

They must result in savings to the Government, by providing less costly items or methods than those specified, without impairing any essential functions, and characteristics; such as service life, reliability, economy of operation, ease of maintenance, and necessary standardized features.

b. The incentive for the contractor to submit proposals is that he shares in the resultant savings. His share is 55% of the instant contract savings (ICS). Instant contract savings are the estimated reduction in the contractor's cost of performance resulting from acceptance of the VECP. The ultimate deductive price is determined by subtracting Government costs from instant contract savings and multiplying the result by 55% on fixed-price contracts. Government costs are those which directly result from development and implementation of the VECP, such as test and evaluation of the VECP. The contract price is also adjusted without regard to profit. An interesting aspect of this clause is that the contracting officer may accept the VECP, even though an agreement on price reduction has not been reached. Furthermore, the decision of the contracting officer to accept a VECP is final and not subject to the "Disputes" clause.

c. The principles of value engineering (VE) are implemented in accordance with district and local guidelines. The resident engineer encourages both the resident office staff and each contractor to apply their expertise to the VE concept in initiating alternatives to high cost construction and procurement items, and in seeking a savings for the Government while preserving quality. EP 11-1-4 is a handy pamphlet describing the VE process which is available for distribution to contractors. On completion of a VE study and approval in principle, a modification to the contract is pursued in accordance with paragraph 7-6. The VE officer is kept advised of progress and government preparation costs on VE proposals.

7-11. **Closeout and Warranties.**

a. Transfer of completed facilities. ER 415-345-38, Transfer and Warranties, is the basic regulation which prescribes USACE policy and procedures for transfer of completed construction projects. The transfer of construction to the using service will be simultaneous with the acceptance of that construction from the contractor. The materials to be transferred to the using service are accumulated, organized, and ready to be transferred on the date of the final inspection.

The material should consist of the following: (subparagraphs (1) and (9) apply only to military and civil construction, respectively; the remaining subparagraphs are common to both)

(1) DD Form 1354. A DD Form 1354, Transfer and Acceptance of Military Real Property form, must be used to transfer any facility to the using agency prior to either partial or complete occupancy. All facilities (including buildings, structures, utilities, distribution systems, and paved areas), whether new construction, rehabilitation, or remodeling, are listed on the DD Form 1354. This form is supplemented by DA Form 2877, Real Property Record, on Army construction projects. The initial DD Form 1354 is to be provided by the design A-E. The resident engineer supplements the information provided on the initial DD Form 1354 and accompanying forms and completes the form. This should be a simplified process if material is gathered as the construction progresses. The completed DD Form 1354, with the real property records, is submitted by the resident engineer to the using service. Regulations require the using service to accept the transfer of construction by signing the form. The deficiencies found during the final inspection that were not immediately corrected are listed on the back of the form. The deficiencies relate to contract requirements only. Design deficiencies are not included. If there are any disputes as to items being construction deficiencies, these should be resolved by the resident engineer, if possible. If not, the dispute is forwarded, in writing, to the district with an explanation of the facts. All renovation and alteration projects require a DD Form 1354, as well as all maintenance and repair projects. Prior to the final inspection, the resident engineer determines the approximate cost of the contract, exclusive of possible claims. Computation of this cost is available, if desired, at the final inspection. On unit price contracts it may be necessary to submit an interim DD Form 1354. A final DD Form 1354 will be submitted once all invoices are received from the contractor and validation of final quantities is complete.

(2) Equipment testing record. All equipment tests required by the contract are made and recorded prior to the prefinal inspection. All contract equipment incorporated into the project that was temporarily used during the construction period (i.e. elevators) must be refurbished to new condition prior to turnover. A complete record of the tests must be available for examination at the final inspection. It is good practice to invite the local user to participate in the tests. In contracts where training of user personnel is specified, such training is satisfactorily completed prior to formal transfer.

The using service is furnished a copy of the equipment test report upon request.

(3) Shop drawing record. The shop drawings and other data are compiled sothat the drawings for any desired item can be made readily available at the final inspection. After inspection, the material is bound for transfer to the user.

(4) Operating and maintenance instructions. When provisions have been made for operation and maintenance (O∧M) manuals for complete systems, they are obtained from the architect-engineer (AE) or contractor, and furnished to the using service. These manuals are the manufacturer's published data and/or supplemental material provided by the contractor.

(5) Spare parts and tools. Where required by the contract, all necessary spare parts and tools, spare parts lists for the items of equipment, and the source of suppliers and unit costs are obtained from the contractor for transfer to the user.

(6) Keys. The contract is carefully checked to determine the number, type, and kind of keys required. Special care is taken in checking the requirements for such items as master keys, key blanks, keys for valves, hydrants, registers, and windows. All required keys are obtained from the contractor, labeled, and prepared for transfer to the user by letter with a complete listing of the keys. It is imperative that the master keys are secure and that no duplicates have been made.

(7) Warranty of construction. The contract specifications are reviewed in order to compile a list of warranties or guarantees. The resident engineer assures that all warranties or guarantees are received from the contractor. This includes are names, addresses, and contact points for all parties responsible for implementing such warranties or guarantees. A list of warranty or guarantee expiration dates is made and retained, and copies are provided to the user. Further information on implementing the warranty provisions are provided in 7-11b.

(8) Leases and contracts. All leases and contracts pertinent to the transfer of the facilities are secured by the resident engineer for transfer to the user. This includes leases for land, approach rights for airplanes, and contracts for commercial utilities.

(9) Policy and procedures. Transferring civil works projects (facilities) is covered in ER 1150-2-302, Annual Report on Local Cooperation Agreements. This involves a local cooperation agreement, the authority for which is in the act authorizing the project. A formal notice to the responsible authorities (sent by registered or certified mail with return receipt requested) transfers the completed facilities, as of a specific date, for operation and maintenance in accordance with the requirements of the authorizing legislation. Copies of correspondence are furnished to the division engineer and the Commander, USACE, (CECW-O), Washington, DC 20314-1000. The notice of transfer is accompanied by the necessary manuals, guarantees, spare parts/tools, and testing and shop drawing records, as discussed above.

b. Warranty Procedures.

(1) The warranty provisions on each fixed-price construction contract are described in FAR clause 52.276.21, "Warranty of Construction". The provisions of this clause state that the contractor must provide a warranty that the work required by the construction contract conforms to the contract requirements and is free of any defect in equipment, material, and workmanship for a period of 1 year after the date of final acceptance of the work or 1 year from the date the Government takes possession. Further guidance on implementing instructions concerning the warranty provisions are found in ER 415-345-38, "Transfer and Warranties".

(2) The interpretation and enforcement of the Warranty of Construction Clause (FAR 52.246-21), with respect to the extension of the warranty period when repairs are performed during the one year warranty period, revolve around the interpretation of paragraph (d) of the clause which is reproduced below.

"(d) The contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement."

Interpretation of this clause by the Armed Services Board of Contract Appeals (Humphrey Heating and Roofing. Inc., ASBCA No. 29730 (Nov. 8, 1984)) concluded that the one year extension applies only to replacement or repairs to work of property

which was consequentially damaged in fulfilling the terms and conditions of the clause and not to the warranted item itself. An exception to this would be in the case of of a manufacturers or suppliers warranty, since paragraph (g) of the clause requires that these warranties be passed on to the government.

(3) There are many other scenarios which can and do occur, however, the principles expressed will be of assistance in resolving questions concerning warranties. Each incident of warranty enforcement will have to be evaluated on it's own merit and in complicated or controversial situations, legal assistance should be obtained.

(4) Implied Warranties. Implied warranties are warranties implied by the general law of sales. The inspection clause, which provides that acceptance is conclusive except for latent defects, fraud, or gross mistake amounting to fraud, or as otherwise contractually provided. If after acceptance, the Government discovers latent defects, fraud, or gross mistake amounting to fraud, it may revoke its acceptance and exercise its right to apply the pre-acceptance remedies provided in the Inspection clause.

(5) Latent Defects. Latent defects are defects hidden from sight and knowledge, existing at the time of acceptance, which are not discoverable by a reasonable inspection and require that:

(a) The defect existed at the time of acceptance. Any defect must not have been caused by events after acceptance.

(b) The defect caused any failure of the item. Where a malfunction could have resulted from two causes, one patent and one latent, the Government must prove that the malfunction is attributable to the latent cause.

(c) A reasonable inspection would not have uncovered the defect. The Government must establish what a reasonable inspection is and why it would not have disclosed the defect. The failure to make a reasonable inspection that would have disclosed the defect is fatal to a latent defect allegation. If a defect is detectable by a visual inspection, a reasonable inspection should discover it and, generally, the defect will not be latent. If the contract specifies a test that would have uncovered the defect and the Government failed to perform the test, the defect is not latent.

(d) The effect of a latent defect is to remove the conclusiveness of final acceptance, thereby entitling the Government to the same remedies it would have if acceptance had not yet occurred; the Government is entitled to the remedies prescribed in the contract. This includes costs of correcting defects, costs of correcting damage done by the defects, and extra costs of inspection that were the natural and probable consequences of the contractor's failure to follow specifications. Generally, the contractor is liable for latent defects discovered at any time after acceptance, to include periods after the expiration of a warranty clause. A warranty is an additional remedy to the pre-acceptance remedies provided by contract.

(4) In accordance with AR 420-10, Chapter 6, support to the Director of Engineering and Housing (DEH) is provided under the "Installation Support" program. Initial contact with the contractor, vendor, or manufacturer to obtain correction of warranty defects should be made by the using service. (See ER 415-345-38.) Upon notification by the DEH that warranty assistance is required, the district assumes primary responsibility for warranty enforcement with the correction of all design or construction defects on all projects/facilities for one year after the date of transfer (execution of DD Form 1354) of the construction to the using service. The warranty enforcement service covers the full warranty period on items having manufacturer's or contractor's warranties longer than one year. The resident engineer provides field implementation of this responsibility.

(5) The DEH should be advised in writing of the provisions of ER 415-345-38 with regard to warranty enforcement. The contractor should be advised, in writing, that requests for warranty correction may be forthcoming from the DEH or the resident engineer.

(6) If the initial efforts by the DEH to resolve warranty issues are unsuccessful, the problem will be referred to the resident engineer. The matter is forwarded to the district for action when compliance with warranty or guarantee provisions cannot be obtained by the resident engineer.

(7) Design or construction defects not covered by warranty or guarantee are corrected after determining the most expedient method of correction and assuring that funds are available.

c. Completion report.

(1) As soon as a contract is complete, the resident engineer prepares and submits a certificate of completion to the district stating that the final inspection has been accomplished, that all contracted work has been performed in accordance with contract plans and specifications, and that the construction has been accepted by the contracting officer. It is then transferred to the using service. A list of data such as the date the contract was completed, the date accepted by the contracting officer, and the date transferred to the using service, is included for the record. If there were deficiencies noted in the transfer document, the date these deficiencies were corrected is included in the report. When required, a structure foundation and/or embankment report is prepared.

(2) The resident engineer also certifies that:

(a) All contractor and subcontractor payrolls have been received from the contractor.

(b) All GFP accounts and documents have been cleared by the appropriate action officer and forwarded to the district (stating transmittal document).

(c) Transfer of the facilities to the using service has been completed and the using service has been furnished all material noted in paragraph 7-11a, Transfer of completed facilities.

d. Acceptance of work. The contracting officer accepts the entire contract work or any specified divisible part as promptly as practicable after completing the work. The resident engineer assumes the responsibility of furnishing the district the necessary data to assist in the prompt financial closeout of all contracts in accordance with ER 415-345-13.

e. Financial closeout policy. It is USACE policy to financially closeout projects as expeditiously as possible after acceptance of construction and ER 415-345-13 describes the regulations in detail. Unobligated funds which are in excess of funds necessary to liquidate current or anticipated obligations are returned by a revoking directive as soon as surplus funds are identified. Data entered into AMPRS is used to evaluate the effectiveness of all FOA's financial closeout performance.

(1) When more than one project provides funds for a construction contract, financial closeout of the projects shall be accomplished only after final payment has been made on the contract.

(2) When a project provides funds for more than one contract, financial completion of the project shall be accomplished only after final payment has been made on all contracts.

(3) Projects with any of the following outstanding issues shall not be financially closed until these issues are resolved:

(a) Claims pending before the Corps of Engineers Board of Contract Appeals (ENGBCA), Armed Services Board of Contract Appeals (ASBCA), or a Federal court.

(b) Unresolved A-E liability issues.

(c) Labor violations.

(4) Closeout requirements. The USACE goal is to financially closeout all CONUS projects within six (6) months of contract acceptance and all OCONUS projects within twelve (12) months. Acceptance occurs on the date the Contracting Officer accepts the constructed facility(s) required under the contract from the contractor with or without deficiencies (AMPRS data item 0435). Financial completion of a project occurs when all obligations have been liquidated, all accounts receivable have been collected, and excess funds have been returned-i.e. cost and current working estimate (CWE) are equal. Projects with the following types of funding are excluded from the financial closeout performance ratings: Modernization of US Facilities (MOUSF), Foreign Military Sales (FMS), Government of Japan (GOJ), and Government of Korea (GOK).

7-12. **Post Completion A-E Evaluation**.

a. Architect-engineer completion of construction performance evaluation.

(1) In addition to evaluating the construction contractor, the resident engineer completes ENG Form 1421-R (Test), Sep 89 Performance Evaluation (Architect-Engineer), and forwards it to the district after physical completion of the contract.

(2) Completing the form requires that the number and cost of all construction change orders be listed with a break-out showing those resulting from deficiencies in A/E performance and a further break-out showing those deficiences which the A/E is liable for and those absorbed by the Government. The resident engineer gives a rating to the design of excellent, above average, average, below average, or poor. Additionally, a recommendation to award future contracts to the A/E is made. If the recommendation is negative or conditional, an explanation is required in the remarks section.

7-13. **Management of LCPM Civil Works Projects.**

a. General. The project manager (PM) is authorized within the limits defined in ER 5-2-1 to modify the project schedule and adjust project costs to accommodate changing conditions in a timely and responsive manner. Responsibility for initiating, evaluating, recommending and approving changes is also established in the ER, as is accountability for the impacts of each change.

b. Schedule Change Authority. The PM is authorized to revise project schedules that do not impact major milestones. Changes which extend major milestones require approval of the Division Project Review Board (PRB). Also, changes which extend the completion dates of preconstruction engineering, design, or construction for budgeted projects beyond the completion dates presented to Congress must be approved by the Director of Civil Works (DCW).

c. Cost Change Authority. The PM is authorized to adjust the project cost estimate within limits based on the size of the project, and the cumulative percentage of contingency used. ER 5-2-1 shows the limits of authority for project cost changes. No authority is granted to increase the total project cost beyond the Division Approval Level (DAL) without DCW approval.

d. Contract Modifications. When a design or construction contract must be modified, the party initiating the modification must prepare a project schedule and cost change request. When a modification is initiated, the PM will reserve funds, coordinate and assess the evaluation of impacts on cost and schedule and obtain the required approvals before the modification is issued. Nothing in ER 5-2-1 is intended to supersede or interfere with the Administrative Contracting Officer (ACO) or Contracting Officer's authorities and responsibilities established in the

Federal Acquisition Regulations (FAR) and supplements, to manage the contract, decide disputes and issue changes (subject to the availability of funds) which are within delegated authorities.

e. Responsibility and Accountability. The PM is responsible for the proper evaluation, approval, management of the project schedule and cost change requests and is accountable for documenting impacts resulting from the change. The District element chiefs are responsible for identifying and justifying the need for changes that revise the project cost and schedule established in the Project Management Plan (PMP) and for initiating requests for approval of such changes. The chiefs are also accountable for the project impacts of changes resulting from activities within their elements. The PM is responsible for identification of inflation changes and changes in adjusted baseline estimates including inflation during construction resulting from schedule delays or from extended construction time.

f. Maximum Project Cost Limit. The procedure and format for determining the maximum project cost limit for projects subject to Section 902 of the Water Resources Development Act of 1986 (PL 99-662), as amended, is contained in EC 1105-2-176. Furthermore, the management philosophy of the Section 902 limit is applicable to all projects within the LCPM system.

(1) For projects subject to the provisions of Section 902, the objective will be to complete the project within the authorized cost, plus allowable increases for inflation and modifications required by law, referred to as the Division Approval Limit (DAL). Adjustments of the project costs may be made within the change authorities defined in ER 5-2-1.

(2) Those projects in the LCPM system not subject to the legislative limitations of Section 902 will be managed at the District level within the established baseline estimate with allowable adjustments for inflation and changes required by law. Adjustments to the project cost may be made within the change authorities described in ER 5-2-1.

g. All projects in the LCPM system will be managed to comply, insofar as possible, with the schedule developed for the project network and the project management plan (PMP) in coordination with the cost-sharing partner. Adjustments to the project schedule may be made within the change authorities described in ER 5-2-1.

7-14. **Small Business and Small Disadvantaged Business Utilization.**

a. General.

(1) It is the policy of the Federal Government that small business concerns, small business concerns owned and controlled by socially and economically disadvantaged individuals, and women owned business concerns shall have the maximum practicable opportunity to participate in contracts let by any Federal agency.

(2) The contractor has agreed, by executing the contract, to award subcontracts in keeping with the above policy to the fullest extent consistent with the efficient performance of the contract. (FAR 52.219-8 and FAR 52.219-13). The contractor usually carries out this responsibility in good faith, generally without oversight on the part of the Federal agency.

b. Subcontract Plan. When a construction contract exceeds $1 million, the successful offeror is required to submit a subcontract plan prior to award, for review by the Small and Disadvantaged Business Utilization (SADBU) specialist, and approval by the Contracting Officer (FAR 52-219-9). This provision does not apply to small and small disadvantaged business concerns. The elements of the subcontracting plan include goals for subcontract awards to small and small disadvantaged business concerns, certain reporting requirements, flow down provisions for subcontracting, and other responsibilities which the contractor agrees to carry out. The approved subcontract plan is incorporated into and made a part of the contract. The monitoring and documentation of the subcontract plan compliance is the responsibility of the SADBU specialist at the district, with assistance from the Area or Resident Engineer and other members of the district staff.

c. Liquidated Damages. Liquidated damages are assessed, at completion of the contract, when a contractor fails to make a good faith effort to comply with the subcontract plan requirements (FAR 52-219.16). Liquidated damages are assessed at the actual dollar amount by which the prime contractor failed to meet each subcontract goal and are in addition to any other remedies the Government may have under the contract. The most frequent and easily identified issues of noncompliance are failure to submit quarterly and semiannual reports (SF 294 and SF 295) as required by the subcontracting plan and failure to identify, contact, solicit, or consider small business or small

disadvantaged business concerns for contract award. The ACO must insure, in coordination with the SADBU specialist, that liquidated damages are assessed, when applicable, before approving final payment under the contract. The liquidated damages provision applies to contracts for construction which exceed $1 million, which require a subcontract plan, and which were awarded after August 15, 1989. This provision does not apply to contracts awarded to small or small disadvantaged business concerns.

d. Incentives. Fixed price negotiated contracts (over $1 million for construction) include a provision for incentives to be paid to the prime contractor when subcontract plan goals for awards to small disadvantaged business concerns are exceeded (DFARS 252.219-7009). The ACO must be cognizant of subcontractors at the job site and the records which the contractor is maintaining concerning subcontracting.

e. Preconstruction Conference. Subcontracting requirements, including the plan incorporated into the contract, reporting requirements, incentives, and liquidated damages contract provisions, must be included in the agenda for preconstruction conferences and noted in the preconstruction minutes, when the contract amount exceeds $1 million and award is made to a large business concern. Disputes can be avoided when these issues are discussed in the early stages of contract performance, so that contractors know what is expected and will have maximum opportunity to comply. The SADBU specialist may be invited to the preconstruction conference to advise on subcontracting requirements.

f. Performance Ratings. Contractor's performance ratings must reflect compliance or noncompliance with subcontracting plans in the contract. Subcontracting is a management function under the contract. Interim or final unsatisfactory appraisals will be used to identify noncompliance with subcontract plans, to inform the contractor's upper management officials, and to serve as a record of compliance which may have a bearing on the firm's future contract awards. The SADBU specialist will provide comments to the contracting officer on all satisfactory or outstanding performance appraisals assigned to large business concerns, and will insure that the degree of compliance with the subcontracting plans is considered in the final performance evaluation.

SECTION 8

QUALITY ASSURANCE

8-1. **Quality, A Joint Venture.**

a. General. Quality construction is one of the primary goals of USACE. Managing quality construction is vital to the Corps' reputation and future; it is the ability to construct projects according to professional-quality plans and specifications, on time and within budget. The plans and specifications establish the level of quality in construction projects; therefore, it is the designer that sets quality standards. Quality is defined as "conformance to properly developed requirements". The contractor controls the quality of the work and the Government, in separate but coordinated efforts, assures that the level of quality set by the plans and specifications is achieved.

b. Government quality assurance.

(1) General. The resident engineer should provide efficient QA inspections, in accordance with ER 1180-1-6, Construction Quality Management. The process starts well before construction. Examples of activities performed prior to the start of construction are: QA planning, establishing CQC requirements, participating in design review conferences, performing BCO reviews and plan-in-hand reviews.

(2) Quality assurance plan. ER 1180-1-6 requires that the area/resident engineer develop a written QA organizational plan that addresses the overall QA operations of the field office. After initial development, the plan will be reviewed and updated as often as necessary, but not less than annually. Supplements incorporating project specific requirements should be developed for those contracts with unique requirements not covered in the basic plan.

The QA plan includes:

(a) The resident engineer's QA organization.

(b) Procedures for reviewing contractor submittals, quality control reports, and test results.

(c) Procedures for surveillance of CQC activities.

(d) Procedures for reviewing CQC reports.

(e) Procedures for reporting construction deficiencies and following up to assure correction.

(f) Procedures to assure that the contractor submits all items required by the contract, particularly repetitive items.

(g) Procedures for sampling, testing, and QA inspection by Government personnel.

A suggested outline for the QA plan is found in ER 1180-1-6.

(3) In accordance with ER 1180-1-6, the resident engineer conducts a CQC/QA coordination meeting for detailed planning of activities of Government and contractor quality construction elements. Minutes of this meeting are prepared. On small contracts this meeting may be a part of the preconstruction conference (see paragraph 6-5). Careless inspection brings about unsettled conditions and disputes; arbitrary and dictatorial inspection creates friction. QA efforts at the inception of each phase of work are particularly effective, since corrective action are easier to implement at this stage.

(4) Quality assurance preparation. The main duty of QAP, through monitoring of CQC operations, is to assure that the work is being performed in accordance with the plans and specifications and that the CQC system is functioning effectively. To accomplish this, QAP perform the following:

(a) Study the plans and specifications in advance.

(b) Anticipate problems and requirements.

(c) Perform necessary investigations on a phase of work well in advance of work commencement.

(d) Obtain the COR's approval of shop drawings before materials are brought on the job.

QAP should be informed that assistance and advice will be provided to them, whenever it is needed. Immediately available to them is a copy of the plans and specifications, including all necessary reference material, amendments, revisions, and modifications; approved shop drawings for material on the job; applicable volumes of the Construction Inspector's Guide; a copy of EM 385-1-1, Safety and Health Requirements Manual; a copy of the contractor's accident prevention plan; a copy of

the CQC plan; the Activity Hazard Analysis Program; daily log reports or books; and camera, rules, tapes, and other measuring devices of testing equipment as required to check the various items of work for which the QAP are responsible. The resident engineer prepares a QA plan for the office. After initial development, the plan will be reviewed and updated as often as necessary, but not less than annually. Supplements incorporating project-specific requirements will be developed for those contracts with unique requirements not covered in the basic plan. The plan states, in detail, how the CQC activities will be monitored, responsibilities and authority to QAP, types of inspections to be performed by QAP, methods to be used for inspections performed by the Government, and specific steps to assure compliance of the work with the plans and specifications.

(5) Three-phase control concept. The resident engineer ensures that CQC inspections are performed at the outset of each new phase on segment of construction. Preparatory inspections prior to physical work placement ascertain that materials comply with specification and/or approved submittal documents. Initial inspections occurring at the outset of work placement establish and achieve workmanship standards at the beginning of each construction phase. Government participation in preparatory and initial inspections is highly desirable. Follow-up inspections on a daily or routine basis are more productive when preceded by joint contractor/USACE preparatory and initial inspections. Preparatory and initial inspections are performed with checklist to ensure thoroughness. All phases of inspections are documented. It should be kept in mind that the contractor is responsible for conducting these inspections, while the Government is responsible only for assuring they are conducted, are adequate for the purpose, and are properly documented.

(6) Deficiencies in contract performance. The resident engineer is on the alert for deficiencies and their prompt correction. Upon detection of a deficiency, the contractor is first informed verbally and, where necessary, the verbal notification is immediately confirmed in writing. Additionally, the USACE representative makes a descriptive entry on the daily QA report and the resident engineer insists that a like entry be made by the contractor on the daily CQC report. The district is promptly informed of any refusals by the contractor to correct a deficiency. A complete record is kept of facts relating to the deficiencies in contract performance and efforts to correct them.

(a) Potential problems in quality control. The CQC/QA system works by making the contractor responsible for construction mistakes. This requires the Government to take a firm approach to enforcement and to notify the contractor immediately upon detecting any unacceptable materials, equipment, or workmanship. The resident engineer may require the contractor to make changes to the CQC plan at any time during construction or have unqualified or ineffective personnel remove when necessary to obtain the quality construction required by the contract. Problems encountered during construction vary according to the specific project; most, however, fit into one or more of the following categories:

- Delays. There may be delays in submittals, in the correction of deficiencies, or because or lack of acceptance of the CQC plan.

- Planning and control. Many problems can be caused by a lack of planning and control and a failure to take corrective action in the planning and control process. The resident engineer provides sufficient and timely QA as part of planning and control.

- Testing. Improper, inadequate, or untimely testing causes problems.

- Documentation. Problems occur because of late, incomplete, or incorrect documentation. Maintaining written records of QA actions and test results is as important as taking the actions. The CQC reporting system may cause appropriate action to be taken, or it may be the basis of settling expensive claims when those who were directly involved are no longer available. If documentation is inadequate, communications break down and the legal position of the Government may be jeopardized.

(b) Contract enforcement measures. The following measures are available to the resident engineer through the contracting officer for enforcing the contract. Further explanation of these actions can be found in Section 7.

- Require removal and replacement of deficient material and/or workmanship. The "inspection of construction" clause of the contract gives the contracting officer the right to require the conctractor to remove or tear out any completed construction amd to examine it for compliance with contract requirements. The clause further provides for the contractor to pay all costs for removing and replacing work found to be defective or nonconforming

with contract requirements. If however, the work is found to conform to contract requirements, the Government will pay all removing and replacing expenses. These expenses are covered by a modification issued pursuant to this contract clause.

- Withhold payment for unsatisfactory work in place.

- Require removal of unqualified or ineffective personnel (See paragraph (a) above, Potential Problems in Quality Control).

- Require the contractor to assume personal supervision (See contract clause entitled Superintendence by the Contractor).

- Stop work. A work stoppage differs from a suspension of work in that it is an extreme action that is necessitated by acts of the contractor involving major safety violations (potential loss of life or damage to property is imminent) or non-conforming construction which if allowed to continue would result in extensive tearout and delay. It is important that the resident engineer stop only that portion of the work that is affected by the actions or lack of actions by the contractor and that all of the facts of the stop-work action be documented in writing. In addition, the contractor is informed in writing of the extent of the work stoppage, the date and hour work was stopped, the reason for the action, and the conditions under which the contractor may proceed again. Accurate records must be maintained on workers, material, and during the stoppage as well as time worked. The records must specifically reflect the effect the stop order has on contract costs or time, which might reasonably be used as a basis for a claim for extra compensation by the contractor. Do not lead the contractor to believe that any adjustment is established. When the stoppage is lifted, the contractor is informed in writing.

- Issue an unsatisfactory appraisal (See paragraph 7-9, under Construction Contractor Performance Evaluation).

-Terminate the contract (See contract clause entitled Default (Fixed-Price Construction).

(7) Shop inspection.

(a) The resident engineer determines the necessity for shop inspection of equipment and materials being furnished and installed by the contractor and for initiating requests to the district for shop inspection when it is beyond the capability of the resident engineer staff. This determination should be made during the early stages of the contract. Before requesting shop inspection, the resident engineer determines the date the material or equipment is to be manufactured, the date it is needed on the job, and the manufacturer's or supplier's address. A copy of the contractor's purchase order is included with the request for shop inspection.

(b) The following items are considered in determining the necessity for shop inspection: Type of materials or equipment involved, cost of inspection, importance of checking the materials, and particular requirements in the specifications, among others.

(c) A majority of the shop inspections for military contracts is performed by Defense Contract Acquisition Services (DCAS) through the use of interagency agreements. Shop inspections on civil works contracts are normally accomplished by other USACE district personnel. The resident engineer makes sure that the material is being properly inspected and tested, that it meets the contract requirements upon delivery to the job, and that the delivery time will not delay the construction.

(d) Copies of the inspector's acceptance reports should be furnished to the resident office, together with shipping lists, as they are received from the inspecting office. Mill test reports and certificates of compliance provided by the contractor to the resident engineer are checked against the applicable contract specification requirements to ascertain that the materials meet the requirements of the specifications.

(8) Inspection for occupancy, prior to completion.

(a) Beneficial occupancy inspection. A beneficial occupancy inspection is performed when the contract specifically provides for joint occupancy of the facility by the contractor and the user, and the areas to be occupied are complete to the extent needed for beneficial use. This provision is typically included in the Special Provisions paragraphs, Completion of Work. CQC confirms completion by performing the inspection to demonstrate the building is reasonably functional for occupancy. Until the resident engineer concurs with the contractor's progress, the beneficial occupancy inspection should not be arranged.

Upon concurrence, the resident engineer notifies the district and then coordinates the attendees. This inspection is made jointly by the resident engineer, a representative of the using service, and the contractor. It is important that all the deficiencies in the inspection be carefully recorded and that the using service agrees to accept the item being inspected with the construction deficiencies noted. The contractor is required to correct the noted deficiencies as soon as possible.

(b) Use and possession prior to completion. FAR 52.236-11 (Use and Possession Prior to Completion) provides the Government with the right to take possession of completed or partially completed contract work where no phased beneficial occupancy is contractually provided. This possession is implemented when the Government needs an interim access to utilize permanent portions of buildings and/or equipment, especially when Government-furnished equipment (GFE) is involved in a contract. In this situation, the Government may need access to certain areas of work in order that their GFE vendors can perform acceptance tests or maintenance on their items. Prior to such possession, the contractor should be notified in writing of the Government's intentions to take interim possession of that portion of the work. Documentation on the status of the work prior to and subsequent to the Government's possession is provided to the using service and the contractor. If loss or damage is apparent, the "Use and Possession Prior to Completion" clause provides for an equitable adjustment in contract price and/or time. Additionally, if possession by the Government causes a delay to the overall contract, the contract is modified at the earliest practicable date. The initial letter to the contractor requests a proposal for this contract change and advises of apparent delays that will cause an impact on completion.

(9) Prefinal and final inspections.

(a) A prefinal inspection is appropriate after the CQC representative has performed an overall preliminary inspection and demonstrates correction of all deficiencies noted at the preliminary inspection. Based on the contractor's past performance, the resident engineer projects the approximate completion date of construction work. When this date is determined, the district is provided a schedule for the prefinal inspection so that interested agencies may be invited to attend. Most Using agencies require at least 10 days advance notice before the prefinal inspection.

Prefinal inspections are not made until the work is substantially complete. Should the contractor's progress fall behind schedule, the district is informed and furnished details of the work that will not be completed before the inspection date. This information may allow the district to delay the inspection. If care is exercised in scheduling the prefinal inspection, delays of this nature should rarely occur.

(b) If CQC has functioned in accordance with the contract, no deficiencies or only a few minor ones would be expected at the prefinal inspection. In this case, the prefinal inspection may be considered the final inspection. If another inspection is necessary, the final inspection date is established at the conclusion of the prefinal inspection. This date is determined by the resident engineer based on the quantity of work remaining. The deficiencies noted during the inspection are precisely stated and furnished to the contractor promptly. The date of the final inspection is provided to the interested agencies for the benefit of their planning and final acceptance of the project. The resident engineer determines final acceptable following a final inspection which yields no further deficiencies. If the using services does not normally attend the prefinal inspection, the resident engineer should evaluate the construction prior to the inspection and assure that the using service is present if it is likely to become a final inspection.

(10) Warranty inspections. Warranty inspections are held at 4 and 9-month intervals after transfer. Joint USACE/ using service inspections are held wherein defects are identified and corrective action taken on warranty items in accordance with ER 415-345-38, Transfer and Warranties.

c. Contractor quality control.

(1) CQC is the system by which the contractor bears responsibility for all activities necessary to manage, control, and document work to comply with contract plans and specifications. Prior to the start of work, the contractor prepares a CQC plan indicating staff organization, control of materials, installation techniques, and conformance testing. The original submission of this plan applies to all contract work and is effective for the life of the project. Further information on the interrelationship between the QCC and quality management is contained in the EFARS.

(2) On receipt of the CQC plan, the resident engineer reviews the plan to verify conformance with the CQC contract provision. All increments of the CQC function must be addressed with the intention of presenting a complete plan, and the resident engineer's review compares and evaluates each of its features against the specified requirements. The following are key points typically checked as part of this review:

(a) The name, qualifications, and delegated authority of an officer of the corporation.

(b) Procedures for managing material submittals, including those of subcontractors.

(c) Control testing procedures for each specific test required in the contract, including laboratory facilities.

(d) Reporting procedures centering on the three-phase inspection of construction, including proposed reporting formats.

(3) The COR provides a prompt written response to the contractor accepting the CQC plan as submitted or with specified changes subject to satisfactory performance. A contractor's concurrence with exceptions may be required before start of work. After acceptance of the CQC plan, the contractor notifies the COR in writing of any proposed change. Proposed changes are subject to acceptance by the COR.

8-2. **HTW & Chemical Quality Management.**

a. The nature and uniqueness of handling toxic and hazardous wastes, and other chemicals calls for special procedures to be utilized when dealing with these substances. ER 1110-1-263, Chemical Quality Management -- Toxic and Hazardous Wastes, describes the quality management responsibilities and procedures assuring the validity of thoroughly documented and legally defensible chemical data gathered during construction and related activities involving HTW. This guide is applicable to remedial action projects involving toxic or hazardous wastes under either the EPA Superfund Program or the Defense Environmental Restoration Account projects and describes preventative or corrective measures mitigating potentially hazardous situations affecting human or environmental receptors and associated data collection activities. Additional information can be obtained from EP 1110-2-6, Superfund Management Guide regarding management responsibilities under this program.

8-3. **DCAF Bulletins.**

a. The Design Construction Analysis Feedback Bulletin (DCAF) is a publication which informs the FOA's about current design and construction problems and their possible solutions. This publication has been initiated as an outgrowth of the Design/Construction Evaluations which are required by ER 415-1-13. These evaluations have been conducted for many years and a large body of knowledge has been gathered. In the past the feedback from these evaluations has not proven to be entirely satisfactory. Repetitive observations, lessons learned, good ideas, changes in guide specifications and/or code publications, etc. which are gathered during design/construction evaluations and from other outside sources are subjects covered by this publication on an as needed basis.

b. FOA's are encouraged to submit observations, lessons learned, good ideas, et., for consideration for publication in a future DCAF Bulletin. Submitalls should be sent to CEMP-CE at HQUSACE.

8-4. **Code Forums.**

Code Forums are published by the Construction Evaluation Branch (CEMP-CE) at HQUSACE to communicate information to the FOA's concerning various codes. They provide and highlight revisions, interpretations, and clarifications of various construction industry code requirements. They are published in response to either situations observed during design/construction evaluations of from recent guidance, revisions, and/or additions regarding code requirements. Code Forums are published on an as needed basis and are considered to be informational in nature.

8-5. **A/E Responsibility Management Program. (AERMP)**

a. The primary goal of the Architect-Engineer Responsibility Management Program (AERMP) is to improve the quality of services furnished to the U.S. Army Corps of Engineers by its contracts A-E's. An additional objective of the AERMP is to recover damages to the Government that result from an A-E's negligence or breach of contractual duty. ER 715-1-10, (AERMP) is the regulation which defines the responsibilities and establishes general procedures for investigating and taking action on performance deficiencies of A-E firms/individuals having contracts with USACE.

b. A-E firms under contract with the USACE are responsible for providing professional quality work, i.e., work that meets the standard of care, skill, and diligence that one in the profession would ordinarily exercise under similar circumstances. If an A-E fails to meet such a standard, or any other contractual duty, the contracting officer shall review the circumstances involved, including the resulting damages to the Government and take appropriate action in accordance with FAR 36.608.

c. It is important that the resident engineer is completely familiar with ER 715-1-10, since in most cases the requirement for a change originates from the field and any future action for recover damages will most likely be based on the reasons for the changespresented by the resident engineer. The ER describes the activities and actions to be taken from the point of discovery of a performance deficiency to the point of issuance of a claim by the Government against the A-E. An ancillary benefit of the routine evaluation of design deficiencies through the AERMP program is the valuable feedback data and lessons learned that can be used to improve future designs.

SECTION 9

SAFETY

9-1. **General**.

a. An acceptable safety standard is guided by a well planned and conscientiously applied program for policing hazardous conditions and controlling personal acts which might result in accidents. The resident engineer takes an aggressive, sincere interest in the safety program, making it clear to resident office personnel and representatives of contractor that the accident prevention clause of the specifications carries the same weight and is given the same strict attention as all of the other provisions of the contract. Safety is a "critical" job requirement for both merit pay and GPAS personnel having safety responsibilities.

b. Construction Safety Requirements. Contractors are obligated by the terms of their contract to protect the lives and health of persons exposed to their operations and to safeguard property and equipment from accidental loss or destruction. All work will be performed in accordance with the safety and health provisions of the contract, EM 385-1-1 (US Army Corps of Engineers Safety and Health Requirements Manual), and federal, state, and local codes and standards.

c. Accident Prevention and Construction Projects. In addition to being a contract requirement, a well planned and conscientiously applied accident prevention program is essential to the efficiency, quality, and scheduling of work and the minimization of costs. To ensure that the accident prevention program meets these intents, the resident engineer and his staff must take a sincere, aggressive interest in obtaining the maximum effectiveness and benefit from the contractor and the contractor's accident prevention plan. Paramount to achieving this is the resident engineer's involvement and confidence in, visible support for, and enforcement of the contractor's accident prevention plan. The methods a contractor uses in satisfying safety requirements are immaterial as long as the requirements are met. The contractor shall have the option of selecting any technique or method as long as the RE is assured that it will produce the desired results. Effective application of the Corps' construction safety and health program requires follow-up by Corps supervisors and inspectors to ensure that the contractor is fulfilling the contractual obligations in accordance with the contractor's accident prevention plan and any agreements reached at the preconstruction safety conference.

9-2. **Responsibilities**.

a. Contracting Officer. The contracting officer, the ACO and/or the COR are responsible for ensuring contractor compliance with contractual safety and health requirements. This, in turn, entails a responsibility for familiarization with applicable safety requirements, standards, and codes; the ability to assist the contractor in analysis and resolution of safety and health problems; and the ability to conduct any necessary inspections of the work conditions and procedures. Resident engineers are also responsible for providing a safe and healthful work environment for their employees. This responsibility includes, among others, providing appropriate job safety and health training, conducting safety and health surveys of work facilities and operations, providing personnel with protective equipment and ensuring its use, and ensuring personnel are provided the medical surveillance appropriate for their work exposure.

b. Contractor. The contractor is obligated by the terms of the contract to protect the lives and health of persons exposed to contractor operations and to safeguard property and equipment from loss or destruction. Contractor operating methods must include applicable provisions of the contract and EM 385-1-1. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out.

c. Safety and Occupational Health Office. The safety and occupational health office shall evaluate the resident engineer's implementation of both their, and their contractor's, safety and health responsibilities. This may include, but is not limited to, reviewing accident prevention plans for quality and conpleteness; attending preconstruction safety conferences, as requested and as scheduling will permit; reviewing minutes of preconstruction safety conferences; and conducting periodic safety surveys of field offices and their activities. The safety and occupational health office shall provide technical and managerial guidance and expertise concerning safety and occupational health issues. This guidance includes training and motivation techniques, interpretation of programmatic and technical requirements, analysis of accident trends, and reviewing accident prevention plans and activity hazard analyses for projects involving unusual hazards.

9-3. **Accident Prevention Plans.**

a. Contractor notification. Upon award of contract, a letter is written to the contractor calling attention to the contract clause entitled "Accident Prevention," which requires the contractor to develop an accident prevention plan. This letter shall also be used to inform the contractor of their obligation to meet with representatives of the contracting officer, prior to the commencement of work, and discuss and develop mutual understandings concerning the contractor's accident prevention plan and to provide guidance on the preparation of the contract accident prevention plan, activity hazard analyses, and accident investigation and reporting.

b. Accident prevention plans. Contractors are required to submit, to the ACO prior to the preconstruction safety conference, their written plan for effectuating the provisions of the contract clause entitled "Accident Prevention." Accident prevention plans will be enforced as part of the contract. Accident prevention plans are administrative documents and, as such, should address general safety and health requirements. EM 385-1-1 outlines the minimum requirements for an acceptable accident prevention plan. Figure 9-1 on the following page provides further guidance in developing the accident prevention plan.

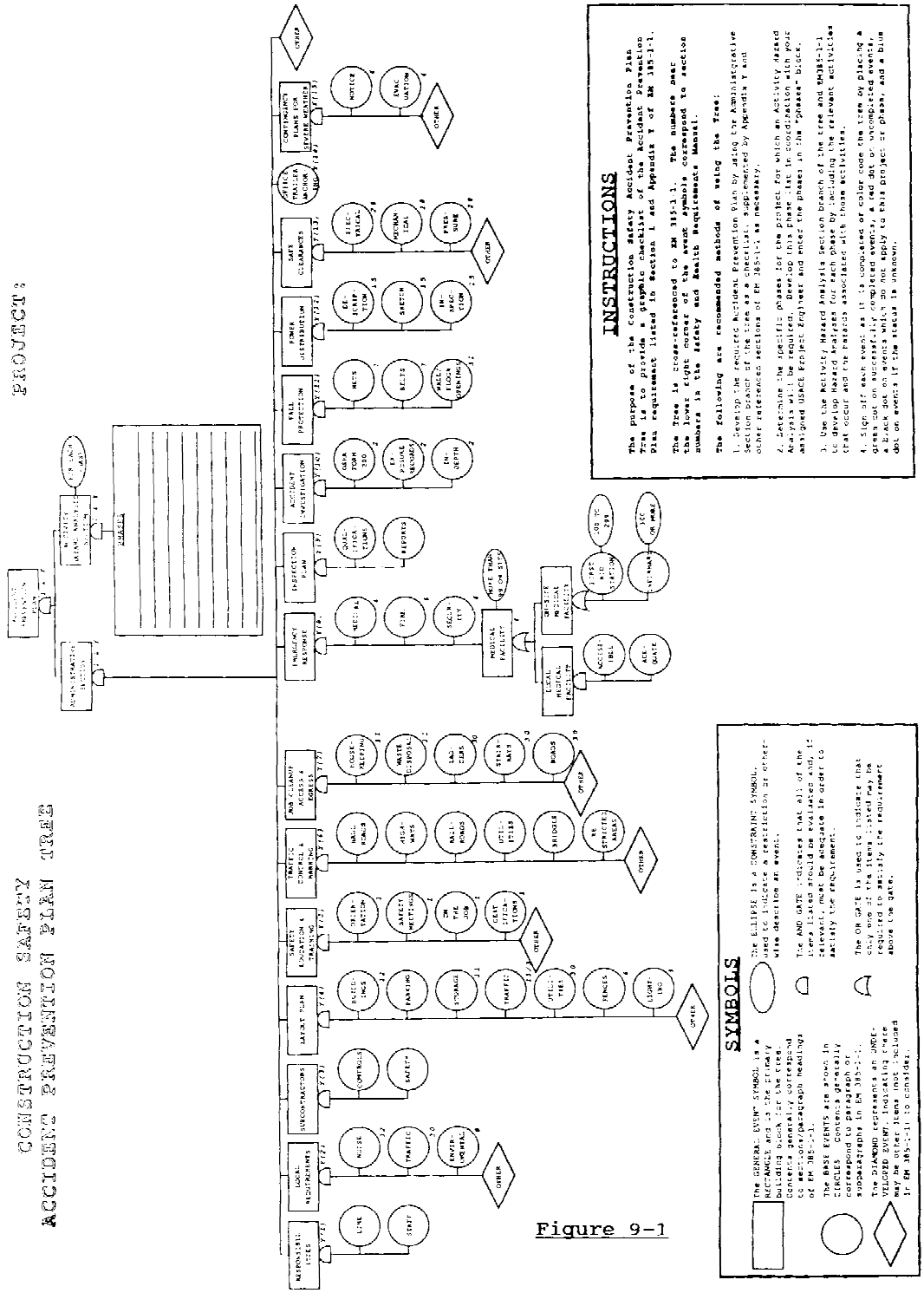
CONSTRUCTION SAFETY
ACCIDENT PREVENTION PLAN TREE
PROJECT:
INSTRUCTIONS
SYMBOLS

Figure 9-1

c. The resident engineer shall review the contractor's plan to determine whether it meets the intent of the accident prevention clause of the contract and EM 385-1-1. (The accident prevention plan also enables the ACO/COR to evaluate the contractor's concept of safety.) Deficiencies in the plan will be brought to the attention of the contractor at the preconstruction conference, and the contractor shall revise the plan to correct the deficiencies and re-submit it to the Re for acceptance. If the RE again finds deficiencies in the plan, these deficiencies will be discussed and resolved at the preconstruction safety conference. It is important to note that the Corps does not approve the contractor's accident prevention plan. The Corps reviews and comments on a contractor's accident prevention plan and accepts the plan when it meets the requirements of the contract provisions.

d. Copies of the accepted plan will be maintained at the Re's office and at the job site. The original copy of the accepted plan, along with the letter of acceptance, will be forwarded to the FOA safety and occupational health office for review and then to the official contract file. The safety and occupational health office will monitor the quality of the resident engineer's processing and acceptance of accident prevention plans for purposes of evaluating the implementation of this requirement and provide assistance as necessary.

e. The contractor's accident prevention plan shall be reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original accident prevention plan shall be incorporated in the plan as they are discovered.

9-4. **Preconstruction Safety Conferences**.

Preconstruction safety conferences provide a forum for government and contractor personnel to become acquainted and explain the functions and operating procedures of their respective organizations and to reach mutual understandings relative to the administration of the overall project accident prevention plan before the initiation of work. The conference will be attended by those who have a responsibility or significant role in accident prevention on the project. The preconstruction safety conference will often be the first exposure of a contractor to the Corps construction safety and health program and should be approached as such. The conference should be used as an orientation to this program; unless proven otherwise, it should not be assumed that the contractor is familiar with the Corps construction safety and health program and its requirements and procedures.

a. A conference agenda will be developed to fit the particular problems at hand. Items typically included in the discussion are listed in Table 9-1 below.

Table 9-1. RECOMMENDED AGENDA FOR PRECONSTRUCTION SAFETY CONFERENCES.

1. Discussion of the purpose and benefits of Corps construction safety and health program and contractor's accident prevention plan.

2. Review of the accident prevention clause of the contract and any other contractual safety and health clauses, EM 385-1-1, and other applicable safety and health codes and standards.

3. Review of any local safety and health requirements.

4. Review of any other special requirements particular to the contract at hand.

5. Review of the contractor's accident prevention plan, its deficiencies, and the corrections needed to bring it to an acceptable level.

6. Review of the contractor's list of anticipated phases of work requiring an activity hazard analysis.

7. Review of accident investigation and report requirements, including the submission of worker exposure reports.

8. Discussion of the contractor's proposals of controlling and coordinating the work of subcontractors.

b. As noted above, the conference will be used to discuss and resolve deficiencies in the contractor's accident prevention plan. The agreements reached at the preconstruction safety conference shall become a matter of record and shall be included as amendments to the contractor's accident prevention plan.

c. Minutes of the conference, including agreements reached and a record of attendance, shall be maintained. Copies of the minutes shall be forwarded to the safety and occupational health office for review and then forwarded to the official contract file. A copy of the minutes will also be provided to the contractor.

9-5. **Activity Hazard Analysis.**

The activity hazard analysis is a systematic, dynamic, documented analysis of proposed job activities for the purpose of identifying potential hazards and developing procedures which will be used to control or remove those hazards. Activity hazard analyses, carefully planned, thorough, and enforced, are the primary tool for achieving a safe and healthful project.

a. An analysis will be developed by the contractor for every operation involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform work. The analysis must identify and evaluate hazards and outline the proposed methods and techniques for the safe completion of each phase of work. Work will not proceed on a phase of work until the activity hazard analysis for that phase has been found acceptable by the contracting officer's representative.

b. To prevent misunderstanding, the contractor shall submit a list of those phases of work requiring an activity hazard analysis either along with the accident prevention plan or during the preconstruction safety conference. This list will be reviewed at the conference and an agreement will be reached between the contractor and the contracting officer's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of activity hazard analyses should be established to preclude project delays. The activity hazard analysis list will be reviewed periodically (it is recommended that, at the minimum, the list be reviewed at the monthly contractor supervisory safety meeting) and updated as necessary when procedures, scheduling), or hazards change.

c. The acceptable activity hazards analysis shall be reviewed with all affected employees at the preparatory inspection of the phase of work for which it was developed and at weekly tool box safety meetings. The analysis should be utilized during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

d. Activity hazard analyses should be updated as necessary to provide an effective response to changing work conditions and activities.

9-6. **Compliance Inspections.**

The contracting officer's representative will ensure that inspections are made, as necessary but not less than once daily, to check the contractors compliance with the requirements contained in the contract, the accident prevention plan, and activity hazard analyses. The COR will also ensure that contractor personnel are conducting inspections, at least once daily, for the contractor's and subcontractor's compliance with these requirements. Inspections will be documented, preferably on the inspectors daily report, and will identify all observed deficiencies, the actions required to correct the deficiencies, and will be followed-up to ensure correction of the deficiencies. All deficiencies of the contract safety and health requirements will be brought to the attention of the contractor for prompt correction. The following guidelines are recommended for gaining compliance with safety and health requirements.

a. The contractor or their representative will be informed of the deficiency and, based on the severity of the deficiency, instructed to correct the deficiency within a reasonable, yet prudent, period of time.

b. If the contractor declines to correct the deficiency within the allotted time, the COR will remind the contractor of the contractual obligation to correct unsafe and unhealthful conditions associated with their activities and their own requirements for the correction of deficiencies (as outlined in the accident prevention plan).

c. If the contractor continues their refusal or is slow in correcting the deficiency, the contracting officer's representative shall issue an order stopping that part of the work affected by the hazard until satisfactory corrective action has been taken by the contractor. The contractor shall be informed, in writing, of the extent of the stoppage, the date and hour the work stopped, the reason for the action, and the conditions under which the work may again proceed and an accurate record shall be maintained on all personnel, material, and equipment affected by the work stoppage. <u>All of the above actions shall be fully and factually documented in the daily quality assurance report.</u>

d. If there are deficiencies of a repetitive (recurring) nature, the contracting officer's representative will remind the contractor of the contractual obligation to correct unsafe and unhealthful conditions and maintain the workplace in a safe and healthful manner.

e. If a contractor supervisory-level employee allows a willful violation of EM 385-1-1, the employee will be reminded of the contract requirement providing for the discharge of reckless employees.

9-7. **Unsafe Practices.**

a. Reckless behavior or disregard of safety and health requirements will not be tolerated and will not exist on Corps projects. If any contractor employee endangers their now life, the lives of others, or property by disregard of safety and health requirements, the contractor shall be informed of the employee and his unacceptable attitude towards accident prevention, reminded of the contract requirement providing for the discharge of such employees, and instructed to immediately resolve the problem. This action will be documented in the daily quality assurance report.

b. If, after notifying a contractor of a reckless employee; the employee continues to disregard safety requirements, the contractor will be requested to remove the employee from the project or place the employee on work wher his actions will not constitute a hazard. This action will also be documented in the daily quality assurance report.

c. The choice a contractor makes between removing the employee or placing him on work where their actions will not constitute a hazard will depend on the contractor's approach for the fair handling of reckless employees. In some cases a single reckless act may warrant termination; in other cases the employee may be warned in writing, temporarily removed from the jobsite, or some otherwise reprimanded.

d. Imminent Danger Situations. When an imminent danger condition or practice is observed, the following steps will be taken:

(1) The inspector or construction representative will instruct the contractor to immediately remove workers from the area of danger or to desist from the dangerous operation or practice.

(2) If a representative of the contractor is not at the site, the inspector or construction representative will order the workers to remove themselves from the dangerous location or to cease the dangerous operation or practice.

(3) The construction representative will ensure that the work is not resumed in the area of danger and that workers will not be involved in the operations or practices until recommendations for corrections have been fully complied with.

(4) Employees creating imminent danger situations through their reckless behavior shall be handled in accordance with paragraph 9-7a and 9-7b, above.

9-8. **Employee Safety and Health Training**.

a. Government.

(1) Indoctrination. All employees shall be provided initial safety and health indoctrination and continuing safety training to enable them to perform their work in a safe manner. Indoctrination and training shall be based on the appropriate district or division level safety and occupational health program.

(2) Tool Box Safety Meetings. Contracting officer's representatives shall establish procedures for and conduct monthly safety meetings to provide safety training and motivation to their employees. The minutes of these safety meetings shall be recorded and maintained.

b. Contractor.

(1) Indoctrination. Every contractor and subcontractor employee shall be provided initial safety and health indoctrination and continuing safety training to enable them to perform their work in a safe manner. Indoctrination and training shall be based on the contractor's accident prevention plan and shall cover, but not limited to, subjects specified in EM 385-1-1.

(2) Tool Box Safety Meetings. In accordance with requirements of EM 385-1-1, the contractor and subcontractors shall conduct safety and health meetings monthly for supervisors and weekly for workers. These meetings shall include a review of past activities, discussion of plans for new or changed operations, a review of pertinent aspects of applicable activity hazard analyses (by trade), the establishment of safe working procedures for anticipated hazards, and provide pertinent safety and health training. (Corps inspectors and construction representatives are encouraged to attend these meetings on a frequent basis.)

The contractor shall provide an outlined report (including date, attendance, and subjects discussed) of each meeting to the contracting officer's representative who will review the reports for the content and effectiveness of the meetings.

9-9. **General Procedures**.

a. Equipment Inspection and Testing. Before heavy equipment and floating plant are put into operation at the job site, the contracting officer's representative shall be notified so that joint inspections by the contractor and the contracting officer's representative and performance testing of the equipment can be made. All equipment and tests shall be documented and copies of the documented reports maintained at the project site and at the resident engineer's office. Defective equipment will not be operated until all deficiencies are corrected and the equipment meets inspection and testing requirements.

b. Waivers to Safety Standards. EM 385-1-1, division/district-level accident prevention policies, contractual safety and health provisions, and other guidance issued by higher authority are applicable to all work performed by contract. Compliance is essential. However, in circumstances where compliance with a specific safety standard is not attainable, a waiver, providing equal or greater protection than that of the non-attainable standard, will be requested. Waiver requests will be conducted in accordance with division level policy. Waivers must be fully documented, stating which requirement is to be waived, what conditions necessitate the waiver, and how protection, equal to or greater than the intent of the requirement, will be provided.

c. Local Safety and Occupational Health Programs. All area, resident, and project offices are encouraged to develop local safety and health programs which provide for the protection of both government and contractor employees and property and members of the public exposed to Corps and contractor activities. It is recommended that local safety and occupational health programs be derived from requirements of their district safety and occupational health program integrated with local needs, priorities, and procedures.

d. Housekeeping. Good housekeeping is an indispensable part of any construction program. It reduces accident potential, stimulates employee morale, and facilitates productivity. Resident engineers will insist that contractors keep construction and storage areas free from the accumulation of material or rubbish, as required by EM 385-1-1.

e. Personal Protective Clothing and Equipment. Personal protective equipment shall be used as required to reduce exposure to acceptable limits. All users of protective equipment shall be trained in and knowledgeable of the use and limitations and the inspection, testing, and maintenance of the equipment. When employees provide their own equipment the employer is responsible for assuring its adequacy in protecting against the hazard, its condition and state of repair.

f. Protection of the Public. Contractors are required to protect the public from hazards from their operations. Such protection shall include, but is not limited to, appropriate project fencing, excavation barricading, nigh lighting of areas not fenced off from the public but with public exposure, diversion of public access from hazardous areas, and warning and signaling systems.

9-10. **Accident Investigation and Reporting**.

a. In addition to OSHA requirements, contractors are required to report all accidents which are incidental to work performed under the contract and result in the following:

(1) Fatalities.

(2) Lost-time injuries and occupational illnesses (including permanent total, permanent partial, or temporary total disabling injuries).

(3) Damage to property, materials, supplies, and equipment costing $1,000 or more.

b. Accidents will be reported to the contracting officer's representative in accordance with the requirements, and within the time frames, of division or district policy and as specified at the preconstruction safety conference. (Accident report forms, with instructions for preparation and submittal, will be furnished to contractors at the preconstruction conference.) The contracting officer's representative will review all accident reports submitted by contractors to determine that the causes indicated on the reports are correct and that corrective measure to reduce the likelihood of future occurrences are effective. Contracting officer's representatives will conduct follow-up investigations to determine if the corrective actions have been implemented and, if so, their effectiveness.

c. To ensure the thoroughness of the contractor's accident reporting, it is recommended that Contracting officer's representatives periodically review the contractor's OSHA required log of recordable occupational injuries and illnesses for the project. Accidents which are documented on the log but have not been reported to the Corps shall be brought to the contractor's attention and the contractor reminded to immediately report the accident.

9-11. **Compliance with Federal, State, and Local Regulations.**

Compliance with federal, state, and local safety and health regulations is required under the "Permits and Responsibilities" clause of the contract. The ACO cooperates with state forces in requiring observance of state laws and regulations, including environmental pollution control and OSHA (federal or state) regulations, but will not intercede or interfere in OSHA's inspection of USACE contractors.

9-12. **Hazardous Materials.**

a. Federal OSHA 29 CFR 1926.59 requires that construction contractors provide a Hazard Communication Program to their employees who may be exposed to hazardous substances on the jobsite. Similarly, the COE has such a program for its employees and a standardized Hazard Communication Training package is available from your local FOA Safety Officer. The training program consists of 7 modules on VHS tapes with a student handbook. The training program takes about 4 hours and is mandatory for all COE employees who may be exposed to hazardous subtances. The COE Safety and Health Requirements Manual EM 385-1-1, contains requirements for construction contractors to submit material safety data sheets for hazardous substances used on the jobsite. The material safety data sheets should be submitted to the ACO/COR on the jobsite.

b. ER 385-1-92, Safety and Occupational Health Document Requirements for Hazardous Waste Site Remedial Actions, prescribes the responsibilities and establishes procedures for developing the site safety plans and related safety and occupational health documents required when performing hazardous waste site remedial actions.

c. The resident engineer should be aware that there are strict OSHA and EPA regulations affecting exposure to asbestos materials and how it is to be treated when encountered on the construction site. OSHA Asbestos Standards (29 CFR 1910.1001 and 29 CFR 1926.58 regulate employee exposure standards.

Safety Terminology:

Accident prevention plan - the written plan which addresses the prime contractor's accident prevention policy and procedures and responsibilities for complying with Corps of Engineers' contractual safety and health requirements. Applies to all prime and sub-contractor employees on the project for which it was developed.

Activity hazard analysis - systematic analysis of a work activity to determine the hazards of the activity and the methods to be utilized in the control of those hazards.

Contractor - unless specifically referred to as prime contractor, this term also includes subcontractors.

Imminent danger - a condition of practice which could reasonably be expected to cause death or serious physical harm immediately or before the hazard would be corrected through normal procedures.

OSHA - The federal Occupational Safety and Health Administration. In states with an approved state occupational safety and health plan, the term "OSHA" also refers to the state occupational safety and health administration.

Preconstruction safety conference - a conference, held before initiation of construction activities, between Corps and contractor management and supervisory personnel having a responsibility or significant role in accident prevention on the project. The intent of the conference is for the Corps and contractor to reach mutual agreement on the Corps' contractual safety and health requirements and the contractors accident prevention plan.

Reckless behavior - irresponsible, rash behavior disregarding the consequences of such actions.

Tool box safety meetings - periodic meetings for discussion of past, current, and future work activities, the hazards of those activities, and the methods to control those hazards and for presentation of safety and health training and promotion.

Willful violation - a safety and health requirement violation where the contractor knows the condition or practice is hazardous and does not make a reasonable effort to eliminate the condition. (Deliberate, voluntary, or intentional as distinguished from inadvertent, accidental, or ordinarily negligent.)

SECTION 10

LABOR RELATIONS

10-1. **Labor Relations and Labor Standards Enforcement.**

a. The prime contractor is responsible for resolving labor disputes and work stoppages.

b. The resident engineer is responsible for establishing and maintaining good relations with contractors and local contractor and labor organizations and acts promptly to avoid or reduce work stoppages which affect contracts. The resident engineer seeks voluntary agreement between management and labor to permit uninterrupted prosecution of contracts. The resident office avoids involving the Government in labor disputes.

c. The resident engineer does not take part in the adjustment of jurisdictional disputes between unions other than attempting to bring the parties in dispute together to settle their differences.

d. The resident engineer and staff make spot checks of prime contractors' and subcontractors' payroll copies, conduct regular employee interviews, and check wage rate and EEO postings.

10-2. **Equal Employment Opportunity.**

a. The contractor must take affirmative action to ensure that applicants for employment and employees are treated without regard to their race, color, religion, sex, national origin, or handicapping condition. The contractor is also required to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veteran's status. In addition, the contractor is not to discriminate against any employee or applicant for employment because of physical or mental handicap regarding any position for which the individual is qualified.

b. In a conspicuous place available to employees and applicants for employment, the contractor must post notices provided by the contracting officer which set forth the provisions of the EEO clause as well as notices prescribed by

the Director, Office of Federal Contract Compliance Programs. The resident engineer ascertains whether the required notices are properly posted. These notices must include specific information regarding name(s) of contacts, location, and telephone numbers of an office or individuals who can assist with allegations of discrimination.

10-3. **Davis-Bacon Act**.

a. The Davis-Bacon Act stipulates that each laborer and mechanic employed on the contract work site must receive no less than the prevailing wage, including basic hourly rates and fringe benefits. The prevailing wage is determined by the Secretary of Labor and is included in each contract.

b. The various classifications of laborers and mechanics that may be employed at the work site are listed in the contract schedule of wage rates. Additional classifications require prior written approval of the contracting officer. The hiring of labor classifications by the contractor or subcontractors other than those included in the contract or approved by the contracting officer is not permitted at the job site. Requests for additional classifications must be submitted to the resident engineer utilizing DD Form 1565, Request for Authorization of Additional Classification and Rate. When the completed forms are submitted, the resident engineer checks them for completeness and ascertains the following:

(1) That the skill cannot be classified into one already contained in the applicable wage determination.

(2) That the classification is generally recognized in the area or construction industry.

(3) That the proposed wage rate, including any fringe benefits, conforms to the wage determination decision contained in the contract.

After the resident engineer determines that the form is complete, a final review has been accomplished, and all data is in compliance with (1), (2), and (3) above, the RE forwards the form to the district labor advisor for processing and approval. If the form is not in compliance with the above criteria and the resident engineer and the contractor cannot resolve the matter, the resident engineer submits the problem to the district labor advisor for resolution.

c. A copy of the contract schedule of minimum wage rates with a wage rate information poster must be posted at the job site in a conspicuous place that is accessible to all employees. Any approved additional classification forms must also be posted. The resident engineer ascertains that these items are posted.

10-4. **Overtime Compensation.**

The Contract Work Hours Standards Act (Public Law 87-581) states that laborers and mechanics must be paid for all hours in excess of 8 hours a day or 40 hours a week, whichever is the greater number, at not less than one and one-half times their basic hourly rate of pay. When the contractor is not in compliance, the resident engineer assesses penalties which include assessments for each laborer or mechanic for every calendar day in which the employee is not properly compensated.

10-5. **Apprentices and Trainees.**

a. A contractor may employ apprentices and trainees on construction projects only after submitting evidence that employees are registered in a training program accepted by a state apprenticeship and training agency recognized and approved by the U.S. Bureau of Apprenticeship and Training, or have been trained by the Bureau itself. The contractor is also required to submit written evidence of apprentice-journeymen ratios and wage rates, including fringe benefit payments established for this program in the project area. Upon receiving such submissions, the resident engineer may accept the ratios for compliance with the contract requirements.

b. When a contractor has classified employees as apprentices or trainees without complying with the above requirements, the classification is rejected. The contractor must pay such employees at the journeyman rate applicable to the classification of work they actually performed.

10-6. **Payrolls and Basic Records.**

a. Weekly payroll copies and accompanying executed statements of compliance (may optionally use WH Form 347, Payroll) are submitted by the contractor, to include those of all subcontractors. The resident engineer ensures that all required payroll copies are received. ENG Form 3180, Contractor Payroll Record, is used to control receipt and review of payroll copies; these are regularly spot checked by the resident engineer or his

staff to ensure compliance with the contractor labor standards provisions.

b. When payroll copies are delinquent, a monetary amount sufficient to cover labor performed during the time involved is withheld from partial payment estimates until the delinquent payroll copies have been received and determined to be in compliance.

c. When violations are detected on the payroll copies and are readily adjustable (amount of restitution per contractor is less than $1,000 and violations are not willful), a letter is furnished to the contractor citing the discrepancies and the corrective action. When evidence of restitution is required, such evidence must be in one of the following forms:

(1) Statements signed by employees acknowledging receipt of the required restitution. Statements must indicate gross amounts of restitution, deductions, and net amounts.

(2) Photostatic copies of certified checks made payable to employees involved, copies of registered or certified mail receipts indicating that the checks were delivered to employees, and statements reporting gross amounts paid, deductions, and net amounts.

(3) Photostatic copies of both sides of cancelled checks made payable to and endorsed by employees involved and statements reporting gross amounts paid, deductions, and net amounts. When violations are not readily adjustable (involve restitution exceeding $1,000 or are willful), the facts are submitted to the district labor advisor for resolution.

d. The resident engineer conducts contractor and subcontractor employee interviews to check the employer's compliance with the labor standards provisions of each contract. DD Form 1567, Labor Standards Interview, is used. The number of interviews conducted each week is determined by the number of employees performing work in each classification and the scope of the contract work. Interviews on a work site should provide a cross section of the work force, including employees of subcontractors, and should be held on a routine basis. Information obtained during the interviews is checked against the information reported on weekly payroll copies.

e. Self-employed contractors must report themselves as self-employed on their weekly payroll copies submitted to the resident engineer.

10-7. **Copeland Act**.

The Copeland Act of the Secretary of Labor lists certain permissible deductions from the wages of employees. These include deductions made in compliance with Federal and state income tax withholding provisions, Federal social security tax, contributions to approved funds established to provide health and welfare benefits, and pensions. Deductions for purposes other than those listed are prohibited unless specifically authorized by the Secretary of Labor.

10-8. **Subcontractors**.

Within 7 days of awarding any subcontract by the contractor or a subcontractor, the contractor must submit a statement with the name and address of the subcontractor and a summary description of the work subcontracted. This statement will also attest that the labor provisions required to be included in all subcontracts have been so incorporated. The Statement and Acknowledgment, SF 1413, will be used. The resident engineer makes certain that those forms are furnished, checked, and forwarded to the district.

10-9. **Labor Disputes**.

When a labor dispute, work stoppage, or threat of a work stoppage occurs, the resident engineer reports the facts to the district labor advisor by the most expeditious means and confirms the report by submitting a completed DD Form 1507, Work Stoppage Report. The district is kept informed of any significant changes in the situation as originally reported.

10-10. **Labor Organization Representatives on Work Sites**.

Labor organization representatives should be admitted to contract work sites to conduct union business (excluding organizing activities, collective bargaining discussions, and other matters not directly connected with the project being visited), provided that the visits will not interfere with the contract work nor violate safety or security regulations.

SECTION 11

PHYSICAL SECURITY

11-1. **General**.

a. Physical security is defined as the safeguarding by physical means of Government plans, programs, personnel, property, utilities, information, and installations against compromise, trespass, sabotage, pilferage, theft, larceny, embezzlement, fraud, arson, or any other dishonest or criminal act. The maintenance of a comprehensive and continuous physical security program is essential to the successful operation of USACE installations and activities.

b. This chapter considers the evaluation of an installation or facility with regard to all factors bearing upon accessibility and location and the element's importance to overall district operations and national interest. Also to be considered is the vulnerability of equipment, supplies, or information to loss through theft or willful damage.

11-2. **Responsibility**.

The resident engineer assumes responsibility for supervising adequate physical security within the resident office area of responsibility and is authorized to deal directly with the district on physical security matters. The resident engineer is also responsible for preventing and detecting criminal activities and physical security hazards and for eliminating physical security deficiencies at field operating agencies by issuing pertinent instructions and supervising the following:

a. The movement, control, and identification of personnel.

b. Prevention, investigation, and reporting of crimes.

c. Traffic control on installations and projects and investigating traffic accidents.

d. Orders and instructions applicable to the operations of physical security guards.

e. Enforcement of laws, orders, and regulations pertinent to classified construction projects and activities.

f. Establishment of interim measure for physical security such as the need for maximum, medium, or minimum security, consistent with the criticality to national security and construction schedules for security facilities, which are ascertained from district authorities.

11-3. **Reporting**.

a. The resident engineer reports all actual or suspected criminal activities within the resident office area of responsibility to the local civilian or military police agency. Additionally, the district is notified of such activity indicating that a report (ENG Form 4337, Offense/Incident Report) was made to the appropriate policy agency.

b. Incidents to be recorded are offenses or suspected offenses or murder, voluntary and involuntary manslaughter, sex crimes, aggravated assault, arson, larceny, robbery, burglary, use and possession of narcotics and dangerous drugs, destruction of property, disorderly conduct, violation of physical security (i.e., sabotage, espionage, subversive points such as electric power supply, transformer installation, electric power transmission, communication centers and equipment, valves and regulators, water tanks and equipment), fire, accidents (water and vehicle), or other dishonest or criminal acts committed by or against any individual under the administrative jurisdiction of the district. Also included are losses of Government or private property and the recovery of any property previously reported lost, stolen, or destroyed.

c. The resident engineer immediately reports to the district any serious incident or larceny of property with value of more than $100 and destruction of property with value of more than $300. The report includes the following:

(1) Nature of the incident, date, and place.

(2) If the incident involved a loss to the Government through theft or destruction, the estimated amount.

(3) Summary of known facts including the names and addresses of witnesses or persons having knowledge of the incident.

(4) The name of the offender, victim, and apprehending agency, if known.

d. Minor personal injuries, such as a person injured by falling, cutting fingers on paper, dust in the eye, or bumping into a door are not reported unless medical treatment is required and work time is lost. All motor vehicles accidents and resulting injuries, as well as injuries sustained as a result of fire or coincident to a commited crime, are reported. Water accidents involving tow boats, floating plant, etc., need not be reported unless they affect physical security, such as damage to a perimeter, electric power, communications, or the like.

e. The foregoing guidance requires prompt submission of normal incident reports. Any incident which might create adverse publicity (including actions of fraud, bribery, malfeasance, or conflicts of interest) is immediately reported to the district commander upon discovery or upon receipt of a complaint or allegation of such offense. Reporting of an incident is not delayed for any reason. (See AR 190-40, Serious Incident Report, and HQUSACE supplements to AR 190 series.) Should incidents involve issues of alledged discrimination, the district EEO officer must be informed immediately.

f. Reporting the incident does not necessarily close the incident. Additional facts should be reported as they develop.

g. All incidents will be investigated by the district or other qualified military police personnel. The resident engineer is not required to make an investigation except in those incidents where criminality is not an issue.

11-4. **Physical Security Assistance**.

a. Trained military police officers assigned to USACE are available to assist the resident engineer in all phases of the physical security program. This assistance may be requested through established channels for physical security and crime prevention surveys, or through consultations on unusual security conditions, and for criminal investigations.

b. Where construction sites or facilities are located within a military reservation, assistance for physical security and security support may be rendered by other authorities. Coordination should be made with the military installation provost marshal or chief law enforcement officer to determine the extent of support to be rendered the resident engineer and to clarify actions in resolving differences incident to security matters.

SECTION 12

REAL ESTATE

12-1. **General**.

a. The district acquires the necessary real estate prior to awarding a contract. Property for construction is acquired by purchase, by lease, or by obtaining an easement. Acquisition through condemnation may be necessary if agreement cannot be otherwise reached. Temporary rights of entry are sometimes obtained to permit exploring and survey work prior to construction.

b. The policies and procedures to be followed in acquiring real estate are cited in ER 405-1-12, Real Estate Handbook.

12-2. **Real Estate Responsibility**.

a. The district keeps the resident engineer informed, in writing, of the scope and extent of real estate acquired for construction of a project. The resident engineer uses the consultation services and guidance of the district on real estate problems encountered, when necessary.

b. The resident engineer assumes responsibility for knowing the boundary of the Government-owned or leased property near the construction site and for assuring that there is no trespassing or use of any property which is outside the boundary of the construction site. If additional real estate is required for accomplishing the construction, the resident engineer immediately notifies the district and states the reasons and justifications. Requests for military real estate acquisition are initiated by the using service (AR 405-10, Acquisition of Real Property and Interests Therein).

12-3. **Real Estate Disposal, and Use by Others**.

The disposal of real estate and real estate components, both civil and military, will be in accordance with procedures in ER 405-1-12. Granting use of acquired real estate to others by lease, easement, license, or permit will be in accordance with procedures in the same pamphlet.

SECTION 13

ENVIRONMENTAL PROTECTION

13-1. **General**.

a. As the Corps of Engineers role expands into the area of hazardous and toxic waste cleanup, chemical demilitarization projects, EPA superfund projects and other environmentally sensitive projects, the resident engineers responsibilities toward protecting the environment becomes much broader than those typically found on our normal construction sites. The resident engineer and his staff must recognize the potential pitfalls of performing construction or remedial work in environmentally sensitive areas. Further guidance in implementing this type of work is available from various HQUSACE and local regulations which are referenced herein.

b. In addition to the special type projects noted above, our typical construction projects may also present potential areas where environmental damage is likely. As a result, the resident engineer should review proposed construction projects to determine common potential sources of environmental degradation during construction activities. Special and technical environmental protection clauses of the contract documents must be examined to understand all special environmental pollution controls, to ensure compliance to the maximum extent practicable, and to ensure that environmental controls established during the planning phase are implemented.

13-2. **Environmental Restoration Project Management**.

a. The Superfund Management Guide, EP 1110-2-6, provides the general guidance on USACE management of the EPA Superfund program. Although overall program guidance, policy, and funding for Corps support originates with the EPA, the USACE and EPA interagency agreement (IAG) provides that USACE manage "Superfund Federal Lead Fund Financed" design and construction contracts, manage remedial investigations and/or feasibility studies upon EPA request, and provide technical assistance to EPA in support of remedial cleanup of hazardous waste sites. FOA Construction Divisions/Districts are responsible for administration of Superfund construction projects within their Superfund assigned areas.

b. The Construction District, as the Government's on-site representative, is responsible for assuring that

specific project operations stated in the contract specifications are performed satisfactorily and that appropriate documentation of daily tasks is compiled. Many of these projects will be the subject of Justice Department legal action against the party responsible for the contamination, and detailed records are required. Documents include reports sufficient to develop a chronlogical record of site activities and to prepare documents suitable for community relations activities, e.g. contractor daily reports, change orders, problems regarding compliance with environmental and contractual requirements, laboratory and monitoring data, etc.

c. Manifest System - The Manifest System is the "Cradle-To-Grave" system of control of the transport of all hazardous toxic waste materials. A generator who transports, or offers for transportation, hazardous waste for offsite treatment, storage, or disposal must prepare a Manifest that tracks the hazardous waste to its final destination. All generators who ship HTW, transporters, and facilities that receive HTW must use the Manifest System. This is the fourth key step in the regulatory process which controls the shipment of HTW.

d. Site specific technical support will be provided by MRD on a reimburseable basis, as the lead Division and design center of expertise for this program. This may include developing site specific quality management and safety plans. The Site Specific Quality Management Plan (SSQMP) and other QM documents are detailed in ER 1110-1-263. The Site Specific Safety Plan (SSSP) and the Accident Prevention Plan are detailed in ER 385-1-92.

13-3. **Air Pollution**.

a. The resident engineer is alert to operations and procedures which cause air pollution and is able to determine if Federal, state, and local standards are being followed.

b. Some common construction operations which are usually scrutinized for air pollution are as follows:

(1) Quarry drilling and rock crushing.

(2) Clearing, grubbing, and stripping.

(3) Excavation and embankment.

(4) Cement and aggregate handling at mixing sites.

(5) Cement or lime in soil stabilization.

(6) Blasting.

(7) Haul road construction and maintenance.

(8) Sandblasting and shotcrete.

c. Smoke, fumes, and sprays which may cause air pollution include the following:

(1) Volatiles from asphalt and cutback materials.

(2) Fumes from heaters during winter operations.

(3) Burning cleared growth and scrap material.

(4) Smoke from asphalt/coal tar heaters.

(5) Paints.

(6) Herbicides and insecticides.

13-4. **Water Pollution**.

a. Water pollution in construction operations occurs through spillage, waste of materials, and erosion. Carefully considered construction methods and material handling can eliminate most potential water pollution. Water quality standards to be met at the specific project site should be included in the specifications. Water pollution is controlled principally by diking to contain spillages, by settling basins to reduce suspended solids in runoff, and by seeding or sodding surfaces for erosion control.

b. Contractors must provide safeguards and use construction techniques that will protect the environment from accidental spillage of materials, which eventually are carried to water courses by storm runoff. Some common sources of such pollution are as follows:

(1) Waste from floating plant (fuel, oil, grease, etc)

(2) Treatment and disposal of drill cuttings and waste water from drilling and grouting operations.

(3) Sterilization products, (water tanks or lines)

(4) Concrete operations:

(a) Aggregate washing and cooling.

(b) Cement and concrete spillage.

(c) Water curing and form-release compounds.

(d) Lift cleanup and preparation.

(e) Spillage and waste of curing compounds.

(f) Waste from equipment washing.

(5) Vehicle maintenance:

(a) Fuel spillage.

(b) Crankcase drainage.

c. Contractors must consider confining silt laden waters in dredging operations to areas of dredging and controlling the spread of contaminated waters from the site.

13-5. **Land Pollution**.

Landscape defacement is the most permanent of all the forms of despoilment by construction activities. When a tree is needlessly removed or damaged, repair or replacement takes years. When earth is removed in the wrong place, the environment is marred. Common land despoilment actions during construction operations include destruction of land forms and vegetation and pollution of the land by spillage and waste.

a. Destruction of land forms and vegetation. Disposal of material in waste or spoil disposal areas should be controlled. The location, layout, and restoration after abandoning roads, camps, shops and work areas should be covered in the specifications and drawings. Visual protection for surrounding or nearby residential areas from the work and storage areas should be accomplished by screening with effective plantings, fencing, or a combination of the two. Work areas, particularly in urban locations, should be confined to that specifically needed.

b. Pollution of land by spillage and waste. Laxity in the contractors' housekeeping activities, which contributes to spillage and waste, can be controlled by enforcing safety regulations. However, the specifications should cover those items known to be difficult to control by specifying specific safety regulations that must be implemented.

13-6. **Noise Pollution**.

This category of pollution includes a wide range of causes, from faulty mufflers on equipment to uncontrolled use of explosives. Noise pollution is a serious concern in urban areas. The project should be reviewed for possible noise pollution problems and appropriate protective measures should be implemented to eliminate or substantially reduce them. The resident engineer should stay abreast of regulations concerning noise pollution.

SECTION 14

STANDARDS OF CONDUCT

14-1. **Introduction**.

Numerous public laws and executive orders set forth standards of conduct and define conflicts of interest for Government employees. Subject areas included are as follows:

a. Criminal bribery and graft

b. Receipt of gratuities by Government employees

c. Financial and other conflicts of interest

d. Certain outside activities of Government employees

e. Prosecution of claims against the Government

f. Former employees of the Government dealing with matters that are before their agencies at the time of employment

g. Retired regular military officers selling to DOD

h. Contracting with Government employees

14-2. **Basic Principles**.

The following quote from FAR 3.101-1 illustrates the basic principle underlying all the various statutes and regulations relating to standards of conduct.

"Government business shall be conducted in a manner above reproach and, except as authorized by statute or regulation, with complete impartiality and with preferential treatment for none. Transactions relating to the expenditure of public funds require the highest degree of public trust and an impeccable standard of conduct. The general rule is to avoid strictly any conflict of interest or even the appearance of a conflict of interest in Government-contractor relationships. While many Federal laws and regulations place restrictions on the actions of Government personnel, their official conduct must be such that they would have no reluctance to make a full public disclosure of their actions." Knowing these basic principles is not enough. The challenge is to apply these principles in everyday situations.

14-3. **Standards of Conduct Regulations**.

a. It is the policy of the Government to place loyalty to country, ethical principles, and law above private gain and other interests. All USACE employees must avoid engaging in any personal business or professional activity, or having any direct or indirect financial interest that creates a conflict or appearance of conflict between private interest and public duty. An understanding of the laws and regulations relating to Standards of Conduct and Conflicts of Interest are mandatory requirements for DA personnel in order to avoid conflicts of interest or other criminal and ethical violations.

b. The FAR Part 3, DFARS Part 203, Department of Defense Directive (DoDD) 5500.7, AFARS Part 3 and AR 600-50 prescribe policy and procedures relating to Standards of Conduct. AR 600-50 specifically prescribes Standards of Conduct for all DA personnel, regardless of assignment, and is applicable to all USACE personnel. The following major topics are covered in the regulation:

(1) Be familiar with all provisions relating to Standards of Conduct

(2) Avoid any action that is actually or may reasonably be expected to give the appearance of:

(a) Using public office for private gain;

(b) Giving preferential treatment to any person or entity;

(c) Impeding Government efficiency or economy;

(d) Losing independence or impartiality;

(e) Making a Government decision outside official channels;

(f) Adversely affecting public confidence in the integrity of the Government;

(3) Conflicts of Interest and General Prohibitions: Avoid actual or apparent conflicts between personal interests and public duty. Private /personal interest includes the interest of the spouse, dependent child, and other household members.

(4) Using inside information:

(a) Do not engage in personal business or professional activity or enter into financial transactions that involve direct or indirect use of "inside information."

(b) Do not release acquisition information to an individual or business concerning proposed procurements.

(5) Using official positions:

(a) Do not use your official position to influence any person, including subordinates, from providing unauthorized benefits to themselves or others.

(b) Prohibition against commercial dealings and other solicitations to other DoD personnel junior in position. Personal commercial dealings between military personnel and their spouses generally are to be avoided.

(c) The failure to comply with these regulations may subject offenders to administrative action or criminal punishment pursuant to Title 18 of the United States code.

c. Gratuities. DA personnel and their families must not solicit or accept any gratuity from any source that is engaged in or seeks DoD business or conducts activities regulated by DoD. This includes interest that may be substantially affected by the performance or nonperformance of official duties of DA personnel. Some limited exceptions are:

(1) Acceptance of unsolicited advertising or promotional items that are less than $10.00 in retail value.

(2) Benefits available to the public and free exhibitions DoD contractors at public trade fairs.

(3) Discounts or concessions extended Army-wide and realistically available to all DA personnel.

(4) Participation by DA Personnel in civil and/or community activities when any relationship with defense contractors is remote.

(5) Contractor-provided transportation, meals, or overnight accommodations in connection with official business, when arrangements for Government or commercial accommodations are clearly impracticable. Individuals must report such circumstances in writing to their supervisor.

(6) Attendance at tuition-free nonacademic training sessions or seminars when attendance is in the interests of the Government and the contractors waive all claims against the Government.

NOTE: Tangible and intangible gifts/prizes/incentives acquired incident to official travel should be turned over to an appropriate official when participating on behalf of the Government.

d. Use of Government Property. Government facilities and property will be used only for official purposes. The use of Government vehicles are prohibited for personal use or nonofficial purposes, especially home to work travel. (31 U.S.C.1344)

e. Off-Duty Employment. DA employees may not enter into outside activities that: (i) interfere with official duties, (ii) discredits the DA, and (iii) is inconsistent with AR 600-50.

f. Appearances of Conflict. DA personnel should avoid the appearance of favoritism on any matters relating to competitive procurement, release of information, or any unauthorized discussions.

14-4. **Fraud, Waste and Abuse**.

Fraud is a crime while waste and abuse are mismanagement. Some indicators of fraud that DA employees should be cognizant of, are described below. However, they do not in themselves constitute conclusive evidence of fraud.

a. Solicitations restricting procurement to exclude or hamper any qualified source.

b. Limiting time for submission of offers so only those with advance information have adequate time to prepare bids/proposals.

c. Revealing information about a procurement to one contractor which is not revealed to all.

d. Providing special assistance to any contractor in preparing his bid or proposal.

e. Falsification of documents or receipts to get a late bid accepted.

f. Collusion or bid rigging between bidders.

g. Falsification of required certificates.

h. Acceptance of nonresponsive bids from preferred offerors.

i. Using biased evaluation criteria or using biased individuals in the evaluation panel.

j. Improper disqualification of any qualified bidder.

k. Award of the contract:

(1) To other than the lowest, responsive responsible bidder in sealed bid procurements.

(2) Without documentation of all preaward and postaward actions.

FOR THE COMMANDER:

ALBERT J. GENETTI JR.
Colonel, Corps of Engineers
Chief of Staff

3 Appendixes
APP A - References
APP B - Preconstruction Conference Guidance
APP C - Safety Checklist
APP D - Glossary

APPENDIX A

REFERENCES

Section I. Publications

AFARS 15.8	Price Negotiation

Army Regulations

AR 25-1	Army Information Resources Management Program
AR 25-50	Preparing and Managing Correspondence
AR 25-400-2	The Modern Army Recordkeeping System (MARKS)
AR 190-40	Serious Incident Report
AR 335-15	Management Information Control System
AR 405-10	Acquisition of Real Property and Interests Therein
AR 415-10	Military Construction - General
AR 415-15	Military Construction, Army (MCA) Program Development
AR 415-28	Department of the Army Facility Classes and Construction Categories
AR 420-10	Management of Install. DEH's
AR 570-4	Manpower Management
AR 600-50	Standards of Conduct for Department of the Army Personnel
CFR, Title 29, Part 1926	Safety and Health Regulations for Construction
DA PAM 25-30	Consolidated Index of Army Publications and Blank Forms

Engineer Federal Acquisition Regulation Supplement

EFARS 1.603-3 (100)	Appointment (ACO)
EFARS 36.201	Evaluation of Contractor Performance
EFARS 36.203	Government Estimate of Construction Costs

Engineer Manuals

EM 385-1-1	Safety and Health Req. Manual

Engineer Pamphlets

EP 11-1-4	Value Engineering Benefits
EP 25-1-1	Index of Publications
EP 25-1-2	Index of Blank Forms
EP 310-1-6	Graphic Standards Manual
EP 415-1-2	Modifications and Claim Guide
EP 415-1-4	Network Analysis Systems Guide
EP 415-1-261	Construction Inspector's Guide (Volume's 1-4)
EP 690-1-12	Career System for Construction Control Personnel
EP 1110-2-6	EPA Superfund Management Guide

Engineer Regulations

EP 1-1-11	Network Analysis System
ER 5-2-1	Life Cycle Project Management System
ER 37-2-10	Accounting and Reporting Civil Works Activities
ER 37-345-10	Accounting and Reporting Military Activities
ER 55-1-2	Travel Management
ER 385-1-92	Safety Document Req. for HW Site Remedial Actions
ER 405-1-12	Real Estate Handbook
ER 415-1-10	Contractor Submittal Procedures
ER 415-1-11	Biddability, Constructibility and Operability
ER 415-1-13	Design and Construction Evaluation
ER 415-1-15	Construction Time Extensions for Weather
ER 415-1-302	Inspection and Work Records
ER 415-7-1 (FR)	Construction Contractor Performance Evaluations
ER 415-345-13	Financial Closeout
ER 415-345-38	Transfer and Warranties
ER 415-345-42	Costs, Cost Estimating, and Reserves for Contingencies
ER 700-1-1	USACE Supply Policies and Procedures
ER 715-1-10	A-E Responsibility Management Program

ER 750-1-1	Material Maintenance Policies
ER 1110-1-263	Chemical Quality Management Toxic ∧ Hazardous Wastes
ER 1150-2-302	Annual Report on Local Cooperation Agreements
ER 1165-2-131	Local Cooperation Agreements for New Start Constr. Projects
ER 1180-1-6	Construction Quality Management

Federal Acquisition Regulation

FAR 3.101	Standards of Conduct
FAR 36.2	Special Aspects of Contracting for Construction
FAR 45.6	Reporting, Redistribution, and Disposal of Contr. Inventory
FAR 52.212-11	Variation in Estimated Quantity
FAR 52.212-12	Suspension of Work
FAR 52.233-1	Disputes
FAR 52.236-11	Use and Possession Prior to Completion
FAR 52.245-4	Government-Furnished Property

U.S. Statutes

Buy American Act, American Materials Required for Public Use, U.S. Code 1976 Title 41, 10a et seq., 3 Mar 33.

Contract Work Hours Standards Act, Work Hours Act of 1962, U.S. Code 1976 Title 40, 327, P.L. 87-581, 13 Aug 62.

Copeland Act, Kickbacks from Public Works Employees, U.S. Code 1976 Title 18, 874, 25 Jun 48.

Davis-Bacon Act, Rates of Wages for Laborers and Mechanics, U.S. Code 1976 Title 40, 276a, 3 Mar 31.

Federal Service Labor Management Relations Statute, U.S. Code 1976 Title 7, P.L. 95-454.

Prompt Payment Act, Prompt Payment, U.S. Code 1976 Title 31, 3902 et seq., P.L. 97-177, 12 May 82.

Prompt Payment Act Amendments of 1988, U.S. Code Title 31, Chapter 39, P.L. 100-496, 17 Oct 88.

Energy and Water Development Appropriations Act, P.L. 100-371, 19 July 1988

Section II. Forms

The following forms are those found in the text of this document. The prescribing directive is in parentheses following the form title.

Standard Forms

SF 52-B	Request for Personnel Action (FPM CHAP 296)
SF 135	Records Transmittal and Receipt [SF 135A - Continuation]
SF 1169	The U.S. Government Transportation Request (AR 55-355)
SF 1411	Contract Pricing Proposal Cover Sheet (FAR 15.804-6(B))
SF 1413	Statement and Acknowledgement (FAR 22.405-5)
SF 1420	Performance Evaluation - Construction Contracts (FAR 36.701(E))
WH Form 347	Payroll (for Contractor's Optional Use) (Department of Labor)

Department of Defense Forms

DD Form 250	Material Inspection and Receiving Report (DFARS)
DD Form 879	Statement of Compliance (DFARS)
DD Form 1351-2	Travel Voucher or Subvoucher (AR 37-106)
DD Form 1354	Transfer and Acceptance of Military Real Property (AR 420-17)
DD Form 1507	Work Stoppage Report (DFARS)
DD Form 1565	Request for Authorization of Additional Classification and Rate (DFARS)
DD Form 1567	Labor Standards Interview (AFARS)

Department of the Army Forms

DA Form 1167	Request for Approval of Form
DA Form 2877	Real Property Record (AR 420-17)
DA Form 4697	Department of the Army Report of Survey (AR 700-1-1)

Corps of Engineers Forms

ENG Form 93	Payment Estimate--Contract Performance
ENG Form 1421-R	Performance Evaluation (Architect-Engineer) FAR 36.702(c)
ENG Form 2454	Construction Progress Chart
ENG Form 3078	Design or Project Deficiency Report and Recommendations (ER 1110-345-710)
ENG Form 3180	Contractor Payroll Record
ENG Form 4025	Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certificates of Compliance for Approval (ER 415-1-10)
ENG Form 4026	Routing of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certificates of Compliance for Approval
ENG Form 4288	Submittal Register (ER 415-1-10)
ENG Form 4337	Offense/Incident Report (Suppl to AR 190-13)

APPENDIX B

PRECONSTRUCTION CONFERENCE GUIDANCE

Section I. Preconstruction Conference Attendance Format

Preconstruction Conference Attendance

Contract No. _____

_____

_____

Name (Title or Rank)	Representing	Telephone No.

PRECONSTRUCTION CONFERENCE GUIDANCE

Section II. Agenda for Preconstruction Conference

NOTE: Selection of items for discussion should be based on the job requirements and the experience of the contractor.

Contract No.: _____
Project: _____
Contractor: _____
Time and Date: _____
Place: _____

1. Introduction and Outline of Conference.

   Introduction of attendees.
   Outline of conference.
   Outline of chains of command.

2. Safety.

   EM 385-1-1, Safety and Health Requirements Manual.
   Accident prevention.
   Accident reporting.
   Cleaning up.
   Activity hazard analysis.

3. Design Briefing (if required).

   Briefing on design criteria.
   Briefing on critical areas to observe during construction.

4. User Coordination.

5. Labor Relations.

   Davis-Bacon Act.
   Contract Work Hours Standards Act.
   Apprentices.
   Payroll and payroll records.
   Compliance with Copeland Act requirements.
   Withholding of funds.
   Contract termination.
   Subcontracts.

6. Defense Priorities and Allocations System. (DPAS)

Priorities, allocations, and allotments.
Buy American Act.
Government-furnished property (when applicable).
Salvage materials and equipment (when applicable).

7. Environmental Protection.

8. Administrative and Technical Requirements.

Contract clauses.
Special clauses.
Using service regulations.
Correspondence procedures.

9. Contractor Organization.

Responsible representative at home office.
Responsible representative at job site.
Quality control personnel.
Authorities of representatives.
Plan of operation.

10. Discussion.

Critical items.
Problem areas.
Questions.

PRECONSTRUCTION CONFERENCE GUIDANCE

Section III. Preconstruction Conference Sample Minutes

Location:
For:
Contract No.
Contractor:
Address: Zip Code:
Contracting Officer and ACO:

Contracting Officer Representative:
Resident Engineer:

1. **Commencement**. The conference convened at _____ hours on _____ at the _____ Resident Office.

2. **Introduction**. Each of the persons attending the meeting introduced themselves. _____ explained the purpose of the meeting, which is to orient the contractor with respect to safety, resident office, and other requirements; introduced the Corps of Engineers, the contractor, and the using service personnel; and held a general discussion of items of major importance with respect to the contract. A list of personnel attending the meeting is attached.

3. **Notice to proceed.** Notice to proceed was issued on _____. The contract amount is _____. The contract time is _____ calendar days after receiving the notice to proceed. Notice to proceed was acknowledged on _____, establishing a contract complete date of _____. Interim completion dates are as follows:

4. **Authorization and organization.**

a. Authorization. The authorized representative of the contracting officer is authorized to administer the contract under authority delegated by the contracting officer. The administrative contracting officer (ACO), operating under specific authority delegated by the contracting officer, may issue modifications under the changes clause of the contract up to $100,000, or such other amount as is written in the delegation of authority to the ACO. Only the contracting officer and the ACO within the limits of

delegated authority may make changes to the contract. There is no existing authority with the Corps of Engineers to waive any contract requirement.

b. Resident office organization. The resident office organization consists of the following personnel with the following responsibilities: _____ is the assistant resident engineer who acts on behalf of the resident engineer. Project engineer, _____, and construction representative, _____, have authority to ensure construction contract compliance by issuing advice when construction does not comply with contract requirements. _____, office engineer, administers the office functions; i.e., labor relations, modifications, pay estimates, and administrative details.

c. Contractor's organization. _____ is the project superintendent who is responsible for constructing the project safely and on time, and for negotiating and signing modifications to the contract. _____ is the chief, quality control, and is responsible for quality control and job safety in accordance with the contract. Subcontractors, with a brief description of work to be performed, are as follows:

(1)

(2)

(3)

The normal work shift will be from _____ a.m. until _____ p.m. _____ days a week.

5. **Safety**. The contracting officer has advised the contractor by letter that all work under this contract will be done in accordance with provisions of the Corps of Engineers' Safety and Health Requirements. The basis for this action is contract clause "Accident Prevention." This clause further provides that the contractor will take such additional measures as the contracting officer may determine to be reasonably necessary for the purpose. The contractor is also required by law to comply with the Safety and Health Regulations for Construction (CFR, Title 29, Part 1926). As the contracting officer's representative, it is the resident engineer's responsibility to review the contractor's written safety program before starting work. Information and guidelines for

preparing the proposal were presented at the preaward conference. The proposal (has) (has not) been received and (has) (has not) be reviewed. The proposal submitted (is) (is not) adequate for the type of work to be performed. The proposal, as approved, will be the safety program for this project. Copies of the safety program will be made available:

a. To all supervisors and all quality control personnel.

b. To each subcontractor and its supervisors.

c. On bulletin boards for information and guidance of all concerned. Under the terms of the "Accident Prevention" clause, the contractor is responsible for subcontractor compliance with EM 385-1-1. This responsibility is further extended to subcontractor compliance with the safety program developed for this project. The contract special clause "Contractor Quality Control" specifies that each quality control inspector will be responsible for inspecting the work for compliance with EM 385-1-1 and the contractor's approved safety program, and immediately shall bring to the attention of the contractor's supervisory personnel any unsafe working condition and/or instances of noncompliance noted. The quality control inspector's safety activities will be documented as required by section 2, Accident Reporting and Recordkeeping inspected before it is allowed to be used on the job. All work on electrical lines or equipment will be done deenergized, unless otherwise authorized by the resident engineer. The contractor is responsible for preparing a hazard analysis plan in accordance with the special clause. The purpose of this preplanning is to provide the contractor and the resident engineer an opportunity to analyze the major phases of the construction for hazards peculiar to the particular operation. Major safety hazards the resident engineer anticipates during construction are:

(1)

(2)

(3)

(4)

The contractor's accident prevention preplanning will cover the above items. Finally, the onsite representatives will be monitoring the safety activities. Failure to comply with the safety requirements of the contract will require the contracting officer to exercise the remedies outlined in subparagraph (d) of the "Accident Prevention" clause. The minutes of this meeting, being agreed to and signed, will become a part of the safety program for this project. A copy of these minutes will be on file at the job site.

6. **Value engineering.** VE is an organized effort directed at analyzing the function of construction, systems, equipment, and supplies for achieving the required function at the lowest overall cost consistent with the requirements for performance reliability and maintainability. VE may be simply defined as the use of every available means to attain only the required functions at a minimum of cost. The VE clause of the contract indicates the method for preparing and processing a VE submittal as well as the method of computing equitable adjustments in the contract price. Due to the substantial savings in construction cost which have resulted from the use of VE, district personnel, including the district commander, are vitally interested in the contractor making a concerted effort to find ways of securing the required functions of the facility at a figure less than present contract price. An expeditious review will be given to VE proposals. To expedite this review, it is requested that the proposals be furnished in a format similar to that furnished in the VE Newsletter sent to the contractor. This proposal should be furnished to the resident engineer to review for completeness and expeditious forwarding to the VE Officer, together with any known background data and recommendations. Final action is expeditious in order that maximum cost reduction in the contract may be obtained.

7. **Local regulations.** The following items concerning using service operation were discussed:

a. Identification of workers and vehicles.

b. Requests for outages and street closings.

c. Regulations concerning welding and cutting.

d. Fire regulations.

e. Strike.

f. Haul roads.

g. Traffic control.

h. Storage of materials.

i. Utilities furnished.

j. Salvage property.

k. Government-furnished property.

l. Security requirements.

m. Waste and borrow areas.

n. Permits.

8. **DPAS System.** All purchase orders issued for military construction projects should be marked to include a DO-C2 priority rating to ensure as prompt a delivery as possible. It is the contractor's responsibility to secure deliveries as required to maintain satisfactory progress on the job. However, if materials are not delivered as promised, the resident office can provide expediting assistance.

9. **Environmental protection.** The resident engineer advised the contractor that environment protection is a requirement of the contract specifications and that it would be necessary for him to comply with all environmental pollution control programs established by the contract, the city, and the state. The following items were discussed in detail:

a. Protection of existing tress, shrubs, and grass.

b. Dust control on haul roads, excavation work, and borrow areas.

c. Keeping toilet facilities clean.

d. Services performed during working hours.

e. Burning materials.

The contractor was instructed to furnish to the resident office within 10 days a proposal for implementing the environmental pollution control program.

10. **Progress reporting.**

a. Progress schedule (note to RE-delete if N/A). The contract requires that the contractor submit a schedule showing how the work will be performed and the sequencing of work. This schedule shall present a feasible and practicable plan to accomplish all of the work in accordance with the contract requirements. The schedule shall show a breakdown of the principal features of the work by bar graphs, with contract cost and curve plotted so that the percentage of work scheduled for completion at any given date may be determined. ENG Form 2454, Construction Progress Chart, (was) (was not) discussed since the contractor (was) (was not) familiar with this item. This progress schedule is also necessary to process partial payment estimates. Partial payment estimates cannot be processed until the schedule is submitted, reviewed, and approved. The cut-off date will be the _____ of each month for payment estimates.

b. Network analysis system (note to RE--delete if N/A). The contract requires the use of the network analysis system for the surveillance of the contract progress. This network analysis will indicate the proposed method of conducting the work required under the contract. A specific discussion was held which advised the contractor of due dates for preliminary and/or a complete network analysis system. The specific requirements in the contract concerning the following items were discussed:

(1) The diagrams shall show the order and interdependence of activities and the sequence in which the work is to be accomplished.

(2) Detailed network activities shall include, in addition to construction activities, the submittal and approval of samples of materials and shop drawings; procurement of critical materials and equipment; and fabrication, installation, and testing of special materials and equipment.

(3) The contractor shall submit at monthly intervals a report of the actual construction progress by updating the mathematical analysis. The reports shall show the activities or portions of activities completed, and their total value will be used as a basis for the contractor's periodic request for payment.

(4) The contractor shall also submit a narrative report with the updated analysis, which shall include but not be limited to a description of the problem areas, current and anticipated delays, their impact, and an explanation of corrective action taken or proposed.

11. **Correspondence**. All correspondence pertaining to this contract should be addressed to the resident engineer, U.S. Army Corps of Engineers, in original with two copies.

12. **Record drawings.** It is the responsibility of the contractor's quality control organization to maintain record drawings. Three sets of marked-up drawings are required, and one up-to-date, marked-up set should be on the job site at all times. The record marked up prints shall be currently accurate and be jointly inspected monthly for accuracy and completeness by the contractor's quality control personnel and the contracting officer's representative. Two copies of the preliminary record marked prints shall be furnished to the contracting officer at the of final inspection for review and approval. At the time of approval of preliminary record drawings, the contracting officer will furnish the contractor the tracings of the original set of contract drawings. Thirty days after receiving the approved record preliminary drawings and the tracings, the contractor shall submit to the contracting officer the final record drawings, the approved preliminary record marked prints, and all required reproduced items. The specific requirements for preparing these are listed in the contract specifications.

13. **Modifications.** Upon receiving the letter requesting a proposal, the contractor should review the change work, estimate costs, and furnish a proposal to the contracting officer's representative as expeditiously as possible. This proposal should include a complete cost breakdown indicating all labor, materials, equipment, and subcontract costs for evaluation. This will be reviewed by the contracting officer's representative, and a meeting will be held for any negotiations necessary to arrive at a fair and equitable adjustment in cost and time for the changed or additional work.

Modifications will not proceed without written authority or direct instructions from the contracting officer or the ACO; otherwise, the contractor assumes the risk of not being reimbursed for additional expenses Should the using service desire something different from that required by the contract, the Corps must issue a change prior to the contractor taking any action. Should the contractor act without direction from the Corps, it may be at the contractor's own expense.

14. **Quality control program.** There is a contract requirement for the contractor to maintain an adequate inspection system and perform such inspections to assure that the work conforms to the contract requirements and to maintain and make available to the Government adequate records of such inspections. The contract indicates the number and types of personnel required for the contractor's quality control organization to perform these inspections. The contract also includes the types and description of inspections necessary for each definable item or segment of work. The contractor is required to give careful consideration to an inspection plan for accomplishing this responsibility. This plan is furnished to the Government. The items which must be covered by this inspection plan are listed in the contract. For the other items of work which must be accomplished by the inspection system, there are specific instructions included in both special and technical clauses of the contract.

15. **Time extensions.** Attention was called to the paragraph entitled "Time Extensions for Unusually Severe Weather" included in the construction special clauses. This contains the procedure which will be used to determine the number of days to be included in allowable time extensions for weather delays. This system operates most successfully when the contractor submits a letter at the end of each month during which adverse weather was encountered and caused a delay of the work.

16. **Liquidated damages.** Liquidated damages for failure to complete the work on schedule are_____
_____
_____.

17. **Submittals**. The contractor shall review and approve submittals from subcontractors and suppliers and transmit submittals to the contracting officer as called for in the specifications. Submittals to the CO shall be either for "approval" or for "information only" as indicated in the contract. If approved by the contracting officer, each copy of the drawings will be identified as approved by being stamped and dated. The contractor shall make any corrections required by the contracting officer. If the contractor considers any corrections indicated on the submittals to constitute a change to the contract drawings or specifications, notice (as required under the clause "Changes") must be given to the contracting officer. _____ sets will be returned to the contractor. Approval of the drawings by the contracting officer shall not be construed as a complete check, but will indicate only that the general method of construction and detailing is satisfactory. Approval of such drawings will not relieve the contractor of the responsibility for the dimensions and design of adequate connections, details, and satisfactory construction of all work. The contractor shall certify, with each submittal of shop drawings, that the shop drawings have been reviewed in detail and that they are correct and in strict conformance with the contract drawings and specifications, except as otherwise stated. Not less than _____ days should be allowed for review by the contracting officer.

18. **Payrolls.** Timely submittal is required for certified copies of all the contractor's payrolls, including DD Form 879, Statement of Compliance, which contains a fringe benefits statement. The employee must be paid proper wages for the type of work done, and this may include more than one type of work for a single worker. The project bulletin board displaying wage rates and an equal opportunity poster should be installed according to contract requirements. Employees will be interviewed periodically by a Government representative to ensure compliance with applicable wage rates. The contract includes specific instructions concerning fringe benefits and overtime provisions. These were discussed fully including a $10.00 per day penalty for each overtime violation and the withholding of a sufficient amount to cover violations of the Davis-Bacon Act. The remaining information in "Instructions to Contractors on Contract Labor Requirements," which had been previously furnished to the contractor, was discussed, including: Apprentices, information required on payrolls, correction of payrolls, subcontractor requirements, labor disputes, and equal opportunity requirements.

19. **Payment estimates.** The ending date for work to be included in the monthly payment estimates shall be as previously stated. Allowance will be given for properly stored materials which are included in invoices submitted by the contractor. Payment for completed items of work will be based upon amounts agreed to mutually by the contractor and a representative of the resident office prior to the pay estimate ending date.

20. **Insurance**. Evidence shall be furnished indicating compliance with workmen's compensation, comprehensive general liability, and automobile liability as required by the contract. Also, the requirement for notice to the contracting officer prior to cancellation is discussed.

21. **Special Technical Aspects.** A discussion was held concerning:

a. Status of concrete mix design.

b. Special protection or processing of aggregate.

c. Testing of cement, admixtures, and curing compound.

d. Concrete protection and curing.

e. Phasing of work.

f. Questions by contractor.

22. **Repetitive deficiencies.** A discussion was held concerning repetitive construction deficiencies peculiar to this type of construction.

23. **Warranty of construction.** The warranty of construction clause requires the contractor, subcontractors, manufacturers, and suppliers to warrant that all work under the contract conforms to the contract specifications and contains no defect of workmanship, material, or design for a period of 1 year after final acceptance. Although the initial period of the warranty is 1 year, this clause requires that any item of work requiring corrective action is further warranted for an additional year from the completion of the remedial work. The contractor is responsible not only for its own work, but for damage to other property caused by failure of that work.

24. **Forms and guides.** The contractor was furnished the following supply of forms and guides:

a. Instructions to the contractor on contract labor requirements.

b. Equal opportunity posters.

c. Monthly Exposure Reports.

d. First aid case history.

e. ENG Form 4025, Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certifications of Compliance For Approval.

f. Instructions to the contractor for transmittal of shop drawings.

g. ENG Form 4288, Submittal Register.

h. DD Form 879, Statement of Compliance.

i. Concrete placement checklist.

j. Concrete strength tests.

k. ENG Form 2454, Construction Progress Chart.

l. Progress reports, military.

m. SF 1413, Statement and Acknowledgement.

n. Quality control guide for testing of materials and equipment.

_____	_____
Contractor	U.S. Army Corps of Engineers

APPENDIX C

SAFETY CHECKLIST

The following items are typically discussed or developed during the preconstruction safety conference.

1. The "Accident Prevention" clause and the safety provisions of the contract.

2. Installation requirements affecting the contractor's operations.

3. Omissions and deficiencies in the contractor's proposed accident prevention plan reviewed prior to start of work.

4. A company safety policy statement, including provisions for employee training and safety inspection procedures.

5. The establishment of weekly "tool box" meetings to discuss safety issues.

6. A review of the activity hazard analysis prior to entering each major construction phase or activity.

7. Creation of a jobsite layout showing access and haul roads, areas for material storage and deployment of equipment, placement of temporary structures, vehicle parking and locations of underground and overhead utility lines.

8. A list of hazards that are anticipated because of the nature of the work to be done, the materials to be used, and the physical features of the project site.

9. Delegation of authority and assignment of specific responsibilities to the job superintendent and foreman for safety in day-to-day job plans, for familiarity with the accident prevention plan and safety regulations applicable to the work, for inspecting the work and observing that the workers are performing work as planned, and for promptly correcting unsafe working conditions or acts.

10. Acceptable housekeeping standards.

11. Provisions for personal protective equipment and procedures to enforce their usage.

12. Fire prevention plans, equipment, and employee training.

13. Provisions for first-aid medical facilities and life saving equipment.

14. Plans for protecting the public and business visitors while on the job site.

15. Plans for coordinating activities with other contractors and the using agency so that operations which are incompatible from a safety standpoint will not be conducted concurrently.

16. Plans for erecting, inspecting, and maintaining handrails, barricades, nets, scaffolds, ladders, safety lines, platforms, formwork, shoring, and warning signs.

17. Plans for shoring, sheeting, or sloping excavations (including lighting and barricading excavations) that cross or parallel roads and constitute hazards to pedestrian or vehicular traffic.

18. Proposals for inspecting, testing, and maintaining equipment, tools, and electrical and pressure systems.

19. Proposals for sanitary facilities and maintenance.

20. Proposals for controlling hazards associated with noise, dust, ventilation, and unsafe chemicals.

21. Proposals for complying with the requirements for seat belts, rollover protection, back-up alarms, emergency brakes, and boom stops.

22. Proposals for controlling explosives, explosive-actuated tools, blasting operations, lasers, and radioactive material or equipment containing radioactive material.

23. Proposals for safe clearance procedures.

24. Measures for controlling the movement of traffic and providing traffic controls (signs, flagperson, lights, etc.) at hazardous crossings and other locations.

25. Identification of power lines in the vicinity of work where cranes or equipment will be used.

26. Details of temporary power distribution.

27. Contingency plans for severe weather, floods, or other natural emergencies.

APPENDIX D

GLOSSARY

AASHTO	American Association of State Highway and Transportation Officials
ACO	Administrative Contracting Officer
AE	Architect-Engineer
AFARS	Army Federal Acquisition Regulation Supplement
AMPRS	Automated Management Progress Reporting Systems
ASTM	American Society of Testing Materials
BCM	Business Clearance Memorandum
BCO	Biddability, Constructibility, Operability
BOD	Beneficial Occupancy Date
CB	Construction Bulletin
CERS	Construction Evaluation Retrieval System
CFM	Contractor-Furnished Material
CFP	Contractor-Furnished Property
CO	Contracting Officer
COR	Contracting Officers Representative
CQC	Contractor Quality Control
CWE	Current Working Estimate
DEH	Director of Engineering and Housing
DFARS	Defense Federal Acquisition Regulation Supplement
E∧D	Engineering and Design
EEO	Equal Employment Opportunity
EFARS	Engineer Federal Acquisition Regulation Supplement
FAR	Federal Acquisition Regulation
GFE	Government-Furnished Equipment
GFP	Government-Furnished Property
HQUSACE	Headquarters, U.S. Army Corps of Engineers
IDP	Individual Development Plan
LCPM	Life Cycle Project Management
NAS	Network Analysis System
NTP	Notice to Proceed
O&M	Operation and Maintenance
PROSPECT	Proponent Sponsored Engineering Corps Training
QA	Quality Assurance
QAP	Quality Assurance Personnel
S&A	Supervision and Administration
USACE	U.S. Army Corps of Engineers
VE	Value Engineering