E.C. MEYER General, United States Army Chief of Staff

DEPARTMENT OF THE ARMY SUPPLY BULLETIN

AMMUNITION SURVEILLANCE PROCEDURES SMOKE POT, HC, 10-POUND, M1 (1365-K865)

Headquarters, Department of the Army, Washington, DC 18 April 1983

SB 742-1365-94-600, 12 January 1981, is changed as follows:

Page 2, paragraph 9, line 5. Last line of first sentence is changed to read as follows: "or more than 16 minutes."

Page 3, subparagraph 13c(3) is changed to read as follows:

(3) Emission time that the smoke is emitted under pressure is more than 16 minutes.

By Order of the Secretary of the Army:

Official:

ROBERT M. JOYCE Major General, United States Army The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-34 requirements for Storage of Supplies and Equipment.

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Ammunition Surveillance Procedures SMOKE POT, HC, 10-POUND, M1 (1365-K865)

Headquarters, Department of the Army, Washington, DC 12 January 1981

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1. Purpose and Scope. This bulletin, when used in conjunction with SB 742-1, provides a method for determining the serviceability of Smoke Pot: M1, Ground Type, w/HC Smoke Mixture, 5 minutes minimum to 8 minutes maximum burning time, w/live igniting device. The function testing in this procedure will be accomplished under a centralized control program managed by the US Armament Materiel Readiness Command (ARRCOM), DRSAR-QAS, Rock Island, IL 61299. The bulletin is to be used in the serviceability assessment of individual smoke pots only. The provisions of this bulletin are mandatory for use by all Department of the Army organizations with CONUS and OCONUS with an ammunition receipt, storage, and distribution mission. This bulletin is not intended for use by organizations with stocks in basic loads. Additional information pertaining to frequency of test, sample selection, defect standards, and reports and records is contained in SB 742-1.

2. Errors, Omissions, and Recommended Changes. Direct reporting of errors, omissions, and recommendations for improving this bulletin are authorized and encouraged. A DA Form 2028 (Recommended Changes to Publications and Blank Forms) will be completed and forwarded to Commander, ARRCOM, ATTN: DRSAR-QAS, Rock Island, IL 61299.

3. Safety. The surveillance function testing must be conducted in accordance with the provisions set forth in appropriate safety regulations and implementing instructions, with special attention devoted to technical manuals describing the item.

4. Personnel. Visual examination and function testing will be conducted under the control of a Quality Assurance Specialist (Ammunition Surveillance) hereinafter referred to as QASAS.

5. Size of Sample. Unless otherwise directed, a sample size of 30 smoke pots is required to make up

^{*}This bulletin, together with SB 742-1365-94-601, 21 November 1980; and SB 742-1365-94-602, 21 December 1980, supersedes SB

^{3-30-153, 13} May 1964.

a representative sample from a lot for a surveillance function test.

6. Sample Selection. Smoke pots will be selected in accordance with the provisions of SB 742-1. Whenever practicable, only one smoke pot should be taken from any one box. Boxes should be selected from different positions in a stack.

7. Surveillance Test Equipment. The following Ammunition Peculiar Equipment (APE) is to be used in testing M1 Smoke Pots in accordance with this procedure:

- Ammunition Peculiar Equipment (APE) APE 1901 Tank, Immersion APE 1912 Thermometer, Cup-Cased APE 1914 Anemometer APE 1915 Wind Speed Indicator APE 1937 Shelter, Personnel Protection
- b. Additional Test Equipment. Stopwatches (2 each) accurate to one-tenth (1/10) of a second.

8. Preparation for Test. Without removing the outer cover or its metal clamp and the adhesive tape, prepare all sample smoke pots as follows: a. Number the smoke pots 1 through 30 and identify them as to the box from which they were drawn.

b. Temperature condition all smoke pots at 70° + 100 F. (21.1°+ 5.6° C.) for 24 hours prior to testing. A room in which the above temperature requirement can be met is acceptable. If smoke pots cannot be temperature conditioned, annotate this information on DA Form 984 along with the ambient temperature at time of function test.

c. After temperature conditioning, immerse smoke pots 1 through 15 in water to a depth of 12 inches<u>+</u>1 inch at a temperature of 77° - 90 F. (250+ 5° C.) for four hours. Remove the smoke pots from the water and wipe them dry. Smoke pots numbered 16 through 30 will be tested without immersion in water.

9. Test Procedure. The procedure described below is designed to determine the ability of the smoke mixture to ignite and emit an effective smoke continuously under pressure for not less than five or more than eight minutes. Smoke emission timing will begin when the smoke mixture begins to burn and will end when the smoke is no longer emitted under pressure. Function testing will be conducted only during daylight hours. Testing will not be conducted when the wind velocity exceeds 15 miles per hour; during an electrical, rain, or snow storm; or during any other conditions that might adversely affect the test results. Testing should also be in accordance with any other applicable regulations; i.e. EPA, etc.

a. Test each smoke pot as follows within four hours of removal from the treatment preparation described in paragraph 8 above: (1) Strip off the adhesive tape and clamp, and remove the cover from the smoke pot to expose the matchhead.

(2) Remove the scratcher block from its envelope and rapidly draw the treated surface of the block across the exposed matchhead.

(3) Record the delay time, smoke emission time, and quality of smoke.

b. If the smoke pot matchhead is not ignited on the first attempt, make two additional attempts to ignite the matchhead with the scratcher block. If the matchhead fails to ignite on the third attempt, determine the cause of failure without disassembling the smoke pot. Note the cause of failure, if determined, and continue to test the remaining smoke pots.

c. A smoke pot which has misfired after three attempts may be disposed of, after waiting an interval of at least five minutes, by laying it on its side, end to end, with another sample which then is ignited to accomplish a chain ignition. Only one misfired smoke pot at a time will be disposed of using the chain ignition method.

10. Observations All observations of nonstandard conditions and malfunctions, especially those not included among the defects listed in paragraphs 12 and 13, should be described in full detail. Pictorial evidence of nonstandard conditions, whenever pertinent and practical, sould be included. Observations to be reported are as follows:

a. Delay time in seconds, to the nearest 1/10 of a second. This is the time from matchhead ignition to the beginning of smoke emission under pressure.

b. Smoke emission time in minutes, to the nearest 1/4 of a minute. Timing will begin with smoke emission under pressure and end when the smoke is no longer emitted under pressure.

c. Quality of smoke will be recorded for each five minutes of burning time or fraction thereof. The following scale will be used: E = Excellent; G = Good; F = Fair; P = Poor; and U = Unsatisfactory.

d. All instances of any of the following: (1) Marking misleading, incomplete, or unidentifiable.

(2) Rust or corrosion; give location and extent.

(3) The occurrence of any nonstandard conditions or malfunctions classified as defects in paragraphs 12 and 13 below or SB 742-1.

(4) The occurrence of any nonstandard conditions or malfunctions not classified as defects in paragraphs 12 and 13 below or SB 742-1; but which, in the opinion of responsible personnel, merits consideration. **11. Classification of Defects**. Defects observed during inspection and testing will be classified in accordance with paragraphs 12 and 13, and SB 742-1. Any defects observed which are not listed in paragraphs 12 and 13 or SB 742-1, will be described fully and reported with the recommendation of the QASAS as to classification.

12. Nonfunctioning Defects

a. Critical. None.

b. Major.

(1) Advanced rust or corrosion (pitting or rust scale) on exterior of pot.

(2) Matchhead missing, broken, or deteriorated.

(3) Body with dents on crimped edges exposing filler.

- (4) Body with dents on surface exposing filler.
- (5) Marking incorrect.
- c. Minor.
- (1) Wax seal broken, where applicable.
- (2) Adhesive tape insecure, deteriorated, or missing.
- (3) Scratcher missing, broken, or deteriorated.

(4) Light corrosion on interior and exterior surface (no pitting or scale).

(5) Corrosion on starter cup.

(6) Body with dents on crimped edges but not exposing filler.

(7) Body with dents on surfaces deeper than 1/4 inch but not exposing filler.

- (8) Marking illegible or missing.
- (9) Carrying handle missing or broken.

13. Functioning Defects.

a. Critical.

- (1) Smoke pot explodes.
- (2) Delay time is less than 3 seconds.
 - b. Major.
 - (1) Matchhead fails to ignite in three attempts.
 - (2) Starter mixture fails to ignite.
 - (3) Smoke mixture fails to ignite.

(4) Emission time that the smoke is emitted under pressure is less than 5 minutes.

(5) Quality of smoke emitted under pressure for the first five minutes of burning time is poor or unsatisfactory.

c. Minor.

(1) Matchhead requires 2 or 3 attempts before

igniting.

(2) Delay time is greater than 30 seconds.

(3) Emission time that the smoke is emitted under pressure is more than 8 minutes.

14. Evaluation. Using the following criteria, and considering functional codes and nonfunctional characteristics separately, an interim condition code will be assigned in accordance with SB 742-1. A lot will be classified Condition Code J and reported in accordance with SB 7421 if one or more critical defects are observed.

a. Nonfunctional Characteristics

(1) Serviceable. A lot not classified as Condition Code J shall qualify as serviceable if it meets the following requirements on inspection of 30 smoke pots by attribute:

- (a) Not more than 2 major defectives.
- (b) Not more than 4 minor defectives.

(2) Priority of issue. A lot not classified as Condition Code J or serviceable shall qualify for priority of issue if it meets the following requirements on inspection of 30 smoke pots by attribute:

- (a) Not more than 4 major defectives.
- (b) Not more than 7 minor defectives.

(3) Unserviceable. A lot not classified serviceable or priority of issue shall be classified unserviceable.

b. Functional Codes.

(a) Code A. A lot not classified as Condition Code J shall qualify for Functional Code A if it meets the following requirements in the test of 30 smoke pots:

(a) Not more than 2 major defectives.

(b) Not more than 4 minor defectives.

(2) Code B. A lot not classified as Condition Code J or Functional Code A shall qualify for Functional Code B if it meets the following requirements in the test of 30 smoke pots:

- (a) Not more than 4 major defectives.
- (b) Not more than 7 minor defectives.

(3) Code D. A lot not classified as Condition Code J, Functional Code A, or Functional Code B shall be Functional Code D.

15. Records and Reports. Function test results will be recorded and reported on DA Form 984 as outlined in SB 742-1.

^{*}The alternate cover seal is vinyl-plastic, pressuresensitive, adhesive tape which does not require wax coating.

By Order of the Secretary of the Army:

Official:

J. C. PENNINGTON Major General, United States Army The Adjutant General

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