CHAPTER 11

SAFETY

A. GENERAL INFORMATION

This chapter deals with the safety aspects of conventional ammunition life cycle management. It covers the exchange of safety-related information among the Military Services, the application of safety standards, the integration of hazard analyses, decontamination, and the preparation and distribution of hazardous component safety data statements.

B. EXCHANGING SAFETY DATA AND INFORMATION

This section describes the exchange of safety information among DoD Components. Safety information includes reports of accidents, incidents, and any other safety-related occurrences that could adversely affect the PB; hazards expected or encountered; and proposed corrective actions. These information requirements apply to the ammunition commands of each Military Service (for the Air Force, the AFSC and the AFLC), the MTMC, the MSC, the MAC, the DCAS, and the Department of Defense Explosives Safety Board (DDESB). Basic Military Service and Defense Agency regulations on reporting safety information are AR 385-40, OPNAVINST 5102.1, AFR 127-4, and DLAR 8200.4.

1. Accident and Incident Reporting

   a. The DoD Component experiencing an ammunition accident or incident shall submit an electrically transmitted message within 24 hours of occurrence in the format shown in figure 11-1. Accident and incident reports are sent to the following:

      (1) Chairman
           Department of Defense
           Explosives Safety Board
           Room 856-C
           Hoffman Building 1
           2461 Eisenhower Avenue
           Alexandria, VA 22331-0600

      (2) Commander
           U.S. Army Armament, Munitions, and Chemical Command
           ATTN: AMSMC-SF(R)
           Rock Island, IL 61299-6000
b. Each DoD Component receiving ammunition accident and incident reports shall disseminate the data to appropriate personnel and installations within its purview.

c. Supplemental reports are required as additional data becomes available.

2. The Joint Data Bank

   a. Conventional ammunition accident and incident data must be processed and identified separately from data being entered into existing ADP systems. This requirement is to prevent intermixing of data and to permit future data transfer to the data bank at the Dahlgren Laboratory at the Naval Surface Weapons Center.

   b. Figure 11-1. shows the required input data elements for accident and incident reports submitted under this chapter. A sample report is shown in figure 11-2.
1. **JOCG Symbol APB 0324***

2. **Item Nomenclature APB 0003***
   a. MK/MOD/MODEL
   b. FSC, FIIN, APB 0013*
   c. DoDAC/NALC APB 0014*
   d. Quantity

3. **Lot Number**

4. a. **Time**
   b. **Day**
   c. **Date APB 0141***
   d. **Location APB 0032***

5. **Description of Significant Events APB 0321***

6. a. **Number of Fatalities**
   b. **Number of Injuries**

7. a. **Material Damage Description**
   b. **Material Damage Cost**

8. **Exposure to Significant Environmental Conditions (i.e., EMR, Electrostatic, RH, Temp., etc.)**

9. **Cause**
   a. **Primary**
   b. **Contributing**

10. **PB Effects**

11. **Proposed Corrective Action APB 0323***

12. **Type Investigation Required or Planned**

*As defined by JOCG Data Element Dictionary.

Figure 11-1. Input Data Elements and Format.
1. JOCG RCS DD-1 and L (AR) 1072

2. Projectile, 5/38, AAC
   a. MK 52 Mod O
   b. 1320-012-3456
   c. D230
   d. One

3. BE 111-SJ-69AX

4. a. 1250 LST
   b. Thur
   c. 4 Jan 73
   d. Naval Ammunition Depot, San Jacinto

5. Projectile exploded high order while being press loaded with approximately 9 pounds of Comp A-3 explosive.

6. a. One
   b. Six

7. a. Press was damaged beyond repair. Roof and one wall of building blown out. Plumbing and wiring of building were damaged extensively. Floor was cratered severely.
   b. Estimated cost of press replacement $80,000; building repairs $150,000; total material damage costs $230,000.

8. Thunderstorm of moderate intensity in progress at time of mishap. No known lightning strikes occurred.

9. a. Suspect foreign material was in projectile being press loaded.
   b. In-process quality control inspection failed to 100 percent inspect interior cavity of projectile before loading.

Figure 11-2. Sample JOCG Report.
10. NAD, San Jacinto, load line H will be inoperative for approximately 60 days during repair activities. Production of 5/38 projectiles from NAD, San Jacinto, will be reduced 50 percent during this 60-day period.

11. Increased emphasis on quality control inspection. Inspector on duty was disqualified and reassigned to a less responsible position. All personnel were briefed on the causes and results of the accident and cautioned about the hazards involved as a result of inattention to duties.

12. Continuing technical investigation is being conducted to determine possible improvements to reduce the probability of future occurrences of this nature.

Figure 11-2. Sample J OCG Report (Continued).
<table>
<thead>
<tr>
<th>IDENTIFICATION NO.*</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xxxxxxx PROJ. 5/38 MK52 MOD 0</td>
<td>Exploded during press loading</td>
</tr>
</tbody>
</table>

*Identification number will be by Julian date plus report number submitted on that date; e.g., 4138-001.

Figure 11-3. Accident/Incident Quarterly Briefs Format.
**FILE DATE 01/01/83 THROUGH 12/31/83**

**IDENTIFICATION NO.*
Xxxxxxxxx

**DESCRIPTION**

**PROJECT 5/38 MK52 MOD O**

Exploded during press loading

**ITEM NOMENCLATURE AND LOT NUMBER**

Projectile 5/38 AAC,
MK52 MOD O FSN 132001234356
DoDAC - D230
Quantity - 1 Lot
No - BE 111-50-69AX

**TIME, DAY, DATE, LOCATION**

1250LST, Thur, 4 Jan 83,
NAD, San Jacinto.

**NARRATIVE**

Projectile exploded high order while being press loaded with approximately 9 pounds of Comp A-3 explosive.

**FATALITIES**

1

**INJURIES**

6

**PROPERTY DAMAGE DESCRIPTION**

Press was damaged beyond repair. Roof and one wall of building were blown out. Plumbing and wiring of building were damaged extensively. Floor was cratered severely.

**PROPERTY DAMAGE COST**

$230,000

**SIGNIFICANT ENVIRONMENTAL CONDITIONS**

Thunderstorms of moderate intensity at time of mishap. No known lightning strikes occurred.

**PRIMARY CAUSE**

Suspect foreign material was in projectile being press loaded.

*Identification number will be by Julian date plus report number submitted on that date; e.g., 4138-001.

**Figure 11-4. Accident/Incident Annual Narrative Report Format.**
SECONDARY CAUSE - In-process quality control inspection failed to 100 percent inspect interior cavity of projectile before loading.

IMPACT ON PRODUCTION BASE - NAD, San Jacinto, load line H will be inoperative for approximately 60 days during repair activities. Production of 5/38 projectiles will be reduced 50 percent from NAD, San Jacinto, during this 60-day period.

CORRECTIVE ACTION - Increased emphasis on quality control inspection. Inspector on duty was disqualified and reassigned to less responsible position. All personnel were briefed on the cause and results of the accident and cautioned about the hazards involved as a result of inattention to duties.

TYPE INVESTIGATION - Continued technical investigation is being conducted to determine possible improvements to reduce the probability of future occurrences of this nature.

Figure 11-4. Accident/Incident Annual Narrative Report Format (Continued).
c. Military Service and Defense Agency directives (AR 385-40, OPNAVINST 5102.1, AFR 127-4, and DLAR 8200.4) provide internal instructions for submitting accident and incident reports. These DoD Component reports are the source of data to be submitted in figure 11-1 format. Accident and incident reports are received by the DoD Component control point (paragraph B.1.a., above) from munitions manufacturing facilities under the control of Army, Navy, Air Force, and DCAS. The DoD Component control point provides the data elements to the interim data bank.

d. The joint data bank processes three kinds of reports, one input and two outputs, as follows:

1. Input report (figures 11-1 and 11-2).

2. Quarterly output report, a one-line report shown in figure 11-3.

3. Annual narrative summary report, as shown in figure 11-4.

e. One report each is sent to the addressees shown in paragraph B.1.a., above. DoD Components may request specific data, as needed.

3. Safety Methodology and Technology

a. This term refers to safety methods and techniques involving production processes and facilities developed by the operating level safety elements. Although the Military Services furnish STINFO documents to the DDC, and the DDC distributes an index and abstracts to selected DoD libraries biweekly, this source is not used to interchange safety technology. The volume of data makes the DDC source cumbersome, and the data base contains little or no safety methodology. Instead, the process in paragraph B.3.b., below is used to distribute and update ammunition safety methods and techniques.

b. Directives established by the DoD Components provide a viable system for interchange of safety methods and techniques. DoD Components shall furnish copies of these documents and any changes to the addressees in paragraph B.1.a., above. Four copies must be provided to each the Army, Navy, and Air Force addressees. Single copies are provided to the DCAS and the Chairman, DDESB.

1. Each DoD Component shall distribute copies of these documents to appropriate personnel and installations within its scope.

2. The JOCG Safety Group shall meet at least twice a year to discuss new and revised safety methods and technology and, as required, develop and recommend appropriate joint action.
4. Safety Standards
   
a. General Information. This paragraph explains the use of safety standards of the DoD Components involved in ammunition production. The requirements that follow apply to safety standards on conventional ammunition components, end items, facilities, equipment, and processes.

b. Exchange of Safety Standards Information

   (1) The DoD Components shall exchange information on significant changes to safety standards due to advances in the state-of-the-art or accident experience.

   (2) All changes to basic safety regulations applicable to the ammunition PB shall be coordinated through the JOCG Safety Group.

c. Procedures for Updating Safety Standards

   (1) The points of contact for coordination of effort and dissemination of safety standards are shown in, paragraph B.1.a., above.

   (2) Each DoD Component shall distribute copies of safety standards documents to appropriate activities within its control.

   (3) The JOCG Safety Group discusses significant changes to safety standards and develops joint action, as appropriate.

5. Hazard Analyses

   a. General Information. The DoD Components involved in ammunition production conduct hazard analyses of ammunition components, end items, facilities, equipment, and processes. Hazard analyses are done to identify the principal hazards associated with each of several design concepts for the purpose of elimination or control. Measures to be taken (either singly or in combination) to correct hazards are listed in their order of precedence as follows: design features, use of safety devices, warning devices, and operator control. Exchanging information on these analyses among DoD Components and, when appropriate, joint participation in their conduct enhances the safety aspects of ammunition life cycle management.

   b. Conducting Hazard Analyses. The DoD Components conduct conventional ammunition hazard analyses according to MIL-STD 882 and other standards as implemented by the Components. Hazard analysis is an integral part of each Component’s safety program and should address:

   (1) Conventional ammunition components and end items.

   (2) Conventional ammunition production facilities and processes.
(3) Specialized handling, support, and test equipment used in ammunition production.

c. Exchanging Hazard Analyses. The DoD Components shall exchange hazard analysis data, particularly emphasizing those areas of clear mutual interest. The control points at which such exchanges will occur are those listed in paragraph B.1.a., above.

d. Role of the JOCG Safety Group. The JOCG Safety Group:

(1) Through its meetings and continuing communication, identifies hazard analysis efforts that merit joint participation, and安排 for such participation. The objectives are to achieve timely results, avoid unwarranted duplication of effort, and maximize the benefits of such analyses.

(2) On an annual basis, compiles:

(a) A description of hazard analyses completed during the previous FY.

(b) A description of those analyses that merit joint cooperation, and makes appropriate recommendations to the JOCG.

C. DECONTAMINATION

This section specifies joint policies and procedures for decontamination and disposal of contaminated facilities, land, tools, material, equipment, and ordnance. These policies and procedures apply to all DoD Components and subordinate installations and activities, including DoD contractors and subcontractors, having knowledge or possession of contaminated items.

1. Decontamination Policies

a. Planning. Each location or project accomplishing decontamination or cleanup shall prepare detailed plans for decontamination cleanup of specific items. Plans shall include protective clothing and equipment requirements. All plans and instructions shall be in writing. Detailed plans shall include requirements for compliance with OSHA and EPA standards. Plans shall include input from design engineers, safety engineers, toxicologists, health physicists, and representatives from installations. A process flowsheet describing the decontamination process shall be prepared. The flowsheet shall indicate such subjects as critical operating levels of the procedures, regeneration steps, upset conditions, and the likelihood of undesirable material forming in a particular section or piece of equipment. Specific tests to determine the quantitative values of explosives at each step must be included and must reflect the latest analytical capabilities. Reliable data on the physical, chemical, and hazardous properties of all components in each flowsheet step (feed, intermediate, recycle, product, byproduct, waste,
1. Identification of the item or complex involved.

2. Office of Record (that segment having responsibility for facility or equipment).

3. Subjects to be included in record of facilities and equipment that have been contaminated are, at a minimum
   a. Previous use (include type of contaminant involved).
   b. Decontamination procedure used.
   c. Decontamination status degree.
   d. Special instructions.
   e. Restrictions.
   f. Identification of critical points of operation.
   g. List of personnel knowledgeable about facility.
   h. Transfer lines, drains, sumps, etc., involved.
   i. Identity of equipment.
   j. Site plans.
   k. Signatures of personnel preparing and approving record.
   l. Dates of various actions.

4. Decontamination markings will be painted on all decontaminated facilities. Contaminated real property shall be placarded appropriately. DD Form 2271, “Decontamination Tag,” will be affixed to all contaminated or decontaminated equipment or material scheduled for standby or layaway status, transfer to DoD installations, or release through property disposal channels.

Figure 11-5. Record of Decontamination.
catalysts, inhibitors, and additives) shall be included. Other information for each step must include consideration of flammability, autoignition, flashpoint, spontaneous heating, reactivity, shock sensitivity, pyrophoricity, toxicity, differential thermal analysis, and corrosiveness.

b. Record Keeping. A complete record (figure 11-5.) shall be prepared of decontamination and cleanup actions performed in each area and on each piece of equipment and tooling when operations in a contaminated area are discontinued for the purpose of putting the item in standby, dismantling, demolition, alteration, conversion, repair, or maintenance. This record is to acquaint people working in the area as to what hazards may exist so they may use the proper precautions.

c. Procedural Requirements. Written procedures shall be prepared in advance for operations in a contaminated area of a routine recurring nature. Examples of such operations include preventive maintenance involving oiling and greasing equipment, changing light bulbs and fuses, changing dies and punches in presses, replacing broken keys in presses, repairing or replacing belts or adjusting presses, set up, and the like. The commander or designated agent shall review and approve the procedures. Review, update, and approval of procedures are required annually or more frequently when indicated by changing conditions.

d. Contaminated Area. The area within which the contaminant is contained. Examples include the inside compartments of a laboratory glove box; a single room within a building; an entire building or group of buildings with associated services such as drains, sumps, exhaust units, ramps, or a narrow gauge railroad; open terrain, such as test and demolition areas; or a vehicle.

e. Cleaning Requirements for Contaminated Items

(1) All standby contaminated items that will remain in place or in storage at the installation or activity shall be cleaned of hazardous substances to a minimum of XXX degree to make them safe for maintenance by experienced personnel.

(2) All contaminated items to be used for the same purpose and that are relocated or transferred to another knowledgeable segment within the installation or activity, transferred to a knowledgeable Government installation or activity, or furnished to a knowledgeable contractor shall be cleaned of hazardous contaminants to a minimum of XXX degree before moving to make them safe for handling and use by experienced personnel. “Knowledgeable” is a qualifying condition to restrict locations to which an item can be sent. It refers to the ability of the receiver to handle the contaminant(s) involved. These items shall not be transferred to the above locations or areas outside of the contaminant area into station supply and stock control departments, or DPDOS, without the written approval of the commander or the commander's designated agent.
f. Production Byproduct Contamination. Contaminated material or ordnance generated as a result of producing a commodity shall be handled in accordance with approved procedures. Material or ordnance includes rags, reject material, unused products, uniforms, munitions and subcomponents, paper and packaging materials, and other items exposed to contaminants.

g. Prohibitions Against Burial of Contaminants. Burial of any material or ordnance contaminated with explosives, chemical agents, or other reactive chemicals is prohibited. In situations where an underground pipe or ground area (including existing burial sites) contains a contaminant, such locations will be indicated on plot plans, as well as on the ground, by signs and appropriate fencing. These sites shall remain posted and fenced until they are cleaned completely of contaminants.

h. Maintaining Contaminated Area Plot Plans. Installations and activities shall prepare plot plans showing contaminated and uncontaminated areas; operating lines with specific buildings or structures; and ground, surface, and underground waste process lines. The plot plans shall be used as a guide in determining whether an item should be considered as coming from a contaminated area. In the absence of any indication on the plot plan that an area is uncontaminated, it shall be considered a contaminated area, and items within it treated accordingly. All components, rooms, buildings, or test and demolition areas in which a contaminant is present shall be posted conspicuously with the following sign: - CAUTION - CONTAMINATED AREA (insert name of contaminant). Sign color and size shall be as shown in figure 11-6. Signs must be posted at all points of entry into the contaminated area.

i. Items That Cannot Be Decontaminated Completely. Contaminated items that would lose their usefulness if subjected to procedures for complete decontamination may be worked on according to written procedures established for each situation as it arises.

j. Transfer of Contaminated Ordnance. Certain ordnance can become contaminated by the nature of its use or intended use or may contain a contaminant. When such ordnance is to be transferred to or from laboratories, to offices, to shops, to or from storage, to disposal, or remains in place for testing, modification, or use in displays or models, they will be decontaminated completely or handled according to specific handling instructions developed for the material involved. Examples of such ordnance include the following:

(1) Containers or inner packaging materials that are or have been in contact with hazardous materials.

(2) Munitions and associated components.
Size of black rectangular panel containing the word CAUTION and the size of the letters used for the word CAUTION, etc., will vary with the outside dimensions of the sign.

Figure 11-6. Contaminant Sign.
(3) Radioactive components.

(4) Test fixtures.

k. Commodities in Production. Material or ordnance in production shall be handled according to approved written procedures that provide for alternate controls of such materials or ordnance, such as inspection and certification by product assurance or QA personnel.

l. Incompatible Contaminated Material. Incompatible contaminated material shall be segregated in storage by providing separate storage facilities or sites. Compatible material having different degrees of decontamination shall be segregated in storage.

m. Transportation of Items Decontaminated to an XXX Degree. These items shall be transported only in Government-approved vehicles under Government control.

n. Working on Items Decontaminated to an XXX Degree. Except for flashing operations, which are permitted under established procedures, such items shall not be worked on with open flame, high temperature heating devices, or devices that generate heat during use due to friction, rubbing, or cutting without specific written and approved procedures. Friction generating devices include hand or power drills and saws, lathes, and powered wire brushing.

o. Identification of Items Moved To or From a Contaminated Area. These items shall be identified and documented as follows:

1. Items placed in standby or transferred to another location shall be marked with conspicuously painted yellow Xs or Os, as appropriate. Another contrasting color is used when the items to be marked are painted yellow. Exceptions to this rule include material and ordnance covered in subparagraphs C.i.e.(l), g. and k. above; items being tool ed up or repaired in place; and items in or from an uncontaminated area.

2. Items placed in standby, dismantled, demolished, altered, repaired, disposed of, or transferred shall be tagged with a DD Form 2271, "Decontamination Tag" (figure 11-7.), indicating methods, type and degree of contamination, and restrictions on handling. The Decontamination Tag shall be obtained from the appropriate Military Service activity. Exceptions to tagging requirements are as follows:

(a) Material and ordnance covered in paragraphs C. 1.f. and j., above, and items covered by written procedures providing for alternate means of identification of decontamination status will not be tagged.
DECONTAMINATION TAG

**This Tag Is Void If Altered, Modified in Any Way, or Attachment Seal Is Broken. Remove Tag and Keep for Your Record Before Using Item.**

If Out Stub and Send to Installation/Activity Safety Office. Complete Instructions for the Use of This Form Are Located In Each DOD Component Regulation.

<table>
<thead>
<tr>
<th>Name of Installation/Activity</th>
<th>Serial No.</th>
<th>Replaces Tag Serial No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Degree of Decontamination (Letters note-out indicate degree):**

XXX

**Date Decontaminated (YMMDD):**

---

**Description of Item**

---

**It Em Used For**

- Name of Contaminant

<table>
<thead>
<tr>
<th>Item Serial/Model No.</th>
<th>Item Tagged At Building/Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Reason for Decontamination**

- Repair in Place
- Transfer To
- Other (explain)

**Decontamination Procedure Used**

- Hot Water
- Steam
- Oven
- Solvent
- Type

**Standard Operating Procedure No.:**

---

**Specific Instructions/Additional Information**

---

**Signatures**

- Decontaminating Supervisor
- Date (YMMDD)
- Inspecting Safety Office Representative
- Date (YMMDD)
- Name of Installation/Activity
- Serial No.

**Name of Son Removing Tag (Last, First, MI)**

---

**Reason Tag Removed**

- Item Being Used
- Other (explain)

**DD Form 2271**

52 NOV

Replaces DA Form 3503, Which May Be Used Until Supply Exhausted.

Figure 11-7. DD Form 2271, “Decontamination Tag.”

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(b) Items in or from an uncontaminated area do not require tags.

(3) All transfer documents, work orders, and the like on an item shall be annotated with the appropriate degree of contamination (X, XX, XXX, XXXX, or O) whether the item comes from a contaminated or uncontaminated area.

p. Reflecting Change in Decontamination Degree. When the degree of decontamination is changed, the old tag shall be replaced with a new tag according to instructions on the tag, and markings shall be changed to show the latest status of the item. Additionally, all documents shall be changed to correspond.

q. Removing Decontamination Tags. When an item is to be placed in service, the tag shall be removed in accordance with instructions on the tag, and the yellow markings obliterated before use.

r. Controlling Access to Contaminated Items. Access to areas containing contaminated items shall be controlled. Jurisdiction always shall be under the direction of persons knowledgeable with the item and contaminant involved.

s. Designing for Demilitarization Safety. Demilitarization safety shall be designed into items from conception through initial operation and completion to provide for safe, convenient, and economical methods of decontamination.

2. Decontamination Procedures

a. Specified officials at installations and activities shall:

(1) Ensure adequate written procedures for decontamination of items are prepared and approved by a designated representative before initiating a request for disposal, shipment, transfer, maintenance, or repairs.

(2) Ensure that a safety representative makes an actual on-site inspection of the item and provide a written certification of the degree of contamination.

(3) Ensure that personnel (drivers, supervisors, warehousemen, repairmen, tool room attendants, and so forth) transporting, receiving, relocating, or performing work (setup, maintenance, repairs, alterations, and modifications) are aware of the restrictions on handling, are acquainted thoroughly with the hazards involved and the written operational procedures, and know how to verify that the item is decontaminated properly.

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(4) Issue written procedures to ensure that all reject or obsolete materials, equipment, facilities, and generated waste are disposed of on a timely basis and by an approved method.

(5) Maintain appropriate records of contaminated areas, equipment, and facilities. The records should contain the information shown in figure 11-5.

(6) Ensure that all contaminated equipment or material to be transferred between installations, or from one area of an installation to another, is tagged, marked, and documents are annotated properly as to the degree of contamination.

(7) Ensure that installation safety concurrence is obtained before submitting a request for disposal approval or funding projects for disposal.

(8) Submit requests to the appropriate agency of the aware DoD Component for approval of the method of decontamination for disposal of any contaminated land or facilities. The requests must include at least the following:

(a) Description of the facility or land involved, type and degree of contamination, method of decontamination, method of dismantling, and disposal action. Any items for disposal without restricted use must include decontamination to an XXXXX degree.

(b) A written procedure applicable to the specific job. Generalized procedures are not adequate.

(9) Submit a request for approval of disposal of buildings and improvements to the appropriate agency of the aware DoD Component. The request must contain the following information:

(a) Type of contamination.

(b) Degree of decontamination.

(c) Date of safety concurrence.

b. The Chief, Safety Office, of the appropriate agency of the aware DoD Component shall:

(1) Review and evaluate all requests, procedures, and instructions on method of disposal of contaminated facilities or land.

(2) Ensure that appropriate decontamination documents are included in the contract for contractor or subcontractor compliance.
c. The Military Service agency possessing an item shall fund for the work needed to accomplish decontamination or disposal of the item.

D. HCSDS

This section spells out responsibilities for the execution and administration of hazardous item contracts at all ammunition plants, including GOCO, GOO, and COO installations. Hazardous item contracts are contracts requiring the research, development, manufacturing, loading, testing, and handling of ammunition, explosives, and other unique military-related dangerous materials. These responsibilities apply both to the SMCA and the developing Military Service:

1. Basic Policies

a. Identifying Hazardous Item Contracts. All hazardous item contracts shall be identified by a cover sheet, DD Form 2356 (figure 11-8), stating the item nomenclature and indicating that the contract involves hazardous material.

b. When to Use the HCSDS. An HCSDS, DD Form 2357 (figure 11-9.), shall be developed for each hazardous material, component, and assembly in a hazardous item contract. See Appendix I for instructions on preparing the HCSDS. Microfilm copies of all HCSDS shall be supplied to the SMCA for contract administration. A list of all HCSDS, by number and nomenclature, shall be made a part of the TDP and integrated in or annexed to the production and procurement package. The developing Military Service responsible for the hazardous commodity shall initiate the HCSDS and the HCSDS list. Local reproduction of DD Form 2357 is authorized.

c. Cases in Which the HCSDS May Not Be Required. The HCSDS must be prepared for all ammunition, explosives, and other unique military-related dangerous material (lethal and incapacitating agents). However, HCSDS normally are not prepared for commercially available items (acetone, lacquer, and the like) that may be used in the manufacture of the military items. For these items, instructions shall be included in the contractual document to advise the contractor that there may be other hazardous materials involved. In addition, the contractor should, under the provisions of OSHA, obtain Material Safety Data Sheets (OSHA Form 20 or equivalent) from the product manufacturer.

2. HCSDS Procedures

a. The SMCA shall:

(1) Establish and maintain a central repository of HCSDSs and provide a semiannual listing and monthly update of new or revised entries to the developing Military Service.
(2) Provide microfilm copies of HCSDS to the developing Military Service on request.

(3) Ensure each contract contains DD Forms 2357 for every hazardous commodity to be manufactured, loaded, tested, or handled as part of an SMCA procurement action.

(4) Coordinate the efforts of the responsible developing Military Service to achieve a uniform input of complete and correct HCSDS for each hazardous commodity procured by the SMCA.

(5) Render a final decision on disagreements regarding revision, interpretation, change, or duplication of HCSDS.

b. The developing Military Service shall:

(1) Initiate and update the DD Form 2357 for hazardous commodities under its control and provide a microfilm copy to the SMCA central repository and retain responsibility for the validity of the data.

(2) Include a complete list of HCSDS in the TDP submitted to the SMCA for procurement action.
WARNING

THIS CONTRACT INVOLVES HAZARDOUS MATERIAL

SEE SEPARATE HAZARDOUS COMPONENT SAFETY DATA STATEMENTS FOR TECHNICAL DATA AND SAFETY REQUIREMENTS

(TITLE OF END ITEM AND IFB, RFQ, RFP'S, ETC. OR CONTRACT NUMBER)

FIRMS MUST HAVE ADEQUATE FACILITIES FOR HANDLING AMMUNITION, EXPLOSIVES, or other unique military related dangerous material involved that could adversely affect personnel and property in the event of explosion, fire or exposure. Prior to contract award, the Government will thoroughly investigate the ability of prospective contractor to comply with safety requirements.”
### HAZARDOUS COMPONENT SAFETY DATA STATEMENT (HCSDS)

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<thead>
<tr>
<th>2 MATERIAL ICOMPONENT / ASSEMBLY</th>
<th>3. DATE PREPARED (YMMDD)</th>
<th>4 REPORT CONTROL/SYMBOL MIL/AR 1687</th>
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#### PART I - SENSITIVITY

<table>
<thead>
<tr>
<th>6. FRICTION TEST</th>
<th>7 IMPACT TEST</th>
<th>8 ELECTROSTATIC DISCHARGE TEST</th>
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#### PART II - HAZARDS

<table>
<thead>
<tr>
<th>3. FIRE</th>
<th>10. AUTO IGNITION TEMP.</th>
<th>11. FLASH POINT</th>
<th>12. DECOMPOSITION PRODUCTS</th>
</tr>
</thead>
</table>

|--------------------------------------|---------------|---------------------|----------|

<table>
<thead>
<tr>
<th>17. HEALTH HAZARD INFORMATION (Toxicity)</th>
<th>18. UNPACKED (h-process) HAZARD CLASS (Specify Quantities involved)</th>
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#### PART III - SHIPPING / STORAGE CLASSIFICATION OF ITEM WHEN PACKED IN ACCORDANCE WITH APPROVED PACKING DRAWINGS

<table>
<thead>
<tr>
<th>2. DOT HAZARD CLASS/DIV</th>
<th>21. DOT STORAGE COMPATIBILITY</th>
<th>22. DOT HAZARD CLASSIFICATION</th>
<th>23. DOT CONTAINER MARKING</th>
</tr>
</thead>
</table>

#### SPECIAL REQUIREMENTS (If additional space is needed, use plain bond paper)

#### PREPARED BY (Initiator)

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The information relating to safety (herein referred to as "safety data") contained in this document is limited to those instances when the document is provided as a part of a procurement/production package which involves the development, testing, storage, manufacture, modification, handling, disposal, inspection, repair or any other use of the item. The safety data contained herein are examples which shall be used by the contractor to alert contractors personnel as well as other personnel of hazards associated with the procurement/production of the item. No representation is made that compliance with the information provided will prevent any accident to persons or property or that additional warnings may not be appropriate. Neither the foregoing nor any act or failure to act by the Government in regard to aiming personnel to the hazards of the item shall affect or relieve the contractor of responsibility for the safety of contractor personnel or property and for the safety of the general public in connection with the performance of the contract, or impose or add to any liability of the Government for such safety.