D E P A R T M E N T O F T H E A R M Y S U P P L Y B U L L E T I N

STORAGE SERVICEABILITY STANDARDS FOR AMCCOM MATERIEL

BREATHING AND RESPIRATORY APPARATUS, SELF-CONTAINED PROTECTIVE OUTFITS, AND ANCLLARY ITEMS

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HEADQUARTERS
DEPAPARTMENT OF THE ARMY
Washington, DC, *8 September 1986*

STORAGE SERVICEABILITY STANDARDS
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SELF-CONTAINED PROTECTIVE OUTFITS
AND ANCILLARY ITEMS

SB 740-94-7, February 1985, is changed as follows:

1. Remove old pages an insert new pages as indicated below. New or revised material is indicated by a vertical bar in the margin of the page.

Remove Pages	*Insert Pages*
i	i
A-1 through A-5	A-1 through A-5
C-1 through C-3 (C-4 Blank)	C-1 through C-4

2. File this change sheet in front of the publication for reference purposes.

By Order of the Secretary of the Army

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DEPARTMENT OF THE ARMY
WASHINGTON, DC, *7 February 1985*

STORAGE SERVICEABILITY STANDARDS FOR AMCCOM MATERIEL BREATHING AND RESPIRATORY APPARATUS, SELF-CONTAINED PROTECTIVE OUTFITS, AND ANCILLARY ITEMS

***This bulletin supersedes SB 740-94-7, 26 October 1982 and SB 740-94-7, 30 May 1980.**

SECTION I
INTRODUCTION

1-1. Purpose. This supply bulletin provides the basic information and detailed inspection procedures required to determine the serviceability status of breathing and respiratory apparatus, self-contained protective outfits, and ancillary items.

1-2. Scope. The provisions of this bulletin are mandatory for use in conducting all types of surveillance inspection, as identified in this bulletin, on the chemical materiel listed by National Stock Number (NSN) in APPENDIX A. The provisions only apply to Department of the Army depots and to depot activities.

1-3. Definitions. *a. Commonly used quality assurance terms.* Refer to MIL-STD-109 for definitions of these terms.

b. Specialized terms. The following definitions are listed in alphabetical order by major heading. They apply to specialized terms used in this bulletin.

(1) *Codes.* Numbers and letters used for brevity.

(a) Inspection Frequency Code (IFC). A numeric code assigned to tell how often to perform inspection of materiel in storage. The numeric codes and definitions are listed in paragraph 2-6e.

(b) Quality Defect Code (QUAL DEF CODE). A numeric code assigned to indicate the category of a given defect and to identify, by explanation, that particular defect. The coding system and definitions are enumerated in paragraph 2-6a.

(c) Shelf-Life Code (SLC). A code assigned to a shelf-life item. The code identifies a period of time that starts with the date of manufacture or assembly and ends when the item must be used or be subjected to inspection, test, restoration, or to disposal action (AR 700-89). The codes and associated times are listed in paragraph 2-6d.

(d) Test Required Code (TRC). A three-digit numeric-alpha code that is used in APPENDIX A to indicate that only a single examination is required (Quality Defect Codes) or to cross-reference additional inspection requirements. The code meanings are in paragraph 2-6f.

(2) *Corrosion, Metals.* See paragraph 2-6a(3)(j).

Stage I (Defect Code 90). Discoloration or staining with no direct visual evidence of pitting, etching, or other surface damage.

Stage II (Defect Code 91). Red, brown, green, black, or white corrosion product accompanied by minor etching or minor surface pitting. No scale or tight rust.

Stage III (Defect Code 92). Red, brown, green, black, or white corrosion product with or without etching, pitting, or more extensive surface deterioration resulting in a loose or granular condition.

Stage IV (Defect Code 93). Red, brown, green, black, or white corrosion progressed to the point where fit, wear, function, or life of the item has been affected. Powdered or scaly condition with pits or irregular areas of material removed from the surface of the item.

(3) *Defect number.* A number associated with a particular defect. It identifies the defect and the severity of the defect. The numbers are used in particular classification of defects tables. The defect designated by a number is not unique such as in Quality Defect Code ((1)(b) above) but is redefined in each table where the number is used, although often the definition will closely parallel a Quality Defect Code definition. Sequential numbers starting with 1 are Critical defects; sequential numbers starting with 101 (1XX) are Major defects; and sequential numbers starting with 201 (2XX) are Minor defects.

(4) *Deterioration.* A change in an item's characteristics caused by an environment that adversely affects its ability to function as intended. See paragraph 2-6a(3)(j).

(a) Deterioration, polymeric plastic items. Molded organic compounds; celluloid, bakelite, lucite, vinyl, rubber, etc.

Stage I (Defect Code 94A). Fungus damage, color change, or distortion.

Stage II (Defect Code 94B). Sticky surface, craze cracks, dissolved paint, or small cracks.

Stage III (Defect Code 94C). Liquified material, large cracks, crumbled (brittle), or fractured (broken) to an extent where fit, function, or life has been affected.

(b) Deterioration, polymeric non-plastic items. Non-molded organic components: cloth, leather, hair, fur, felt, paper, cork, cardboard, wood, etc.

Stage I (Defect Code 95A). Mold, fungus damage, or color change.

Stage II(Defect Code 95B). Shredding, warping, shrinkage, distortion, embrittlement, small separations (cracks or tears), or slight swelling.

Stage III (Defect Code 95C). Gross swelling, soggy, large cracks, rot, insect infestation, brittle disintegration, or larger or complete separations to an extent where fit, function, or life has been affected.

(c) Deterioration, inorganic vitreous items. Glass, ceramic, solid carbon, etc.

Stage I (Defect Code 96A). Small cracks or crazed (crackled surface).

Stage II (Defect Code 96B). Spalling (chipped) or fractured (broken, major cracks, or splits) to an extent where fit, function, or life has been affected.

(5) *Inspection (Type of).*

(a) Cyclical Inspection (CI). Surveillance of materiel in storage performed on a regular basis. In this bulletin, the cycle is established in APPENDIX A by the Inspection Frequency Code (IFC-see paragraph 2-6e). The purpose is to determine the serviceability status of items at the end of each cycle.

(b) Initial Receipt Inspection (IRI). An inspection performed on newly manufactured materiel received directly from a vendor, manufacturer, or government activity. The purpose is to determine if the items, the packaging, or the preservation have been damaged in transit and whether the packaging, marking, and preservation are correct. This inspection is not intended as an acceptance-type inspection.

(c) Pre-Issue Inspection (PII). The inspections and tests on materiel immediately preceding issue.

(d) Prestorage Inspection (PSI). An inspection performed on materiel received from other depots, posts, camps, stations, or overseas returns received within CONUS. The purpose is to determine receipt condition and the current degree of serviceability of the items where serviceability status is inknown.

(e) Special Inspection (SPI). An inspection performed at the direction of higher headquarters or as deemed necessary to satisfy local installation requirements.

(f) Unit Basis Inspection (UBI). An inspection where each unit in the lot is inspected for the defect characteristic under consideration. The unit basis method is also used for serially-number major end items that are considered separately for surveillance purposes.

(6) *Lots.*

(a) Depot lot. A combination of lots, irrespective of manufacturer or age, of the same kind and type of materiel grouped into one large single lot for the purpose of economy in surveillance.

(b) Grand lot. All lots of the same kind and type of materiel from one manufacturer or reconditioning agency grouped into one large lot for the purpose of economy in surveillance.

(c) Manufacturer's lot. A quantity of one item of materiel manufactured or assembled in one plant, from raw materials or components of the same physical characteristics, under conditions designed to effect homogeneity, and meeting definite physical and chemical requirements of established specifications and drawings (this includes renovated, reworked, and reconditioned lots).

(d) Miscellaneous lot. A combination of a single manufacturer's small lots or lot fragments possessing the same technical history.

(e) Mixed lot. A combination of the same kind and type of materiel which identification of the manufacturer, the lot number, or the time of manufacture is incomplete.

(7) *Occurrence basis.* An inspection, without a predetermined time frame, that is performed as the need occurs, e.g., initial receipt inspection (IRI) is performed when the shipment arrives.

(8) *Serviceable.* The condition of an item that has been determined by inspection to be satisfactory and safe for its intended use.

(9) *Shelf-life item.* An item of supply possessing deteriorative or unstable characteristics to the degree that a storage time period must be assigned to assure that it will perform satisfactorily in service. There are two types of shelf-life items:

(a) Type I shelf-life item. An item of supply that is determined, through an evaluation of technical test data or actual experience, to be an item with a definite non-extendable shelf life.

(b) Type II shelf-life item. An item of supply having an assigned shelf life, where the shelf life may be extended after the completion of a prescribed inspection, a test, or a restorative action.

(10) *Storage Serviceability Standards (SSS).* Technical documents containing inspection instructions and criteria essential to determine serviceability of materiel in storage.

(11) *Unserviceable.* The condition of an item that has been determined by inspection to be unsatisfactory or unsafe for its intended use.

(12) *Qualified inspector.* An individual who has been certified as a qualified inspector by Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAW, Rock Island, IL 61299-6000.

1-4. Technical Assistance. Personnel operating test equipment specified in this bulletin require yearly certification. Technical assistance in establishing a certification program may be obtained by request from the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAW, Rock Island, IL 61299-6000.

1-5. Errors or Omissions. Forward comments regarding errors or omissions in this bulletin on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAK-B, Rock Island, IL 61299-6000; and send an information copy to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAC(A), Aberdeen Proving Ground, MD 21010-5423.

SECTION II
STORAGE AND SPECIAL INSTRUCTIONS

2-1. References. The following publications form a part of this bulletin to the extent specified.

AR 380-5	Information Security Program Regulation
AR 700-89	Identification, Control, and Utilization of Shelf-Life Items
AR 702-7	Reporting of Quality Deficiency Data
AR 725-50	Requisitioning, Receipt, and Issue System
AR 740-1	Storage and Supply Activity Operations
AR 740-3	Care of Supplies in Storage (COSIS)
AR 750-25	Army Metrology and Calibration System
MIL-STD-105D	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-109	Quality Assurance Terms and Definitions
DARCOM-R 702-7	Depot Quality Assurance
DARCOM-R 702-23	Storage Serviceability Standards
TM 38-750	The Army Maintenance Management System (TAMMS)
TM 743-200-1	Storage and Materials Handling

NOTE

Additional references peculiar to a given group of breathing and respiratory apparatus, self-contained protective, outfits, and ancillary items will be cited in the appendix for the group of items.

2-2. Safety. During surveillance and normal handling (TM 743-200-1) of breathing apparatus, self-contained protective outfits, and ancillary items, inspection personnel shall observe the safety precautions prescribed for the operations personnel, the Standing Operating Procedures (SOPs), the safety requirements cited in applicable regulations, the safety guidance in applicable technical manuals and special safety precautions cited in the applicable appendix of this bulletin.

2-3. Lotting. *a. Type of lotting permitted.* The applicable appendix of this bulletin specifies the type of lotting permitted when conducting surveillance of the breathing and respiratory apparatus, self-contained protective outfits, and ancillary items.

b. Depot lot. A depot lot is formed by combining lots regardless of manufacturer or age into a large single lot. Actual formation is a paper transaction; regrouping and marking of the materiel is not required. A depot lot, as such, cannot be declared unserviceable. When, through surveillance, a lot within the depot lot appears unserviceable, withdraw the lot concerned and take additional samples by the sampling plan provided in this bulletin. If the suspect lot is found serviceable, it remains a part of the depot lot. If the suspect lot is found unserviceable, the lot is eligible for rework or disposal by existing regulations. When 20 percent of the lots within the depot lot have become unserviceable, the depot lot shall be dissolved and the individual lots therein tested on a lot-by-lot basis. A depot lot must meet criteria as follows:

(1) *Kind, type, and model.* All items must be the same kind, type, and model.

(2) *Storage.* All items must be stored under similar conditions at the same depot.

(3) *Serviceability status.* All lots must possess the same serviceability status, i.e., serviceability known (based upon prior surveillance) or serviceability unknown. However, when new procurement is involved, base serviceability on acceptance inspection, not on surveillance.

c. Grand lot. A grand lot is formed by combining all lots from one manufacturer into a large single lot. Actual formation is a paper transaction, regrouping and marking of the materiel in storage is not required. A grand lot, as such, cannot be declared unserviceable. When, through surveillance, a lot within the grand lot appears unserviceable, withdraw the lot concerned and take additional samples by the sampling plan provided in this bulletin. If the suspect lot is found serviceable, it remains a part of the grand lot. If the suspect lot is found unserviceable, the lot is eligible for rework or disposal by existing regulations. When 20 percent of the lots within the grand lot have become unserviceable, the grand lot shall be dissolved and the individual lots therein tested on a lot-by-lot basis. A grand lot must meet criteria as follows:

(1) *Kind, type, and model.* All lots must be the same kind, type, and model.

(2) *Manufacture.* All lots must be the product of the same manufacturer or reconditioning agency.

(3) *Preservation and packaging.* All lots must have the same type preservation, packaging, and identification markings.

(4) *Storage.* All lots must be stored under similar conditions at the same depot.

(5) *Serviceability status.* All lots must possess the same serviceability status, i.e., serviceability known (based upon prior surveillance) or serviceability unknown. However, when new procurement is involved, base serviceability on acceptance inspection not on surveillance.

d. Manufacturer's lot. A manufacturer's lot consists

of those items manufactured or assembled by one manufacturer or reconditioning activity and bearing the same manufacturer's or reconditioning agency's lot identification number. The manufacturer's lot must meet criteria as follows:

(1) *Preservation and packaging.* All items must have the same type preservation, packaging, and identification marking.

(2) *Storage.* All items must be stored under similar conditions at the same depot.

(3) *Serviceability status.* All items must possess the same serviceability status, i.e., serviceability known (based upon prior surveillance) or serviceability unknown. However, when new procurement is involved, base serviceability on acceptance inspection not on surveillance.

e. Miscellaneous lot. A miscellaneous lot is formed by combining a single-manufacturer's lots or lot fragments into one lot. The size of miscellaneous lots is restricted by the applicable appendix of this bulletin. Actual formation of the lot is a paper transaction, regrouping and marking of the materiel is not required. A miscellaneous lot may be declared unserviceable as a whole. The miscellaneous lot must meet criteria as follows:

(1) *Kind, type, and model.* All items must be of the same kind, type, and model.

(2) *Manufacturer.* Each small lot or lot fragment must be the product of the same manufacturer or re-
conditioning agency.

(3) *Preservation and packaging.* All items must have the same type preservation, packaging, and identification marking.

(4) *Storage.* All items must be stored under similar conditions at the same depot.

(5) *Serviceability status.* All items must possess the same serviceability status, i.e., serviceability known (based upon prior surveillance) or serviceability unknown. However, when new procurement is involved, base serviceability on acceptance inspection not on surveillance.

f. Mixed lot. A mixed lot is formed by combining those items with incomplete identification into one lot. The size of the mixed lot is restricted by the applicable appendix of this bulletin. Actual formation of the lot is a paper transaction, regrouping and marking of the materiel is not required. A mixed lot may be declared unserviceable as a whole. The mixed lot must meet criteria as follows:

(1) *Kind, type, and model.* All items must be of the same kind, type, and model.

(2) *Preservation and packaging.* All items must have the same type preservation and packaging.

(3) *Storage.* All items must be stored under similar conditions at the same depot.

2-4. Sampling. Sampling for breathing and respiratory apparatus, self-contained protective outfits, and ancillary items shall be performed by this paragraph and the instructions provided in the applicable appendixes of this bulletin. The sampling instructions that follow are designed to fit the peculiarities of this group of items. In some instances, special sampling designed for an item within a group may be required. This may be required by the configuration, short shelf-life, or past quality history of the item.

a. Initial Receipt Inspection (IRI). Sampling shall be conducted by this paragraph and MIL-STD-105D, Inspection Level II, an AQL of 1.5 percent for major defectives, and an AQL of 6.5 percent for minor defectives.

b. Prestorage Inspection (PSI). Sampling shall be conducted by this paragraph and MIL-STD-105D, Inspection Level II, an AQL of 1.5 percent for major defectives, and an AQL of 6.5 percent for minor defectives.

c. Cyclical Inspection (CI). Sampling shall be conducted by this paragraph and MIL-STD-105D using the Inspection Level and AQL specified in APPENDIX A or the sampling instructions provided in the applicable appendix (TRC) of this bulletin for the item being sampled. In some instances, special sampling designed for an item within a group may be required. This may be required by the configuration, short shelf life, or past quality history of the item.

d. Pre-Issue Inspection (PII). Sampling, if required, (see para 2-5d(2)), shall be conducted by c above.

e. Selection of Samples.

(1) All portions of the lot must be located for sampling.

(2) Every reasonable effort must be made to obtain a random sample. When conditions make a proper random sampling impossible, record this fact and a brief description of the condition that prevents random sampling under the remarks section Part I, Block 20, of DA Form 984 (Munitions Surveillance Report). See paragraph 2-9a(1), Part I(s), of this bulletin.

(3) In selecting samples from depot lots, grand lots, or miscellaneous lots, choose the items to represent all materiel. For example, if a manufacturer's lot is one-third of the total lot, then select one-third of the lot sample at random from that manufacturer's lot.

f. Sample disposition.

(1) In the inspection records, identify as reinspected, all samples that have been inspected and then packed and resealed in barrier material.

(2) Reseal barrier material by the instructions furnished with the material, printed on the material, or furnished with the sealing iron.

(3) Return serviceable samples to storage with the parent lot.

(4) Segregate samples with critical or major defects or samples that cannot be returned to the original package configuration and report such in the remarks section, Part II, Block 13, DA Form 984, (Munitions Surveillance Report). See paragraph 2-9a(l), Part II(h) of this bulletin.

2-5. Inspection. Conduct all inspections and tests under the control of a qualified inspector. The inspections and tests normally will be conducted at the surveillance inspection area; however, when authorized, examinations or tests may be performed at the storage site or elsewhere, but must be within the limitations of all safety and security requirements.

a. Initial Receipt Inspection (IRI).

(1) *Frequency.* Perform this inspection on an occurrence basis (see para 1 -3b(7)).

(2) *Classification of defects.* Use Table I to evaluate the incoming material.

(3) *Reporting.* Use DA Form 984 and the instructions in paragraph 2-9. In addition, report failure data and discrepancies encountered on SF 368, Quality Deficiency Report in accordance with AR 702-7. (See paragraph 2-9a(3)).

b. Prestorage Inspection (PSI).

(1) *Frequency.* Perform this inspection on an occurrence basis.

(2) *Examination and test.* When the serviceability status is unknown, perform the examination and test of the item by appendix A instructions, including any applicable appendix (TRC) of this bulletin. Examine all lots for receipt condition using Table I.

(3) *Reporting.* Use DA Form 984 and the instructions in paragraph 2-9.

c. Cyclical Inspection (CI).

(1) *Frequency.* Perform this inspection at the frequency indicated in appendix A by the IFC (see para 2-6e).

Table I. Initial Receipt Inspection (IRI) or Prestorage Inspection (PSI)

Category	*Defect Number*	*Defect*	*Inspection Method*
Critical:		None defined.	
Major:			
	101	Item damaged.	Visual
	102	Packaging, or preservation damaged to the extent that adequate protection is no longer afforded to the item or handling and storing would be adversely affected.	Visual
	103	Item packing or preservation contaminated, wet, or mildewed.	Visual
	104	Packaging, marking, preservation, or identification incorrect or illegible.	Visual
Minor:			
	201	Slight damage to packaging, or preservation but not affecting the protection.	Visual

(2) *Examination and test.* Perform the examination and tests of the item by appendix A instructions including any applicable appendix (TRC) of this bulletin.

(3) *Evaluation and reporting.* Make evaluations and reports by paragraph 2-7 and 2-9 instructions.

d. Pre-Issue Inspection (PII)

(1) *Frequency.* Perform this inspection just before OCONUS shipment of the item.

(2) *Examination and test.* When one-half or less of the cyclic period (defined by the IFC) remains, the cyclical period has been exceeded, or the date of the last surveillance inspection is unknown, perform a complete inspection of the item by appendix A instructions including any applicable appendix (TRC) of this bulletin. When more than one-half of the cyclical period remains, perform only a visual examination by appendix A and the applicable appendix (TRC) instructions.

(3) *Evaluation and reporting.* Make evaluations and reports by paragraph 2-7 and 2-9 instructions.

e. Special Inspection (SI). Perform this inspection as directed by higher headquarters or instructions provided locally to satisfy local installation requirements. This inspection may also be performed to determine the economic advisability of conducting further inspection (screening) on unsegregated items, returns from overseas, or used items that have not been reconditioned. Reports prepared for local use are authorized. Reporting, as in paragraph 2-9, is not required for this inspection except as may be directed by higher headquarters.

2-6. Coded Standards. The following is an explanation by heading of the codes used in appendix A.

a. Quality Defect Code (QUAL DEF CODE). The codes, based on the definitions given in appendix A of DARCOM-R 702-7, are given as three digit numbers. The first digit identifies the severity of the defect by category. The second digit identifies one of the named general groups. The third digit identifies the actual defect within one of the general groups.

Example: Using the meanings and explanations given below, Code 113 indicates; 1-major, 1-packaging group, and 3-container damaged or deteriorated.

(1) *Severity (first digit).*

Quality Defect

Code	*Category*
0	Critical
1	Major
2	Minor

(2) *General groups (second digit).*

Quality Defect

Code	*Name*
0	Cleaning, preservation, painting, plating, or other processing.
1	Packaging.

Quality Defect Code	Name
2	Packing and loading.
3	Marking and labeling.
4	Materiel deficiencies.
5	Materiel deficiencies (continued).
6	Functional certification or performance test.
7	Document recording or routing deficiencies.
8	Storage deficiencies
9	Miscellaneous.

(3) General groups and defects (second and third digits).

(a) Group 0 (cleaning, preservation, painting, plating, or other processing).

Quality Defect Code	Explanation
00	Appearance (paint runs, overspray, not uniform, or not up to standard).
01	Cleaning improper or inadequate.
02	Preservation improper or inadequate.
03	Wrapping improper or inadequate.
04	Protection afforded not compatible with mode of shipment, type of storage, destination, or other environment.
05	Inadequate coverage or improper thickness.
06	Improper and inadequate preparation.
07	Wrong type, method, or color.
08	Drying improper or inadequate.
09	Reserved for future use.

(b) Group 1 (packaging).

Quality Defect Code	Explanation
10	No packaging applied.
11	Sealing defective (bags or containers),
12	Failed pressure retention, leak, or other test.
13	Container damaged or deteriorated.
14	Protection not compatible with mode of shipment, type of shipment, destination, or other environment.
15	Wrong level applied.
16	Containers or other packaging materials do not meet specifications (e.g., size, type, class, or style).
17	Wrong quantity per unit package. (Chargeable as one detect per unit pack. Major defect, if shortage-minor defect, if overage.)
18	Reserved for future use.
19	Reserved for future use.

(c) Group 2 (packing and loading).

Quality Defect Code	Explanation
20	Improper loading, blocking, bracing, tiedown, etc.
21	Stapling, nailing, strapping, or banding improper or inadequate.
22	Excessive weight or cube for containers.
23	Containers, boxes, crates, or pallets damaged or deteriorated.
24	Intermediate or exterior container protection not compatible with mode of shipment, type of storage, destination, or other environment.
25	Wrong level applied.
26	Containers, boxes, crates, or pallets do not meet specifications.
27	Wrong quantity per intermediate or exterior container. (Chargeable as one defect per container. Major defect, if shortage-minor defect, if overage.)
28	Reserved for future use.
29	Reserved for future use.

(d) Group 3 (marking and labeling).

Quality Defect Code	Explanation
30	Preservation and packing (PIP) level markings omitted, illegible, or incorrect.
31	Labels omitted, illegible, or incorrect.
32	Special markings omitted, illegible, or incorrect.
33	Description or identification marking omitted, illegible, or incorrect (e.g., stock number, quantity, unit of issue, contract data, or condition code).
34	Address marking omitted, illegible, or incorrect.
35	Markings improperly located or wrong method of marking used.
36	Reserved for future use.
37	Reserved for future use.
38	Reserved for future use.
39	Reserved for future use.

(e) Group 4 (materiel deficiencies).

Quality Defect Code	Explanation
40	Parts, components, or controls loose, improperly installed or assembled, out of adjustment, do not fit, or fail to function properly.
41	Damaged or defective item or parts (bent, broken, scratched, chipped, marred, cracked, warped, torn, stripped, crimped, burned, twisted, burned out, perforated, or pitted).
42	Does not meet specified tolerances or requirements (dimensional, finish, strength, torque, output, volume, color, stretch, size, illumination, or weight).
43	Parts or components missing.
44	Wrong part or component found installed on end item or other assembly, or used to make up set or kit.
45	Leak (liquid): gasoline, diesel, oil, water, etc.
46	Leak (vapor): air or gas (nitrogen, oxygen, hydrogen, etc.).
47	Modification work order incompleted, improperly applied, or missing.
48	Soldering, welding, brazing, metallizing, or bonding defect.
49	Reserved for future use.

(f) Group 5 (materiel deficiencies-continued).

Quality Defect Code	Explanation
50	Contamination (contains dirt, sludge, moisture, or other foreign matter).
51	Excessive moisture, fungus, mildew, rot, infestation, or weather cracks.
52	Item improperly classified.
53	Test or research required to determine true condition classification (assign code J or code K, per AR 725-50). (Chargeable as one minor defect per line item.)
54	Materiel marking missing or incorrect (e.g., serial number, data plate, piece mark, or cure date). (Chargeable as a minor defect if the cor-

Quality Defect Code	Explanation
	rect item was shipped and a major defect if the wrong item was shipped).
56	Shelf-life date exceeded.
56	Wrong item received or selected for shipment.
57	Lubrication improper or incomplete.
58	Improper identification.
59	Other.

(g) Group 6 (functional, certification, or performance test),

Quality Defect Code	Explanation
60	Required test not accomplished.
61	Failed test requirements (hydraulic).
62	Failed test requirements (electrical or electronic).
63	Failed test requirements (environmental).
64	Failed test requirements (mechanical).
65	Failed test requirements (pressure).
66	Failed certification or laboratory test.
67	Excessive heat or noise during operational test.
68	Parts or components damage (caused by functional failure during end item or component test).
69	Reserved for future use.

(h) Group 7 (document, recording, or routing deficiencies).

Quality Defect Code	Explanation
70	Wrong count (shortage). (Chargeable as one major defect per line item if value of quantity short is $200 or more and one minor defect if less than $200.)
71	Wrong count (overage). (Chargeable as one major defect per line item if value of quantity over is $200 or more and one minor defect if less than $200.)
72	Improper routing or process planning. (Chargeable as one minor defect per line item.)
73	Mixed materiel (two or more stock numbers recorded under the same stock number). (Chargeable as one minor defect per line item.)
74	Historical records, including the Army Maintenance Management System, TM 38-750, missing, incorrect, or incomplete.
75	Contract, specifications, receiving reports, or other required documents incorrect, incomplete, not available, or changes not with the contract. (Chargeable as one minor defect per line item.)

(h) Group 7 (document, recording, or routing deficiencies-continued).

Quality Defect Code	Explanation
76	Contract specifications or other required documents inadequate for inspection or acceptance purposes. (Chargeable as one minor defect per line item.)
77	Materiel not segregated (serviceable and unserviceable items intermingled). (Chargeable as one major defect per line item.)
78	Stock selection deficiency (first-in/first-out (FIIFO)). (Chargeable as one minor defect per line item.)
79	Reserved for future use.

(i) Group 8 (storage deficiencies).

Quality Defect Code	Explanation
80	Improper or inadequate stacking or storing. (Chargeable as one minor defect per line item.)
81	Facility deficiencies: roof leaking, grid markings incorrect, equipment deficiencies, etc. (Chargeable as one minor defect per line item.)
82	Improper pallet count or quantities in location-inventory defects. (Chargeable as one minor defect per line item.)
83	Improper marking or placarding. (Chargeable as one minor defect per line item.)
84	Materiel mislocated. (Chargeable as one major defect per line item.)
85	Handling deficiencies (storage). (Chargeable as one minor defect per line item.)
86	Improper storage space. (Chargeable as one major defect per line item.)
87	Reserved for future use.
88	Reserved for future use.
89	Reserved for future use.

(j) Group 9 (miscellaneous).

Quality Defect Code	Explanation
	(see paras 1-3b(2) and (4))
90	Corrosion, metals, stage 1.
91	Corrosion, metals, stage II.
92	Corrosion, metals, stage III.
93	Corrosion, metals, stage IV.
*94	Deterioration, polymeric plastic items (celluloid, bakelite, lucite, vinyl, rubber, etc.)
*94A	Deterioration, stage I.
*94B	Deterioration, stage II.
*94C	Deterioration, stage III.
*95	Deterioration, polymeric non-plastic items (cloth, leather, hair, fur, felt, paper, cork, cardboard, wood, etc.).
*95A	Deterioration, stage 1.
*95B	Deterioration, stage {I.
*95C	Deterioration, stage III.
*96	Deterioration, inorganic vitreous items (glass, ceramic, solid carbon, etc.).
*96A	Deterioration, stage l.
*96B	Deterioration, stage II.
97	Reserved for future use.
98	Reserved for future use.
99	Reserved for future use.

***NOTE:**

These defect codes relate to the deterioration defined in paragraph 1-3b(4). They are required for evaluation of AMCCOM materiel using this bulletin. Since the codes are not included in AR 740-3, they need not be used for reporting under ADP systems, i.e., SPEEDEX.

b. Inspection Level (IL). Inspection levels have been selected from MIL-STD-105 to provide the smallest possible sample size consistent with quality requirements. Inspection level codes are as follows:

General Levels	*Special Levels*
G1 (I in MIL-STD-105)	S1
G2 (II in MIL-STD-105)	S2
G3 (II in MIL-STD- 105)	S3

c. Acceptable Quality Level (AQL). Acceptable quality levels have been selected from MIL-STD-105 to give that level of sampling protection required to provide serviceable equipment to users. Separate AQL's are provided for major and minor defects.

d. Shelf-Life Codes (SLC). The codes shown in APPENDIX A were assigned by the developers of the item. Shelf-life codes for Type I and Type II shelf-life items are defined by AR 700-89.

Shelf Life	*Type I*	*Type II*
Non-deteriorative	0	0
1 month	A	-
2 months	B	-
3 months	C	1
4 months	D	-
5 months	E	-
6 months	F	2
9 months	G	3
12 months	H	4
15 months	J	-
18 months	K	5
21 months	L	-
24 months	M	6
27 months	N	-
30 months	P	-
36 months	Q	7
48 months	R	8
60 months	S	9

NOTE

When the shelf-life code (SLC) is different from that shown in the Army Master Data File (AMDF), the SLC on the AMDF will be used.

NOTE

Assign code x shelf-life to military essential and medical items with a shelf life of greater than 60 months (5 years).

e. Inspection Frequency Codes (IFC). The following codes are used in appendix A to tell how often to perform inspection of materiel in storage.

Code	*Frequency (months)*
1	6
2	12
3	24
4	30
5	60

f. Test Requirements Codes (TRC).

(1) Except for the letter codes given below, the first character (numeric) will be 4 indicating a chemical related TRC. The second and third characters (alpha) will identify a specific inspection requirement. See paragraph 2-10b for cross-referencing instructions.

(2) Some uncomplicated items require only a simple examination. To cover those items not requiring more detailed examination, the following codes apply:

Inspection	*TRC Code*
Dimensional	OOD
Functional	OOF
Hardness	OOH
Laboratory	OOL
Nondestructive	OON
Pressure	OOP
Tensile	OOT
Visual	OOV
Weight	OOW

g. Packing Codes (PC). An alpha code that represents the minimum level of packaging protection required based on the prescribed storage conditions. The codes are as follows:

Code	*Level of Protection*
A	Maximum military
B	Intermediate military
X	Industrial

NOTE

When the packing code (PC) is different from that shown in the Army Master Data File (AMDF), the PC in the AMDF will be used.

h. Type Storage Codes (TSC). An alpha code assigned to an item to indicate the recommended type of storage. These codes are defined by AR 708-1.

Code	*Explanation*
A	Heated warehouse space (general purpose).
B	Unheated warehouse space (general purpose).
C	Controlled humidity warehouse space.
E	Chill space.
F	Freeze space.
G	Shed, nonwarehouse space.
Q	Hazardous commodity space (non-Class V items, e.g., acids, compressed gasses, or radioactive).
U	Open space (materiel may be stored in open storage).
Y	Storage space for ammunition items (Class V) covered by specific regulations elsewhere.
Z	A storage environment identified by one of the codes is not mandatory. See AR 740-1, chapter 6, section III, for guidance.

NOTE

When the type storage code (TSC) is different from that shown in the Army Master Data File (AMDF), the TSC in the AMDF will be used.

2-7. Evaluation. *a. Serviceability based on sampling inspection.* A lot shall be classified as serviceable provided no critical defect is observed and the number of major, minor, or test defects does not exceed the number allowed in the sampling plan for the item.

b. Serviceability on unit basis inspection. An item inspected on a unit basis, or subjected to 100 percent inspection, is serviceable if the following criteria are met:

(1) No defects are observed.

(2) All requirements for test or analysis are met.

(3) All units have been modified to existing Modification Work Orders (MWO's).

c. Special instructions. In addition to criteria for evaluation contained in this paragraph, special criteria for certain items or groups of items are provided, when necessary, in the applicable appendixes of this bulletin.

d. Procedure for rounding off. Numerical requirements, when stated, indicate the number of significant digits to be retained, i.e., the last figure or decimal place to be reported. The procedure given below is to be used in rounding off observed or calculated values for the purpose of evaluation.

(1) When the first digit dropped is less than 5, the preceding digit is not changed. When the first digit dropped is greater than 5, or 5 and some succeeding digit is not zero, the preceding digit is increased by 1. When the first digit dropped is 5, and there are no succeeding digits or all succeeding digits are zero, add 1 to the preceding digit if it is odd and leave it unchanged if it is even.

(2) Examples when rounding to two decimal places:

2.3142 = 2.31	The first digit dropped is less than 5- leave pre-
2.3249 = 2.32	ceding digit unchanged regardless of any suc-
	ceeding digits.
2.3150 = 2.32	The first digit dropped is exactly 5, or 5 followed
2.3250 = 2.32	by zeroes-add 1 to the preceding digit if it is
	odd and leave it unchanged if it is even.
2.3152 = 2.32	The first digit dropped is 5 followed by other
	than
2.3252 = 2.33	zeroes-add 1 to the preceding digit.
2.3160 = 2.32	The first digit dropped is greater than 5-add 1 to
2.3260 = 2.33	the preceding digit regardless of any succeed-
	ing digits.

e. Condition coding. Based on evaluation, lots or items shall be assigned appropriate condition codes as explained in AR 725-50. Enter the condition codes in Part I, Block 21b and 21c, of DA Form 984, 1 June 1980. See paragraph 2-9a(1), Part I(u) and (v) of this bulletin.

2-8. SURVEILLANCE TEST AND MEASURING EQUIPMENT. *a. Availability and adequacy.* Determine the availability and adequacy of all test and measuring equipment required to perform the examinations and tests required by this bulletin. If test or measuring equipment is unavailable or inadequate, report such within 30 days to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAW, Rock Island, IL 61299-6000.

b. Calibration. Calibrate the test and measuring equipment at established intervals in accordance with the applicable technical bulletin, technical manual, or instruction manual. In the event that adequate calibration procedures are not included in these documents, ask for the proper calibration procedure from the organization responsible for design or supply of the test equipment. Establish a calibration system for the calibration of inspection measuring gages and test equipment to the requirements of AR 750-25. The records and reports required in calibration of army equipment are described in TM 38-750.

2-9. REPORTS AND REPORTING. Report inspections and tests made using this bulletin to the commands designated in the following subparagraphs. Report on the designated forms.

a. Forms.

(1) *Munitions Surveillance Report (DA Form 984, 1 Jun 80).* Use this form to record the results of all examinations and tests when conducting prestorage inspection, initial receipt inspection, cyclical inspection, or pre-issue inspection.

NOTE

This form may also be used for special inspection when so directed by higher headquarters.

· FORM INSTRUCTIONS ·

Part I. *Descriptive Data of Ammunition Represented by Sample.*

(a) Block 1. Enter the actual storage location, which may not necessarily be the depot or storage activity having accountability.

(b) Block 2. Enter the local report number.

(c) Block 3. Enter the date of the report.

(d) Block 4. Enter the complete standard nomenclature and model number of the item.

(e) Block 6. Record the complete manufacturer's lot number. When surveillance is authorized on the basis of a depot lot, miscellaneous lot, or grand lot, enter the lot number applicable to the type of lot, and complete DA Form 985 (Data Sheet for Grand Lots, Miscellaneous Lots, or Depot Lots) using the instructions in paragraph 2-9a(21).

(f) Block 6. Describe the packing of the items in narrative form.

(g) Block 7. Enter the National Stock Number (NSN) of the item.

(h) Block 8. Enter the current and past type of storage, e.g., heated warehouse, unheated warehouse, shed, or open.

(i) Block 9. Record the number of samples selected for examination and test.

(j) Block 10. Record the number of items (minus the sample size if the samples cannot be returned to the lot) remaining in the lot at the depot.

(k) Block 11. Self-explanatory.

(l) Block 12. Self-explanatory.

(m) Block 13. Enter the type and date of the last inspection, e.g., Prestorage, 10 July 1981.

(n) Block 14. Enter the type of inspection and the date that this current inspection is performed, e.g., Cyclical, 1 July 1982.

(o) Block 15. Record the manufacturer or reconditioning agency and the date of manufacture. When more than one manufacturer is represented because of the nature of the lot enter N.A.

(p) Block 16 and Block 17. Self-explanatory.

(q) Block 18. Record the condition of the packaging, packing, marking, and preservation.

(r) Block 19. State whether the lot passed or

failed the visual examination requirements of this supply bulletin. Record by Quality Defect Code, Category, Defect Number, and number of Defects or Defectives, all applicable visual defects or defectives. (Quality Defect Codes shall be as given in APPENDIX A. Categories and Defect Numbers shall be as given for a defect listed in the various classification paragraphs of the applicable appendix.) Reference this bulletin, APPENDIX A, the applicable appendix, and the table number for the item.

Example: SB 740-94-7

APPENDIX A

Defect	*Number of Defects*
113	1
141	2
150	1
291	1

APPENDIX C, TABLE C-3

Categories	*Defect*	*Number of Defects*
Critical:	-	None
Major:	105	1
	108	2
Minor:	202	1

NOTE

Do not list the same defect twice. When a defect is in the appendix for an item and it is in APPENDIX A, record the number of defects under the classification and defect number of the appendix for the item rather than record them under APPENDIX A, e.g., "Dry rot", is listed as a 102 defect in APPENDIX C, record such defects under APPENDIX C, but do not list them again as code 151 defects under appendix A.

(s) Block 20. Note any observation relevant to the condition of an item or to the actual inspection in this block. Examples of such observations are: different storage conditions of log segments, unlisted defects, inspection equipment not available or calibration interval exceeded, and severity of defects listed in block 19. Include a brief lot history when possible.

(t) Block 21a. Self-explanatory.

(u) Block 21b. Based on the results of visual examinations (Part I, Block 19) enter the condition code (see para 2-7e).

(v) Block 21c. Based on the test results (Part II, Block 13) enter the condition code (see para 2-7e).

(w) Block 22. Self-explanatory.

Part II: *Results of Surveillance Test.*

(a) Block 1. Self-explanatory.

(b) Block 2, 2a, and 2b. Enter this supply bulletin number (SB 740-94-7), revision, or change, and the date of this supply bulletin, revision, or change. When applicable, enter the letter of authority or directive for any performed special surveillance not in accord with this SB.

(c) Blocks 3, 4, 5, and 6. Enter the meteorological conditions at the test area if they are relevant to the test. Otherwise enter N. A..

(d) Block 7 and 8. Consecutively number the outer packages from which the samples were selected, and the individual samples, starting with "1". Record these numbers in blocks 7 and 8.

(e) Blocks 9a and 9b. Enter the type and model of the component or item in the heading of each column and enter the lot number of each sample on the appropriate line.

(f) Block 10. In the heading of each column, describe the test characteristic to be tabulated. Indicate attribute deficiencies with "x" at the intersection of the individual sample number and the test characteristic, or enter the actual test result.

(g) Blocks 11 and 12. In the space above blocks 11 and 12 indicate whether the evaluation is based on "defects" or "defectives" by crossing out the one that does not apply. Enter an "x" at the intersection of the applicable defective column sample number when deficiencies have been noted in block 10 and evaluation is based on defectives. Enter the total number of defects observed for each sample in the appropriate columns when the evaluation is based on defects.

(h) Block 13. State whether the lot passed or failed the test requirements established in the applicable appendix. Enter any additional information that might have had an effect on test results. Enter any recommendations on lot disposal, e.g., screen or renovate.

(i) Block 14. Self-explanatory.

(j) Block 15. Not applicable.

(2) Date sheet for Grand Lots, Miscellaneous Lots, or Depot Lots (DA Form 985, 1 Jul 52). This form shall be used by the depot or storage activity to record the formation of these lots.

· FORMS INSTRUCTIONS ·

(a) Block 1. Enter the complete standard nomenclature and model number of the item. Enter the National Stock Number (NSN).

(b) Block 2. Enter the depot or storage activity where the items that make up the lot are stored.

(c) Block 3. Enter the type of storage.

(d) Block 4. State the previous serviceability of each lot composing the grand lot, miscellaneous lot, or depot lot.

(e) Block 5. Enter the method of packing and preservation.

(f) Block 6. Not applicable.

(g) Column a. Enter the manufacturer or manufacturers of the individual lots forming the grand lot, miscellaneous lot, or depot lot.

(h) Column b. Enter the manufacturer's lot number for each of the individual lots.

(i) Column c. Enter the date of manufacture of each lot.

(j) Column d. Enter the lot size for the individ-

ual lots listed in column b. Total the column values and enter the sum in the total block at the foot of the column.

(k) Column e. Record the number of samples selected for test from each lot listed in column b. Total the column values and enter the sum in the total block at the foot of the column.

(l) Column f. Record the number of samples selected for visual examination from each lot listed in column b. Total the column values and enter the sum in the total block at the foot of the column.

(m) Columns g, h, and i. Not applicable.

(n) Remarks. Enter any pertinent information regarding formation of the lot or sampling procedure.

(o) Supplementing serviceability report number. Enter the same report number here that is on DA Form 984.

(p) Other blocks. Self-explanatory.

(3) *Quality Deficiency Report (QDR) (SF 368).* Submit this form when initial receipt inspection reveals unsatisfactory new materiel from a manufacturer or unsatisfactorily renovated, repaired, or modified materiel from a contractor. Prepare and distribute SF 368 as specified in AR 702-7.

(4) *Critical defects report.* When a critical defect is found, report it immediately to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAW, Rock Island, IL 61299-6000. Report the incident via teletype or telephone and follow the initial report with a DA Form 984 giving complete information concerning the extent of, and the circumstances pertaining to, the critical defect.

b. Errors in reports.

(1) Only errors that affect the serviceability status of the materiel evaluated need be corrected. Make corrections by replacing those specific pages affected by the error with "Corrected Copies."

(2) The inspection activity that initiated the erroneous report shall prepare and distribute the corrected pages required by (1) above. Each such page shall be marked "Corrected Copy." Denote the corrected entries by encirculing them.

c. Classified date. Unless specifically authorized by the US Army Armament, Munitions and Chemical Command, ATTN: Security Office, Aberdeen Proving Ground, MD 21010-5423, place no classified information on the materiel serviceability reports. Use special codes as much as possible in preparing the documents when material or information is classified. If classified information is required place it on a separate sheet, not the materiel serviceability report form. Properly mark this sheet and transmit it by authorized means according to its degree of classification. Attention is directed to AR 380-5 which states that unnecessary classification or higher than necessary classification is to be avoided.

d. Submission of reports. With the exception of reports used for "Special Inspection", submit the original and two copies of all reports required by this bulletin to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAW or SMCAR-ES, Rock Island, IL 61299-6000.

2-10. SPECIAL INSTRUCTIONS. *a. Special testing.* Some tests included in this bulletin require the use of toxic chemical agents, special test equipment for toxic testing, and special test facilities for toxic testing. The chemical items requiring this type of testing are identified in the appropriate appendix. Items so identified may be tested at the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAO (A), Aberdeen Proving Ground, MD 21010-5423 or other approved testing facility. Have the shipment of test samples coordinated and directed by the National Inventory Control Point (NICP), through the Commander, US Army Armament, Munitions and Chemical Compound, ATTN: AMSMC-QAW, Rock Island, IL 61299-6000.

b. TRC cross-referencing. For any TRC other than those defined in paragraph 2-6f, find the TRC code in APPENDIX A for the item to be inspected. Refer to the table of contents of this bulletin. In the column headed TRC, locate the TRC and then the corresponding appendix. Go to that appendix and perform the additional inspection as required for the item. The TRC is also given in the heading of each appendix and near the SB number on each page of the appendix.

PCN: Q40QM1D044R

APPENDIX A - CODED STANDARDS

SB 740-94-7

NATIONAL STOCK NUMBER	NOMENCLATURE	QUALITY DEFECT CODES	IL	AOL MAJ	AOL MIN	SLC	IFC	TRC	PC	TSC
4240-00-049-5435	BRTH APPAR CPRS AIR M15	121 133 140 141 143 144 150 151 154 155 192 193 290 291	S4	2.50	10.00	X	3	4EA	ABX-	BBCB
4240-00-106-7386	BACKPACK, VENTILATING	140 141 150 192 193 194B 194C 231 233 290 291 294A	S4	2.50	10.00	0	4	4EG	A	B
4240-00-172-1803	FILTER, GAS-PART, 18CFM, M41	111 121 133 150 151 192 193 290 291	S2	2.50	10.00	9	3	4EE	AB	BB
4240-00-174-1365	CANISTER OBA OIK STG GREEN	111 121 131 133 141 143 154 192 193 213 290 291	S4	2.50	10.00	0	3	4EB	AB	BB
4240-00-203-8167	VALVE, OUTLET, CM EXHAUST	041 233 250 S4		10.00	0	4	00V	AB	BB	
4240-00-300-0776	TEST KIT, LEAKAGE, CM, M257	111 121 133 150 151	S4	2.50	10.00	9	3	4EF	AB	BB
4240-00-510-0204	SAFETY EQUIP., RESP, 2 MAN	121 131 140 141 143 144 150 151 154 192 193 290 291	S4	2.50	10.00	9	3	4ED	ABX	BBC
4240-00-633-5792	ADAPTER AND VALVE, M4	121 133 140 141 143 144 150 154 192 193 213 290 291	S4	2.50	10.00	0	3	OOV	-B	BZ
4240-00-678-5263	BRTH APPAR, OXY GEN, M20	121 133 140 141 143 144 150 151 154 192 193 290 291	S4	2.50	10.00	9	3	4EB	A	B
4240-00-762-9174	FILTER, AIR, C-B-B1O, M46	123 133 150 151 192 193 211 213 221 290 291	64	2.50	10.00	9	3	4EF	AB	BB
4240-00-880-1728	BREATHING APP., SCNTN, M23	121 133 140 141 143 144 150 151 154 155 192 193 290 291	S4	2.50	10.00	X	3	4EC	ABX-	BBCB
4240-01-032-2468	HOOD, PROTECTIVE, M20	121 133 141 143 150 151 154 194C	S4	2.50	10.00	0	3	4EB	AB	BB
4240-01-056-4552	COVERALLS, POTMC, MED	131 140 141 143 250 251	S4	2.50	10.00	7	4	4EG	AX	BC
4240-01-056-8678	COVERALLS, POTMC, SIZE XLG	131 140 141 143 250 251	S4	2.50	10.00	7	4	4EG	A	B
4240-01-057-2640	LINER, TOXI., POTMC, SIZE LG	131 140 141 143 250 251	S4	2.50	10.00	7	4	4EG	AB	BB
4240-01-057-2831	MAINTENANCE KIT, PRO, POTMC	113 133 141 143 250 251	S4	2.50	10.00	0	4	4EG	AB	BB
4240-01-057-4377	LINER, POTMC, SM	131 140 141 143 250 251	S4	1.50	10.00	7	4	4EG	AB	BB
4240-01-057-5456	COVERALLS, POTMC SIZE SM	131 140 141 143 250 251	S4	2.50	10.00	7	4	4EG	A	B

NATIONAL STOCK NUMBER	NOMENCLATURE	QUALITY DEFECT CODES	IL	MAJ	AOL MIN	SLC	IFC	TRC	PC	TSC
4240-01-057-6526	SUIT, BUTYL, POTMC, XLG	041 094C 140 194B 232	S4	2.50	10.00	0	4	4EG	AB	BB
4240-01-057-6527	SUIT, BUTYL, POTMC, MED	041 094C 140 194B 232	S4	2.50	10.00	0	4	4EG	AB	BB
4240-01-057-6528	SUIT, BUTYL, POTMC, SM	041 094C 140 194B 232	S4	2.50	10.00	0	4	4EG	AB	BB
4240-01-057-6529	SUIT, BUTYL, POTMC, LG	041 094C 140 194B 232	S4	2.50	10.00	0	4	4EG	AB	BB
4240-01-058-2130	COVER, HELMET POTMCC	141 150 151 194B 194C 233 294A	S4	2.50	10.00	0	4	OOV	AB	BB
4240-01-058-2131	COVER, ROLL DOWN, NECK RING	041 233 250	S4	2.50	10.00	0	4	OOV	A	B
4240-01-058-2133	BAG, PROTECT., TOXI	140 141 193 231 232 233 250 251 291 292	S4	2.50	10.00	7	4	4EG	AB	BB
4240-01-058-2134	LINER, TOXICOL.SIZE MED	131 140 141 143 250 251	S4	1.50	10.00	7	4	4EG	AB	BB
4240-01-058-2981	BACKPACK SHELL ASSY	140 141 233 250	S4	2.50	1O.00	0	4	4EG	ABX	BBC
4240-01-058-2984	GLOVES, PROTECTIVE O	131 195C 201 250 251 295A	S4	2.50	6.50	7	4	4EG	A-X	BBC
4240-01-058-2985	BELT AND BATTERY ASSY	141 151 195B 195C 233 250 295A	S4	2.50	10.00	0	4	OOV	AB	BB
4240-01-058-4524	SHOULDER STRAP ASSY	141 151 195B 233 250 295A	S4	2.50	10.00	0	4	OOV	ABX	BBC
4240-01-058-6316	SHELL, HELMET	041 094B 094C 194A 259 251	S4	2.50	6.50	0	4	4EG	ABX	BBC
4240-01-058-6317	BREATHING ADAPTER	041 111 131 233 250	S4	2.50	10.00	0	4	4EG	ABX	BBC
4240-01-058-6318	HELMET ASSEMBLY, PROTECTIVE	041 194B 194C 231 250 251 294A	S4	2.50	6.50	0	4	4EG	A	B
4240-01-058-6320	PLUG ASSEMBLY, HELMET	041 233 250	S4		10.00	0	4	OOV	AX	BC
4240-01-058-6321	MANIFOLD, AIR DIST	141 150 194B 233 294A	S4	2.50	10.00	0	4	OOV	ABX	BBC
4240-01-058-6322	COVERALLS, PROTEC.SIZE LG	131 140 141 143 250 251	S4	2.50	10.00	7	4	4EG	A	B
4240-01-058-6823	GLOVES, PROTECTIVE O	131 195C 201 250 251 295A	S4	2.50	6.50	7	4	4EG	ABX	BBC
4240-01-058-6824	GLOVES, PROTEC. O SIZE MED	131 195C 201 250 251 295A	S4	2.50	6.50	7	4	4EG	X	c
4240-01-059-4161	HELMET SUPPORT HARNESS	141 151 195A 233 250 295A	S4	2.50	10.00	0	4	OOV	ABX	BBC

NATIONAL STOCK NUMBER	NOMENCLATURE	QUALITY DEFECT CODES	AOL IL	AOL MAJ	AOL MIN	SLC	IFC	TRC	PC	TSC
4240-01-060-1621	LINER, POTMC, SIZE XLG	131 140 141 143 250 251	S4	1.50	10.00	7	4	4EG	AB	BB
4240-01-060-1624	PLUG	141 150 194A 194B 233	S4	2.50	10.00	0	4	OOV	AX	BC
4240-01-066-9065	GLOVES, RUBBER, SIZE LG	041 102 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-066-9066	GLOVES, RUBBER, SIZE MED	041 102 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-066-9067	GLOVES, RUBBER SIZE SM	041 102 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-066-9068	GLOVES, RUBBER, POTMC, XL	041 102 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-075-3267	BOOTS, PROT., POTMC SIZE 5	041 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-075-3268	BOOTS, PROTEC., POTMC SIZE 6	041 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-075-3269	BOOTS, PROTECTIVE, TO	041 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-075-3270	BOOTS, PROT., POTMC SIZE 8	041 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-075-3271	BOOTS, PROTEC., POTMC, SIZE 8	041 140 232 233 251	S4	2.50	6.50	7	4	4EG	ABX	BBC
4240-01-075-3272	BOOTS, PROT., POTMC SIZE 11	041 140 232 233 251	S4	2.50	6.50	7	4	4EG	ABX	BBC
4240-01-075-3273	BOOTS, PROT., PCTMC, SIZE 13	041 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-075-3274	BOOTS, PROT. POTMC SIZE 14	041 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-075-3275	BOOTS, PROT., SIZE 15	041 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-075-8384	BOOTS, PROT.POTMC SIZE 9	041 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-075-8385	BOOTS, PROT, POTMC, SIZE 12	041 140 232 233 251	S4	2.50	6.50	7	4	4EG	AB	BB
4240-01-078-1684	DIAPHRAGM, VOICEMITT, HLMT	041 094B 094C 150 151 194A 233	S4	2.50	10.00	0	4	4EG	A	B
4240-01-088-3185	COVER ASSEMBLY, BACKPACK	041 140 194B 233 252 294A	S4	2.50	10.00	0	4	4EG	AB	BB
4240-01-088-3188	COVER, PORT	041 151 233 250	S4	2.50	10.00	0	4	4EG	ABX	BBC
4240-01-088-3189	VALVE, INLET	041 151 233 250	S4	2.50	10.00	0	4	4EG	ABX	BBC
4240-01-088-3190	O-RING, MOTOR	041 151 233 250	S4	2.50	10.00	0	4	4EG	ABX	BBC

NATIONAL STOCK NUMBER	NOMENCLATURE	QUALITY DEFECT CODES	IL	AOL MAJ	AOL MIN	SLC	IFC	TRC	PC	TSC
4240-01-088-3191	VALVE, OUTLET	041 151 233 250	S4	2.50	10.00	0	4	4EG	AB	BB
4240-01-088-3193	SUNVISOR, HELMET	041 194B 231 250 294A	S4	2.50	6.50	0	4	4EG	AX	BC
4240-01-088-3196	GASKET, VOICEMITTER	041 151 233 250	S4	2.50	10.00	0	4	4EG	ABX	BBC
4240-01-088-3197	ARM COVER, ROLL DOWN	041 151 233 250	S4	2.50	10.00	0	4	4EG	ABX	BBC
4240-01-091-0701	LEG COVER, ROLL DOWN	041 151 233 250	S4	2.50	10.00	0	4	4EG	ABX	BBC
4240-01-091-0702	HOSE, RUBBER, BUTYL	041 151 233 250	S4	2.50	10.00	7	4	4EG	ABX	BBC
4240-01-091-0703	HOSE, RUBBER, BUTYL	041 151 233 250	S4	2.50	10.00	7	4	4EG	ABX	BBC
4240-01-095-0892	BRTH APPAR CPRS AIR M23A1	121 133 140 141 143 144 150 151 154 155 192 193 290 291	S4	2.50	10.00	X	3	4EC	AB-	BBB
4240-01-103-8233	PROTECTIVE 0UTFIT, TOXIC, SM	041 094C 140 194B 232	S4	2.50	10.00	0	4	4EG	AB-	BBZ
4240-01-103-8234	PROTECTIVE 0UTFIT, MED	041 094C 140 194B 232	S4	2.50	10.00	0	4	4EG	AB-	BBZ
4240-01-103-8235	PROTECTIVE OUTFIT, TOXIC, LG	041 094C 140 194B 232	S4	2.50	10.00	0	4	4EG	AB-	BBZ
4240-01-103-8236	PROTECTIVE OUTFIT, TOXIC, XL	041 094C 140 194B 232	S4	2.50	10.00	0	4	4EG	AB-	BBZ
4240-01-111-1535	SUIT, SHELL, PROTECT, SM	041 094C 140 194B 232	S4	2.50	10.00	7	4	4EG	A	B
4240-01-111-1536	SUIT, SHELL, PROTECT, MED-	041 094C 140 194B 232	S4	2.50	10.00	7	4	4EG	AB	BB
4240-01-111-1537	SUIT, SHELL, PROTECT, LG	041 094C 140 194B 232	S4	2.50	10.00	7	4	4EG	AB	BB
4240-01-111-1538	SUIT, SHELL, PROTECT, XLG	041 094C 140 194B 232	S4	2.50	10.00	0	4	4EG	A	B
4240-01-145-2437	SUIT, SHELL, PROTECT, XXLG	041 094C 140 194B 232	S4	2.50	10.00	7	4	4EG	AB	BB
4240-01-149-3518	PROTECT OUTFIT.POTMC, XXLG	041 094C 140 194B 232	S4	2.50	10.00	0	4	4EG	A	B
4240-01-150-1475	COVERALLS, POTMC, XXLG	131 140 141 143 250 251	S4	2.50	10.00	7	4	OOV	A	B
4240-01-150-6202	LINER, POTMC, XXLG	131 140 141 143 250 251	S4	1.50	10.00	0	4	OOV	A	B
4240-01-155-1964	SUIT.BUTYL.POTMC, XXLG	041 094C 140 194B 232	S4	2.50	10.00	0	4	4EG	A	B

NATIONAL STOCK NUMBER	NOMENCLATURE	QUALITY DEFECT CODES	IL	MAJ	AOL MIN	SLC	IFC	TRC	PC	TSC
4240-01-197-9499	HOOD JACKET	121 133 141 143 150 151 154 194C 211 213 294A 294B	S4	2.50	10.00	6	3	OOV	A	B

APPENDIX B
BREATHING APPARATUS, SELF-CONTAINES, COMPRESSED AIR, M15

B- 1. Purpose. To give special instructions for:

NSN	*NOMENCLATURE*
4240-00-049-5435	Breathing Apparatus, Self-Contained, Compressed Air, M15

B-2. POLICY. The following requirements supplement the coded inspection requirements in appendix A when the TRC of this appendix (4EA) is referenced in the TRC column of appendix A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection needed to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAK Rock Island, IL 61299-6000. Also send information copies of related correspondence to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAC (A), Aberdeen Proving Ground, MD 21010-5423.

B-3. INSTRUCTIONS. *a. References.*

Regulations

AR 700-68	Logistics, Safe Handling, Storage, Shipping, Use, and Disposal of Compressed Gas Cylinders.
Title 49	Code of Federal Regulations (CFR), Parts 100 through 199.

Supply Bulletin

SB 740-94-5	Storage Serviceability Standard, Masks, Chemical-Biological (All Types), and Ancillary Items.

Technical Manuals

TM 3-4240-224-14&P	Operators and Organizational, DS and GS Maintenance Manual including Repair Parts and Special Tools List, Breathing Apparatus, Compressed Air, M15.

b. Basis of Surveillance. Conduct surveillance for the items listed in paragraph B-1 on the basis of manufacturer's, or miscellaneous, or mixed lots. Miscellaneous or mixed lot size shall not exceed 200 items.

c. Sampling. Sample lots as required by paragraph 2-4e and as follows:

(1) For visual examination. Conduct sampling of the M15 Compressed Air Breathing Apparatus by the MIL-STD-105D Single Sampling Plan. Use the inspection level (IL) and Acceptable Quality Level (AQL) given in APPENDIX A.

NOTE

From the sample obtained for visual examination of the applied packaging, packing, marking, and preservation, a selection of samples for end item visual examination is permissible.

(2) *For tests.* Sample the M15 compressed air breathing apparatus by the MIL-STD-105D single sampling plan, Inspection Level S-4 and an AQL of 2.5 percent. For critical defects the acceptance number is O and the rejection number is 1 for all sample sizes. Randomly select the sample quantity from the visually acceptable portion of the sample obtained in (1) above. If the visually acceptable portion is the same size as that required for testing, test all the visually acceptable items. Should the sample of visually acceptable items be smaller than that required for testing, select additional samples from the lot.

B-4. INSPECTION PROCEDURE. Visually inspect samples for the packaging, packing, marking, and preservation defects as identified in table B- 1. Visually inspect the end items samples, or components thereof, for the defects listed in tables B-2 through B-5. From the visually acceptable items, test the required samples as described in c. below. Tables B-2, B-3, and B-4 in addition to providing classification of visual defects, provides classification of test failures. The classification of test failures is provided to differentiate between test failures to be considered as critical, where one item failing the test would be cause for immediately suspending the lot from issue and use, and the test failure considered as major, where acceptance or rejection of the lot is based on the acceptance number of the sampling plan.

a. Classification of Defects for Packing, Marking, and Preservation.

Table B-1. Packaging Packing, Marking, and Preservation

Category	Defect Number	Defect	Inspection Method
Critical:		None defined.	
Major:			
	101	Shipping containers damaged or weathered to the extent that the contents cannot be adequately protected and the containers require replacement.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Slight damage to shipping con-	Visual

Table B-1. Packaging, Packing, Marking and Preservation (continued)

Category	Defect Number	Defect	Inspection Method
		tainer, however contents are still protected.	

b. Classification of Defects for Breathing Apparatus, Self-Contained, Compressed air, M15

Table B-2. Breathing Apparatus, Self-Contained, Compressed Air, M15 (Complete Unit), NSN 4240-00-049-5435

Category	Defect Number	Defect	Inspection Method
Critical:			
	1	Functional failure.	Test, para B-4c(1)
Major:			
	101	Component missing (see NOTE).	Visual
	102	Component damaged—function degraded.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor	201	Component damaged—function not affected.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

NOTE

Breathing Apparatus, Self-Contained, Compressed Air, M15, shall consist of the following components: (1) Carrying case, (2) Facepiece group, (3) Hose and regulator group, (4)Backpack and harness group, (5) Antifogging kit, (6) Wrench, and (7) Manuals. The antifogging kit and the facepiece or mask group (faceblank, eyepieces, canister mounting assembly, nosecups, outlet valve, tab assemblies, head harness, and neck strap) are not included in this bulletin because they are covered in detail in SB 740-94-5.

Table B-3. Hose and Regulator Group (Breathing Tube Assembly, Demand Regulator and Snaphook Assembly, and Low Pressure Hose Assembly

Category	Defect Number	Defect	Inspection Method
Critical:			
	1	Leakage.	Test para B-4c(2)&(3)
	2	Dry rot, cracks, tears, or holes in rubber tubes.	Visual
Major:			
	101	Component missing. (Inspect only for those components which can be seen without disassembly. Refer to TM 3-4240-224-14&P.)	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

Table B-3. Hose and Regulator Group (Breathing Tube Assembly, Demand Regulator and Snaphook Assembly, and Low Pressure Hose Assembly (continued)

Category	Defect Number	Defect	Inspection Method
Minor:			
Other:		Refer to Quality Defect Codes in appendix A.	Visual

Table B-4. Backpack and Harness Group (Two high pressure cylinders connected by a high pressure tube, pressure regulator with attached controls, dummy head with attached pressure gage, and a harness assembly.

Category	Defect Number	Defect	Inspection Method
Critical:	1	Leakage (cylinder serviceability).	Test para B-4c(4)
	2	High pressure cylinders or high pressure tube damaged or corroded.	Visual, (para B-4c(4)
	3	High pressure safety valve damaged or corroded.	Visual
Major:	101	Component missing. (Inspect only for those components which can be seen without disassembly. Refer to TM 3-4240-224-14&P.)	Visual
	102	Pressure gage damaged.	Visual
	103	Straps frayed or torn—affects usability.	Visual
	104	Cylinders not charged (indicated by the pressure gage).	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			

Table B-5. Carrying Case.

Category	Defect Number	Defect	Inspection Method
Critical:		None defined.	
Major:			
	101	Case damaged or deteriorated—affects usability.	Visual
	102	Interior partitions and supports missing or damaged beyond use.	Visual
Other		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Case damaged or deteriorated—does not affect usability.	Visual
	202	Marking missing, incorrect, or illegible.	Visual
Other		Refer to Quality Defect Codes in appendix A.	Visual

c. Tests. Subject breathing apparatus samples that have met the requirements of visual examination to the following tests:

(1) *Functional (table B-2).*

(a) Requirements. There shall be no difficulty in breathing when the apparatus is used as specified.

(b) Equipment required. No special equipment required.

(c) Procedure. Assemble and use the breathing apparatus as specified in TM 3-4240-224-14&P for a period of one minute.

(2) *Low-pressure hose assembly leakage (table B-3).*

(a) Requirements. There shall be no evidence of leakage when tested.

(b) Equipment required. No special equipment required.

(c) Procedure.

1 Check the pressure gage to make certain that cylinders are charged.

2 With low-pressure hose assembly attached to the pressure regulator and to the demand regulator, open the shutoff valve by turning counterclockwise as far as it will go.

3 Brush a soap solution on the low pressure hose assembly and connectors. Persistent bubbling is evidence of leakage.

(3) *Breathing tube, demand regulator leakage (table B-3).*

(a) Requirement. There shall be no indication of leakage when tested.

(b) Equipment required.

1 Water manometer. (NSN to be assigned.)

2 Source of vacuum, with a shutoff valve. (NSN for equipment to be assigned.)

3 Tee with adapter. (NSN to be assigned.)

(c) *Procedure.* Connect a water manometer by means of a tee and a proper fitting to the facepiece adapter and the breathing tube. Attach a source of vacuum, with a shutoff valve to the other end of the tee. Increase the vacuum gradually until the demand valve opens. Read the manometer at the instant the valve opens. Shut off air at the pressure regulator and exhaust residual air from the low pressure hose, the demand regulator, and the breathing tube until the manometer reads 2" $\pm$ 1/4' of water. Close the shutoff valve to the vacuum. Failure of the manometer to maintain the level specified for a minimum of 10 seconds indicates leakage in breathing tube assembly. Disconnect the breathing tube and connect the manometer by means of a tee to the exit side of the demand regulator. Turn on the air at the pressure regulator and seal off the exit end of the tee. A change in the water level indicates a leak in the demand regulator.

(4) *Cylinder serviceability (table B-4).* At intervals not to exceed 5 years, subject all M15 breathing apparatus cylinders to the applicable inspections and tests described in or required by AR 700-68 and by Title 49, Code of Federal Regulations. For required visual examinations follow paragraph 4.2 of AR 700-68.

APPENDIX C
BREATHING APPARATUS, OXYGEN GENERATING, M20

C-1. PURPOSE.

To give special instructions for:

NSN	*Nomenclature*
4240-00-678-5263	Breathing Apparatus, Oxygen Generating, M20
4240-00-174-1365	Canisters, Quick Start (Green)
4240-01-032-2468	Hood, Protective

C-2. POLICY.

The following requirements supplement the coded inspection requirements in APPENDIX A when the TRC of this appendix (4EB) is referenced in the TRC column of APPENDIX A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection needed to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAK Rock Island, IL 61299-6000. Also send information copies of r elated correspondence to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAE (A), Aberdeen Proving Ground, MD 21010-5423.

C-3. INSTRUCTIONS.

a. References.

TM 3-4240-212-14&P	Operations Organizational DS and GS Maintenance Manual (Including Repair Parts and Special Tools List).

b. Basis of Surveillance. Conduct surveillance for the items listed in paragraph C-1 on the basis of manufacturer's, miscellaneous, or mixed lots. Miscellaneous or mixed lot size shall not exceed 200 items.

c. Sampl*i*ng. Sample lots as required by paragraph 2-4e and as follows:

(1) *For visual examination.* Conduct sampling of M20 Oxygen Generating Breathing Apparatus by the MIL-STD-105D Single Sampling Plan. Use the Inspection Level (IL) and Acceptable Quality Level (AQL) given in APPENDIX A.

NOTE

From the sample obtained for visual examination of the applied packaging, packing, marking, and preservation, a selection of samples for end item visual examination is permissible.

(*2) For tests.* Sample the M20 Oxygen Generating Breathing Apparatus by the MIL-STD-105D Single Sampling Plan. Use Inspection Level S-4 and an AQL of 2.5 percent. For critical defects the acceptance number is O and the rejection number is 1 for all sample sizes. Randomly select the sample quantity from the visually acceptable portion of the sample obtained in (1) above. If the visually acceptable portion is the same size as that required for testing, test all the visually acceptable items. Should the sample of visually acceptable items be smaller than that required for testing, select additional samples from the lot.

C-4. INSPECTION PROCEDURE.

Visually inspect samples for the packaging, packing, marking, and preservation defects as identified in table C-1. Visually inspect the end items samples, or components thereof, for the defects listed in tables C-2 through C-8. From the visually acceptable items, test the required I samples as described in c. below. Table C-2, in addition to providing classification of visual defects, provides classification of test failures. The classification of test failures differentiates between the test failures to be considered as critical, where one item failing the test would be cause for immediately suspending the lot from issue and use, and the test failure considered as major, where acceptance or rejection of the lot is based on the acceptance number of the sampling plan.

WARNING

HANDLE CANISTERS WITH CARE. DO NOT ALLOW ANY SUBSTANCE, ESPECIALLY WATER, OIL, GASOLINE OR GREASE TO ENTER NECK OF CANISTER. AN EXPLOSION MAY RESULT. THIS ALSO APPLIES TO SPENT CANISTERS.

a. Classification of Packaging, Packing, Marking, and Preservation Defects.

Table C-1. Packaging, Packing, Marking, and Preservation

Critical:		None defined.	
Major:			
	101	Shipping containers damaged or weathered to the extent that the contents cannot be adequately protected and the containers require replacement.	Visual
	102	Inner container wet, moldy or mildewed.	Visual
	Other	Refer to Quality Defect Codes in APPENDIX A.	Visual
Minor:			
	201	Slight damage to shipping container, however contents are still protected.	Visual

b. Classification of Defects for Breathing Apparatus, Oxygen Generating, M20.

Table C-2. Breathing Apparatus, Oxygen Generating, M20 (Complete Unit), NSN 4240-00-687-5263

Critical:			
	1	Facepiece group (leakage).	Test, (para C-4c)
	101	Timer not functioning properly.	Test, (para C-4c)
	102	Missing components. (Inspect only for those components which can be seen without disassembly. Refer to TM 3-4240-212-14&P).	Visual
	103	Components damaged—function degraded.	Visual
	104	Components improperly mounted or secured.	Visual/ Manual
	105	Components contaminated with grease or oil.	
	Other	Refer to Quality Defect Codes in APPENDIX A.	Visual
Minor:	201	Components contaminated (dirt or light corrosion).	Visual
	202	Components damaged—function not affected.	Visual
	Other	Refer to Quality Defect Codes in APPENDIX A.	Visual

Table C-3. Facepiece Group

Table C-3. Facepiece Group

Category	Defect Number	Defect	Inspection Method
Critical:		None defined.	
Major:			
	101	Tears, breaks, cracks, or holes in rubber facepiece.	Visual
	102	Rubber deterioration (local disintegration of rubber appearing as stiff, sticky, or spongy areas).	Visual/ Manual
	103	Permanent set of the facepiece affecting fit (held in a shape other than the one in which cured).	Visual
	104	Constricted, obstructed, loose, or missing deflection tubes.	Visual/ Manual
	105	Insecure, cracked, or broken lenses.	Visual/ Manual
	106	Scratched, discolored, or distorted lenses seriously affecting vision.	Visual
	107	Metal lens clamp or buckles damaged or missing.	Visual
	108	Torn headharness or lacking elasticity. (Check for elasticity by stretching. Headharness should return to original position after releasing tension.)	Visual/ Manual
	109	Pressure relief valve internally corroded or component damaged sufficient to cause malfunctioning.	Visual/ Manual
	110	Pressure relief valve gasket missing or non-pliable.	Visual/ Manual
	111	Housing clamp loose or housing clamp screw loose or missing.	Visual/ Manual
	112	Facepiece valve assembly corroded or damaged sufficiently to affect functionability. (Check inhalation and exhalation valves.)	Visual/ Manual
	113	Breathing tube clamps inoperative.	Visual/ Manual
	114	Breathing tubes damaged (tears, holes, or penetrating cracks.)	Visual
	115	Permanent set or distortion affecting airflow in breathing tube.	Visual/ Manual
	116	Breathing tube coupling gasket damaged, nonpliable, or missing.	Visual/ Manual
	117	Breathing tube coupling nut inserts loose or corroded.	Visual
	Other	Refer to Quality Defect Codes in APPENDIX A.	Visual

Table C-3. Facepiece Group (continued)

Category	Defect Number	Defect	Inspection Method
Minor:			
	201	Facepiece discolored, dirty oily, or moldy (caused by contaminants which can be removed by an accepted cleaning process).	Visual
	202	Frayed or mildewed headharness—does not affect usability.	Visual
	Other	Refer to Quality Defect Codes in APPENDIX A.	Visual

Table C-4. Carrying and Harness Group (continued)

Category	Defect Number	Defect	Inspection Method
Major:			
	110	Canister guard and breastplate dented, corroded, or damaged to the extent of preventing proper installation of canister.	Visual
	111	Bail assembly damaged or corroded.	Visual
	112	Harness and waist strap cut, torn, and nonfunctioning.	Visual/ Manual
	Other	Refer to Quality Defect Codes in APPENDIX A.	Visual
Minor:			
	201	Screws loose or missing.	Visual/ Manual
	202	Marking on timer dial illegible.	Visual
	203	Insulation material on canister guard and breastplate, torn, ripped, perforated, or detached.	Visual
	Other	Refer to Quality Defect Codes in APPENDIX A.	Visual

Table C-4. Carrying and Harness Group

Category	Defect Number	Defect	Inspection Method
Critical:		None defined.	
Major:			
	101	Plunger valve assembly contaminated (oil, dirt, or grease).	Visual
	102	Plunger damaged, corroded, or inoperative.	Visual/ Manual
	103	Plunger housing corroded or damaged (including threads).	Visual/ Manual
	104	Breathing tube connections to plunger housing loose or inadequate.	Visual/ Manual
	105	Breathing tubes adhered to breathing bag or nonpliable.	Visual/ Manual
	106	Adhesion of interior walls of breathing bag.	Visual/ Manual
	107	Breathing bag damaged (holes, tears, or cracks).	Visual
	108	Seams, joints, and reinforcing patches of breathing bag damaged to the extent that it would adversely affect functionability.	Visual
	109	Timer corroded or damaged.	Visual

Table C-5. Canister, Quick Start (Green)
NSN 4240-00-174-1365

Category	Defect Number	Defect	Inspection Method
Critical:		None defined.	
Major:			
	101	Canister damaged (dented, punctured, corroded, or seam opened).	Visual
	102	Canister contaminated (oil, dirt, or grease).	Visual
	103	Canister seals broken, damaged, or contaminated (oil, dirt, or grease).	Visual
	104	Instruction marking missing or illegible.	Visual
	Other	Refer to Quality Defect Codes in APPENDIX A.	Visual
Minor:	Other	Refer to Quality Defect Codes in APPENDIX A.	Visual

Table C-6. Carrying Case

Category	Defect Number	Defect	Inspection Method
Critical:		None defined.	
Major:			
	101	Carrying case crushed, broken, or punctured.	Visual
	102	Hardware inoperative or loose.	Visual/ Manual
	103	Cushioning, blocking, or bracing material inadequate to make a tight package.	Visual/ Manual
Minor:			
	201	Handle damaged or missing.	Visual
	202	Marking missing, incorrect, or illegible.	Visual

Table C-7. Accessories

Category	Defect Number	Defect	Inspection Method
Critical:		None defined.	
Major:	101	Hood torn, damaged, or loss of elasticity around the opening of the hood to the extent that would adversely affect functionability.	Visual/ Manual
	102	Spanner wrench broken or missing.	Visual
Minor:	201	Anti-Fogging Kit missing.	Visual
	202	Instruction sheet missing, torn or illegible.	Visual
	203	Technical manual missing.	Visual

Table C-8. Hood, Protective NSN 4240-01-032-2468

Category	Defect Number	Defect	Inspection Method
Critical:		None defined.	
Major:			
	101	Any area of no coating or coating separation.	Visual
	102	Embedded foreign matter which when removed exposes base fabric or leaves a hole.	Visual/ Manual
	103	Blisters.	Visual
	104	Brittle area which cracks when bent.	Visual/ Manual
	105	Stitching broken or deteriorated.	Visual
	106	Fastening devices damaged or deteriorated (affects intended function.	Visual
	107	Lens opening lacks elasticity (stretch lens opening, after tension is released lens opening must return to original position).	Visual/ Manual
	108	Damage (tear, rips, cut, puncture, and abrasion).	Visual
	Other	Refer to "QUAL DEF CODE" list in Appendix A.	Visual
Minor:			
	201	Tacky coating.	Visual

c. Facepiece Group (Leakage) Tests (table C-2). Sample breathing apparatus that have met the requirements of visual examination shall be subjected to the following leakage tests. Prepare for the test by donning the facepiece and making any necessary adjustments to the head harness and straps to insure that the facepiece fits snugly against your face. (Refer to TM 3-4240-212-14&P).

(1) *Inhalation.*

(a) Requirements. The facepiece shall tend to collapse, (indicating that the facepiece is properly fitted and that there are no leaks into the facepiece, the exhalation valve, or the inhalation breathing tube.).

(b) Procedure. Cover the coupling at the end of the inhalation valve (right hand) breathing tube with the palm of your hand and inhale.

(*2) Exhalation.*

(a) Requirement. The facepiece shall inflate and the exhaled breath escape from the facepiece at the sides (indicating that there are no leaks in the inhalation valve or the exhalation breathing tube.)

(b) Procedure. Cover the coupling at the end of the exhalation (left hand) breathing tube with the palm of your hand and exhale forcibly.

(3) Functioning of timer.

(a) Requirement. The timer will be considered serviceable if the bell rings in 20 + 2.5 minutes.

(b) Procedure. Set the timer for 20 minutes and allow it to return, to the zero position. Commence timing at the instant the pointer is released and terminate upon sounding of the bell.

C-5 SPECIAL INSTRUCTIONS.

Handle the breathing apparatus and accessories with care at all times. Do not allow any substance to enter the neck of the canister (especially oil, water, gasoline, or grease), because the chemical in the canister contains oxygen which will cause combustion of any flammable materiel with which it is brought into direct contact, particularly if such materiel is moist.

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APPENDIX D
BREATHING APPARATUS, SELF-CONTAINED, COMPRESSED GAS, M23 AND M23A1

D-1. Purpose. To give special instructions for:

NSN	*NOMENCLATURE*
4240-00-880-1728	Breathing Apparatus, Self-Contained, M23 Compressed Gas, M23
4240-01-095-0892	Breathing Apparatus, Self-Contained, M23A1 Compressed Gas

D-2. Policy. The following requirements supplement the coded inspection requirements in appendix A when the TRC of this appendix (4EC) is referenced in the TRC column of appendix A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection needed to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAK Rock Island, IL 61299-6000. Also send information copies of related correspondence to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAC(A), Aberdeen Proving Ground, MD 21010-5423.

D-3. Instructions. a. *References.*

Regulations

AR 700-68	Logistics, Safe Handling, Storage, Shipping, Use, and Disposal of Compressed Gas Cylinders.
Title 30	Code of Federal Regulations (CFR), Part II,
Title 49	Code of Federal Regulations (CFR), Parts 100 through 199.

Specifications

GC-B-675D	Breathing Apparatus, Self Contained.

b. Basis of Surveillance. Conduct surveillance for the item listed in paragraph D-1 on the basis of the manufacturer's, miscellaneous, or mixed lots. Miscellaneous or mixed lot size shall not exceed 200 items.

c. Sampling. Sample lots as required by paragraph 2-4e and as follows:

(1) For visual examination. Conduct sampling of M23 and M23A1 Self Contained Compressed Gas Breathing Apparatus by the MIL-STD-105D Single Sampling Plan. Use the inspection level (IL) and Acceptable Quality Level (AQL) given in appendix A.

NOTE

From the sample obtained for visual examination of the applied packaging, packing, marking, and preservation, a selection of samples for end item visual examination is permissible.

(2) For tests. Sample the Self-Contained Compressed Gas Breathing Apparatus by the MIL-STD-105D Single Sampling Plan, Inspection Level S-4, and an AQL of 2.5 percent. For critical defects the acceptance number is O and the rejection number is 1 for all sample sizes. Randomly select the sample quantity from the visually acceptable portion of the sample obtained in (1) above. If the visually acceptable portion is the same size as that required for testing, test all the visually acceptable items. Should the sample of visually acceptable items be smaller than that required for testing, select additional samples from the lot.

D-4. Inspection Procedure. Visually inspect samples for the packaging, packing, marking, and preservation defects as identified in table D-1. Visually inspect the end items samples, or components thereof, for the defects listed in tables D-2 through D-5. From the visually acceptable items, test the required samples as failures to be considered as critical, where one item failing the test would be cause for immediately suspending the lot from issue and use, and the test failure considered as major, where acceptance or rejection of the lot is based on the acceptance number of addition to providing classification of visual defects, provides classification of test failures. The classification of test failures is provided to differentiate between test described in c. below. Tables D-2, D-3, and D -4 in the sampling plan.

a. Classification of Packaging, Packing, Marking, and Preservation Defects.

Table D-1. Packaging, Packing, Marking and Preservation

Critical:		None defined.	
Major:	101	Shipping containers damaged or weathered to the extent that the contents cannot be adequately protected and the containers require replacement	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:	201	Slight damage to shipping container, however contents are still protected.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

b. Classification of Defects for Breathing Apparatus, Self-Contained, Compressed Gas, M23 and M23A1.

Table D-2. Breathing Apparatus, Self-Contained, Compressed Gas, M23 and M23A1 (Complete Unit), NSN 4240-00-880-1728 and 4240-01-095-0892.

Category	Defect Number	Defect	Inspection Method
Critical:			
	1	Functional failure	Test, (para D-4c(1))
Major:			
	101	Component missing (see NOTE).	Visual
	102	Component damaged—function degraded.	Visual
	103	Component improperly mounted or secured.	Visual
Other:		Refer to Quality Defect Codes in appendix A	
Minor:			Visual
	201	Component damaged—function not affected	Visual
Other:		Refer to Quality Defect Codes in appendix A.	

NOTE

Breathing apparatus, Self-Contained, Compressed Gas, M23 and M23A1, shall consist of the following component: (1) Carrying case, (2) Facepiece group, (3) Hose and regulator group, (4) Backpack and harness group, (5) Manuals-operator and maintenance (6) Wrench-when required.

Table D-3. Hose and Regulator Group (Breathing Tube Assembly, Demand Regulator and Support)

Category	Defect Number	Defect	Inspection Method
Critical:			
	1	Leakage (serviceability).	Test, (Para D-4c(1))
	2	Dry rot, cracks, tears, or holes	Visual
Major:			
	101	Component missing.	Visual
Other		Refer to Quality Defect Codes in appendix A	Visual
Minor:			
Other		Refer to Quality Defect Codes in appendix A.	Visual

Table D-4. Backpack and Harness Group (High Pressure Cylinders with Gage and Low Safe Limit Warning Alarm Connected to the Breathing Tube Regulator by a High Pressure Hose, Supported by a Backpack Harness Assembly)

Category	Defect Number	Defect	Inspection Method
Critical:	1	Leakage (serviceability).	Test (para D-4c(2))
	2	Warning alarm damaged or non-functional.	Test (para D-4c(1))

Table D-4. Backpack and Harness Group (High Pressure Cylinders with gage and Low Safe Limit Warning Alarm Connected to the Breathing Tube Regulator by a High Pressure Hose, supported by a Backpack Harness Assembly)(continued)

Category	Defect Number	Defect	Inspection Method
	3	High pressure cylinders or high pressure hose damaged or deteriorated.	Visual (para D-4c(2))
Major:	101	Component missing	Visual
	102	Pressure gage damaged	Visual
	103	Harness straps frayed or torn so that usability is affected.	Visual
	104	Cylinders not charged.	Visual
Other		Refer to Quality Defect Codes in appendix A.	Visual
Minor:	201	Straps slightly frayed or torn but do not affect usability.	Visual
Other		Refer to Quality Defect Codes in appendix A.	Visual

Table D-5. Carrying Case

Category	Defect Number	Defect	Inspection Method
Critical:		None defined.	
Major:			
	101	Case damaged or deteriorated —affects usability.	Visual
	102	Interior partitions and supports missing or damaged beyond use.	Visual
Minor:			
	201	Case damaged or deteriorated —does not affect usability.	Visual
	202	Marking missing, incorrect, or illegible.	Visual

c. Tests. Subject breathing apparatus samples, that have met the requirements for visual examination, to the following tests:

(1) Functional and leakage

(a) Requirement. Functional test of the complete breathing apparatus shall reveal no malfunction of the components during simulation of field use or leakage around any component, connections, or hoses.

(b) Equipment required. No special equipment required.

1 Using clean, dry compressed air for the test, check the pressure gage to make certain that the cylinders are charged to rated pressure of the cylinder.

2 Don the facepiece or the facepiece-breathing tube assembly, as applicable for the model being tested, and adjust the head harness straps for a proper fit For the model with the soft rubber facepiece and breathing tubes, cover the free end of the breathing tube. Slowly inhale, the facepiece shall collapse; exhale and the outlet valve shall permit free passage of air allowing the facepiece to return to normal. For the mod-

el with the rigid facepiece, cover the opening in the mask for the regulator. Slowly inhale, the periphery of the mask shall seal around the face as indicated by the pressure of the peripheral rubber seal against the face.

3 Assemble the complete breathing apparatus and tighten all connections. Open the cylinder valve and begin to inhale and exhale at a normal respirator rate.

4 Apply a soap water solution to all connections and hoses and observe for leaks. The appearance of bubbles indicates a leak. Close the cylinder valve.

5 Disconnect the high pressure line at the cylinder valve. Slowly open the cylinder valve to permit air to escape until the cylinder pressure drops to within 35 to 40 percent of the rated cylinder pressure. Close the cylinder valve and reconnect the high pressure line. Reopen the cylinder valve.

6 Inhale and exhale at a respiratory rate greater than normal to reduce cylinder pressure to where the audible alarm sounds. Observe and record the pressure at which the alarm activates. The alarm should trigger when the pressure in the cylinder is reduced to within 20 to 25 percent of the-rated cylinder pressure. The alarm shall continue to sound until the cylinder pressure reduces to 5 percent or less of the rated cylinder pressure. Record the cut-off pressure.

7 Remove the facepiece and close the bottle valve leaving a positive pressure in the bottle. If the breathing apparatus is serviceable, properly clean, recharge the cylinders, repackage and return to storage.

(*2) Cylinder serviceability.* At intervals not to exceed 5 years, subject all M23 and M23A1 breathing apparatus cylinders to the applicable inspections and tests described in or required by AR 700-68 and by Title 49, Code of Federal Regulations. For required visual examinations follow paragraph 4.2 of AR 700-68.

APPENDIX E
SAFETY EQUIPMENT SET, RESPIRATORY, 2-MAN

E-1. Purpose. To give special instructions for:

NSN	*NOMENCLATURE*
4240-00-510-0204	Safety Equipment Set, Respiratory, 2-Man

E-2. POLICY. The following requirements supplement the coded inspection requirements in appendix A when the TRC of this appendix (4ED) is referenced in the TRC column of appendix A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection needed to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAK Rock Island, IL 61299-6000. Also send information copies of related correspondence to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAC (A), Aberdeen Proving Ground, MD 21010-5423.

E-3. INSTRUCTIONS. a. *References.*

MIL-I-2703B	*Indicator, Combustible Gas, Portable.*
SC4240-94-CL-E01	*Safety Equipment Set, Respiratory, 2-Man, NSN 4240-00-510-0204.*

b. Basis of Surveillance. Conduct surveillance for the item listed in paragraph E-1 on the basis of manufacturer's, miscellaneous, or mixed lots. Miscellaneous **o**r mixed lot size shall not exceed 200 items.

c. Sampling. Sample lots as required by paragraph 2-4e and as follows:

(*1) For visual* examination. Conduct sampling of the 2-Man Respiratory Safety Equipment Set by the MIL-STD-105D single sampling plan. Use the inspection level (IL) and acceptable quality level (AQL) given in appendix A.

NOTE

From the samples for visual examination of the applied packaging, packing, marking, and preservation, a selection of samples for end item visual examination is permissible.

(*2) For tests.* Sample the 2-man respiratory safety equipment set by the MIL-STD-105D Single Sampling Plan, Inspection Level S-4, and an AQL of 2.5 percent. For critical defects the acceptance number is O and the rejection number is 1 for all sample sizes. Randomly select the sample quantity from the visually acceptable portion of the sample obtained in (1) above. If the visually acceptable portion is the same size as that required for testing, test all the visually acceptable items. Should the sample of visually acceptable items be smaller than that required for testing, select additional samples from the lot.

E-4. INSPECTION PROCEDURE. Visually inspect samples for the packaging, packing, marking, and preservation defects as identified in table E-1. Visually inspect the end items samples, or components thereof, for the defects listed in tables E-2 through E-4. From the visually acceptable items, test the required samples as described in c. below. Tables E-2, E-3 and E-4 in addition to providing classification of visual defects, provides classification *of* test failures. The classification of test failures is provided to differentiate between test failures to be considered as critical, where one item failing the test would be cause for immediately suspending the lot from issue and use, and the test failure considered as major, where acceptance or rejection of the lot is based on the acceptance number of the sampling plan.

a. Classification of Packaging, Packing, Marking, and Preservation Defects.

Critical:		None defined.	
Major:			
	101	Shipping containers damaged or weathered to the extent that the contents cannot be adequately protected and the containers require replacement.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Slight damage to shipping container, however contents are still protected.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

b. Classification of Defects for Safety Equipment Set, Respiratory, 2-Man.

Table E-2. Safety Equipment, Set, Respiratory, 2-Man (Complete Unit), NSN 4240-00-510-0204

Category	Defect Number	Defect	Inspection Method
Critical:			
	1	Functional failure.	Test, (para E-4c(1))
Major:	101	Chest components missing (see NOTE).	Visual
	102	Chest component damaged.	Visual

Table E-2. Safety Equipment, Set, Respiratory, 2-Man (Complete Unit), NSN 4240-00-510-0204 (continued)

Category	Defect Number	Defect	Inspection Method
	103	Marking missing or illegible.	Visual
	104	Components improperly assembled or secured—function not affected.	Visual
Other:		Refer to Quality Defect Codes in appendix A	Visual
Minor:			
	201	Components improperly assembled or secured—function not degraded.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

NOTE

Safety Equipment Set, Respiratory, 2-Man, shall consist of two chests and components as follows:

Chest Number 1.

2 pair- Boots, Fireman, Size 8.
2 pair- Boots, Fireman, Size 10.
4 pair- Gloves, Rubber, Size 11, 18 inches long.
1 each- Indicator, Combustible Gas, complete with two 15-foot lengths of hose.
1 each- Probe, Sampling, G3as Indicator
1 each-- Wrench, O9pen-end, Adjustable, Single Head, 0.947 Inch Jaw Opening, 8 inches long.

Chest Number 2 (Respirator Outfit).

1 each- Facepiece, Gas Mask.
1 each- Fan, Centrifugal, Assembly.

Table E-3. Components of Safety Equipment Set, Respiratory, 2-Man (Chest Number 1)

Critical:			
	1	Combustible Gas Indicator Accuracy and Stability.	Test para E-4c(2)&(3)
Major:			
	101	Component missing.	Visual
	102	Components damaged or deteriorated—function degraded.	Visual
	103	Technical publications missing or illegible.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Components damaged or deteriorated—function not affected.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	

Table E-4. Components of Safety Equipment Set, Respiratory, 2-Man (Chest number 2)

Critical:	1	Leakage.	Test Para E-4c (1)
Major:	2	Centrifugal fan non-functional.	Test Para E-4c(1)
	101	Components missing.	Visual
	102	Components damaged or deteriorated so that function is affected.	Visual
	103	Technical publications missing or illegible.	Visual
	104	National Institute of Occupational Safety and Health (NIOSH) approved label missing.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:		A.	
	201	Components damaged or deteriorated but do not affect functioning.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

c. Tests. Subject respiratory safety equipment set samples that have met the requirements of visual examination to the following tests:

(1) Functional

(a) Requirement. The centrifugal fan shall function and there shall be no difficulty in breathing during simulation of field use of the respiratory safety set.

(b) Equipment required. No special equipment required.

(c) Procedure. Assemble and use the respiratory safety apparatus as specified for field use for a period of five minutes.

(2) Combustible gas indicator accuracy

(a) *Requirement.* The accuracy of the indicator shall be + 10 percent of the difference of the lower explosive limit value between a scale reading from a known mixture explosion and the value given for that mixture from the indicator reference curve. (MIL-I-2703B, paragraph 3.3.4).

(b) Equipment required. No special equipment required.

(c) Procedure. Detonate explosive mixtures (known identity and concentration) in the test indicator, recording the scale readings produced. Use these readings as an index for interpreting the explosive condition for similar combustibles listed on the reference curve chart. The accuracy of the test indicator is expressed as the difference between the known mixture explosion readings and the value obtained from the reference chart, expressed in percentage of the lower explosive limit.

(3) Combustible gas indicator stability

(a) Requirement. During the stability test (MIL-I-2703B, paragraph 4.3.4) variations in readings shall not exceed 5 percent of full scale for any 15 minute test period.

(b) Equipment required. No special equipment required.

(c) Procedure. Operate each test indicator for 15 minutes on fresh air to stabilize the instrument battery voltage, allowing a zero meter balance. Then operate the test indicator for three consecutive 15 minute periods while burning a combustible gas-air mixture of known concentration and identity. The instrument shall be rebalanced on fresh air before each 15 minute period.

APPENDIX F
FILTER, GAS-PARTICULATE, 18 CFM, M41

F-1. Purpose. To give special instructions for:

NSN	*NOMENCLATURE*
4240-00-172-1803	Filter, Gas-Particulate, 18 CFM, M41

F-2. Policy. The following requirements supplement the coded inspection requirements in APPENDIX A when the TRC of this appendix (4EE) is referenced in the TRC column of APPENDIX A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection needed to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAK Rock Island, IL 61299-6000. Also send information copies of related correspondence to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAC (A), Aberdeen Proving Ground, MD 21010-5423.

F-3. Instructions. *a. References.*

Instruction Manuals (Edgewood Arsenal (EA))

136-300-195A	Instruction Manual for the Installation, Operation, and Maintenance of DOP Filter Testing Penetrometer, Q76.
136-300-198C	Instruction Manual for the Installation, Operation, and Maintenance of All Purpose Apparatus, Gas Life Testing, Q95.
136-300-308	Instruction Manual for the Installation, Operation, and Maintenance of Filter Life Tester, 18CFM, Q230.

Drawings (Edgewood Arsenal (EA))

E136-41-600-14	All Purpose Apparatus, Gas Life Testing, Q95.
E136-41-1855	Filter Life Tester 18 CFM, Q230.
DL136-42-850-6	Filter Test Penetrometer, DOP, Q76.

b. Basis of Surveillance. Conduct surveillance for the item listed in paragraph F-1 on the basis of manufacturer's, miscellaneous, or mixed lots. Miscellaneous or mixed lot size shall not exceed 200 items.

c. Sampling. Sample lots as required by paragraph 2-4e and as follows:

(*1) For visual* examination. Conduct sampling of the gas-particulate filter by the MIL-STD-105D single sampling plan. Use the inspection level (IL) and acceptable quality level (AQL) given in APPENDIX A.

NOTE

From the samples for visual examination of the applied packaging, packing, marking, and preservation, a selection of samples for end item visual examination is permissible.

(*2) For tests.* Select a sample of three gas particulate filters for test. The acceptance number for Critical Defects is 0. Randomly select the sample quantity from the visually acceptable portion of the sample obtained in (1) above. If the visually acceptable portion is the same size as that required for testing, test all the visually acceptable items. Should the sample of visually acceptable items be smaller than that required for testing, select additional samples from the lot.

F-4. Inspection Procedure. a. *Packaging, packing, Marking, and Preservation.* The storing activity shall perform the visual inspection for packaging, packing, marking, and preservation defects *as* identified in table F-1.

b. End Item. The activity directed to perform the tests shall also perform the end item visual examination. The end item samples shall be forwarded to the test activity in their original sealed package (see e below). The end item sample shall be visually inspected for the defects listed in the classification of defects table F-2. The M41 gas-particulate filter and the filter material disks, packaged with the M41 filter, shall be used in conducting the tests described in e below. The sample M41 gas-particulate filters shall be subjected to the tests described in e(1)(a), (b), and (d). Three sample filter material disks shall be subjected to the test in e(1)(c) and three sample filter material disks shall be subjected to the test in e(1)(e).

c. Classification of Packaging, Packing, Marking, and Preservation Defects.

Table F-1. Packaging, Packing, Marking, and Preservation

Critical:		None defined.	
Major:	101	Shipping containers damaged, deteriorated, or weathered to the extent that the contents cannot be adequately protected and the containers require replacement.	Visual
	102	Inner container wet, moldy, or mildewed.	Visual
	103	Loose pack (packing so loose that contents have been damaged or are in danger of being damaged).	Visual
	104	Sealed barrier bags torn, punctured, or open.	Visual

Table F-1. Packaging, Packing, Marking, and Preservation (continued)

Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:	210	Slight damage, deterioration, or weathering to shipping or inner containers, however contents are still protected.	Visual
	202	Loose pack (contents free to move in package or pack but not loose enough to affect protection of contents).	Visual

d. Classification of Defects for End Item.

NOTE

Do not remove the filter from the sealed bag until just before the visual examination. If the filter is not to be tested immediately, protect the filter from the atmosphere by storing in an air tight container or by other suitable means.

Table F-2. Filter, Gas-Particulate, 18 CFM, M41

Critical:			
	1	Airflow resistance.	Test (para F-4e)
	2	DOP smoke penetration.	Test (para F-4e)
	3	CK gas life.	Test (para F-4e)
	4	DMMP gas life.	Test (para F-4e)
	5	Gas-particulate filter unserviceable. Refer to SB 3-30-2 for list of unserviceable lot numbers.	Visual
Major:			
	101	Missing, broken, cracked or deteriorated adhesive seal between top cap and filter; between filter caps or side panals; between bottom plate and end cap or side panels; or between end caps and side panels.	Visual
	102	Prefilter on bottom plate loose, missing, damaged, or deteriorated.	Visual
Major:			
	103	Gasket around bottom plate loose, missing, damaged, or deteriorated.	Visual
	104	Filter frame bent or damaged to the extent it would affect fit or functioning.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

Table F-2. Filter, Gas-Particulate, 18CFM, M41 (continued)

Minor:			
	201	Identification plate missing or illegible.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

e. Tests. Conduct tests of the M41 gas-particulate filter and the filter disks within 24 hours from the time they are removed from the sealed package except that the filter material disks that are to be tested for moisture content shall be weighed, and the weight recorded, immediately after removal from the sealed package. From time of removal from the package to test, protect the M41 filter and the filter material disks from the atmosphere by storing them in an air tight container or other suitable means.

(*1) Requirements.*

(a) Airflow resistance. The airflow resistance of the gas-particulate filter shall not exceed 1.5 inches of water gage (iwg) at a flow rate of 18 cubic feet per minute (cfm).

(b) Dioctylphthalate (DOP) smoke penetration. The DOP smoke penetration of the gas-particulate filter shall not exceed 0.015% at a flow rate of cfm using DOP smoke at a concentration of 100 to 125 micrograms per liter (ug/l)* and an average particle size of 0.3 micrometer. *(c) Cyanogen chloride (CK) gas life.* The CK gas life of the filter materiel disk, after being equilibrated to 80% + 3% relative humidity (rh) at a temperature of 80 degrees + 10 degrees F, shall be a minimum of 18.0 minutes when corrected to a challenge concentration of exactly 4000 ug/l. CK gas life is defined as the time needed to attain an effluent CK concentration of 8 ug/l when the filter material disk is challenged as follows:

1 Agent: Cyanogen chloride (CnCl3) technical grade.

2 Concentration: 4000 ± 200 ug/1.

3 Flow: 16 ± 0.05 1/min, constant flow.

4 Temperature: 80 degrees + 1O degrees F.

5 Relative humidity: 80% ± 3%.

6 Condition of disk: Equilibrated to 80 + 3% rh.

(d) Dimethylmethylphosphonate (DMMP) gas life. The DMMP gas life of the gas-particulate filter shall be a minimum of 90 minutes when corrected to a challenge concentration of exactly 3000 ug/l. DMMP

*(ug/l) is equivalent to milligrams per cubic meter (mg/ml) or millimilligrams per liter (mmg/l).

gas life is defined as the time needed to attain a DMMP effuent concentration-time factor (CT) equal to 3.3 milligram-minutes per cubic meter (mg-min/m) when the filter is challenged as follows:

1 Agent: DMMP, minimum 96.0% pure.
2 Concentration: 3000 ± 400 ug/l.
3 Flow: 18 cfm, constant flow.
4 Temperature: 80 degrees ± 10 degrees F.
5 Relative humidity: 15% maximum.
6 Condition of filter: As received.

(e) Moisture content. The average moisture content of the filter material disks, packaged with the M41 filter, should not exceed 3.0% and no single disk should exceed 3.5%. Testing for moisture content is for information purposes only.

(*2) Equipment required.*

(a) Q76 DOP Filter Testing Penetrometer (DL 136-42-850-6) NSN 6680-00-436-4212.

(b) Q230 18 CFM Filter Life Tester (E136-41-1855). (No NSN is required because the testing location is limited to the equipped site. See paragraph 2-10a.)

(c) Q95 Gas Life Testing All Purpose Apparatus (E136-41-600-14) (No NSN is required because the testing location is limited to the equipped site. See paragraph 2-10a).

*(*d) A forced air drying oven capable of maintaining a temperature of 160 degrees ± 5 degrees F. and a relative humidity of 5% maximum.

*(*e) A scale capable of weighing a filter material disk to 0.01 gram.

(*3) Procedure.*

NOTE

Testing of the M41 gas-particulate filter and filter material disk for airflow resistance, DOP penetration, moisture content, and gas life requires the use of special test equipment (refer to para 2-8a). In addition, testing of the M41 filter and the filter materiel disk for gas life requires the use of toxic agent CK and simulant DMMP (refer to para 2-lOa). Keep the sample M41 filters and the filter material disks from being exposed to the atmosphere until just before testing; forward the filter samples to the authorized testing activity in the original sealed unopened pack. The testing activity shall have the responsibility for conducting all visual examinations and tests and reporting the results of these examinations and tests back to the requesting activity.

(a) Airflow resistance. Determine the airflow resistance of the gas-particulate filter with the Q76 DOP Filter Testing Penetrometer by Instruction Manual 136-300-195A.

(b) DOP smoke penetration. Determine the DOP smoke penetration of the gas-particulate filter with the Q76 DOP Filter Testing Penetrometer by Instructions Manual 136-300-195A.

(c) Cyanogen chloride (CK) gas life. Equilibrate the sample filter material disks as required. Determine the CK gas life of the filter material disk with the Q95 Gas Life Testing All Purpose Apparatus by Instruction Manual 136-300-198c. Challenge the filter material disk as required and record the time to obtain a CK effluent concentration of 8 mg/m3.

(d) Dymethylmethylphosphonate (DMMP) gas life. Determine the DMMP gas life of the M41 *gas-par*ticulate filter with the Q230 Filter Life Tester by Instruction Manual 136-300-308. Challenge the M41 filter as required and record the time to obtain a DMMP effluent concentration-time factor (CT) equal to 3.3 mg-min/m3.

(3) Moisture content. Moisture content is for information purposes to track performance of the sealed barrier bags; therefore, the data obtained shall not be used for acceptance or rejection of the lot.

(a) Weigh each sample filter material disk to the nearest 0.O1 gram (wet weight) immediately after unpacking the M41 filter and record the weight.

(b) Place the sample disks in a forced-air drying oven at 160 degrees $\pm$ 5 degrees F. and a maximum of 5% rh until constant dry weight, within 0.01 gram, is reached. Record the final weight (dry weight) to the nearest 0.01 gram.

(c) Calculate the percent moisture as follows:

$$\% \text{ moisture content} = 100\% \quad \frac{\text{(wet weight-dry weight)}}{\text{wet weight}}$$

F-5. SPECIAL INSTRUCTIONS. *a.* Referenced Drawings and Instruction Manuals (EA) may be obtained by submitting a request to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAC (A), Aberdeen Proving Ground, MD 21010-5423.

b. Ship samples for visual examination and tests as directed by the NICP through the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAW, Rock Island, IL 61299-6000.

APPENDIX G
FILTER, AIR CHEMICAL-BIOLOGICAL, M46 AND LEAKAGE KIT, M257

G-1. Purpose. To give special instructions for:

NSN	*NOMENCLATURE*
4240-00-762-9174	Filter, Air, Chemical-Biological, M46
4240-00-300-0776	Leakage Test Kit, M257

G-2. Policy. The following requirements supplement the coded inspection requirements in appendix A when the TRC of this appendix (4EF) is referenced in the TRC column of appendix A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection needed to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAK, Rock Island, IL 61299-6000. Also send information copies of related correspondence to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAC (A), Aberdeen Proving Ground, MD 21010-5423.

G-3. Instructions. a. *References.* None.

b. Basis of Surveillance. Conduct surveillance for the item listed in paragraph G-1 on the basis of manufacturer's, miscellaneous, or mixed lots. Miscellaneous or mixed lot size shall not exceed 200 items.

c. Sampling. Sample lots as required by paragraph 2-4e and as follows:

(*1) For visual* examination. Conduct sampling of the M46 Air Filter and the M257 Leakage Test Kit by the MIL-STD-105D single sampling plan. Use the inspection level (IL) and acceptable quality level (AQL) given in appendix A.

NOTE

From the samples for visual examination of the applied packaging, packing, marking, and preservation, a selection of samples for end item visual examination is permissible.

(*2) For tests.* Sample the M46 filters by the MIL-STD-105 single sampling plan, inspection level S-4 and an AQL of 2.5 percent. For critical defects the acceptance number is 0 and the rejection number is 1 for all sample sizes. Randomly select the sample quantity from the visually acceptable portion of the sample obtained in (1) above. If the visually acceptable portion is the same size as that required for testing, test all of the visually acceptable items. Should the sample of visually acceptable items be smaller than that required or testing, select additional samples from the lot.

G-4. Inspection Procedure. Visually inspect samples for the packaging, packing, marking, and preservation defects as identified in table G-1. Visually inspect the end item samples, or components thereof, for the defects listed in tables G-2 and G-3. From the visually acceptable items, test the required samples as described in c below. Table G-2 in addition to providing classification of visual defects, provides classification of test failures. The classification of test failures is provided to differentiate between test failures to be considered as critical, where one item failing the test would be cause for immediate suspending the lot from issue and use, and the test failure considered as major, where acceptance or rejection of the lot is based on the acceptance number of the sampling plan.

a. Classification of Packaging, Packing, Marking, and preservation Defects.

Table G-1. Packaging, Packing, Marking, and Preservation

Critical:		None Defined.	
Major:	101	Shipping containers damaged deteriorated or weathered to the extent that the contents cannot be adequately protected and the containers require replacement.	Visual
	102	Inner container wet, moldy, or mildewed.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Slight damage, deterioration, or weathering to shipping or inner containers but not affecting protection of contents.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

b. Classification of Defects for End Items.

Table G-2. Filter, Air, Chemical-Biological, M46 NSN 4240-00-762-9174

Critical:	1	Leakage resistance.	Test (para G-4c)
Major:			
	101	Component missing.	Visual
	102	Tears, breaks, or holes in front or in back housing.	Visual
	103	Dry rot or ozone cracking (local disintegration of rubber). Dry rot	Visual/ Manual

Table G-2. Filter, Air, Chemical-Biological, M46 NSN 4240-00-762-9174 (continued)

		may appear as stiff, dry areas that crumble when rubbed between fingers and exhibit cracks that visibly expand in length or depth while rubber is held in stretched position. Dry rot may also appear as sticky or spongy areas that can easily be pierced with finger pressure. Permanent set affecting functioning. (Air filters in which the rubber is stored in such a manner that it is held in a shape other	
	104	than the one in which it was cured and it retains that shape.)	Visual
Critical:			
	105	Neck straps torn, frayed or mildewed.	Visual
Major:	106	Insecurely fastened neck strap (check manually).	Visual/ Manual
	107	Air outlet tube or connector missing or inoperative.	Visual
	108	Neck strap buckle bent, broken or inoperative.	Visual/ Manual
Other:		Refer to Quality Defect Codes in Appendix A.	Visual
Minor:			
	201	Discolored, dirty, or moldy.	Visual
Other:		Refer to Quality Defect Codes in Appendix A.	Visual

Table G-3. Leakage Test Kit, M257, (NSN 4240-00-300-0776)

Category	Defect Number	Defect	Inspection Method
Critical:		None defined.	
Major:	101	Bottle of leak detector solution missing or leaking.	Visual
	102	Rubber stoppers missing, tacky, cracked, or deteriorated. (Kit contains 5 rubber stoppers.)	Visual/ Manual
	103	Rubber collar or rubber tubing on pressure side of aspirator bulb	Visual/ Manual

Table G-3. Leakage Test Kit, M257, (NSN 4240-00-300-0776)(continued)

		missing, cracked, brittle, tacky, or deteriorated.	
	104	Aspirator bulb missing, tacky, cracked, brittle, or inelastic.	Visual/ Manual
	105	Aspirator bulb nonfunctional. (Compress the bulb fully then release. The bulb must reinflate. Compress bulb fully and while compressed seal suction end with thumb or other suitable means. The bulb must remain deflated.)	Visual/ Manual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:		None defined.	

c. Tests

(1) Requirements. The assembled air filter, including the air outlet connector, but without filter elements installed, shall show no evidence of leakage when pressurized with air to 50 ± 5 inches of water and submerged in water at room temperature for a minimum of 30 seconds in each of two orientations (one with back housing facing down and one with front housing facing down).

(2) Equipment required.

(a) Low pressure, clean, oil free air supply.

(b) Immersion tank.

(c) Manometer capable of measuring 50 inches water.

(3) Procedure. Connect the low pressure air supply to the inlet opening of the air filter and seal all other openings with rubber bottle stoppers or other suitable means. Pressurize the air filter to 50 ± 5 inch water gage. While maintaining the pressure, submerge the air filter in the immersion tank just below the surface of the water in each of the required orientations for a minimum of 30 seconds each and observe for bubbles. If, in either orientation, bubbles rise from the air filter after 15 seconds of submersion consider the filter defective.

APPENDIX H
PROTECTIVE OUTFIT, TOXILOGICAL, MICROCLIMATIC CONTROLLED (POTMC)

H-1. Purpose. To give special instructions for:

NSN	*NOMENCLATURE*
4240-00-106-7386	Backpack, Ventilation
4240-01-056-4552	Coveralls, Protective, Medium
4240-01-056-8678	Coveralls, Protective, Extra Large
4240-01-057-2640	Liner, Toxicological, Large
4240-01-057-2831	Maintenance Kit, POTMC
4240-01-057-4377	Liner, Toxicological Small
4240-01-057-5456	Coveralls, Protective, Small
4240-01-057-6526	Suit, Butyl-Protective, Extra Large
4240-01-057-6527	Suit, Butyl-Protective, Medium
4240-01-057-6528	Suit, Butyl-Protective, Small
4240-01-057-6529	Suit, Butyl-Protective, Large
4240-01-058-2133	Bag, POTMC
4240-01-058-2134	Liner, Toxicological, Medium
4240-01-058-2981	Shell Assembly, Backpack
4240-01-058-2984	Glove Cloth, POTMC, Small
4240-01-058-6316	Shell, Helmet
4240-01-058-6317	Adapter, Emergency, Breathing
4240-01-058-6318	Helmet Assembly, Protective
4240-01-058-6322	Coveralls, Protective, Large
4240-01-058-6823	Glove, Cloth, POTMC, Large
4240-01-058-6824	Glove, Cloth, POTMC, Medium
4240-01-060-1621	Liner, Toxicological, Extra Large
4240-01-066-9065	Gloves, Rubber, Protective, Toxicological, Large
4240-01-066-9066	Gloves, Rubber, Protective, Toxicological, Medium
4240-01-066-9067	Gloves, Rubber, Protective, Toxicological, Small
4240-01-066-9068	Gloves, Rubber, Protective, Toxicological, Extra Large
4240-01-075-3267 through 3275	Boots, Protective, Toxicological, Size 5 through 15 (except 9 and 12)
4240-01-075-8384	Boots, Protective, Toxicological, Size 9
4240-01-075-8385	Boots, Protective, Toxicological, Size 12
4240-01-088-3185	Cover Assembly, Backpack
4240-01-088-3193	Sunvisor, Helmet
4240-01-103-8233	Protect Oft Toxic Small
4240-01-103-8234	Protect Oft Toxic Medium
4240-01-103-8235	Protect Oft Toxic Large
4240-01-103-8236	Protect Oft Toxic X Large
4240-01-111-1535	Suit, Shell, Protective, Small
4240-01-111-1536	Suit, Shell, Protective, Medium
4240-01-111-1537	Suit, Shell, Protective, Large
4240-01-111-1538	Suit, Shell, Protective, X Large
4240-01-145-2437	Suit, Shell, Protective, XX Large
4240-01-150-1475	Coveralls, Protective, XX Large
4240-01-150-6202	Liner, Toxicological, XX Large
4240-01-155-1964	Suit, Butyl, Protective, XX Large
4240-01-149-3518	Protect Oft Toxic, XX Large

H-2. Policy. The following requirements supplement the coded inspection requirements in appendix A when the TRC of this appendix (4EG) is referenced in the TRC column of appendix A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection needed to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAK, Rock Island, IL 61299-6000. Also, send information copies of related correspondence to the Commander, US Army Natick Research and Development Center, ATTN: STRNC-EP, Natick, MA 01760 and to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAC (A), Aberdeen Proving Ground, MD 21010-5423.

H-3. Instructions. *a. References.*

MIL-STD-282	Filter Units, Protective clothing, Gas-Mask Components and Related Products: Performance-Test Methods.
TM 3-4240-294-13&P	Operator's Organizational and Direct Support Maintenance Manual (Including Repair Parts and Special Tools List) Protective Outfit, Toxicological, Microclimate Controlled

b. Basis of Surveillance. Conduct surveillance for the items listed in paragraph H-1 on the basis of manufacturer's, miscellaneous, or mixed lots. Miscellaneous or mixed lot size shall not exceed 200 items.

c. Sampling. Sample lots as required by paragraph 2-4e and as follows. For inspection purposes, randomly select samples of sized items such as gloves, boots, coveralls, shell suit, or butyl suits from the lots, i.e., select samples without regard for different sizes of the item.

(1) *For visual examination.* Conduct sampling of the POTMC items by the MIL-STD-105D single sampling plan. Use the inspection level (IL) and acceptable quality level (AQL) given in appendix A.

NOTE

From the samples for visual examination of the applied packaging, packing, marking, and preservation, a selection of samples for end item visual examination is permissible.

(2) *For tests.* Sampling of lots for testing, except for the resistance to toxic agent tests and the boots and gloves tests, shall be conducted by the MIL-STD-105D single sampling plan, inspection level S-4

and an AQL of 2.5 percent for major defects. For critical defects the acceptance number is O and the rejection number is 1 for all sample sizes. The sample for resistance to toxic agent permeation shall be one butyl suit, or shell suit randomly selected from each lot, i.e., regardless of sizes contained within the lot. For boots and gloves tests, randomly select two pairs for each of the four tests to be performed, including the two toxic resistance tests. Select the boots and gloves also without regard for different sizes. Cut test specimens from the samples as given in the subparagraphs of paragraph H-4c.

H-4. Inspection Procedure. Visually inspect samples for the packaging, packing, markings, and preservation defects as identified in appendix A and in table H-1. Visually inspect the end item samples, or components thereof, for the defects listed in tables H-2 through H-14. From the visually acceptable items, test the required samples as described in c below. Tables H-2, H-9, H-10, H-11, H-13, and H-14 in addition to providing classification of visual defects, provide classification of test failures. The classification of test failures is provided to differentiate between the test failures to be considered as critical, wherein one item failing the test would be cause for immediately suspending the lot from issue and use, and the test failures to be considered as major, wherein acceptance or rejection of the lot would be based on the acceptance number of the sampling plan.

NOTE

The POTMC system, as stocked, does not include boots, cloth gloves, or rubber gloves. Some inspection of the POTMC and its components will require assembling and functionally testing and examining the components; therefore, one pair of boots (any size) and one pair of rubber gloves (any size) shall be selected from stock for those inspections requiring the use of these items. Exercise care using these parts to prevent inadvertent damage to the parts and to the attaching or sealing hardware.

a. *Classification of Packaging, Packing, Marking, and Preservation Defects.*

Table H-1. Packaging, Packing, Marking, and Preservation

Critical:		None defined.	
Major:	101	Shipping or inner container damage or weathered to the extent that the contents cannot be adequately protected and the containers require replacement.	Visual
	102	Inner container wet, moldy, or mildewed.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Loose pack.	Visual
	202	Slight damage to shipping or inner container but not affecting protection of contents.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

b. *Classification of Defects in POTMC and Components.*

Table H-2. Backpack Ventilation, NSN 4240-00-106-7386

Category	Defect Number	Defect	Inspection Method
Critical:			
	1	Any delamination of strapping.	Visual
	2	Any hole or crack in plastic parts.	Visual
	3	Any leakage.	Test (para H-4c(1))
	4	Any looseness in hose changes.	Visual/ Manual
Major:	101	Any hole, cut, tear, or rot in webbing.	Visual
	102	Any broken hardware.	Visual
	103	Any corrosion on hardware.	Visual
	104	Any fastener not functioning properly, i.e., fails to snap closed, provide a secure closure, or to open freely.	Visual/ Manual
	105	Any dent in plastic parts.	Visual
	106	Cover does not fit properly on shell.	Visual
	107	Any cut, crack, or abraded area in wiring.	Visual
	108	Any foreign matter on electrical contacts.	Visual
	109	Any cut, hole, or damage to air hose.	Visual
	110	Any missing or loose electrical cable retaining chips.	Visual/ Manual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Any fading of plastic (black color).	Visual
	202	External surfaces scratched, scuffed, or dirty.	Visual
	203	Identification decal loose or missing.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

Table H-3. Coveralls, Protective: NSN 4240-01-056-4552, Medium; NSN 4240-01-056-8678, Extra Large; NSN4240-01-057-5456, Small; NSN4240-01-058-6322, Large; NSN 4240-01-150-1475, XXLarge Liner, Toxicological: NSN4240-01-057-2640, Large; NSN4240-01-057-4377, Small; NSN 4240-01-058-2134, Medium; NSN 4240-01-060-1621, Extra Large; NSN4240-01-150-6202, XX Large

Critical:		None defined.	
Major:	101	Any hole, cut, tear, or break in fabric.	Visual
	102	Any deterioration of thread.	Visual
	103	Any broken or missing stitches more than ½ inch.	Visual
	104	Any defective slide fastener.	Visual/ Manual
	105	Any ineffective operation of hook and pile fasteners.	Visual/ Manual
	106	Any missing screws, burrs, or loose fabric at air inlet rings.	Visual
	107	Any bend, burr, loose tape, or exposed spring wire on vent channel of liner.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:	201	Any grease, oil, stain, or otherwise dirty area.	Visual
	202	Any broken or missing stitches less than ½ inch.	Visual
Minor:			
	203	Any metal hardware (screw, bucket, etc.) component missing.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

Table H-4. Maintenance Kit, POTMC, NSN 4240-01-057-2831

Category	Defect Number	Defect	Inspection Method
Critical:		None defined.	Visual
Major:			
	101	Any part damaged (e.g., hole, cut, tear, or crack).	Visual
	102	Any break or hole in zipper lubricant tube.	Visual
	103	Any leakage from bottle of anti-fogging compound.	Visual
	104	Component missing (Refer to TM 3-4240-294-13&P Section D pg D-1.)	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
Other:		Refer to Quality Defect Codes in appendix A.	Visual

Table H-5. Suit Assy, Butyl; NSN 4240-01-057-6526, Extra Large; NSN 4240-01-057-6527, Medium; NSN4240-01-057-6528, Small; NSN4240-01-057-6529, Large; NSN4240-01-155-1964, XX Large

Arrange suit assemblies into lots without reference to size and randomly sample lots without regard to different sizes of the suit assembly.

Critical:			
	1	Any hole, tear, crack, missing part, separated strapping, sticky rubber, or areas where outline of fabric is beginning to show through butyl rubber.	Visual
	2	Any crack or separation at joint or open seam.	Visual
	3	Any nick, tear, or stickiness of the rubber sealing lips on the zippers.	Visual
	4	Any difficulty in zipper operation from full open to full closed position. This includes missing or out of position teeth or any failure to engage.	Visual/ Manual
	5	Any crease, blister, wrinkle, internal delamination resulting in adhesion of surfaces when unfolded.	Visual
Critical:			
	6	Any strapping or seam that is not securely affixed, i.e., can be easily pulled off by hand.	Visual
	7	Any distortion or damage to the hose connections.	Visual
	8	Any leakage of the butyl suit.	Test (para H-4c(2)(a))
	9	Any inability of the butyl suit to meet adhesion requirements.	Test (para H-4c(2)(b))
	10	Any inability to meet specified toxicity resistance requirements.	Test (para H-4c(2)(c))
	11	Any contamination with petroleum base solvents and lubricants.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Major:			
	101	Any looseness of machine screws.	Visual
	102	Any cut, hole, nick, out-of-round, or dent on the disconnects, for the gloves and boots.	Visual
	103	Any cracked, broken or missing plastic connectors on helmet support connecting assemblies.	Visual
	104	Any nicks, cuts, tears, stickiness, dirt, in exhaust valves, and failure of operation.	Visual
	105	Any opening at edge of strapping extending into stiching.	
	106	Any strapping not securely affixed on single-strapped seam or on only one side of double strapped seams.	
Other:		Refer to Quality Defect Codes in appendix A.	

Table H-5. Suit Assy, Butyl; NSN 4240-01-057-6526, Extra Large; NSN4240-01-057-6527, Medium; NSN4240-01-057-6528, Small; *NSN4240-01-057-6529, Large; NSN4240-01-155-1964 XX Large* (continued)

Minor:	201	Any discoloration (fading) spot, stain, or streak more than one inch wide that cannot be readily removed with water or naptha.	
	202	Any blister or delamination in central area of strapping with edges securely affixed.	
	203	Any opening at edge of strapping extending 1/16 inch or more but not extending to stiching.	
	204	Any illegibility in marking.	
Other:		Refer to Quality Defect Codes in appendix A.	

Table H-6. Bag, POTMC, NSN 4240-01-058-2133

Category	Defect Number	Defect	Inspection Method
Critical:		None defined.	
Major:			
	101	Any deterioration of stitching.	Visual
	102	Any fastener not functioning properly, i.e., fails to snap close, provide a secure closure, or to open freely.	Visual/ Manual
	103	Slider jams or fails to interlock.	Visual/ Manual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
Other:		Refer to Quality Defect Codes in appendix A.	Visual

Table H-7. Shell Assembly, Backpack, NSN 4240-01-058-2981

Category	Defect Number	Defect	Inspection Method
Critical:			
	1	Any delamination of strapping.	Visual
	2	Any hole or crack in plastic parts.	Visual
Major:			
	101	Any loose or broken parts.	Visual
	102	Any deformation or dent.	Visual
	103	Any missing or loose electrical cable retaining clips.	Visual/ Manual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:	201	Any fading of plastic (black color).	Visual
	202	External surfaces scratched, scuffed, or dirty.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

Table H-8. Gloves, Cloth, POTMC: NSN4240-01-058-2984, Small; *NSN4240-01-058-6823, Large; NSN4240-01-058-6824,* Medium

Critical:		None defined.	
Major:			
	101	Any hole, cut, tear, run, or break in fabric.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Any spot or stain.	Visual
	202	Any rancid odor.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

Table H-9. Shell, Helmet, NSN 4240-01-058-6316; Helmet Assembly, Protective, NSN 4240-01-058-6318 Sunvisor, Helmet, NSN 4240-01-088-3193

Category	Defect Number	Defect	Inspection Method
Critical:			
	1	Any hole or crack in helmet shell.	Visual
	2	Any cracking or brittleness in neck ring gasket.	Visual
	3	Any inoperable cam lock under hand pressure.	Visual/ Manual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Major:			
	101	Any component misshaped or does not fit properly.	Visual
	102	Any hole, tear, or crack in any component other than helmet shell.	Visual
	103	Any blurred or distorted area in front and rear field of vision in helmet shell or in sunvisor.	Test (para H-4c(3))
	104	Helmet shell or sunvisor not transparent.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Any looseness of neck ring gasket.	Visual
	202	Any scratch on any part.	Visual
	203	Identification decal loose or missing.	Visual
	204	Any fading of protective cover (white) or sunvisor (gray).	Visual
	205	Any dirty area.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

Table H-10. Adapter, Emergency, Breathing: NSN 4240-01-058-6317

Category	Defect Number	Defect	Inspection Method
Critical:			
	1	Any crack, tear, or split in gaskets.	Visual
	2	Any leakage beyond allowed limit.	Test (para H-4c(4)
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Major:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:		Refer to Quality Defect Codes in appendix A.	Visual

Table H-11. Gloves, Rubber, POTMC
NSN 4240-01-066-9065, Large;
NSN 4240-01-066-9066, Medium;
NSN 4240-01-066-9076, Small;
NSN 4240-01-066-9068, Extra Large
Boots, POTMC: NSN 4240-01-075-3267, Size 5;
NSN 4240-01-075-3268, Size 6; NSN 4240-01-075-3269 Size 7;
NSN 4240-01-075-3270, Size 8; NSN 4240-01-075-3271, Size 10
NSN 4240-01-075-3272, Size 11;
NSN 4240-01-075-3273, Size 13;
NSN 4240-01-075-3274, Size 14;
NSN 4240-01-075-3275, Size 15;
NSN 4240-01-075-8384, Size 9; NSN 4240-01-075-8385, Size 12

NOTE

Arrange into lots without reference to size and randomly sample lots without regard for different sizes of the items.

Category	Defect Number	Defect	Inspection Method
Critical:			
	1	Any cut, tear, hole, rip, or rupture through the material.	Visual
	2	Any closed blister.	Visual
	3	Any tackiness.	Visual/
	4	Leakage.	Test (para H-4c(5)(a))
	5	Failure to meet the specified toxicity resistance requirements.	Test (para H-4c(5)(c))
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Major:			
	101	Any malformation or distortion.	Visual
	102	Dusting missing from glove, either inside or outside.	Visual
	103	Closure ring not completely affixed or attached to the glove or boot body.	Visual
	104	Marking not legible or not permanent, i.e., it can be rubbed off with a moistened finger.	Visual/ Manual
	105	Any closure ring slippage (boots) or separation (gloves).	Test (para H-4c(5)(b))
	106	On boots, any air pocket or channel over ¼ square inch.	Visual

Table H-11. (Continued)

Category	Defect Number	Defect	Inspection Method
	107	Any burrs, scratches, out of round of disconnects or closure ring (Similar to TM 3-4240-294-13&P para 2-3 table 2-1 item 4B & 6B.)	
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Definite variation in color.	Visual
	202	On boots, any air pocket or channel under ¼ square inch.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

Table H-12. Cover Assembly, Backpack, NSN 4240-01-088-3185.

Category	Defect Number	Defect	Inspection Method
Critical:			
	1	Any deformation.	Visual
	2	Gasket is missing.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Major:			
	101	Gasket is loose or incorrectly positioned.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Any fading of black color.	Visual
	202	Any scratches.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

Table H-13. Protective Outfit Toxicological Microclimate Controlled POTMC
NSN 4240-01-103-8233, Small;
NSN 4240-01-103-8234, Medium;
NSN 4240-01-103-8235, Large;
NSN 4240-01-103-8236, Extra Large: NSN 4240-01-149-3518. XX Large

Category	Defect Number	Defect	Inspection Method
*Critical**	1	Any component missing (Check contents of each carrying bag against list shown in plastic holder).	Visual
	2	Any connector that fails to lock or secure to the suit such as air hose helmet, gloves, boots.	Visual/ Manual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
*Major:**	101	Any component or assembly malfunction that will affect serviceability.	Visual
	102	Any sized component that is incorrect size.	Visual

Table H-13. Protective Outfit Toxicological Microclimate ControlledPOTMC, NSN4240-01-103-8233, Small; *NSN4240-01-103-8234,* Medium; *NSN4240-01-103-8235, Large; NSN4240-01- 103-8236, Extra Large; NSN 4240-01-149-3518, XX Large* (continued)

Category	Defect Number	Defect	Inspection Method
*Minor:**		Refer to Quality Defect Codes in appendix A.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

***NOTES:** 1. Each principal component (suit assembly helmet, backpack, etc.) shall be inspected in accordance with its applicable Coded Standard and Defect Table of this document. The failure of any principle component to meet its acceptance criteria shall be cause for rejection of the lot of protective outfits.

2. Since testing for resistance to toxicological agents for the butyl suit is destructive, whenever possible, the butyl suits from the lot of POTMC outfits shall be combined (paper transaction) with any lot of butyl suit spare parts scheduled for sampling and testing.

TableH-14. Suit ShellProtective; NSN4240-01-111-1535, Small, *NSN4240-01-111-1536, Medi*um; NSN4240-01-111-1537, Large; NSN4240-01-111-1538, Extra Large *NSN4240-01-145-2437, XXLarge*

NOTE: Arrange shell suits into lots without reference to size and randomly sample lots without regard for different sizes.

Category	Defect Number	Defect	Inspection Method
Critical:	1	Any hole, tear, crack, separated strapping sticky rubber or areas where outline of fabric is showing through the butyl rubber.	Visual
	2	Any crack or separation at joint or open seam.	Visual
	3	Any nick, tear, or stickiness of the rubber sealing lips on the zippers.	Visual
	4	Any difficulty in zipper operation from full open to full closed position. This includes missing or out of position teeth or any failure to engage.	Visual/ Manual
	5	Any crease, blister, wrinkle, resulting in adhesion or delamination of surfaces when unfolded.	Visual
	6	Any strapping or seam that is not securely affixed, i.e., can be easily pulled off by hand.	Visual
	7	Any distortion or damage to the hose connections.	Visual

Table H-14. (continued)

	8	Any inability to meet specified toxicity resistance requirements.	Test (para H-4c(2)(c))
	9	Any contamination with petroleum base solvents and lubricants.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Major:			
	101	Any opening at edge of strapping extending into stitching.	Visual
	102	Any strapping not securely affixed on single-strapped seam or on only one side of double strapped seams.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Any discoloration (fading) spot, stain, or streak more than one inch long or one inch wide that cannot be readily removed with water or naptha.	Visual/ Manual
	202	Any blister or delamination in central area of strapping with edges securely affixed.	Visual
	203	Any opening at edge of strapping extending 1/16 inch or more but not extending to stitching.	Visual
	204	Any illegibility in marking.	Visual
Other:		Refer to Quality Defect Codes in appendix A.	Visual

c. Tests. After satisfactory completion of all visual examinations, test the sample backpacks, suits, helmets, adapters, gloves, and boots as follows:

(*1) Ventilation backpack leakage.*

(a) Requirement. No leakage or any moisture penetration through the backpack walls is allowed into the backpack interior following immersion in water for a minimum of one minute.

(b) Equipment.

1 A blanking plate containing a rubber gasket for sealing.

2 Two manifold plugs.

3 A suitable water tank at 78 degrees F. + 5 degrees F.

(c) Procedure. Install and secure the backpack cover, attach the blanking plate, and insert the manifold plugs. Submerge the backpack completely at least one inch below the surface of the water for one minute. Remove the backpack and wipe the exterior dry. Remove the cover and examine the interior for moisture. The presence of any moisture shall constitute failure and shall be cause for rejection of the lot.

(*2) POTMC butyl suits.*

(a) Leakage.

1 Requirement. No leakage through the butyl

fabric or through the seams is allowed. Slight leakage, a few intermittent bubbles, but no continuous stream, is allowed through the two closure zippers, provided the sealing lips are not damaged or deteriorated.

2 Equipment.

a A suitable inspection table.

b Plastic valve closure disks and a rubber stopper from the POTMC maintenance kit.

c Gloves, boots, and helmet from stock or suitable tapered plugs.

d Ventilating backpack with batteries and charger from stock.

3 Procedure. Carefully lay out the suit being tested on the inspection table. Perform the butyl suit leakage test in accordance with the testing procedures specified in paragraph 4-17, b of TM 3-4240-294-13&P.

(b*) Adhesion.*

1 Requirement. The adhesive bond between the ring and the fabric shall withstand a dead weight load of (a) 25 pounds for a leg ring and (b) 15 pounds for an arm ring.

2 Equipment.

a Suitable weights or weight measuring devices accurate to 1/2 pound.

b A ladder clamp or other suitable clamp.

c Two one inch thick wooden disks each of a diameter to fit the leg and arm openings without folds or stretch of the suit fabric.

d Pressure sensitive cloth tape.

3 Procedure. Test one sleeve ring and one leg ring of each sample suit for adhesion. Clamp the test closure ring in a horizontal position with the clamps arranged symmetrically at four points around the periphery of the ring. Arrange the closure ring uppermost with the leg or sleeve below. Line the wooden disk and the ladder clamp with the tape to prevent scoring or other damage to the suit material. Place the wooden disk inside the leg or sleeve about six inches below the ring. Clamp the disk in a horizontal position with the ladder clamp. Place the weight at the center of the wooden disk (inside the leg or sleeve). Observe for slippage of the ring.

(c) Toxic resistance.

1 Mustard Gas (H).

a Requirement. Resistance to H permeation for a minimum of 75 minutes.

b Equipment and procedure. Test as specified in Method T204 or Method T209 of MIL-STD-282. Select four test specimens from each suit submitted for testing. Each specimen shall be between 4" x 4" square and 5N x 5' square. Take one specimen from a storage fold area of the suit. Test the outside or heavily coated side of each specimen.

NOTE

Testing of the POTMC Butyl Suits requires the use of toxic agent H. Forward the specimens to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAO-C (A), Bldg. E5100, Aberdeen Proving Ground, MD 21010-5423 or other approved testing facility.

2 Sarin (GB).

a Requirement. Resistance to GB permeation for a minimum of 150 minutes.

b Equipment and procedure. Test as specified in Method T206 or T208 of MIL-STD-282. Select four test specimens from each suit submitted for testing. Each specimen shall be between 4" x 4" square and 5" x 5" square. Take one specimen from a storage fold area of the suit. Test the outside or heavily coated side of each specimen.

NOTE

Testing of POTMC Butyl Suits requires the use of toxic agent GB. Forward the specimens to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAO-C (A), Bldg. E5100, Aberdeen Proving Ground, MD 21010-5423 or other approved testing facility.

(*3) Helmet assembly (shell, cover, and sunvisor), shells,* and helmet *sunvisor distortion.*

*(*a) Requirement. No observable distortion or blurring of objects viewed through helmet or visor is allowed.

(b) Equipment. A three foot by three foot or larger white paper, artboard, or other suitable material that contains a graph. Make the graph of black lines 1/32" to 1/16" wide in squares of 1 1/2" to 1 3/4 ".

(c) Procedure. Examine the helmets or visor in a well lighted area. The inspector shall have normal or corrected 20-20 vision. Sit three to four feet from the background graph and view the graph from inside the helmet. Rotate the helmet in increments of about 45 degrees by tilting the helmet. Rotate the helmet in increments of about 45 degrees by tilting the helmet forward and back until the entire vision area has been examined. The top center seven inch diameter area is not to be examined. Remove the cover and visor and rotate the helmet shell assembly 180 degrees. Examine the rear vision area in the same manner. Blurred or distorted graph lines shall constitute failure.

(*4) Adapter leakage.*

(a) Requirement. A leakage rate of no more than 15 Standard Cubic Centimeter per minute (SCCM) at a negative pressure of 15 inches of water gauge (iwg) is allowed.

(b) Equipment.

1 An Elbow conforming to Air-Lock, Inc., Part Number 9394 (Air-Loc, Inc., 108 Gulf Street, Milfort, Connecticut 06461).

2 A magnehelic gauge or a manometer.

3 Suitable tubing and plugs.

(c) Procedure. Plug the inlet port of the emergency adapter with the elbow. Plug the open end of the elbow and attach the gauge or manometer through the plug. Remove the mouthpiece and plug the hole in the adapter. Attach the tubing to the adapter through this plug. Take care to make all plugs and attachments air-tight. Withdraw air from the adapter through the tube from the mouthpiece end until the gauge indicates a negative pressure of 15 iwg at the adapter. Record the pressure after one minute has elapsed and calculate the leakage rate.

(*5) Boots and gloves.* Randomly select two pairs of each for the following tests.

(a) Leakage.

1 Requirement. No leakage is allowed for samples inflated to 0.50 to 0.75 psi and water immersed for one minute. Boots are to be flexed while immersed.

2 Equipment.

a Suitable water tank.

b A suitable air supply with pressure gauge.

c Plugs.

3 Procedure. Plug the closure ring end and inflate each sample to 0.50 to 0.75 psi pressure. Immerse each sample for approximately one minute and observe for leakage. For boots, also flex the sole and twist the foot portion approximately 30 degrees from the ring in both directions while immersed and observing for leakage. Ignore surface trapped bubbles on any sample boot or glove.

(b) Closure ring.

1 Requirement. The adhesive bond between the ring and the boot or glove shall withstand for four hours a dead weight load of (a) 25 pounds for boots and (b) 10 pounds for gloves with no slippage for boots or separation for gloves.

2 Equipment.

a Suitable weights.

b Suitable clamps.

c A set of jaws.

3 Procedure.

a Boots. Hang each sample boot in an up-right position by clamping the closure ring in a horizontal position. Clamp the boots symmetrically at four points around the periphery of the ring. Place a 25 pound weight in the heel area inside the boot. Allow the boot to hang for four hours, remove the weight, and examine the closure ring seal for slippage.

b Gloves. Hang each sample downward by clamping the closure ring in a horizontal position. Clamp, the gloves symmetrically at four points around the periphery of the ring. Attach the set of jaws across the palm and suspend the 10 pound weight from the center of the jaws. Allow the glove to hang for four hours, remove the weight, and examine for any separation.

(c) Toxic resistance.

1 Mustard Gas (H).

a Requirement. Resistance to H permeation for a minimum of 480 minutes for boots and 360 minutes for gloves.

b Equipment and *procedure.* Test as specified in Method T204 or Method T209 of MIL-STD-282. Select two test specimens from each boot or glove submitted for testing. Each specimen shall be between 4" x 4" square and 5" x 5" square. Take the boot specimens from the area of flexing at the base of the instep and, if necessary, from the rear area near the heel. Select the glove specimens from the palm and the backside of the glove.

NOTE

Testing of the POTMC Boots and Gloves requires the use of toxic agent H. Forward the specimens to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAO-C (A), Bldg. E5100, Aberdeen Proving Ground, MD 21010-5423 or other approved testing facility.

2 Sarin(GB).

a Requirement. Resistance to GB permeation for a minimum 480 minutes for boots and 450 for gloves.

b Equipment and procedure. Test as specified in Method T204 or Method T209 of MIL-STD-282. Select two test specimens from each boot or glove submitted for testing. Each specimen shall be between 4a x 4' square and 5" x 5" square. Take the boot specimens from the area of flexing at the base of the instep and, if necessary, from the rear area near the heel. Select the glove specimens from the palm and the backside of the glove.

NOTE

Testing of the POTMC Boots and Gloves requires the use of toxic agent GB. Forward the specimens to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAO-C (A), Bldg. E5100, Aberdeen Proving Ground, MD 21010-5423 or other approved testing facility.

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