

# **Statement of Work**

## **9-millimeter (mm), Barrier Blind Cartridge**

### **1. SCOPE**

This Statement of Work (SOW) covers the requirements for the manufacturing, testing, inspection, packaging, and acceptance of 9mm Barrier Blind cartridge ammunition in accordance with (IAW) performance specification (Attachment 1).

### **2. APPLICABLE DOCUMENTS**

The following specifications, standards, handbooks, drawings and documents form a part of this SOW to the extent specified herein. Unless otherwise specified, the documents below shall be listed in the latest issue of the Department of Defense Index of Specifications and Standards (DoDISS).

Specifications, Standards, and Other Required Documents:

#### **MILITARY SPECIFICATION**

- PRF20011A0001 Cartridge, 9mm, Barrier Blind (Interim Draft) (Attachment 01)

#### **PRODUCT DRAWINGS**

- 20011A0001 Cartridge, 9mm, Barrier Blind (Attachment 02)

#### **U.S. ARMY DEVELOPMENT COMMAND ARMAMENTS CENTER PUBLICATIONS**

- SCATP – Small Caliber Ammunition Test Procedures for 9mm (Attachment 03)

#### **DEPARTMENT OF DEFENSE STANDARDS**

- MIL-STD-1916 – Test Method Standard (Attachment 04)
- MIL-STD-1168C – Ammunition Lot Numbering and Ammunition Data Card (Attachment 05)
- MIL-STD-1171B – Energetic Material Description Sheets and Propellant Loading Authorization Sheets (Attachment 06)
- MIL-STD-1904C – Test Standards for Level A and Level B Packaging for Conventional Ammunition (Attachment 07)
- MIL-STD-2073/1E (1) – Standard Practice for Military Packaging (Attachment 08)
- MIL-STD-130N – Standard Practice Identification Marking of United States Military Property (Attachment 09)
- MIL-STD-129R – Military Marking for Shipment and Storage (Attachment 10)
- MIL-PRF-61002C - Performance Specification Labels, Pressure-sensitive Adhesive, for Bar Coding (Attachment 11)

#### **DEPARTMENT OF THE NAVY STANDARDS**

- Drawing 9396205 – Packing and Marking for M2A2 Ammo Box for Cartridges, Small Caliber (Attachment 12)
- Drawing 9396206 – Packing and Marking for Wirebound Box Assembly for Cartridges, Small Caliber (Attachment 13)
- NAVSEA drawing 6214536 Rev B - Unit Load Construction Guidelines for Domestic and Overseas Shipment of Container, M2A1 (Attachment 14)

## INDUSTRY STANDARDS

- SAAMI Z299.3 – Voluntary Industry Performance Standards for Pressure and Velocity of Centerfire Pistol and Revolver Ammunition for the Use of Commercial Manufacturers (Attachment 15)

Unless otherwise indicated, copies of the above specifications, standards, handbooks, or publications are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094. Any documents required by manufacturers in connection with specific acquisition functions should be obtained from the Technical Point of Contract (TPOC), contracting activity or as directed by the contracting officer.

## 3. REQUIREMENTS

### 3.1. General

3.1.1. The contractor shall perform all tasks described in this SOW to manufacture, test, deliver, and prepare associated documentation for the 9mm Barrier Blind Cartridge.

3.1.2. The contractor shall deliver 9mm Barrier Blind Cartridges conforming to the documents specified in the requirements of this SOW and the terms and conditions of this contract.

3.1.3. 9mm Barrier Blind Cartridges shall meet all the requirements listed in the 9mm Barrier Blind performance specification (Attachment 01).

3.1.4. The Contractor shall procure all parts and materials and provide the qualified personnel, equipment, and facilities necessary to manufacture, inspect, test and package ammunition.

3.1.5. Any changes to a qualified design shall require review and approval by the U.S. Government (USG). Contractor proposed design changes may require testing at the contractor's expense. Approvals shall only be given by the Procuring Product Manager (PPM). Delivery dates relative to award date and delivery locations are detailed in the contract.

### 3.2. Program Management

#### 3.2.1. Schedule Planning

The contractor shall maintain an accurate Integrated Production Schedule (IPS) of program events [Contract Data Requirements List (CDRL) A001]. The IPS shall include, at a minimum, discrete (major) tasks/activities, contract milestones/events, reviews, data deliveries, product deliveries, consistent with all authorized work, and relationships necessary for successful contract completion. Subcontractor discrete work shall be incorporated as tasks within the prime IPS at a level necessary for a realistic critical path. The IPS is a single integrated network that also contains significant external interfaces, Government furnished equipment/information/property and relationship dependencies for the entire contractual effort. The contractor shall notify the Procurement Product Manager (PPM) in writing of any anticipated or projected work stoppages or delays that will impact the IPS.

#### 3.2.2. Subcontractor Management

The contractor is responsible for all aspects of subcontractor performance under this contract.

#### 3.2.3. Assignment of Responsibility and Authority

The contractor shall identify organizational elements and personnel (including reporting relationships) responsible for contractor activities in support of contractual performance. The contractor shall provide point of contact information to the PPM for management personnel having the authority to direct contractor performance.

under this contract. The contractor shall notify the PPM within ten (10) calendar days of any changes regarding authority, responsibility, or key personnel changes made by the contractor during the period of performance.

### **3.3. Manufacturing**

3.3.1. The contractor shall coordinate and manage bid sample and qualification testing for 9mm Barrier Blind for introduction to the Class V(W) inventory.

3.3.2. The design to be delivered under this contract shall be of a design that has been approved by the PPM IAW Attachment 01. The contractor (and/or subcontractor) shall have a design that has been confirmed by the PPM to be fully qualified IAW Attachment 01. Design Verification Testing may be required to ensure any additional Technical Data Package (TDP) requirements, which have been added or changed since the design was previously produced, are met.

3.3.3. Contractors (and/or subcontractors) with designs that have not been previously qualified shall provide all test data and related supporting documentation to the USG review to verify compliance IAW Attachment 01. The Government will review the submission of any supporting data and documentation and will provide a determination whether it is sufficient to warrant USG approval. Design Verification Testing may be required to ensure any additional TDP requirements, which have been added or changed since the design was previously produced, are met.

3.3.4. After 90 calendar days from contract award, the contractor shall deliver a maximum of 64,600 cartridges IAW Attachment 01, and per the USGs discretion. This includes both previously qualified or approved designs, as well as those designs not previously qualified or approved. See Section F for delivery information.

3.3.5. Once a design has been qualified or approved IAW Attachment 01, this shall constitute the product baseline per Attachment 01. Any proposed changes to a USG previously qualified or approved design shall require review and approval by the USG prior to production of the modified design and establish a new product baseline. Approvals shall only be given by the PPM. Additional testing at the contractor's expense may be required to re-qualify or re-approve the proposed changes. The contractor shall provide all test data and related supporting documentation sufficient to support and prove that the modified design still meets the requirements outlined in Attachment 01. The USG shall review the submitted information and shall determine if the modified design meets the requirements, or whether any additional qualification testing is required.

### **3.4. Data Management and Deliverables**

#### **3.4.1. CDRL Requirements**

Technical data and information shall be provided IAW this SOW, the applicable CDRL-DD Form 1423, and the following:

The Contractor shall concurrently deliver technical data and information per DD Form 1423, Blocks 12, 13, and 16 (date of first/subsequent submission/remarks) to all addresses listed in Block 14 of the DD Form 1423 (distribution and addresses) for each item.

Partial delivery of data is not acceptable unless specifically authorized on the DD Form 1423, or unless approved in writing by the PPM.

The Government review period provided on the DD Form 1423 for each item commences upon receipt of all required data by the technical activity designated in Block 6.

The PPM reserves the right to issue unilateral modifications to change the destination codes and addresses for all technical data and information at no additional cost to the Government.

### 3.4.2. Failure Reporting Analysis and Corrective Action System (FRACAS)

The contractor shall use a closed loop system for failure reporting, analysis and corrective action applicable to all failures to meet contractual requirements, including failures related to First Article Testing (FAT) and Lot Acceptance Testing (LAT). The FRACAS shall include uniform failure reporting, failure analysis reports, and corrective actions. If a failed item is returned subject to a Product Quality Deficiency Report (PQDR), traceability of the PQDR shall be integrated into the FRACAS (**CDRL A002**). The USG may conduct a Failure Review Board (FRB) at any time throughout the period of performance. The contractor is encouraged to use MIL-HDBK-470 and MIL-HDBK- 781A as guidance.

Nothing in this paragraph shall be construed as relieving the contractor of the contractual obligation to provide and deliver 9mm Barrier Blind cartridges and components conforming to the specification and other contractual requirements. The costs of performing FRACAS activities shall be borne entirely by the contractor and not separately priced unless the failure was the result of an Engineering Change Proposal (ECP) unilaterally imposed on the contractor by the Government.

## 3.5. Critical Characteristics Controls

### 3.5.1. Critical Characteristics Control Plan (CCCP)

- a. The contractors' processes shall be designed with the objective of preventing the creation or occurrence of non-conforming critical characteristics [see paragraphs 3.5.1.(d), and 3.5.2.(a)]. The contractor shall establish, document and maintain a product specific, critical characteristics control (CCC) plan that shall be submitted to and approved by the PPM IAW and **CDRL A003**. The CCC Plan shall include or reference all procedures, work and handling instructions and process controls relating to any critical characteristics. Mistake Proofing techniques of the material handling and inspection systems shall be a part of the CCC Plan. Guidance for developing this plan and submitting Critical Plans of Action (CPOA) (paragraph 3.5.4) can be found at <http://www.ardec.army.mil/organizations/QESA/>.
- b. The contractor shall assure its critical processes are robust in design, capable and under control, with the objective of not generating any critical non-conformances. The contractor shall calculate, document, clearly identify, and have a schedule that routinely assess the reliability and effectiveness of its critical processes to prevent generating critical non-conformances as identified in the CCC Plan.
- c. An inspection and verification system shall be employed that will verify the robustness of all critical processes. The contractor shall calculate, document, clearly identify, and have a schedule that routinely assess the reliability and effectiveness of its inspection and verification system to detect and prevent critical non-conformance escapes as identified in the CCC Plan. The Government expects that a contractor will allow zero critical escapes. To demonstrate its critical escape risk the contractor shall utilize the nonconformance escape risk goal provided below.
  - (1) Unless otherwise specified immediately below, the calculated critical non-conformance escape risk is 1 in a million (.000001) items delivered. Or: Alternate calculated Critical Non-conformance Escape risk: not applicable
  - (2) Unless otherwise approved by the PPM, the non-conformance escape risk is the sum of the individual characteristic escape rates. The probability of escape for a single characteristic shall be calculated by multiplying the non-conformance rate(s) entering the inspection system(s) by the error rate of the inspection system(s). These escape rates are then summed and shall not exceed the tolerable critical non-conformance escape risk.

Within 45 calendar days after award, the contractor can elect to submit a phased-in approach on how the non-conformance escape risk will be achieved over a period of time not to exceed 180 calendar days from the date of first article approval, or from initiation of production when first article is not required. Submission will require approval by the Government and is subject to a technical review

and analysis. Allowance for a phased-in approach will then become a part of the contract. Disapproval of the contractor's submission does not relieve the contractor of its obligation to comply with the terms of this requirement.

- (3) Based on the maximum error rate defined for the inspection system, the contractor shall develop a test procedure to demonstrate the error rate. As part of the test plan the contractor shall include sufficient test quantities to assure 90% statistical confidence in the resultant rates unless otherwise approved by the PPM. Once established, the contractor shall have a documented schedule to routinely monitor the non-conformance and inspection system error rates to assure they do not exceed the maximum rates allotted.
- d. As a result of previous practices, the Government's technical data may refer to Critical I, Critical II, and Special characteristics. The use of the term "critical characteristics" within this section includes Critical I, Critical II and Special characteristics and the use of the term "critical nonconformances" includes those nonconformances pertaining to Critical I, Critical II and Special characteristics. Unless otherwise stated in Section C, these characteristics shall be subject to all requirements of this section.

#### 3.5.2. Critical Item Characteristic List (CICL)

- a. In addition to critical characteristics defined in the Government's technical data (drawings, specifications, etc.), the contractor shall also identify and document in its contractor developed technical data all known material, component, subassembly and assembly characteristics whose non-conformances would likely result in hazardous or unsafe conditions for individuals using, maintaining or depending upon the product. All additional critical characteristics identified by the contractor shall comply with the critical characteristic requirements of the technical data package, supplemented herein. The CICL review process shall be included in the CCC Plan. The contractor's additional critical characteristics shall be classified IAW guidance located at <http://www.ardec.army.mil/organizations/QESA/> and shall be submitted to and approved by the PPM prior to production IAW **CDRL A004**.
- b. In the event that a critical non-conformance is found anywhere in the production process, the contractor, as part of its CCC Plan, shall have procedures in place to ensure:
  - (1) The non-conformance is positively identified and segregated to ensure that nonconforming product does not inadvertently remain in or reenter the production process. This control shall be accomplished without affecting or impairing subsequent non-conformance analysis. Final disposition of non-conforming product shall be documented and audited for traceability.
  - (2) The operation that produced the non-conforming component or assembly and any other operations incorporating suspect components or assemblies are immediately stopped. [See paragraph (h) for exceptions]
  - (3) The Government PPM is immediately notified of the critical non-conformance (electronic mail IAW **CDRL A004**).
  - (4) Any suspect material is identified, segregated and suspended from any further processing and shipment.

#### 3.5.3. Critical Non-Conformance Investigation Report

- a. An investigation is conducted to determine the root cause of the non-conformance and the required corrective actions. An evaluation shall also be conducted with regard to suspect material to ensure that no additional critical non-conformances are present. A report of this investigation shall be submitted to the Government IAW **CDRL A005**. The use of the DID report shall not delay notification to the Government as required in 3.5.2.b(3) above.

- b. A request to restart manufacturing or to use any suspect material associated with the critical non-conformance is submitted to the Government IAW **CDRL A005**. Restart of production shall not occur until authorized by the PPM, unless previously addressed in the approved CCC Plan. The Government will respond to a restart request within 3 working days. All objective evidence of the investigations to date shall be available for review at the time of restart. Suspect material shall not be used without PPM approval.
- c. The procuring activity reserves the right to refuse acceptance of any suspect material until the root cause or reasonably likely cause of the critical non-conformance has been identified, corrective action has been fully implemented and sufficient evidence has been provided to exclude non-conforming material from the conforming population.

#### 3.5.4.Critical Plan of Action (CPOA)

- a. The contractor may develop alternative plans and provisions, collectively referred to as a Critical Plan of Action (CPOA), relative to Government or contractor identified critical characteristics. All CPOAs are independent and shall be evaluated by the Government for this contract. The CPOA and any subsequent revisions submitted IAW **CDRL A006** require PPM approval prior to implementation. Unless otherwise specified at time of approval, contractor shall review and evaluate CPOAs for currency and process improvements at least on an annual basis and submit results to the PPM. Unless otherwise approved by the PPM, each critical characteristic shall require a separate CPOA. If the CPOA includes other documents by reference, they shall be submitted upon request.
- b. Guidance for the development of a CPOA can be found in the referenced guidance located at paragraph 3.5.4.(a) of this section.
- c. The contractor may continue production with an approved CPOA provided that the critical non-conformance is consistent with the failure mode(s) and rates established in the CPOA. Failure to meet all CPOA requirements will require the contractor to revert back to paragraph 3.5.2.(b) requirements.
- d. If a critical non-conformance is discovered beyond its designated inspection point and prior to Government acceptance the contractor shall take actions specified in paragraph (f) above. If a critical non-conformance is discovered after Government acceptance the Government has the right to invoke the requirements of paragraph 3.5.2.(b) with respect to the contractors remaining production under this contract.

### 3.6. Process Capability, Control and Improvement Requirements

#### 3.6.1.Process Control Plan

- a. The contractor shall establish a Process Control System that includes, but is not limited to, procedures, systems and software. This Process Control System shall complement the requirements of an International Organization for Standardization (ISO) 9001-2015 or equivalent Quality Management System as well as all contract quality requirements. Statistical Process Control (SPC), when utilized, shall be implemented IAW ISO 11462-1 and ANSI/ASQC B1, B2, and B3 or equivalent. A Process Control Plan (PCP), which describes actions and methods to assure production processes are in a state of control, shall be submitted to the Government for review and approval as stipulated IAW **CDRL A007**. Demonstration of process capability IAW the approved PCP shall be accomplished prior to or at first article (if required) or prior to start of production. The Government reserves the right to withhold acceptance of product when there is evidence of noncompliance to the PCP. Should a finding of noncompliance to the PCP be made, a corrective action plan shall be submitted to the Government for approval.

b. Characteristics For Process Control (CFPC) are as follows:

- (1) CFPCs are features whose variation have a significant effect on product fit, form, function, performance, service life or producibility, that require specific actions for the purpose of controlling variation. CFPCs result from an in-depth Government-only review and analysis as specified in TDP documentation as required below:

☐ b(1.1) Government selected list, see paragraph (g) below

☐ b(1.2) As listed key characteristics

☒ b(2) CFPCs are features whose variation have a significant effect on product fit, form, function, performance, service life or producibility, that require specific actions for the purpose of controlling variation. CFPCs shall be determined using an in-depth contractor review and analysis as specified in the PCP documentation. The Government reserves the right to identify any CFPCs as well as any additional characteristics identified in paragraph (g).

☐ b(3) CFPCs are features within a product, subassembly, part and process whose variation from nominal (i.e., target value) significantly impacts safety, performance in terms of customer's requirements, or final cost of a product. Special controls should be applied where the cost of variation justifies the cost of control. These shall be developed from an in-depth Government-Contractor review and analysis of design as specified in paragraph (g) below.

- c. The contractor's analysis shall include processes and operations under the control of the prime contractor and those under the control of sub-contractor including sub-tier suppliers. The contractor shall create a process flow chart for the entire process (including manufacturing, inspection and material handling) and perform a Process Failure Modes and Effects Analysis (PFMEA) for processes identified on the process flow chart affecting CFPCs. The contractor shall identify, define and document specific controls applicable for each process and operation that affects all CFPCs. The contractor shall: (a) conduct process capability studies on all process and operation parameters affecting CFPCs; (b) verify that all automated inspection equipment used to validate process capability has been properly calibrated and certified; and (c) conduct Measurement System Analysis (MSA) studies on all applicable corresponding measurement systems utilized to monitor process capability.
- d. The contractor shall prepare and implement a PCP. The PCP shall be based upon and include the process flow chart, PFMEA, process capability studies and MSA studies for all process and operation parameters affecting CFPCs. For each CFPC, the PCP shall describe the entire process (including manufacturing, inspection and material handling), control methods and action plans for all out of control conditions and process capability at the stated production rates. When utilizing statistical methods, a process capability index such as Process Capability Index (Cpk) shall be calculated. A CFPC shall be considered to have an acceptable (and capable) process if it has a Cpk of at least 2.00 for Critical characteristics, 1.33 for all other CFPCs, or as stated as follows: Not Applicable. The contractor shall notify the PPM when the minimum process capability values (Cpk) of 2.00 for Critical characteristics and 1.33 for all other CFPCs, or the alternative established minimum Cpk values, are no longer being maintained.
- e. In accordance with MIL-STD-1916 the contractor may request, in writing, that alternate methods of acceptance be evaluated once the processes and applicable operation parameters have been demonstrated to be both stable and capable. Any alternate methods may not be implemented until approved by the PPM.
- f. Corrective Action Requests (CARs) and Requests For Variance (RFVs) generated for identification of product non-conformances shall result in an evaluation of the PCP. The evaluation shall consider addition of new CFPCs to the contractually required process control list and require implementation of actions per paragraphs (c) and (d) above with submittal to the PPM for Government approval. If the CARs and RFVs are related to characteristics, processes and/or operations already identified in the PCP

then those actions required by paragraphs (c) and (d) shall be reassessed and submitted to the Contracting Officer for Government approval. The Government reserves the right to withhold acceptance of product until the revised PCP is approved by the Government.

- g. If box b(1.1), b(2) or b(3) are checked above, the selected characteristics and applicable tools, techniques, control methods or method of analysis to obtain these are specified as follows: No other SPC's identified by the Government.

### 3.6.2. Acceptance of Product (MIL-STD-1916)

The Department of Defense (DoD) Preferred Methods for this Acceptance of Product, MIL-STD-1916, shall be used for this procurement action. All references to MIL-STD-105, MIL-STD-414, MIL-STD-1235, and ANSI Z1.4 appearing in the TDP are replaced by MIL-STD-1916. Verification Levels (VL) shall replace AQLs and shall be VL IV for major characteristics and VL II for minor characteristics. The vendor shall supply lot acceptance reports, and material certifications for every lot produced to the PPM for review and approval before the delivery order is accepted. Lot Acceptance Reports include all tests and inspections, and material certifications for each specific lot.

## 3.7. Configuration Management

### 3.7.1. Configuration Management (CM) Plan

The Supplier's Configuration Management (CM) Plan describes the organization, procedures, and controls of the Supplier's CM program. The contractor shall submit a Configuration Management Plan IAW **CDRL A008**. The contractor shall maintain a CM process for the control of all configuration documentation, media and components representing or comprising the 9mm Barrier Blind ammunition and components. The ammunition TDP will be subject to configuration management. This includes individual component, sub-assembly & assembly dimensional configurations including their materials, coatings, compositions, and functional characteristics. When required, the detailed TDP shall be available for review at the Government's convenience. The TDP shall be maintained by the contractor and all pertinent drawings shall be available at the subcontractor/vendor facilities when Government visits are arranged with the contractor. The contractor shall perform configuration management on the 9mm Barrier Blind ammunition and Components to ensure form, fit, function and interface requirements are maintained throughout the contract period. MIL-HDBK-61A may be used as guidance in the development and execution of the configuration management plan.

### 3.7.2. Physical Configuration Audit (PCA)

Physical Configuration Audit (PCA): The contractor shall prepare for a PCA to be conducted for the Government (**CDRL A009**). The PCA shall be performed in conjunction with the first article tests and inspections to evaluate the degree to which the components and assemblies conform to the requirements of the drawings and specifications. Inspection results shall validate 100% of all drawing dimensions and characteristics with actual cartridge data. Following the initial FAT-PCA, with PPM approval, future PCAs shall be done when components or drawings have changed. Future PCAs shall be approved by the PPM. The USG reserves the right to request a PCA throughout the period of performance of the contract. The contractor shall identify and provide descriptions of any special equipment (DI-SSES-81646C) used to perform the required inspections and tests of Attachment 01. The contractor shall notify in writing to the PPM 30 calendar days prior to FAT-PCA testing at Continental United States (CONUS) test sites. FAT-PCA testing shall be witnessed by USG Representatives. The contractor shall supply the Quality Acceptance data (DI-NDTI-80809B (tailored-report format)). If any unforeseen issue occurs and the FAT-PCA must be delayed, the contractor shall submit an official letter to the PPM at least five (5) calendar days in advance acknowledging the cause for delay and the new FAT-PCA date.

### 3.7.3. Change Management Documentation [(ECP, Notice of Revision (NOR), RFV)]



The contractor shall maintain control and accountability of the product baseline throughout the life of this contract. The contractor shall notify the Government at the onset of their planning, which shall be at a minimum of 60 calendar days in advance, of all changes to established baselines that affect form, fit, function, cost or product delivery schedule throughout performance of this contract. The notification shall include a change impact analysis that assesses alternate solutions to determine what action is in the best interest of the Government. Additionally, notification information shall include enclosures and figures that identify and define the effect on packaging data, testing supportability, interoperability/interchangeability, lifecycle costs, maintainability, reliability, environmental (to include identification of all ozone depleting substances) safety and health (ESH) and retrofit information. Sufficient supporting data to evaluate the proposed or requested change, such as engineering drawings, sketches, specifications, or manufacturing data sheets, shall also be submitted as supplemental information. All changes to the baseline shall be approved by the Government using the ECP (**CDRL A010**), accompanied, where appropriate, with a Notice of Revision (NOR) (**CDRL A011**) or the RFV (**CDRL A012**) Process. Notwithstanding Government review and approval of ECPs, NORs, or RFVs, the contractor shall remain solely responsible for successful performance of the 9mm Barrier Blind ammunition and conformance to the performance specification.

#### 3.7.4. Certificate of Compliance

Certificate of Compliance: Each time a lot of cartridges are submitted for acceptance, the contractor shall provide records to indicate all materials for the manufacturing of the munitions are in compliance with the materials, construction and design requirements specified in the TDP or specification. A Certificate of Compliance shall be prepared and submitted to the PPM IAW and **CDRL A013**.

#### 3.7.5. Measurement System Evaluation (MSE)

3.7.6. Measurement System Evaluation: To facilitate a MSE, the contractor shall provide all Acceptance Inspection Equipment (AIE) necessary to ensure conformance of components and end-items to contract requirements, Attachment 01, and the contractors TDP (e.g., drawings, specifications) and Quality Assurance Provisions. The AIE package shall be submitted for approval and made available to the USG IAW **CDRL A014**.

- a. Definitions. This paragraph defines specific terms utilized throughout the rest of this section and in the accompanying CDRL and Data Item Description (DID). This aids in clarifying the MSE requirements to Government and contractor personnel.
  - (1) Acceptance Inspection Equipment (AIE). All equipment (includes AAIE defined below), special and standard, including dimensional gages, measuring equipment, test fixtures, electronic and physical test equipment, and other test equipment used for examination and test of a product to determine conformance to the TDP which may include drawings and specifications (e.g., Detail, Performance, Weapon specifications, and QAPs).
  - (2) Automated Acceptance Inspection Equipment (AAIE). AIE in which the inspection and acceptance determination of the product is performed, in whole or in part, in an automatic manner.
  - (3) Contractor Inspection Equipment. Government-approved equipment utilized by the contractor to perform examination and tests to assure conformance to contract requirements.
  - (4) Commercial Inspection Equipment. Industry-developed inspection equipment of universal application, without limitations to a specific part or item, which is advertised or cataloged as available to the trade or to the public on an unrestricted basis at an established price. Examples follow:
    - (a) Standard Test Equipment. Multiusage equipment that is specific to a function rather than to an item. It includes such items as hardness testers, tensile strength testers, meters, weighing devices, standard gear testers, ohmmeters, voltmeters, and oscilloscopes.

- (b) Standard Measuring Equipment (SME). Multipurpose equipment and standards used for performing measurements. It includes such items as micrometers, rulers, tapes, height gages, and protractors, etc. Standards include visual inspection equipment such as scratch and dig standards, surface finish comparator, color standards (FED-STD-595), etc.
- (5) Nondestructive Testing (NDT). The development and application of technical methods to examine materials or components in ways that do not impair future usefulness and serviceability in order to detect, locate, measure and evaluate flaws; to assess integrity, properties and composition; and to measure geometrical characteristics. Nondestructive Testing includes Radiography/Radioscopic, Ultrasonic, Eddy Current, Magnetic Particle, and Liquid Penetrant.
- (6) Measurement System Analysis (MSA). Per American Society for Testing and Materials (ASTM) E2782 (Standard Guide for MSA), paragraph 3.1.7, MSA is any of a number of specialized methods useful for studying a measurement system and its properties.
- b. Scope. This section establishes requirements for design, supply, performance, and maintenance of AIE used for product inspection and acceptance. In addition, this section establishes requirements for the preparation, submission, and approval of AIE documentation.
- c. AIE. The contractor shall provide all AIE necessary to ensure conformance of components and end-items to contract requirements. AIE shall include inspection, measuring, and test equipment whether Government furnished, or contractor furnished (including commercially acquired) along with the necessary specifications and procedures for their use (see ISO 10012). The AIE shall not create or conceal defects on the product being inspected. All AIE documentation shall contain sufficient information to permit evaluation of the AIE's ability to test, verify, and/or measure the applicable characteristics or parameters (**CDRL A014**).
- d. AIE Designs & Government Furnished Gages. AIE designs are of two types – Government designs [(see (d)(1)) and contractor designs (see (d)(2))]. When applicable, Government designs or Government furnished gages are designated in the TDP/contract; responsibility for all other AIE is assigned to the contractor. The designs associated inspection procedures, and theory of operation shall have the level of detail to demonstrate capability of the proposed AIE to perform the required inspection.
  - (1) Government AIE Designs. Government AIE designs may consist of detailed drawings necessary for the fabrication and use of the AIE. Unless otherwise specified, the contractor may submit alternate or modified contractor designs of Government AIE designs.
  - (2) Contractor AIE Designs. Contractor AIE design drawings shall meet the requirements of American Society of Mechanical Engineers (ASME) Y14.100, ASME Y14.5 and ASME Y14.43 and may include commercial inspection equipment. [“Commercial inspection equipment” is defined as shown in paragraph 3.7.6.(a)(4) above. It shall be fully described by catalog listings or other means which provide sufficient information to permit identification and evaluation by the Government and may include illustrations and engineering data.] Designs shall be submitted for any special fixture(s) to be used. Unless otherwise specified, Gage Tolerancing Policy shall be IAW ASME Y14.43, “Absolute Tolerancing (Pessimistic Tolerancing).”
  - (3) Visual Inspection. Visual inspection standards used for the acceptance/rejection of product shall be submitted for approval.
- e. AIE Package Submittals. The contractor shall prepare the AIE package submittal IAW the DID referenced in the applicable **CDRL A014**. In addition, the contractor shall adhere to the following requirements:

- (1) Designs for Approval. Contractor designs and/or the submission for the use of Government designs shall be approved by the Government. Partial submission of AIE designs is permissible in order to expedite the approval process; however, the response date for design review will be based on the date of the final complete submission of designs.
  - (2) Correspondence in English. The contractor shall ensure all AIE correspondence and documentation are submitted in English.
  - (3) Units of Measurement. The units of measurement within the AIE package submittal shall be consistent with the requirements of the TDP.
  - (4) AIE Flow Down. The contractor shall flow down AIE requirements to sub-contractors at any tier who are performing acceptance inspections.
- f. Characteristics for Inspection. AIE documentation for Critical, Special, and Major characteristic inspections shall be submitted to the USG for approval IAW **CDRL A014**. AIE for Minor characteristic inspections shall be submitted to the USG for approval IAW **CDRL A014** and as required below:
- (1) Not submitted
- g. Automated Acceptance Inspection Equipment. The AAIE shall accept only conforming material. All characteristics requiring AAIE per the TDP shall utilize inspection equipment with a minimum demonstrated reliability of 99.8% at a 90% confidence level to detect non-conforming material unless otherwise specified below.
- (1) Reliability of 99.8 % at a 90 % Confidence Level for Critical/Special Characteristics
  - (2) Reliability of 99.8 % at a 90 % Confidence Level for Major Characteristics
  - (3) For inspection of major and minor characteristics where contractor utilizes AAIE when it is not required by the TDP, the AAIE package shall be submitted to the Government for approval. If the Minor characteristic is not listed in paragraph (f)(2) or not required for submittal in paragraph (f)(3), then the AAIE requirements (e.g., verification, calibration, prove-out, etc.) of the inspection shall still be performed.
  - (4) All AAIE packages submitted to the Government for approval shall be IAW MIL-A-70625 (*Automated Acceptance Inspection Equipment Design, Testing and Approval of*). Furthermore, the contractor shall be responsible for producing the acceptance and rejection verification standards/masters representative of the characteristics the AAIE is designed to inspect. The verification standards and frequency of use require Government approval prior to use. When verification standards are used for the VL-VII "sampling plan" per MIL-STD-1916, paragraph 4.4, verification standards and frequency of use shall require Government approval prior to use.
  - (5) If the AAIE accepts a critical characteristic "reject" standard the contractor shall notify the Government and act IAW paragraph (f) of Critical Characteristic Control. In addition, if the AAIE accepts a major and/or minor characteristic "reject" standard the contractor shall act IAW paragraph 8.3 of ISO 10012 of American National Standards Institute (ANSI)/National Conference of Standard Laboratories (NCSL) Z540.3.
  - (6) All AAIE shall be required to pass a Government-approved Acceptance (Prove-Out) Test. The contractor shall conduct this test per the approved test plan and shall submit a test analysis report for approval. See CDRL A014. This test shall be performed at the contractor's facilities who's manufacturing system has had the AAIE fully integrated and calibrated as per paragraph (j) of this section. The contractor shall allow Government personnel access to this facility and unobstructed monitoring of this test.

- (7) The contractor shall notify the Government prior to a modification and/or relocation of the Government-approved AAIE. The modified AAIE designs shall be submitted for approval. The modified and/or relocated AAIE shall require submission of the acceptance test plan (prove-out) and results for review and approval prior to use. The modified and/or relocated AAIE shall be IAW paragraphs (g)(1) – (g)(6).
- h. Measurement System Analysis (MSA). The contractor is responsible to ensure all AIE is, at a minimum, stable, repeatable, and reproducible for all characteristics. Refer to ASTM E2782 and/or Automotive Industry Action Group (AIAG) MSA for guidance. The contractor shall provide objective evidence, including the MSA assessment plan, associated data, and analysis, which demonstrates the AIE is, at a minimum, stable, repeatable, and reproducible for the following characteristics (MSA CDRLA014):
- Specification: -1-  
Paragraph No.: -2-  
Drawing: -3-  
Characteristic: -4- |
- Approval of submitted MSA(s) must be granted before the corresponding AIE can be used or continue to be used for acceptance of product. If at any time following approval of the AIE and MSA the AIE is disapproved, then the MSA shall be disapproved. After the resubmitted AIE is approved, the MSA shall be conducted on the approved AIE and resubmitted for approval.
- i. Robust AIE System. The contractor shall ensure the AIE and its use is not negatively affected by any manufacturing/inspection environmental stimuli including, but not limited to production rate, noise, temperature, humidity, and vibration.
- j. AIE Calibration and Verification. The calibration system shall be IAW ISO 10012 or ANSI/NCSL Z540.3. All AIE shall be subjected to scheduled calibration intervals to ensure that the equipment will accept only conforming product and reject all non-conforming product for the duration of the approved calibration period. AIE shall be subjected to periodic verification to ensure that the equipment will continue to accept and reject product with the same consistency as it did at the time of its previous calibration.
- k. Non-Destructive Testing (NDT). Contractor shall submit detailed plans for qualifying and certifying NDT personnel and plans for qualification and ongoing use of NDT methods used for inspecting product. If re-qualification of NDT personnel and/or NDT methods is required, then the applicable plans shall be submitted.
- (1) Personnel performing NDT examinations shall be qualified and certified IAW the standard practices prescribed by National Aerospace Standard (NAS) 410 (NAS Certification & Qualification of NDT Personnel), ANSI/ASNT-CP-189 [American Society for Nondestructive Testing (ASNT) Standard for Qualification and Certification of NDT Personnel], or SNT-TC-1A (Recommended Practice for Personnel Qualification and Certification in NDT), and additional procedures that may be identified by the Government. Acceptance of product using NDT shall be performed by personnel at a level of qualification consistent with that defined in the applicable standard.
- (2) The NDT method(s) shall be applied IAW ASTM E 543 (Standard Specification for Agencies Performing Nondestructive Testing) and the current nationally recognized standard practices appropriate to the NDT method(s) employed, such as ASTM E-1742 (Standard Practice for Radiographic Examination) and Society of Automotive Engineers (SAE) Aerospace Material Specification (AMS) 2154 (SAE-AMS-STD-2154 - Inspection, Ultrasonic, Wrought Metals, Process For). Each application technique shall identify the standard(s) utilized. Non-destructive testing includes, but is not limited to, the following types of testing: Radiography/Radioscopic, Ultrasonic, Eddy Current, Magnetic Particle, and Liquid Penetrant.

- l. Contractor Alternate Inspection Method(s), Modifications and/or Relocation of AIE (Non-Automated) After Government Approval. If the contractor proposes an alternate inspection method and/or modifies the AIE design(s) affecting hardware, software, or procedures after Government approval the intended change(s) shall be submitted to and approved by the Government prior to implementation. If an AIE is relocated and the relocation risks the integrity of the inspection system, notify the Government to determine information needed to assess impact to AIE IAW **CDRL A014**.
- m. Responsibility for AIE Package Submittal. The contractor shall submit the AIE design documentation package within contractual timeframes IAW **CDRL A014**. The AIE package and any required prove-outs must be approved prior to First Article (FA) (if required) or production start-up if FA is not required.
- n. Government's Right to Disapprove AIE. The Government reserves the right to revoke approval of any AIE that is not satisfying the required acceptance criteria at any time during the performance of this contract. (**CDRL A014**)

#### 3.7.7. Ammunition Data Cards (ADC) and Report of Ballistic Testing

- a. Ammunition Data Cards shall be prepared IAW MIL-STD-1168C and shall follow the format required by the World Wide Web application identified as Worldwide Ammunition-data Repository Program (WARP) (**CDRL A015**). Information provided in paragraphs 6.7 through 6.16 of MIL-STD-1168C shall be considered mandatory requirements where all instances of the term "should" are considered to be replaced with the word "shall." This shall also include, if required on the **CDRL A015**, a Report of Contractor Lot Acceptance/Ballistic Testing and Acceptance and Description Sheets (for Propellants and Explosives). WARP will reside within the Munitions History Program (MHP). Additional details on these WARP applications are provided below.

#### b. MHP-WARP Access Procedures

Government or Contractor employee with CAC and AKO account:

- (1) Click on the MHP hyperlink which is <https://mhp.redstone.army.mil/>
- (2) Enter CAC PIN when prompted.
- (3) Click on WARP (ADC).
- (4) Click on Help.
- (5) Click on WARP Request Access and follow instructions.

Contractor or Government employee without CAC and AKO account: MHP-WARP uses PKI authentication requiring a DoD approved digital certificate as a security measure to protect the integrity of stored data. There are three vendors that have been approved to issue DoD approved certificates per an External Certification Authority (ECA) program. You are required to use one of the approved vendors listed on the following Defense Information Systems Agency (DISA) website: <http://iase.disa.mil/pki/eca/index.html>

A nominal fee is charged for each certificate. The contractor, including any subcontractors, shall assume the responsibility for all costs of obtaining each digital certificate needed.

After the required certificate is obtained:

- (1) Click on the MHP-WARP hyperlink: <https://mhpwarn.redstone.army.mil/>
- (2) Enter ECA password.

(3) Click on Help and follow the instructions for obtaining the necessary access.

c. HELP Numbers are as follows:

MHP Access – (256)313-2143; DSN 897-2143

Joint Munitions Command (JMC) Quality Administrators for WARP issues – (309)782-2697 or (309)782-7107

d. Worldwide Ammunition-data Repository Program (WARP)

An online user manual will provide additional help in the development of an ammunition data card. It is recommended that you download and read the user's manual prior to inputting your initial data card. The user's manual also contains screen shots, which depict what the inputter will see during the ADC input process.

e. Ammunition Data Card Input

ADC input allows current contractors and government facilities the capability to create, and submit for approval, ADCs which meet the format requirements of MIL-STD-1168C. ADCs are automatically forwarded to the respective Government Agency Responsible for Acceptance (GARA). The GARA in most cases is the Defense Contract Management Agency (DCMA) Quality Assurance Representative (QAR), who reviews contractor input for accuracy and completeness, and after updating the disposition code for the specific lot, submits the ADC to the database. The inputter is granted access only to ADCs identified with its specific manufacturing code. The use of previously inputted ADCs through the TEMPLATE option significantly reduces input effort, while increasing accuracy and consistency of data.

f. Email Notification

WARP provides immediate, automated notification to process participants when actions are required. When the contractor has completed an ADC submission, an email message is routed to the GARA advising that an ADC awaits review and approval. If the GARA approves the ADC as submitted, the ADC is released to the base and an email, with approved data card, is routed back to the originator. If the ADC requires modification or correction to conform to MIL-STD-1168C and contract requirements, an email is provided to the ADC originator advising that corrective action is required prior to approval.

g. Information Updates

It is important that the System Administrators are apprised when a contractor receives a new contract. The contractor shall notify [usarmy.ria.jmc.mbx.warp@mail.mil](mailto:usarmy.ria.jmc.mbx.warp@mail.mil) within 30 calendar days after receipt of a new contract. Information to be included shall be the contract number, item, GARA, Manufacturer's identification symbol and the names of the individuals who will be inputting ADCs into the system. If you are a new contractor and do not have a Manufacturer's identification symbol, you can obtain one by sending an email to [usarmy.ria.jmc.mbx.warp@mail.mil](mailto:usarmy.ria.jmc.mbx.warp@mail.mil). The email must contain manufacturer's name, address where performance of the contract will take place, and a point of contact.

h. Report of Contractor Ballistic/Function Testing Module

- (1) In addition to its ADC function, WARP also serves as a repository for reports of contractor ballistic (or functional) testing. Whenever the contract requires contractor performance of ballistic testing, the results of such testing shall be captured by you, the performing contractor, within a specially designed Lot Acceptance Test Report (LATR) module.

- (2) Within the LATR module, you are required to provide a report of any contractor ballistic/function testing and to submit the report in electronic format via WARP. The report must be a .pdf file for the upload process to work.

- i. Acceptance and Description Sheets (for Propellants and Explosives) Module: The WARP application now contains an area for on-screen data entry capturing requirements per MIL-STD-1171B for Acceptance and Description Sheets with respect to contract specified Propellant, Chemical and Explosive constituents.

#### 3.7.8. Technical Data Package (TDP)

Technical Data Package: The contractor shall provide the TDP of the item to the USG within ninety (90) calendar days after contract award. The TDP shall contain all product drawings, detailed engineering drawings and specifications for all cartridges.

Components, Subcomponents, and Critical Interim Process Steps. These shall include, but are not limited to, material specifications, process descriptions, critical physical characteristics, chemical compositions, and sources of supply for critical items, giving the USG a complete description of all items being purchased. If the contractors (or subcontractors) submission is deemed inadequate by the USG the contractor (or subcontractor) shall deliver additional information as requested by the USG. The contractors TDP shall be marked proprietary and it shall be used solely for configuration verification purposes. The TDP package shall be submitted for approval and made available to the USG IAW **CDRL A016**.

### 3.8. First Article and Acceptance Test (FAAT)

#### 3.8.1. First Article Test Procedure & Report

The contractor shall prepare FAAT procedures and updates. FAAT procedures and updates are subject to USG review and approval (**CDRL A017**)

- a. The first article shall consist of:
  - (1) 9mm Barrier Blind cartridges which shall be examined and tested IAW contract requirements, the item specifications, Quality Assurance Provisions (QAPS) and all drawings listed in the Technical Data Package.
- b. The first article shall be representative of items to be manufactured using the same processes and procedures and at the same facility as contract production. All parts and materials, including packaging and packing, shall be obtained from the same source of supply as will be used during regular production. All components, subassemblies, and assemblies in the first article sample shall have been produced by the Contractor (including subcontractors) using the technical data package approved by the Government.
- c. The first article shall be inspected and tested by the contractor for all requirements of the drawing(s), the QAP(s), and specification(s) referenced thereon, except for:
  - (1) Inspections and tests contained in material specifications provided that the required inspection and tests have been performed previously and certificates of conformance are submitted with the First Article Test Report.
  - (2) Inspections and tests for Military Standard (MS) components and parts provided that inspection and tests have been performed previously and certifications for the components and parts are submitted with the First Article Test Report.
  - (3) Corrosion resistance tests over 10 calendar days in length provided that a test specimen or sample representing the same process has successfully passed the same test within 30 calendar days prior to processing the first article, and results of the tests are submitted with the First Article Test Report.

- (4) Life cycle tests over 10 calendar days in length provided that the same or similar items manufactured using the same processes have successfully passed the same test within 1 year prior to processing the first article and results of the tests are submitted with the First Article Test Report.
  - (5) Onetime qualification tests, which are defined as a onetime on the drawing(s), provided that the same or similar item manufactured using the same processes has successfully passed the tests, and results of the test are on file at the contractor's facility and certifications are submitted with the First Article Test Report.
- d. Those inspections which are of a destructive nature shall be performed upon additional sample parts selected from the same lot(s) or batch(es) from which the first article was selected.
  - e. A First Article Test Report (**CDRL A018**) shall be compiled by the contractor documenting the results of all inspections and tests (including suppliers and Vendor's inspection records and certifications, when applicable). The First Article Test Report shall include actual inspection and test results to include all measurements, recorded test data, and certifications (if applicable) keyed to each drawing, specification and Qualified Allocation Plan (QAP) requirement and identified by each individual QAP characteristic, drawing/specification characteristic and unlisted characteristic. The Government Quality Assurance Representative's (QAR) findings shall be documented on DD Form 1222, Request for and Results of Tests, and attached to the contractor's test report. Two copies of the First Article Test Report and the DD Form 1222 will be submitted through the Administrative Contracting Officer to the Contracting Officer with an additional information copy furnished to Program Quality Management (PQM).
  - f. Notwithstanding the provisions for waiver of first article, an additional first article sample or portion thereof, may be ordered by the Contracting Officer in writing when (i) a major change is made to the technical data, (ii) whenever there is a lapse in production for a period in excess of 90 calendar days, or (iii) Whenever a change occurs in place of performance, manufacturing process, material used, drawing, specification or source of supply. When conditions (i), (ii), or (iii) above occurs, the contractor shall notify the Contracting Officer so that a determination can be made concerning the need for the additional first article sample or portion thereof, and instructions provided concerning the submission, inspection, and notification of results. Costs of the first article testing resulting from production process change, change in the place of performance, or material substitution shall be borne by the contractor.

### 3.8.2. Lot Acceptance Test Report

The contractor shall perform LAT to demonstrate conformance of 9mm Barrier Blind ammunition and components with contractual requirements and IAW the performance Specifications. The contractor shall prepare LAT procedures and updates. LAT procedures and updates are subject to USG review and approval. LAT shall be conducted on a number of samples taken at random from each production lot as identified in the detailed specifications. The results of the test shall demonstrate the system meets all contractual requirements. The contractor shall provide Lot Acceptance Reports IAW **CDRL A019**.

## 3.9. Packaging and Marking

The contractor shall provide a packaging and marking drawing package as detailed IAW this SOW. The 9mm Barrier Blind ammunition packaging configuration shall be IAW Attachment 01 (also see attached Drawing 9396205 and Drawing 9396206), and be Packaged 50 cartridges per carton, 20 cartons per M2A2 can and provide support and protection during shipping, storage, transportation, and handling. The M2A2 cans shall be palletized IAW Naval Sea Systems (NAVSEA) drawing 6214536 Rev B. All preservation, packaging, and packing materials shall be designed per MIL-STD-1904C. The preservation and packaging of all items to be delivered under the terms of the contract shall be IAW MIL-STD-2073/1E (4).

Item marking shall be IAW MIL-STD-130N. Marking for shipment and storage shall be IAW MIL-STD-129R.

All hazardous shipments shall comply with 49 CFR 100-199.



a. Drawing List

The deliverable drawing package shall include, but not be limited to:

- (1) Cartridge Assembly Drawing – Drawing shall include overall assembled cartridge dimensions, head stamp markings, each subcomponent, subcomponent quantity, and subcomponent material.
- (2) Ammunition Can Barcode Label Drawing.
- (3) Unit Load Barcode Label Drawing

3.9.1.2-D Bar Coding

- a. As a logistics measure to improve inventory, accountability, security and control, the supplier is required to provide 2-D Bar Codes IAW MIL-STD-129R and MIL-PRF-61002C and as further detailed in Section D of the contract.
- b. An approval of the supplier's 2-D Bar Code Label is required before each product with a unique national stock number (NSN) or federally recognized number (FRN) shall be presented for acceptance to the Government Quality Assurance Representative. Prior to formal submission of product to the Government for acceptance, a first-time sample of the supplier's initial 2-D Bar Coding Label, comprising of two (2) each of the exterior pack label and two (2) each of the pallet label, shall be submitted for approval to HQ, US Army Joint Munitions Command, 1 Rock Island Arsenal, ATTN: AMSJM-QAP, Rock Island, IL 61299-6500 to be read by a High Performance Bar Code Verification system.
- c. Within fifteen (15) calendar days, the supplier will be notified electronically of the approval, conditional approval, or disapproval of the submitted 2-D Bar Code Label. A notice of conditional approval shall state any further actions required of the supplier. A notice of disapproval shall cite reasons for the disapproval.
- d. Once approval of the 2-D Bar Code Label is received, the supplier may begin presenting product to the Government for acceptance.
- e. During life cycle management of the product, the Government may randomly perform checks of the integrity and conformity of the 2-D Bar Code labeling that is affixed to the supplier's product.
- f. The supplier is responsible for all costs associated with correcting 2-D Bar Code labels that do not meet contractual requirements.

3.9.2.Energetic Material Description Sheets and Propellant Loading Authorization Sheets

- a. The contractor shall prepare Energetic Material Description Sheets and Propellant Loading Authorization Sheets IAW **CDRL A020** and MIL-STD-1171B when mandated by the CDRL. The WARP shall be utilized to store the data sheets required by MIL-STD-1171B. The MHP network located at <https://mhp.redstone.army.mil/> must be used to gain access to WARP.
- b. The requirements of MIL-STD-1171B specified in the CDRL is a flow-down requirement that applies to contractors and their suppliers, vendors or subcontractors.
- c. The contractor is responsible for on-screen entry of the data sheets into the appropriate Description Sheets and Loading Authorizations module located in the WARP system.
- d. The presence of the contractor's typed signature has the same legal effect and consequences of a handwritten signature. The signatory of the data sheets has the authority to sign for the contractor and certifies the information contained on the data sheets is truthful and accurate as evidenced by release of the typed signature.

The propellants requiring Loading Authorizations and Propellant Description Sheets are:

Vendor shall provide this information

The explosives/chemicals requiring Description Sheets for Explosives, Chemicals are:

Vendor shall provide this information

### **3.10. Rework and Repair of Nonconforming Material**

#### **3.10.1. Rework and Repair**

- a. Rework and Repair are defined as follows:
  - (1) Rework - The reprocessing of nonconforming material to make it conform completely to the drawings, specifications or contract requirements.
  - (2) Repair - The reprocessing of nonconforming material IAW approved written procedures and operations to reduce, but not completely eliminate, the nonconformance. The purpose of repair is to bring nonconforming material into a usable condition. Repair is distinguished from rework in that the item after repair still does not completely conform to all of the applicable drawings, specifications or contract requirements.
- b. Rework procedures along with the associated inspection procedures shall be documented by the contractor and submitted to the Government Quality Assurance Representative (QAR) for review prior to implementation. Rework procedures are subject to the QAR's disapproval.
- c. Repair procedures shall be documented by the contractor and submitted on a Request for Deviation/Waiver, DD Form 1694, to the Contracting Officer for review and written approval prior to implementation.
- d. Whenever the contractor submits a repair or rework procedure for Government review, the submission shall also include a description of the cause for the nonconformances and a description of the action taken or to be taken to prevent recurrence.
- e. The rework or repair procedure shall also contain a provision for reinspection which will take precedence over the Technical Data Package requirements and shall, in addition, provide the Government assurance that the reworked or repaired items have met reprocessing requirements.
- f. Rework and repair is a supply chain flow-down requirement that applies to contractors and their suppliers, vendors or subcontractors.

## **4. DELIVERABLES**

The contractor shall provide deliverables as described in the SOW and CDRLs. Format and delivery schedule for deliverables shall be outlined in CDRLs.

Number	Name	DID	Periodicity
A001	Integrated Production Schedule Report	DI-MGMT-82075	As Required
A002	Failure Summary & Analysis Report	DI-SESS-80255B	As Required
A003	Critical Characteristics Control Plan (CCCP)	DI-MGMT-81986	One Time with Revisions (ONE/R)

Number	Name	DID	Periodicity
A004	Critical Item Characteristic List (CICL)	DI-MGMT-81988	120 Days After Award (A.W.)
A005	Critical Safety Item, Characteristic and Critical Defect Report	DI-SAFT-80970A	As Required
A006	Critical Plan of Action (CPOA)	DI-MGMT-81996	As Required
A007	Process Control Plan	DI-MGMT-82131	As Required
A008	Configuration Management Plan	DI-SESS-80858D	ONE/R
A009	Configuration Audit Plan (Physical)	DI-SESS-81646C	ONE/R
A010	Engineering Change Proposal (ECP)	DI-SESS-80639E	As Required
A011	Notice of Revision	DI-SESS-80642E	As Required
A012	Request for Variance	DI-SESS-80640E	As Required
A013	Certificate of Compliance	DI-MISC-82386	As Required
A014	Measurement System Evaluation (MSE)	DI-QCIC-81960	120 Days A.W.
A015	Ammunition Data Cards and Ballistic Testing	DI-MISC-80043B	As Required
A016	Technical Data Package (TDP)	DI-SESS-80776A	90 Days A.W
A017	First Article Qualification Test Plan and Procedures	DI-NDTI-81307A	60 Days Prior to Test
A018	First Article Test Report	DI-NDTI-80809B	As Required
A019	Lot Acceptance Test Report	DI-NDTI-80809B (Tailored-report format)	As Required
A020	Energetic Material Description Sheets and Propellant Loading Authorization Sheets.	DI-MGMT-81978	As Required

## 5. ACRONYM LIST

Acronym	Denotation
MSE	Measurement System Evaluation
AIE	Acceptance Inspection Equipment
FATR	First Article Test Report
LATR	Lot Acceptance Test Report
PQDR	Product Quality Deficiency Report
ADC	Ammunition Data Card
ECP	Engineering Change Proposal
NOR	Notice of Revision
RFD	Request for Deviation
RFV	Request for Variance
POP	Performance Oriented Packaging

CCCP	Critical Characteristics Control Plan
CPOA	Critical Plan of Action
PCA	Physical Configuration Audit
PCP	Process Control Plan

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