MIL-C-13477C(PA)
9 July 1975
SUPERSEDING
MIL-C-13477B(MU)
22 June 1967

MILITARY SPECIFICATION

CYCLOTOL

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

1. SCOPE

1.1 Scope.-This specification covers two types of Cyclotol, high explosive mixture, intended for use in ammunition (see 6.1).

1.2 Classification

1.2.1 Types and Classes.-Cyclotol shall be of the following types and classes as specified (see 6.2):

Type I - 15 efflux seconds
Type II - 10 efflux seconds
Class A - Without calcium silicate
Class B - With calcium silicate

2. APPLICABLE DOCUMENTS

2.1 The following documents of the issue in effect on date of invitation for bids or request for proposal form a part of this specification to the extent specified herein.

SPECIFICATIONS

FEDERAL

RR-S-366 - Sieves, Standard for Testing Purposes

MILITARY

MIL-T-248 - Trinitrotoluene (TNT)
MIL-R-398 - RDX
MIL-A-48078 - Ammunition, Standard Quality Assurance Provisions, General Specification for
MIL-C-51077 - Calcium Silicate

FSC: 1376

STANDARDS

MILITARY

MIL-STD-105	- Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-650	- Explosives: Sampling, Inspection and Testing

DRAWINGS

ARMY

7548644	- Box Packing for High Explosives, Assembly, Details, Packing and Marking
7548645	- Carton, Packing, Reuseable Collapsible for High Explosives, Assembly, Details, Packing and Marking

(Copies of specifications, standards, drawings and publications required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer).

2.2 Other publications.-The following document forms a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitations for bids shall apply.

AMERICAN SOCIETY FOR TESTING AND MATERIALS

ASTM Standard E300	- Standard Recommended Practice for Sampling Industrial Chemicals

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

3. REQUIREMENTS

3.1 Materials.-Cyclotol shall be manufactured by thoroughly and uniformly incorporating RDX with calcium silicate (when applicable) in molten TNT, to form a pale yellow to brown mixture. The materials used to manufacture cyclotol shall conform to the following:

3.1.1 RDX.-The RDX shall conform to the requirements of MIL-R-398, (see 6.3) except that the RDX shall pass 95 percent minimum through a U.S. Standard Sieve No. 8.

3.1.2 TNT.-The TNT shall conform to the requirements of MIL-T-248, Type I.

3.1.3 Calcium Silicate.-The calcium silicate shall conform to the requirements of MIL-C-51077.

3.2 Composition.-The composition of the cyclotol, on a moisture free basis, shall be in accordance with Table I, when tested as specified in 4.5.1.

TABLE I

Type	I	II	II
Class	-	A	B
Ingredients, percent			
RDX	75.0±2.0	70.0±2.0	69.6±2.0
Trinitrotoluene	25.0±2.0	30.0±2.0	By difference
Calcium Silicate	-	-	0.5±0.15

3.3 Moisture.-The moisture content shall be 0.25 percent maximum, when tested as specified in 4.5.2.

3.4 Insoluble Particles.-Not more than five particles shall be retained on a No. 60 U.S. Standard sieve when tested as specified in 4.5.3.

3.5 Form.-Unless otherwise specified in the contract, the cyclotol shall be supplied in the form of buds or chips approximately 1-1/2 inches in width and 3 inches in length, when examined as specified in 4.5.4.

3.6 Workmanship.-The mixture shall be free from coarse, gritty particles, foreign matter and visible impurities when determined as specified in 4.5.5.

3.7 Viscosity.-The viscosity shall be as stated in Table II when tested as stated in 4.5.6.

TABLE II

Type I - Seconds efflux, max.	15.0
Type II	
Class A - Seconds efflux, max.	10.0
Class B - Seconds efflux, max.	10.0

3.8 First Article Inspection.-This specification contains technical provisions for first article inspection. Requirements for the submission of first article samples by the contractor shall be as specified in the contract (see 6.2).

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection and Standard Quality Assurance.-Unless otherwise specified herein or in the contract, the provisions of MIL-A-48078 shall apply and are hereby made a part of this detail specification.

4.2 Classification of Inspections.-The following types of inspections shall be conducted on this item:

a. First Article Inspection (see 4.3)
b. Quality Conformance Inspection (see 4.4)
c. Packaging (see 5 and 4.4.2)

4.3 First Article Inspection

4.3.1 Submission.-The contractor shall submit a first article sample as designated by the Contracting Officer for evaluation in accordance with provisions of 4.3.2. The first article shall consist of ten (10) pounds of cyclotol obtained by sampling as described in 4.4.3. The samples shall be obtained from a production batch which has been produced by the contractor using the same production processes, procedures and equipment as will be used in fulfilling the contract. All materials shall be obtained from the same sources of supply as will be used in regular production.

4.3.2 Inspections to be Performed.-The sample will be subjected by the Government to any or all of the examinations or tests specified in 4.5 of this specification.

4.3.3 Rejection.-See MIL-A-48078.

4.4 Quality Conformance Inspection

4.4.1 Inspection Lot Formation.-Inspection lots shall comply with the lot formation provisions of MIL-A-48078. For the material covered by this specification, a lot shall consist of one or more batches of cyclotol produced by one manufacturer, in accordance with the same specification, or same specification revision, under one continuous set of operating conditions (see 6.4). Each batch shall consist of that quantity of cyclotol that has been subjected to the same unit of chemical or physical process. In addition, inspection lots of cyclotol shall contain:

a. Type I TNT from one interfix lot number, from one manufacturer.

b. RDX from one interfix lot number, from one manufacturer.

c. Calcium silicate from one interfix lot number, from one manufacturer.

4.4.2 Examination.-Unless otherwise specified in the Classification of Defects and test tables, sampling plans for the major and minor defects shall be in accordance with MIL-STD-105, Inspection Level II (see MIL-A-48078, paragraph 4.4.2).

QUALITY CONFORMANCE INSPECTION

CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE		SHEET 1 OF 1		DRAWING NUMBER
4.4.2.1	Wooden Box or Fiberboard Carton, Prior to Closing				7548644, 7548645
					NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
Major B					
131.	Liner pierced or torn		0.40%		Visual
132.	Liner improperly closed		0.40%		Visual
133.	Foreign matter		0.40%		Visual
Minor	None defined				

NOTES:

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QUALITY CONFORMANCE INSPECTION

CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE		SHEET 1 OF 1		DRAWING NUMBER 7548644
4.4.2.2	Closed Wooden Box				NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
Major B					
131.	Box damaged		0.40%		Visual
132.	Top improperly assembled		0.40%		Visual
133.	Strapping broken or loose		0.40%		Visual/Manual
Minor					
201.	Nail protruding		0.65%		Visual
202.	Marking misleading or unidentifiable		0.65%		Visual
203.	Strapping improperly assembled		0.65%		Visual/Manual

NOTES.

DARPA-QA FORM 2507 FEB 74

MIL-C-13477C(PA)

QUALITY CONFORMANCE INSPECTION

CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE		SHEET 1 OF 1		DRAWING NUMBER 7548645
4.4.2.3	Sealed Fiberboard Carton				NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
Major B					
131.	Assembly torn or pierced		0.40%		Visual
132.	Banding broken or loose		0.40%		Visual
Minor					
201.	Marking misleading or unidentifiable		0.65%		Visual
202.	Sealing strip torn, badly wrinkled or incomplete.		0.65%		Visual
203.	Carton torn, cut or punctured		0.65%		Visual
204.	Contents shift within the carton		0.65%		Manual

NOTES:

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4.4.3 Sampling and Testing

4.4.3.1 Sampling.-A representative two (2) pound sample shall be taken from each batch of cyclotol produced. The sample shall be taken in accordance with ASTM Procedure E300-70 for solids. One fourth of the sample shall be selected, crushed and screened for conformance to the requirements for the chemical tests (3.2 through 3.4) and the remaining portion shall be used for conformance to the requirements for the form and workmanship examinations (3.5 and 3.6) and the viscosity test (3.7).

4.4.3.2 Chemical Tests and Visual Examinations.-At the start of a production run, the samples representing the first eight batches produced in an incorporation building shall be inspected for the applicable requirements (3.2 through 3.6). If any sample fails to meet the specification requirements, the batch represented by the sample shall be rejected. Samples of additional batches from the building which produced the defective material shall be tested for conformance to the specification requirements until eight (8) consecutive batches produced in the building meet all the chemical requirements and visual examinations. After eight consecutive batches from the building meet the above requirements, the material produced in the building shall be sampled randomly at a frequency of 1/8 for inspection of the above requirements. Failure of a sample to comply with any of the requirements specified herein requires rejection of the batch represented by the sample. At this point, material produced previously on the casting belt in the building will be screened for the defect in reverse production sequency until either a batch meets the specification or until a previously accepted batch is reached, whichever occurs first. In addition, 100 percent inspection will be resumed until eight consecutive batches produced in the building meets all specification requirements.

4.4.3.3 Viscosity.-A portion of the sample (4.4.3.1) from each batch of cyclotol produced, will be tested for conformance to the requirements for viscosity (3.7). If any sample fails to comply with the applicable requirements, the batch shall be rejected.

The classification for the tests shall be as given in Table III.

TABLE III

Inspection/Requirement	Defect Classification
Composition (see 3.2)	Major B
Moisture (see 3.3)	Minor
Insoluble Particles (see 3.4)	Major B
Form (see 3.5)	Minor
Workmanship (see 3.6)	Major B
Viscosity (see 3.7)	Major B

4.4.4 Inspection Equipment.-The government reserves the right to inspect the contractor's equipment and determine that he has available and utilizes correctly, measuring and test equipment of the required accuracy and precision and that the instruments are of the proper type and range to make measurements of the required accuracy. Commercial inspection equipment shall be employed where applicable for all tests and examinations specified in 4.5. The contractor is responsible for assuring proper calibration procedures are followed. Government approval of all inspection equipment is required prior to its use for acceptance purposes (see 6.5).

4.5 Test Methods and Procedures (see 6.6).-The tests in 4.5.1 through 4.5.6 shall be performed using prescribed analytical procedures for replicate determinations given in standard analytical textbooks.

4.5.1 Determination of Composition

4.5.1.1 RDX Content (of Cyclotol not containing Calcium Silicate).-Weigh accurately approximately a 10 gram (gm) portion of the sample and place it in a 100 milliliter (ml) beaker. Add to the beaker, 30 ml of benzene saturated with RDX and HMX. Cover beaker with a watch glass and place on a steam bath, maintained at approximately 50°C, for 30 minutes. Break up lumps with a glass rod and occasionally agitate the solution by swirling. Remove the beaker and cool to room temperature. Filter the solution through a tared coarse porosity crucible. Transfer the insoluble residue from the beaker to the crucible using 2 to 3 ml portions of benzene saturated with RDX and HMX. Repeat this operation four times. Draw air through the crucible until the odor of benzene is no longer detectable. Dry the crucible and contents at 100°C until constant weight is obtained (approximately one hour), cool in a desiccator and weigh. Calculate the percentage of RDX, as follows:

$$\text{Percent RDX} = \frac{100A}{W-(MW)}$$

Where:

A = increase in weight of crucible, grams
W = weight of sample, grams
M = percent moisture present in material, expressed as a decimal (see 4.5.2)

4.5.1.2 TNT Content (of Cyclotol not containing Calcium Silicate).-The TNT content shall be determined by difference. The percentage of RDX (see 4.5.1.1) shall be subtracted from 100 percent.

4.5.1.3 TNT Content (of Cyclotol containing Calcium Silicate).-Weigh accurately approximately a 10 gram portion of the sample and place it in a 100 ml beaker. Add to the beaker, 30 ml of hot benzene (approx 50°C) saturated with RDX and HMX. Place a stirring rod in the beaker and cover the beaker with a watch glass. Place the beaker on a steam bath and maintain bath at approximately 50°C for 15 minutes. Break up the lumps with the stirring rod and occasionally stir the solution. Accurately weigh a clean dry coarse porosity filtering crucible containing a 2.8 cm filtering pad. Remove the beaker from the steam hotplate and stir the contents to insure that the TNT has gone into solution. Allow the contents of the beaker to cool to ambient temperature. Place the previously weighed crucible on the vacuum flask and apply vacuum. Stir the sample. Then, using the benzene solution, kept at ambient temperature, rinse the explosives from the stirring rod and watch glass into the crucible. Filter the liquid through the crucible, wash the beaker and residue with two, five ml portions of benzene solution from the wash bottle. Filter all the liquid from the beaker through the crucible. Quantitatively transfer the insoluble residue from the beaker to the filtering crucible. Rinse the beaker with benzene and add the rinse to the crucible. Place the crucible containing the residue in a steam dryer or a steam heated oven, until constant weight is obtained (approximately one hour). Remove the crucible and contents from the heat source, place it in a desiccator and allow it to cool to ambient temperature. Accurately, reweigh the crucible. The percentage of TNT shall be calculated as follows:

$$\text{Percent TNT} = \frac{100\ (A - B)}{W - (MW)}$$

Where:

A = weight of crucible and sample, grams
B = weight of crucible and residue, after benzene extraction, grams
W = weight of sample, grams
M = percent moisture present in material expressed as a decimal (see 4.5.2)

4.5.1.4 RDX Content (of Cyclotol containing Calcium Silicate).-Add 10 ml of hot acetone to the crucible and residue from the TNT determination (see 4.5.1.3). Allow the acetone to remain in contact with the hot acetone for one minute, and then apply suction. Repeat this procedure eight times. Then, draw air through the crucible until the odor of acetone is no longer detectable. Dry the crucible and contents for one hour at 100° ± 5°C, cool in a desiccator and weigh. Calculate the percentage of RDX as follows:

$$\text{Percent RDX} = \frac{100\ (B - C)}{W - (MW)}$$

Where:

B = weight of crucible and residue, after benzene extraction (TNT determination, paragraph 4.5.1.3), grams
C = weight of crucible and residue, after acetone extraction, grams
W = weight of sample, grams
M = percent moisture present in material, expressed as a decimal (see 4.5.2)

4.5.1.4.1 RDX Content (of Cyclotol containing Calcium Silicate, Alternate Method).-RDX content may be calculated by difference when the TNT and calcium silicate contents of the sample have been determined in accordance with paragraphs 4.5.1.3 and 4.5.1.5 respectively.

RDX, % = 100 - TNT, % - Calcium Silicate, %

4.5.1.5 Calcium Silicate.-Weigh accurately approximately a 5 gram portion of the sample and place it in a 150 ml beaker. Add 75 ml of hot acetone (40 to 50°C) to the beaker. Place a stirring rod in the beaker and cover the beaker with a watch glass. Heat the beaker on a steam hot plate until the soluble portion of the sample is in solution. Crush any remaining lumps of the sample with the stirring rod and manually mix, until the soluble portion of the sample dissolves. Place a 2.8 cm filter pad inside a coarse porosity filtering crucible. Dry the crucible and pad at 110°C in an oven for one hour. Remove the crucible and pad from the oven and place it in a desiccator and allow it to cool. Accurately weigh the filtering crucible and pad. Place the crucible on a vacuum flask and apply the vacuum. Remove the beaker from the hotplate. Rinse the stirring rod and watch glass with acetone from a wash bottle, collecting the rinse in the beaker. Quantitatively transfer the contents from the beaker to the filtering crucible. Rinse the beaker with acetone and add the rinse to the crucible. Then, wash the residue and sides of the

crucible with acetone until all traces of explosives have been removed. Place the crucible with the residue in an oven at 110°C for one hour. Remove the crucible with the residue from the oven and place it in a desiccator and allow it to cool. Reweigh the crucible accurately. Calculate the percent of calcium silicate as follows:

$$\text{Calcium Silicate, \%} = \frac{100 \times R}{W - (MW)}$$

Where:
R = the weight of the residue, grams
W = the weight of the sample, grams
M = the percent moisture present in samples expressed as a decimal (see 4.5.2)

4.5.2 Determination of Moisture

4.5.2.1 Conductimetric Method

4.5.2.1.1 Apparatus.-The following apparatus is required:

a. A conductivity cell having platinum electrodes coated with platinum black, and mounted in a glass case. The cell constant of the conductivity cell shall be approximately 0.1 reciprocal centimeters.

b. A calibrated conductivity bridge, of the Wheatstone type, having a range of from 10,000 to 100,000 ohms, and a precision of 2 percent or better.

c. A glass stirrer of the propeller type.

d. A stirring motor.

e. A 200 ml automatic burette connected by means of a ground-glass connection with a 5 gallon pyrex reservior.

f. A 50 ml automatic burette connected by means of a ground-glass connection with a 5 gallon reservior.

g. A wide-mouthed glass titration bottle of approximately 400 ml capacity equipped with a tight-fitting ground-glass stopper.

h. A rubber stopper which fits the titration bottle, and which is provided with 3 holes, one for the conductivity cell, one for the stirrer, and one for the tip of the burette.

4.5.2.1.2 Assembly.-Assemble the apparatus as follows: Insert the conductivity cell into the appropriate hole of the rubber stopper. Place a short piece of glass tubing into another hole of the rubber stopper, to act as a sleeve for the shaft of the stirrer. The internal diameter of the glass tubing used shall be only slightly greater than the diameter

of the shaft of the stirrer. Clamp the rubber stopper assembly to a suitable support. Pass the shaft of the stirrer through the sleeve in the rubber stopper and attach it to the stirrer motor. Provide the stirring motor with a suitable support. Setup the burette so that the tip of the burette passes completely through the third hole in the rubber stopper. Attach the electric leads from the conductivity cell to the proper binding posts of the conductivity bridge.

4.5.2.1.3 Solutions

4.5.2.1.3.1 Solution A (acetic acid - acetic anhydride-sulfuric acid).-Place 18.0 liters of approximate 99.9 percent glacial acetic acid in a 5 gallon pyrex reservoir which is to be used with the 200 ml automatic pipette. Add 85 ml of approximately 96 percent sulfuric acid and 30 ml of approximately 97.5 percent acetic anhydride to this reservoir. Mix the solution. This solution shall have a blank titration value of not more than 3 ml of solution B as determined in 4.5.2.1.4. If one blank titration of the solution exceeds 3 ml of solution B, add more acetic anhydride.

4.5.2.1.3.2 Solution B (acetic anhydride-acetic acid).-Place 15.0 liters of approximately 99.9 percent glacial acetic acid in a 5 gallon pyrex reservoir which is fitted with a 50 ml automatic burette. Add 2.0 liters of approximately 97.4 percent acetic anhydride. Mix the solution. This solution shall have a water equivalent value of approximately 0.02 grams of water per ml, when standardized as specified in 4.5.2.1.4 by adding more acetic anhydride or glacial acetic acid. The former increasing the value, and the latter decreasing it.

4.5.2.1.4 Standardization of the Solutions.-Pipette 200 ml of solution A into the titration bottle. Take all necessary precautions to minimize absorption of moisture from the atmosphere during this, and the subsequent operations. Weigh accurately approximately 0.5 grams of water and add to the bottle. Attach the bottle to the rubber stopper assembly. Start the stirring motor and operate it at such a speed that the solid material (if any) remains in suspension and the resistance of the solution remains practically constant as measured with the conductivity bridge. Titrate the agitated solution with solution B. Portions of 0.5 ml shall be added at a time. The resistance of the solution being titrated reaches a maximum at the end point, and then decreases. Plot the obtained resistance values on rectangular coordinates against the corresponding number of milliliters of solution B added. Draw a straight line through

the two points on the plot just preceeding the point of maximum resistance value and the line extended to intersect a similarly extended line drawn through the two points of the plot just following the maximum resistance value. The point of intersection of the two lines shall be considered as the end point of the titration. Record the number of milliliters of solution B corresponding to the endpoint. Make a blank determination on a 200 ml portion of solution A. Calculate the number of grams of water equivalent to 1 ml of solution B as follows:

$$E = \frac{W}{V-v}$$

Where:
E = grams of water equivalent to 1 ml of solution B.
W = grams of water added in standardization.
V = ml of solution B required to titrate the sample.
v = ml of solution B required to titrate the blank.

4.5.2.1.5 Moisture Content.-A representative portion of the acceptance sample is selected, crushed and screened. The material passing through a U.S. Standard Sieve No. 16 and retained on U.S. Standard Sieve No. 50 is used for the analysis. The sieves shall comply with RR-S-366. Weigh accurately approximately 50 grams and transfer to the titration bottle. Add a 200 ml portion of solution A, taking the necessary precaution to minimize absorption of moisture from the atmosphere by the solution during this operation. Ascertain that none of the sample remains on the ground surfaces. Stopper the bottle with the rubber stopper and agitate the contents of the bottle until all of the TNT is dissolved. Remove the rubber stopper and attach the bottle immediately to the rubber stopper assembly. Titrate the solution and determine the number of milliliters of solution B, equivalent to the end point of the titration, in a manner similar to that used in the standardization of solution B as specified in 4.5.2.1.4. Calculate the percent moisture as follows:

$$\text{Percent moisture} = \frac{100\ E\ (V - v)}{W}$$

Where:
V = ml of solution B required to titrate the sample.
v = ml of solution B required to titrate blank.
E = grams of water equivalent to 1 ml of solution B.
W = weight of sample, grams.

4.5.2.2 Alternate Moisture Method (Karl Fischer Method).- Determine the moisture content in accordance with Method 101.4 of MIL-STD-650, except that methyl alcohol shall be used as the special solvent.

4.5.3 Insoluble Particles.-The insoluble particles shall be determined in accordance with Method 106.1 of MIL-STD-650.

4.5.4 Form.-Take a portion of approximately 50 grams from the sample and spread the examination sample over a flat surface. Visually examine the material for form using daylight illumination to determine compliance with 3.5.

4.5.5 Workmanship.-Take a portion of approximately 100 grams of sample and spread it over a flat surface. Visually examine the material for workmanship to determine compliance with 3.6.

4.5.6 Determination of Viscosity (efflux method).-The viscosity shall be determined in accordance with Method 212.1 of MIL-STD-650.

5. PREPARATION OF DELIVERY

5.1 Packing.-(see 6.2).

5.1.1 Level A.-Cyclotol shall be packed and marked in accordance with dwg. 7548644.

5.1.2 Level C.-Cyclotol shall be packed and marked in accordance with dwg. 7548645.

6. NOTES

6.1 Intended use.-Cyclotol is intended for use as a bursting charge in BLU fragmentary type bombs and shaped charges.

6.2 Ordering Data.-See MIL-A-48078(PA). Procurement documents should also specify the type and class (if applicable) of cyclotol required. The order should indicate whether Level A or Level C is to be used for packing.

6.3 Sorbitan Trioleate should not be added to facilitate filtration of RDX which is to be used in Cyclotol being produced for the Energy Research and Development Administration (formerly the Atomic Energy Commission).

6.4 Cyclotol 75/25 (Type I) for use by the Energy Research and Development Administration must be blended to give greater assurance of lot homogeneity. The minimum lot size shall be 5,000 pounds unless the procurement document states otherwise (or the order is for less than 5,000 pounds). Cyclotol for the Energy Research and Development Administration should be incorporated with TNT from Volunteer Army Ammunition Plant.

6.5 Submission of Inspection Equipment Designs for Approval.-See MIL-A-48078. Submit equipment designs, as required, to Commander, Picatinny Arsenal, ATTN: SARPA-QA-T, Dover, New Jersey 07801.

6.6 Prior approval of the Contracting Officer is required for use of equivalent test methods. A description of the proposed method should be submitted through the Contracting Officer to: Commander, Picatinny Arsenal, ATTN: SARPA-QA-A-P, Dover, New Jersey 07801. This description should include but not be limited to the procedures used, the accuracy and precision of the method, test data to demonstrate the accuracy and precision and drawings of any special equipment required.

Custodian:
Army - PA

Preparing Activity:
Army - PA

Project Number: 1376-A053

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STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions – Reverse Side)

1. DOCUMENT NUMBER	2. DOCUMENT TITLE

3a. NAME OF SUBMITTING ORGANIZATION	4. TYPE OF ORGANIZATION *(Mark one)*
	☐ VENDOR ☐ USER ☐ MANUFACTURER ☐ OTHER *(Specify)*: _____
b. ADDRESS *(Street, City, State, ZIP Code)*	

5. PROBLEM AREAS

a. Paragraph Number and Wording:

b. Recommended Wording:

c. Reason/Rationale for Recommendation:

6. REMARKS

7a. NAME OF SUBMITTER *(Last, First, MI)* – Optional	b. WORK TELEPHONE NUMBER *(Include Area Code)* – Optional
c. MAILING ADDRESS *(Street, City, State, ZIP Code)* – Optional	8. DATE OF SUBMISSION *(YYMMDD)*

(TO DETACH THIS FORM, CUT ALONG THIS LINE.)

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