

INCH-POUND
MIL-I-2818C
9 April 1992
SUPERSEDING
MIL-I-2818B
15 May 1968
(See 6.10)

MILITARY SPECIFICATION

INSULATION BLANKET, THERMAL, FIBROUS MINERAL

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers wire reinforced fibrous mineral wool insulation blanket.

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

PPP-F-320 - Fiberboard; Corrugated and Solid, Sheet Stock (Container Grade), and Cut Shapes.

MILITARY

MIL-L-19140 - Lumber and Plywood, Fire-Retardant Treated.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Sea Systems Command, SEA 5523, Department of the Navy, Washington, DC 20362-5101 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 5640

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

MIL-I-2818C

STANDARDS

FEDERAL

- FED-STD-313 - Material Safety Data Sheets Preparation and the Submission of.

MILITARY

- MIL-STD-1186 - Cushioning, Anchoring, Bracing, Blocking and Waterproofing; with Appropriate Test Methods.
 MIL-STD-1623 - Fire Performance Requirements and Approved Specifications for Interior Finish Materials and Furnishings (Naval Shipboard Use).
 MIL-STD-2073-1 - DoD Materiel Procedures for Development and Application of Packaging Requirements.

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, BLDG. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.2 Non-Government publications. The following document(s) form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- C 167 - Standard Test Methods for Thickness and Density of Blanket or Batt Thermal Insulations.
 C 177 - Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus. (DoD adopted)
 C 892 - Standard Specification for High-Temperature Fiber Blanket Thermal Insulation.
 D 3951 - Standard Practice for Commercial Packaging. (DoD adopted)

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1137.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related associated detail specifications, specifications, specification sheets or MS standards), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

MIL-I-2818C

3. REQUIREMENTS

3.1 First article. When specified (see 6.2) , a sample shall be subjected to first article inspection (see 6.4) in accordance with 4.3. .

3.2 Material. The insulation material shall consist of either rock or slag or mixtures of these processed from a molten state into fibrous form and then felted and, when specified (see 6.2), secured between metallic supporting members. The insulation material shall contain neither asbestos nor ceramic (refractory) fibers (see 6.3). Any changes in basic ingredients or processes shall be promptly reported to both the contracting activity and Commander, Naval Sea Systems Command, SEA 55Z3 , Department of the Navy, Washington, DC 20362-5101.

3.3 Physical requirements. The insulation material shall conform to the physical requirements shown in table I.

3.3.1 Recovered materials. Unless otherwise specified herein, all equipment, material, and articles incorporated in the products covered by this specification shall be new and may be fabricated using materials produced from recovered materials to the maximum extent practicable without jeopardizing the intended use. The term "recovered materials" means materials which have been collected or recovered from solid waste and reprocessed to become a source of raw materials, as opposed to virgin raw materials. None of the above shall be interpreted to mean that the use of used or rebuilt products is allowed under this specification unless otherwise specifically specified.

TABLE I. Physical requirements.

Characteristic	Requirement	Test method
Non-fibrous material (shot content) percent by weight, max.	20	4.6.1
Alkalinity percent, max.	0.6	4.6.2
Sulfur percent, max.	0.5	4.6.3
Binder percent, max.	1.5	4.6.4
Density lb/ft ³ (without supporting metal facings)	8-12	4.6.5
Thermal conductivity (K)		4.6.6
Max. Btu in/hr. sq. ft. degree Fahrenheit at a mean temperature of		
200°F	0.31	
400°F	0.44	
600°F	0.60	
Moisture absorption percent, max.	1.25	4.6.7

3.4 Dimensions. The length, width and thickness of the insulation blanket shall be as specified (see 6.2). The tolerances shall be plus 1/4 inch and minus 1/8 inch for thickness, plus or minus 1/2 inch for length and plus or minus 1/4 inch for width.

MIL-I-2818C

3.5 Supporting members. The supporting members shall consist of 20 gauge 1-inch galvanized wire mesh on both sides of the insulation or wire mesh on one side and expanded metal lath (copper bearing, not galvanized) having diamond shaped opening on the other side, as specified (see 6.2) or without supporting members.

3.6 Construction. The insulation blanket shall be composed of felted mineral fiber with or without a binder and when specified (see 6.2), secured between wire supporting members which are attached to each other by the wires spaced 6-3/4 to 7-1/4 inches apart passing vertically through the blanket.

3.7 Resistance to vibration. The insulation blanket shall not, after vibration, lose more than 5.0 percent in weight, nor sag an average of more than 10.0 centimeters (cm) (see 4.6.8).

3.8 Fire resistance. The insulation material without supporting members shall meet the requirements of MIL-STD-1623 (see 4.6.9).

3.9 Material safety data sheet (MSDS). The contracting activity shall be provided a material safety data sheet at the time of the contract award. The MSDS shall be provided in accordance with the requirements of FED-STD-313. The MSDS shall be included with each shipment of material covered by this specification (see 6.5).

3.10 Toxicity. The material shall have no adverse effect on the health of personnel when used for its intended purpose (see 6.1 and 6.7). Questions pertinent to this effect shall be referred by the contracting activity to the Bureau of Medicine and Surgery (BUMED) who will act as an advisor to the contracting activity.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspections set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the

MIL-I-2818C

contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:

- (a) First article inspection (see 4.3).
- (b) Quality conformance inspection (see 4.4).

4.2.1 Inspection conditions. Unless otherwise specified (see 6.2), all inspections shall be performed in accordance with the test conditions specified herein.

4.3 First article inspection. First article inspection shall consist of the tests specified in table II (see 6.4). Unless otherwise specified (see 6.2), if more than one thickness of insulation blanket is acquired at any one time, one blanket of each thickness shall constitute the first article sample.

TABLE II. First article inspection.

Inspection	Requirement	Test methods
Shot content	3.3	4.6.1
Alkalinity	3.3	4.6.2
Sulfur	3.3	4.6.3
Binder	3.3	4.6.4
Dimensions	3.3	4.6.5
Density	3.3	4.6.5
Thermal conductivity <u>1/</u>	3.3	4.6.6
Moisture absorption	3.3	4.6.7
Resistance to vibration <u>1/</u>	3.7	4.6.8
Fire resistance <u>1/</u>	3.8	4.6.9

1/ Shall be performed when specified (see 6.2).

4.4 Quality conformance inspection. Quality conformance inspection shall be in accordance with table III (see 6.3). The fire resistance, thermal conductivity and resistance to vibration quality conformance tests only need to be conducted for one of the following reasons:

MIL-I-2818C

- (a) If within 1 year prior to the last test approval date the material has not been tested and found in compliance with section 3 and table I (as applicable) or
- (b) If the material being offered for delivery is not manufactured the same in all respects as that previously tested.

TABLE III. Quality conformance inspection.

Inspection	Requirement	Test methods
Shot content	3.3	4.6.1
Binder	3.3	4.6.4
Dimensions	3.3	4.6.5
Density	3.3	4.6.5
Thermal conductivity <u>1/</u>	3.3	4.6.6
Resistance to vibration	3.7	4.6.8
Fire resistance <u>1/</u>	3.8	4.6.9

1/ Shall be performed when specified (see 6.2).

4.4.1 Testing of the end item. When required by contract or purchase order (see 6.2), quality conformance testing specified in 4.6 shall be conducted as follows:

SAMPLING FOR EXAMINATION AND TEST

<u>LOT SIZE</u>	<u>SAMPLE SIZE</u>	<u>ACCEPT</u>	<u>REJECT</u> <u>1/</u> <u>2/</u> <u>3/</u>
2-15	2	0	1
16-25	3	0	1
26-90	5	0	1
91-150	6	0	1
151-280	7	0	1
281-500	9	0	1
501-1200	11	0	1
1201-3200	13	0	1
3201-over	15	0	1

- 1/ All defective items must be replaced with acceptable items prior to lot acceptance.
- 2/ Inspect sample size until reject criteria is reached. If reject criteria is reached, reject entire lot.
- 3/ Reject lots may be screened and resubmitted for inspection and test.

MIL-I-2818C

4.4.2 Noncompliance. If any of the material tested fails to meet the requirements of table III, the contractor shall notify the contracting activity and the cognizant inspection activity of such failure and take corrective action on the materials or processes, or both, as warranted, and on all units of product which can be corrected and which are manufactured under essentially the same materials and processes, and which are considered by the inspection activity to be subject to the same failure. Acceptance and shipment of the product shall be discontinued until corrective action has been taken, inspections shall be repeated on additional units (all tests and examinations, or the test which the original unit failed at the option of the contracting activity). Final acceptance and shipment shall be withheld until inspections have shown that the corrective action was successful. In the event of failure after reinspection, information concerning the failure shall be furnished to the cognizant inspection activity and the contracting activity.

TABLE IV. Defects.

<p>Jagged ends of mesh wire, tie wire, or expanded metal.</p> <p>Length not as specified (3.4). Width not as specified (3.4). Thickness not as specified (3.4). Spacing of tie wires not as specified (3.6). Tie wires not securely attached. Mesh wires not properly spaced. Expanded metal broken. Supporting members not specified.</p> <p>Special marking not as required in contract or purchase order.</p>

4.4.3 Certification. The material shall meet the requirements for fire resistance, thermal conductivity, and resistance to vibration (see 6.3). A certificate of compliance is not acceptable in place of a first article test for resistance to vibration and thermal conductivity but may be acceptable for the fire resistance test (see 6.5).

4.5 Examination. When required by contractor or purchase order (see 6.2), blankets selected in accordance with the sampling guidance provided in 4.4.1 shall be surface examined and measured to determine conformance to the requirements of this specification which do not require tests. Defects shall be as described in table IV. Any blanket selected for examination which contains one or more visual or dimensional defects shall not be offered for delivery.

4.6 Test procedures.

4.6.1 Nonfibrous material (shot) content. The nonfibrous material (shot) content shall be tested as specified in ASTM C 892, Annex 2.

MIL-I-2818C

4.6.2 Alkalinity. The alkalinity test shall be performed as follows: Weigh a 5 + 0.01 gram representative sample of the mineral fiber, and introduce into a 500 milliliter (mL) pyrex Erlenmeyer flask. Wet with 5 mL of 95 percent ethyl alcohol and add 400 mL of distilled water. Reflux for 4 hours plus or minus 5 minutes. At the end of this period, disconnect the condenser and filter at once through a no. 41 Whatman paper, or its equivalent, supported in a Buechner funnel and connected to a suction source. Wash the flask and residual material three times with 25 mL portions of hot distilled water. Titrate the combined filtrate and wash solution immediately with 0.02N H₂SO₄ using 6 to 8 drops of a 1 percent solution of phenol red indicator to the disappearance of the pink color. Run a blank determination on the same amount of distilled water and alcohol and substitute the titration value in the formula below:

$$\text{Percentage alkalinity as Na}_2\text{O} = \frac{(A-B)N \times 0.031 \times 100}{W}$$

Where:

- A - mL H₂SO₄ required to titrate total sample
- B - mL H₂SO₄ required to titrate blank
- N - Normality of the H₂SO₄
- W - Weight of samples in grams

A representative sample may be prepared by taking borings with a large cork borer through the cross selection of the insulation.

4.6.3 Sulfur content. The total sulfur content of the mineral fiber shall be determined by the following method: A 0.5 gram representative sample of the mineral fiber is placed in a dry 30 cubic centimeter (cm³) iron crucible with 4 grams of sodium peroxide (Na₂O₂) and 6 grams of potassium carbonate (K₂CO₃) and intimately mixed. Cover the crucible and heat for 15 minutes in a sulfur-free flame until fusion is complete. Rotate the crucible while the melt solidifies. Following cooling, transfer the crucible and cover to a 400 mL beaker containing sufficient distilled water to cover crucible. Add 5 to 10 mL of bromine water and boil until the melt is dissolved and the bromine expelled. Let the precipitate settle and decant the supernatant liquid through a sintered crucible using suction. Wash with hot water until practically neutral. Acidify the filtrate with HCl, evaporate on a hotplate to dryness to dehydrate the silica. Take up in 400 mL of water, add 5 mL of dilute HCl and filter. Bring to a boil and slowly add 5 mL of 10 percent BaCl₂ solution. Let stand overnight, filter, wash, ignite and weigh the BaSO₄. Calculate the total sulfur as follows:

$$\text{Weight of BaSO}_4 \times \frac{0.1373 \times 100}{0.5} = \text{percent sulfur}$$

4.6.4 Binder content. The binder content of each sample tested shall be determined by heating not less than 1/2 square foot of mineral fiber material separated into small pieces to approximately 800 degrees Fahrenheit (°F) for 3 hours in an oven vented in such a manner as to ensure complete circulation of the atmosphere of the entire oven chamber, preferably by fan or other forced circulation methods. The weight before and after heating shall be taken under atmospheric conditions of the same relative humidity.

MIL-I-2818C

4.6.5 Dimensions and density. The dimensions and density of the insulation shall be determined in accordance with the method specified in ASTM C 167.

4.6.6 Thermal conductivity. Thermal conductivity shall be determined in accordance with the method specified in ASTM C 177.

4.6.7 Moisture absorption. A 3-1/2 by 3-1/2 by 3 inch specimen of the mineral fiber component shall be weighed and then subjected to an atmosphere of 90 + 3 percent humidity at 120 + 3°F for 6 hours. The specimen shall be weighed immediately upon removal from the test chamber and the percent moisture absorbed shall be determined.

4.6.8 Resistance to vibration. A test specimen 2 feet by 3 feet by 3 inches shall be weighed to within plus or minus 1 gram and then placed on an electrically heated surface. The bottom side of the specimen shall then be heated to 750°F and held at this temperature for 5 hours. The specimen shall then be allowed to cool to room temperature, reweighed to within plus or minus 1 gram, and then mounted into a vertical position on a vibration test apparatus. The specimen shall then be subjected to 96 hours of room temperature vibration at 12 hertz (Hz) and an amplitude of 0.131 inch (total displacement). At the end of this test period, the specimen shall again be reweighed to within 1 gram, and then placed on a rigid horizontal surface with 6 inches of the long dimension extending beyond the edge of the surface. The vertical distance from the horizontal surface to the bottom of the insulation furthest from the edge will be measured to 1 millimeter (mm). The specimen shall then be turned over and the sag measurement repeated. These measurements shall again be repeated for the opposite end of the specimen, to provide a total of four sag numbers. These four sag numbers shall then be averaged.

4.6.9 Fire resistance. Fire resistance shall be conducted in accordance with the test method in MIL-STD-1623.

4.6.10 Toxicological product formulations. The contractor shall have the toxicological product formulations and associated information available for review by the contracting activity to evaluate the safety of the material for the proposed use.

5. PACKAGING

(The packaging requirements specified herein apply only for direct Government acquisition.)

MIL-I-2818C

5.2.3.1 Container modification. Shipping containers exceeding 200 pounds gross weight shall be provided with a minimum of two 3- by 4-inch nominal wood skids laid flat, or a skid- or sill-type base which will support the material and facilitate handling by mechanical handling equipment during shipment and storage.

5.3 Marking. In addition to any special marking required (see 6.2), shipping containers shall be marked including bar coding for shipment, stowage, and storage in accordance with MIL-STD-2073-1, appendix F. In addition, containers shall be marked "Free of asbestos and ceramic (refractory) fibers" (see 3.2).

5.4 Material safety data sheet. A copy of the material safety data sheet shall be attached to the shipping document for each destination (see 3.9).

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The blanket is intended for insulating hot surfaces of machinery boilers and equipment at temperatures up to 1000°F.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- (a) Title, number, and date of this specification.
- (b) Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
- (c) When a first article sample is required (see 3.1).
- (d) When material shall be secured between metallic supporting members (see 3.2 and 3.6).
- (e) Length, width, and thickness required (see 3.4).
- (f) Whether wire mesh on both sides, wire mesh on one side and expanded metal lath on the other side or whether no supporting members are required (see 3.5).
- (g) Inspection conditions, if other than as specified (see 4.2.1).
- (h) First article inspection, if other than as specified (see 4.3).
- (i) Lot size, if other than as specified (see 4.4.1 and 4.5).
- (j) Whether thermal conductivity, resistance to vibration and fire resistance tests shall be performed (see tables II and III as applicable).
- (k) When quality conformance examination and testing are required (see 4.5 and 4.6).
- (l) Navy fire-retardant requirement (see 5.1.1(a)).
- (m) When fiberboard, the flamespread and specific optic density requirements of PPP-F-320 are not required (see 5.1.1(b)).
- (n) Level of packing required (see 5.2).
- (o) Container selection if other than contractor's option (see 5.2.2).
- (p) When caseliners are not required (see 5.2.2.1.1).
- (q) Special marking required (see 5.3).

MIL-I-2818C

6.3 Consideration of data requirements. The following data requirements should be considered when this specification is applied on a contract. The applicable Data Item Descriptions (DID's) should be reviewed in conjunction with the specific acquisition to ensure that only essential data are requested/provided and that the DID's are tailored to reflect the requirements of the specific acquisition. To ensure correct contractual application of the data requirements, a Contract Data Requirements List (DD Form 1423) must be prepared to obtain the data, except where DoD FAR Supplement 27.475-1 exempts the requirement for a DD Form 1423.

<u>Reference Paragraph</u>	<u>DID Number</u>	<u>DID Title</u>	<u>Suggested Tailoring</u>
3.2, 4.4.3	DI-E-2121	Certificate of compliance	----
4.4	DI-NDTI-80809	Test, reports	----

The above DID's were those cleared as of the date of this specification. The current issue of DoD 5010.12-L, Acquisition Management Systems and Data Requirements Control List (AMSDL), must be researched to ensure that only current, cleared DID's are cited on the DD Form 1423.

6.4 First article. When first article inspection is required, the contracting officer should provide specific guidance to offerors whether the item(s) should be a preproduction sample, a first article sample, a first production item, a sample selected from the first production items, a standard production item from the contractor's current inventory (see 3.1), and the number of items to be tested as specified in 4.3. The contracting officer should also include specific instructions in acquisition documents regarding arrangements for examinations, approval of first article test results, and disposition of first articles. Invitations for bids should provide that the Government reserves the right to waive the requirement for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the Government, and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract. Bidders should not submit alternate bids unless specifically requested to do so in the solicitation.

6.5 Fire testing. Contractors are advised to review USCG 164.009 fire test requirements to determine whether their mineral fiber insulation felt product (manufactured in accordance with MIL-I-2818) automatically meets the criteria for noncombustibility without conducting prior fire tests, in which case only certification is required.

6.6 Material safety data sheet (MSDS). Contracting officers will identify those activities requiring copies of MSDS's. Additional required Government information is contained in FED-STD-313. In order to obtain the MSDS, FAR clause 52.223-3 must be in the contract.

MIL-I-2818C

6.7 Toxicity. To determine conformance to requirements of 3.10, the manufacturer of the material should disclose the formulation of his product to the Bureau of Medicine and Surgery, BUMED-242, Washington, DC 20372. The disclosure of proprietary information, which will be held in confidence by the Bureau of Medicine and Surgery, should include: the name, formula, and approximate percentage by weight and volume of each ingredient in the product; the results of any toxicological testing of the product; identification of its pyrolysis products; and any such other information as may be needed to permit an accurate appraisal of any toxicity problem associated with the handling, storage, application, use, disposal, or combustion of the material. Information submitted should be clearly marked or identified as to its being provided in connection with qualification under MIL-I-2818C.

6.8 Certification. Consideration should be given to including certificates of compliance with each shipment of insulation. Certificates should indicate successful completion of the individual tests of the quality conformance inspection.

6.9 Subject term (key word) listing.

Boiler insulation
Felted mineral fiber
Machinery insulation
Wool

6.10 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:
Army - ME
Navy - SH

Preparing activity:
Navy - SH
(Project 5640-0053)

User activity:
Navy - YD

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER MIL-I-2818C	2. DOCUMENT DATE (YYMMDD) 9 APRIL 1992
3. DOCUMENT TITLE INSULATION BLANKET, THERMAL, FIBROUS MINERAL		
4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)		
5. REASON FOR RECOMMENDATION		
6. SUBMITTER		
a. NAME (Last, First, Middle Initial)	b. ORGANIZATION	
c. ADDRESS (Include Zip Code)	d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (if applicable)	e. DATE SUBMITTED (YYMMDD)
8. PREPARING ACTIVITY		
a. NAME COMMANDER NAVAL SEA SYSTEMS COMMAND (SEA 5523)	b. TELEPHONE (Include Area Code) (1) Commercial (703) 602-0146 (2) AUTOVON (AV) 332-0146	
c. ADDRESS (Include Zip Code) WASHINGTON, DC 20362-5101	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340	