MILITARY SPECIFICATION

PROJECTILE, 20 MILLIMETER, SEMI-ARMOR PIERCING, HIGH EXPLOSIVE INCENDIARY, PGU-28/B

This specification is approved for use within the Naval Air Systems Command, Department of the Navy and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification establishes the production and acceptance requirements for the Projectile, 20 millimeter (mm) Semi-Armor Piercing, High Explosive Incendiary Projectile (SAPHEI), PGU-28/B, referred herein as the "projectile."

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commanding Officer, Naval Air Engineering Center, Systems Engineering and Standardization Department (SESD), Code 93, Lakehurst, NJ 08733-5100 , by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document, or by letter.

AMSC N3932

FSC 1305

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

2. APPLICABLE DOCUMENTS

2.1 Government documents.

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

SPECIFICATIONS

Federal

TT-C-490	Cleaning Methods and Pretreatment of Ferrous Surfaces for Organic Coatings.

Military

MIL-C-85717	Cartridge, 20mm, Semi-Armor Piercing, High Explosive Incendiary, PGU-28/B.

STANDARDS

Military

MIL-STD-105	Sampling Procedures and Tables for Inspection by Attributes.
MIL-STD-130	Identification Marking of U.S. Military Property.
MIL-STD-651	Visual Inspection Standards for 20mm Ammunition and Components.
MIL-STD-882	System Safety Program Requirements.
MIL-STD-1167	Ammunition Data Cards.
MIL-STD-1168	Lot Numbering of Ammunition.
MIL-STD-1169	Packaging, Packing and Marking for Shipment of Inert Ammunition Components.
MIL-STD-1235	Single Multilevel Continuous Sampling Procedures and Tables for Inspection by Attributes.

2.1.2 Other Government drawings and publications. The following other Government drawings and publications form a part of this specification to the extent specified herein. Unless otherwise specified, the issues will be those in effect on the date of the solicitation.

DRAWINGS

Naval Air Systems Command
(Code Ident 30003)

1575AS101	Projectile.
1575AS102	Charged Projectile Assembly Body.
1575AS103	Charged Nose Assembly.
1575AS104	Disc, Closure Nozzle.
1575AS105	Painted Projectile Body Assembly.
1575AS106	Projectile Assembly, 20mm.
1575AS107	Body, Projectile.
1575AS108	Nose, Cap.
1575AS109	Pellet, Zirconium.

Department of the Army
(Code Ident 19201)

7258816	Blank, Rotating Band, for Projectiles 20mm.
B7259545	Operating Instructions.
DI1075203	Detector, Eddy Current Flow.

PUBLICATIONS

U.S. Army Material Command

AMCR 715-505	Ammunition Ballistic Acceptance Test Methods, Volume 8, Test Procedures for 20mm Cartridges.

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

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted shall be those listed in the issue of the DODISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS shall be the issue of the nongovernment documents which is current on the date of the solicitation.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM B117-64	Method of Test for Salt Spray (Fog) Testing.
ASTM E18-67	Method of Test for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials.

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

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Item description. The PGU-28/B SAPHEI projectile shall consist of a hardened nose cap, a hardened steel body, and a banded projectile assembly.

3.2 Characteristics.

3.2.1 Performance. When assembled as part of a 20mm cartridge, the projectile shall meet the performance requirements specified in MIL-C-85717.

3.2.1.1 Metal parts security. The projectile metal parts when assembled into cartridges shall not separate when tested for metal parts security in accordance with MIL-C-85717.

3.3 Design and construction.

3.3.1 Production drawings. The projectile shall be fabricated in accordance with the applicable requirements specified on Drawing 1575AS101 and the drawings and documents referenced thereon.

3.3.2 Standards of manufacture.

3.3.2.1 Hardness. The body and nose shall be in accordance with the respective hardness requirements of Drawings 1575AS107 and 1575AS108.

3.3.2.2 Rotating band. The rotating band blank and the rotating band seat shall be clean at the time of banding. Shot or sandblasting shall not be used to clean the serrated band seat after knurling. The rotating band blank shall fill the band seat.

3.3.2.3 Projectile body soundness. The projectile body shall be free of ferrous metal discontinuity.

3.3.2.4 Protective coating.

3.3.2.4.1 Phosphate coating. The pretreatment process used shall be in accordance with applicable requirements of Drawing 1575AS101. The phosphate coating shall be as specified in the requirements of TT-C-490 for appearance and minimum weight, as applicable to the type of phosphate coating.

3.3.2.4.2 Paint coating. The paint coating shall be in accordance with the applicable requirements of Drawing 1575AS101. Exterior paint adhesion shall be in accordance with applicable requirements of TT-C-490.

3.3.2.4.3 Corrosion resistance. The painted exterior surfaces of the projectile body shall show no evidence of corrosion or rust which will cause pitting or damage to the projectile when exposed to salt fog. Discoloration of the projectile shall not constitute failure.

3.4 First article. When specified in the contract or purchase order, a sample shall be subjected to first article inspection (see 4.3 and 6.3).

3.5 System safety. System safety shall assure safety for all personnel and equipment during all phases of test and operations, including storage, packaging, handling and transportation. System safety engineering and management activities shall be in accordance with MIL-STD-882 (see 6.2.2).

3.6 Workmanship. All parts and assemblies shall be fabricated, loaded, and assembled in a manner that will assure compliance with all requirements of this specification. They shall be free of burrs, sharp edges, cracks, scratches, dents, folds, wrinkles, buckles, dirt, grease, oil, rust, and other foreign matter. The cleaning method used shall not be injurious to any parts, nor shall the parts be contaminated by the cleaning agents. Exterior surface coatings shall be continuous. Light scratches shall not exceed the defect criteria. All required marking and stamping shall be neat and clearly defined.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order (see 6.2.1), the contractor is responsible for the performance of all inspection requirements 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 assure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items must meet all requirements of Sections 3 and 5. The inspection 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 responsibiity of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of 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).

4.3 First article inspection. Unless otherwise specified in the contract or purchase order, the contractor shall furnish a first article sample of 50 projectiles to the testing activity designated in the contract or purchase order for first article inspection and approval (see 6.2.2 and 6.3). First article approval is valid only on the contact under which it is granted, unless specifically extended by the contracting activity to other contracts. The first article sample shall be manufactured using the same methods, materials, processes, and procedures proposed for production. Any production prior to approval of the first article samples shall be at the risk of the contractor. After approval of the first article sample, changes in material, processes, procedures, or design shall require prior written approval from the contracting activity and requalification may be required. The first article shall be selected at the beginning of regular production and shall consist of:

50	Rotating band blanks
125	Nose caps
125	Discs, closure nozzle
125	Bodies, unbanded
125	Body and rotating band assemblies (uncoated)
125	Body and rotating band assemblies (painted)
3	Standard panels

First article sample lot identification shall be in accordance with MIL-STD-1168.

4.3.1 First article sample failure. Failure of the sample to comply with requirements of the drawings and specifications shall be cause for sample rejection.

4.4 Quality conformance inspection.

4.4.1 Submission of product. The product shall be submitted in accordance with MIL-STD-105 or MIL-STD-1235, as applicable.

4.4.1.1 Lot. A lot shall consist of projectile metal parts produced by one manufacturer in one unchanged process in accordance with the same drawings, and the same specifications.

4.4.1.2 Lot identification. Each painted projectile assembly and each packed assembly lot shall be identified in accordance with applicable drawings and MIL-STD-1168. Each packed lot of closure discs and each packed lot of noses shall be identified in accordance with MIL-STD-1168 and MIL-STD-1169.

4.4.2 Examination. A 100-percent examination shall be performed by the contractor for all critical defects. Examination for major and minor defects shall be performed as specified herein. Each part and each assembly found to be defective shall be rejected.

4.4.2.1 Sampling and acceptance criteria. The sampling plans and procedures shall be in accordance with MIL-STD-105 or MIL-STD-1235. To determine product acceptability, major or minor defects as listed herein shall be considered on a class basis or individually. However, where major defects are considered on a class basis, the acceptance number for any individual defect of the class shall be limited by the assigned Acceptable Quality Level (AQL) for individual defect associated with the class (see 4.4.2.2c). Where three or less defects appear in a classification or where MIL-STD-1235 is used, sampling plans applicable to a class shall not be used for major defects (see 6.4).

4.4.2.2 AQLs. The following AQLs are assigned to major and minor defects:

a.	Individual:	Percent:
	Major	0.25
	Minor	0.40
b.	Class basis:	Percent:
	Major	1.50
	Minor	2.50
c.	Individual defects associated with the class basis:	Percent:
	Major	0.40

4.4.3 Classification of defects. The classification of defects shall be as specified in Tables I through IX herein and MIL-STD-651.

TABLE I. Rotating band blank (see Drawing 7258816).

Categories and defects	Method of inspection
CRITICAL: None defined.	- - -
MAJOR:	
101. Foreign matter	Visual
102. Defective metal, including lamination	Visual
103. Incomplete or deformed	Visual 1/
MINOR:	
201. Width, maximum	Gage

1/ A rotating band blank which is deformed or judged to lack sufficient metal in any part of its width or thickness to provide for complete band seat fill and minimum rotating band profile dimensions shall be classed defective.

4.4.4 Acceptance tests. The tests listed in Table X shall be conducted in compliance with the test methods and procedures prescribed herein (see 6.2.2). The samples shall be selected in such a manner as to be representative of the entire lot. The sample size and acceptance criteria for each test shall be as specified herein.

4.5 Test methods and procedures.

4.5.1 Performance. The projectile when assembled as part of a 20mm cartridge, shall pass all the performance tests as specified in MIL-C-85717.

TABLE II. Body projectile (see Drawing 1575AS107).

Categories and defects	Method of inspection
CRITICAL:	
1. Ferrous metal discontinuity	Soundness test (see 4.5.5)
MAJOR:	
101. Diameter bourrelet, minimum	Gage
102. Diameter body, rear of rotating band, minimum	Gage
103. Runout, body rear of rotating band	Gage
104. Length, mouth to rear of rotating band, maximum	Gage
105. Overall length, maximum	Gage
106. Diameter body rear of rotating band, maximum	Gage
107. Runout large ID 2/	Gage
108. Position small ID 2/	Gage
109. Large ID 2/	Gage
110. Small ID 2/	Gage
111. Depth rotating band seat, knurling, minimum	Visual/Gage 1/
112. Runout boat tail	Gage
MINOR:	
201. Length to rear edge of rotating band seat, minimum	Gage
202. Width rotating band seat, minimum	Gage 1/
203. Foreign mater	Visual

1/ Measurement of rotating band seat knurling for compliance with the minimum depth and width requirements shall apply where visual inspection indicates that the depth or width dimension is borderline.

2/ Dimensions shall be as indicated on Drawing 1575AS107.

TABLE III. Projectile body assembly (see Drawing 1575AS106).

Categories and defects	Method of inspection
CRITICAL: None defined.	- - -
MAJOR:	
101. Length mouth to rear edge of rotating band	Gage
102. Diameter bourrelet	Gage
103. Diameter of rotating band	Gage
104. Position rotating band diameter	Gage
105. Width rotating band	Gage
106. Location crimp groove	Gage
107. Profile crimp groove	Gage
108. Radius, rear edge of crimp groove, max.	Gage
109. Void at band/body interface	Visual
MINOR:	
201. Finish	Visual

TABLE IV. Painted, projectile body assembly (see Drawing 1575AS105).

Categories and defects	Method of inspection
CRITICAL: None defined.	- - -
MAJOR	
101. Diameter bourrelet, max.	Gage
MINOR:	
201. Exterior paint not dry	Tactile
202. Marking incorrect, illegible or missing	Visual
203. Paint on rotating band	Visual
204. Interior paint coverage incomplete	Visual

TABLE V. Charged, projectile assembly body (see Drawing 1575AS102).

Categories and defects	Method of inspection
CRITICAL: None defined.	- - -
MAJOR:	
101. Length, projectile mouth to surface of CMPSN A-4	Gage
102. Length, projectile mouth to surface of incendiary, RS-40	Gage
MINOR:	
201. Exterior finish	Visual

TABLE VI. Disc, closure nozzle (see Drawing 1575AS104).

Categories and defects	Method of inspection
CRITICAL: None defined.	- - -
MAJOR:	
101. Through diameter 1/	Gage
102. Position diameter to datum 1/	Gage
103. Diameter 1/	Gage
MINOR:	
201. Finish	Visual
202. Foreign matter	Visual
203. Position counterbore, diameter to datum	Gage
204. Position, diameter to datum 1/	Gage

1/ Dimensions shall be as indicated on Drawing 1575AS104.

TABLE VII. Nose, cap (see Drawing 1575AS108).

Categories and defects	Method of inspection
CRITICAL: None defined.	- - -
101. Nose tip thickness	Gage
102. Length overall	Gage
103. Length, 1.243 in.	Gage
104. Contour	Gage
105. Spherical radius 1/	Gage
106. Location diameter 1/	Gage
107. Location diameter 1/	Gage
108. Diameter 1/	Gage
109. Diameter 1/	Gage
110. Inside diameter 1/	Gage
111. Inside diameter 1/	Gage
112. Hardness	Gage
MINOR:	
201. Surface finish inside and outside	Visual
202. Foreign material	Visual

1/ Dimensions shall be as indicated on Drawing 1575AS108.

TABLE VIII. Charged nose assembly (see Drawing 1575AS103).

Categories and defects	Method of inspection
CRITICAL: None defined.	- - -
MAJOR:	
101. Depth to face of second increment	Gage
102. Depth to face of third increment	Gage
103. Deformation of exterior surface of nose	Tactile/Visual
MINOR:	
201. Surface finish	Visual
202. Foreign matter	Visual

TABLE IX. Pellet, zirconium (see Drawing 1575AS109).

Categories and defects	Method of inspection
CRITICAL: None defined.	- - -
MAJOR:	
101. Diameter	Gage
102. Weight	Gage
MINOR:	
201. Foreign material	Visual

4.5.2 Metal parts security. The metal parts security shall be in accordance with AMCR 715-505, Volume 8. The test cartridges, at ambient temperature, shall be fired in bursts of 50 shots in a M61 gun. The gun barrel shall be at ambient temperature for the firing of each burst. The cyclic rate of fire will be recorded for informational purposes. These tests shall be carried out in accordance with the applicable tests of MIL-C-85717.

TABLE X. Lot acceptance tests.

Test	Sample size	Item	Requirement paragraph
Metal parts security 1/	250	Body, adapter and rotating band assembly, painted	3.2.1.1
Hardness			
Body 2/	13	Body	3.3.2.1
Nose 2/	80	Nose	3.3.2.1
Band tightness 3/	315	Body and rotating band assembly, uncoated	3.3.2.2
Soundness verification 4/	315	Body	3.3.2.3
Automatic inspection 5/		PCS No. 1	- - -
Phosphate coating 6/	3	Standard panels, TT-C-490	3.3.2.4.1
Paint adhesion 7/	13	Body, band assembly painted	3.3.2.4.2
Corrosion resistance 8/	32	Body, adapter and rotating band assembly, painted	3.3.2.4.3

1/ When tested in accordance with the applicable tests of MIL-C-85717. The occurrence of one or more of the following shall be cause for rejection of the lot, except as otherwise provided herein.

a. Body separation or breakup.

b. Loss of nose.

c. Complete rotating band separation. This is defined as detachment of all the band having band seat knurling imprint.

TABLE X NOTES (Continued).

d. Partial rotating band separation. This is defined as the detachment of part of the band having band seat knurling imprint.

e. The following criteria shall apply to thrown band fragments having no evidence of band seat knurling imprint.

(1) The lot shall be rejected if three or more assemblies throw band fragments having lengths not greater than 0.500 inch.

(2) The lot shall be rejected if any assembly throws a band fragment having a length greater than 0.500 inch (indicative of deep-seated band lamination).

(3) The lot shall not be penalized for band particles thrown as a result of normal band fringing or slivering.

2/ If two or more units of the sample fail to comply with the nose hardness requirement, the lot shall be rejected. If one unit fails to comply with the requirement, a second sample consisting of the same number of units as specified for the first sample shall be tested. If in the accumulated samples, two or more units fail to comply with the nose hardness requirement, the lot shall be rejected.

3/ If two or more units of the sample have an average radial void between the seated band and the band seat greater than 0.004 inch, the lot shall be rejected. If one unit of the sample has an average radial void greater than 0.004 inch, a second sample consisting of the same number of units as specified for the first sample shall be tested. If in the accumulated samples, two or more units have an average radial void greater than 0.004 inch, the lot shall be rejected.

4/ If ferrous metal discontinuity in excess of 0.005 inch in width (excluding knurl surfaces) is found in any unit of the sample as witnessed by the test of 4.5.5.4, the lot shall be rejected.

5/ Failure of the flaw detector to reject Production Clerk Standard (PCS) No. 1 shall be cause for rejection of all assemblies inspected for "soundness" since the preceding test, and shall require requalification of the equipment for automatic inspection (see 4.5.5.3).

6/ Failure of the phosphate coating on the standard panels to comply with the applicable requirements shall be cause for rejection of all assemblies phosphated since the preceding test.

TABLE X NOTES (Continued).

7/ If two or more units of the sample fail to comply with the requirement for paint adhesion, the lot shall be rejected. If one unit of the sample fails to comply with the requirement, a second sample consisting of the same number of units as specified for the first sample shall be tested. If in the accumulated samples two or more units fail to comply with the requirement for paint adhesion, the lot shall be rejected.

8/ If two or more units of the sample fail to comply with the corrosion resistance requirement, the lot shall be rejected. If one unit fails to comply with the requirement, a second sample consisting of the same number of units as specified for the first sample shall be tested. If in the accumulated samples two or more units fail to comply with the corrosion resistance requirement, the lot shall be rejected.

4.5.3 Hardness. The hardness test shall be in accordance with ASTM E18-67.

4.5.3.1 Body. Each sample body shall be sectioned, prepared, and tested and one hardness impression shall be taken at each of the points shown on Drawing 1575AS107.

4.5.3.2 Nose. The hardness of each sample nose shall be measured in areas shown on Drawing 1575AS108. The hardness shall be measured using a superficial hardness tester (Amos model 1-ST or equal) with direct reading on the Rockwell 15-T scale. The average of four readings shall determine hardness. No individual reading shall exceed the acceptable range (33-55) by no more than 5 points R-15T.

4.5.4 Band tightness. The band tightness test shall be in accordance with Drawing B7259545. The inspection sample shall be cycled through the tester to determine compliance with the rotating band tightness requirement. The total measurement of radial void, registered on the tester indicator at final ram pressure, shall be divided by four (number of indentors) to determine the average radial void.

4.5.5 Body soundness. Inspection shall be in accordance with all requirements of Drawing DI1075203 for detecting metal discontinuity in projectile bodies for 20mm ammunition, except for those inspection requirements which are reserved for Government application, as specified herein.

4.5.5.1 Application of defect standards. Master defect standards, referenced on Drawing B7259545, shall apply to resolve inspection discrepancies occurring between the results of defect standards supplied for contractor soundness inspection and those supplied for Government soundness verification.

4.5.5.2 Automatic eddy current inspection effectiveness. Equipment checkout shall be performed in accordance with DI1075203 at the start of each shift and after any adjustment or shutdown. Upon completion of checkout, cycle the PCS No. 1, front slot and rear slot standards through the inspection system during automatic operation. All three standards must be rejected to assure correct adjustment for reject level and scan limits. During remainder of shift, the PCS no. 1 shall be cycled through the equipment at intervals of 20 ±5 minutes during automatic operation.

4.5.5.3 Equipment verification. The Government inspector shall maintain a set of standards independent of the contractor, and may cycle these standards through the equipment at any time. Failure of equipment to reject standards shall be evidence that the equipment is not properly adjusted and the contractor shall be notified.

4.5.5.4 Projectile body soundness verification. After equipment checkout and verification as specified in 4.5.5.2 and 4.5.5.3, the entire lot sample shall be inspected with the equipment operating automatically. Any rejected unit of the sample shall be automatically cycled through the equipment with the calibration button pressed, which lowers the sensitivity one step below that used for production inspection. Any unit which is rejected at the lower sensitivity shall be classified as a defect.

4.5.6 Protective coating.

4.5.6.1 Phosphate coating. The phosphate coating shall comply with TT-C-490 and Drawing 1575AS101. The prescribed panels shall be processed with the projectiles to be represented at the start of daily production and at 4-hour intervals thereafter. Appearance and weight of the coating shall be recorded.

4.5.6.2 Paint adhesion. The paint adhesion shall be in accordance with TT-C-490. The test shall be made on the painted bourrelet of each unit of the sample, forward of the rotating band. The visible exposure of the underlying phosphate coating or the ferrous metal of any unit of the sample, as a result of the test, shall be recorded as a defect.

4.5.6.3 Projectile coating defect criteria. Projectiles indicating exposure of bare metal or underlying phosphate or organic pretreatment shall be considered unsatisfactory if any of the following conditions exist:

a. Any area exceeds 0.090 square inch.

b. More than one area exceeds 0.045 square inch.

c. More than five areas of 0.021 square inch.

4.5.6.4 Corrosion resistance. The corrosion resistance shall be in accordance with ASTM B117-64. The paint shall not be disturbed, but the rotating band and the unpainted surfaces of the sample projectiles shall be masked out by a wax coating or other suitable material.

4.6 Visual inspection. The projectile shall be subjected to a visual inspection in accordance with the applicable requirements of MIL-STD-651. Projectiles not meeting these requirements shall be rejected.

4.7 System safety. System safety testing shall be performed to meet the requirements of MIL-STD-882 to determine that all potential hazards are eliminated or controlled to a level acceptable throughout the entire life cycle of a system.

4.8 Packaging, packing and marking inspection. Inspection for packaging, packing and marking shall comply with applicable requirements of Section 5.

5. PACKAGING

5.1 Preservation. Each lot of projectile bodies, closure discs, and noses shall be packed in accordance with MIL-STD-1169.

5.2 Packing. Each lot of projectile bodies, closure discs, and noses shall be packed in accordance with MIL-STD-1169.

5.3 Marking. Marking of packed containers shall comply with applicable requirements of MIL-STD-1169 and MIL-STD-130.

5.4 Documentation with shipment. When specified in the contract or purchase order (see 6.2.2), each shipment of projectiles shall contain ammunition data cards in accordance with MIL-STD-1167 and lot numbers and lot identification in accordance with MIL-STD-1168.

6. NOTES

6.1 Intended use. These projectiles are intended for use in the M-61 and M-197 automatic weapon system.

6.2 Ordering data.

6.2.1 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this specification.

b. Responsibility for inspection if different from 4.1.

c. Packing and marking instructions. (see 5.2 and 5.3)

d. Provisions for the shipment and testing of production lot samples for metal parts security.

6.2.2 Data requirements. When this specification is used in an acquisition and data are required to be delivered, the data requirements identified below shall be developed as specified by an approved Data Item Description (DD Form 1664) and delivered in accordance with the approved Contract Data Requirements List (CDRL), incorporated into the contract. When the provisions of DOD FAR Supplement, Part 27, Sub-Part 27.410-6 (DD Form 1423) are invoked and the DD Form 1423 is not used, the data specified below shall be delivered by the contractor in accordance with the contract or purchase order requirements. Deliverable data required by this specification are cited in the following paragraphs.

Paragraph no.	Data requirement	Applicable DID no.	Option
3.5	Safety Assessment Report	DI-SAFT-80102	---
4.3, 4.4.4	Test Plans and Procedures	DI-T-5204	---
4.3, 4.4.4	Test Reports	DI-T-2072	---
5.4	Ammunition Data Card	DI-MISC-80043	---

(Data item descriptions related to this specification, and identified in Section 6, will be approved and listed as such in DOD 5000.19L., Vol. II, AMSDL. Copies of data item descriptions required by the contractors in connection with specific acquisition functions should be obtained from the Naval Publications and Forms Center or as directed by the contracting officer.)

6.3 First article. When a first article inspection is required, the items should be a first article sample. The first article should consist of 50 projectiles. The contracting officer should 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 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.

6.4 AQLs. The optional use of AQL values for either individual defects or classes of defects, with individual major defect limitations, is intended to minimize inspection agency administrative burden that might result from an exclusive assignment of individual defect AQLs. The option also permits flexibility where sampling inspection for acceptance is integrated into the manufacturing process.

6.5 Drawings. Drawings listed in Section 2 of this specification under the heading Department of the Army may also include drawings prepared by, and identified as, Edgewood Arsenal, Frankford Arsenal, Rock Island Arsenal, or Picatinny Arsenal drawings. Technical data originally prepared by these activities are now under the cognizance of the Department of the Army.

6.6 Explosives safety precautions. Minimum explosives safety precautions for use by the contractor are detailed in DOD Instruction 4145.26M, DOD Contractors' Safety Manual for Ammunition, Explosives, and Related Dangerous Material.

6.7 Subject term (key word) listing.

Ammunition
Armor piercing ammunition
Bursting changes
Explosives
Incendiary ammunition
Nose fuzes
PGU-28/B
Projectiles
SAPHEI
Small arms ammunition
20 millimeter

Preparing Activity:

Navy-(AS)
(Project: 1305-N009)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions – Reverse Side)

1. DOCUMENT NUMBER	2. DOCUMENT TITLE
MIL-P-85723(AS)	PROJECTILE, 20 MILLIMETER, SEMI-ARMOR PIERCING, HIGH EXPLOSIVE INCENDIARY, PGU-28/B

3a. NAME OF SUBMITTING ORGANIZATION

b. ADDRESS *(Street, City, State, ZIP Code)*

4. TYPE OF ORGANIZATION *(Mark one)*

- ☐ VENDOR
- ☐ USER
- ☐ MANUFACTURER
- ☐ OTHER *(Specify)*: _____

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.)

DD FORM 82 MAR 1426

PREVIOUS EDITION IS OBSOLETE.