

AMMUNITION MAINTENANCE, INSPECTION, AND SURVEILLANCE

This chapter provides general information and guidance for ammunition personnel who are responsible for the maintenance of conventional ammunition, to include its demilitarization. Detailed maintenance and surveillance procedures for specific items of ammunition are in TM 9-1300 series publications. Still more surveillance procedures are covered in SB 742-1. Doctrine and policies that apply to direct support (DS) and general support (GS) ammunition companies are in FM 9-6 and FM 9-38.

MAINTENANCE REPAIR PARTS, TOOLS, AND EQUIPMENT.

Tables of allowance (TA), tables of organization and equipment (TOE), and the repair parts and special tools lists (RPSTL) of the technical manual for

the specific class of ammunition all authorize the tools and equipment ammunition handlers need. Special tools are also listed in SC 4940-95-CL-A11 for DS units and in SC 4925-95-CL-A03 for GS units. Consumable and expendable supplies needed for maintenance are listed in the proper technical manual. Packing materials are listed as repair parts.

LEVELS

There are three levels of maintenance for which Army ammunition personnel are responsible. They are detailed in technical manuals and related publications and regulations as listed earlier. Levels of ammunition maintenance are briefly discussed below.

Organizational. All activities having conventional ammunition on hand, including using units, perform organizational maintenance. It prevents deterioration of ammunition from rough handling and exposure. It involves cleaning, removing minor rust and corrosion, repairing and replacing boxes, and restenciling containers as prescribed in the proper -10, -12, or -20 technical manual and as required by the maintenance allocation chart (MAC).

Direct Support. TOE 9-64 conventional ammunition companies perform direct support (DS) maintenance. It includes surveillance and limited maintenance of stocks under the companies' control. DS maintenance involves cleaning and protecting individual items and/or packing material; removing light rust; making minor repairs on boxes, containers, and crates; spot painting and restenciling, and replacing

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readily removal external parts and components such as fuzes of artillery and mortar ammunition, propelling charges and primed cartridge cases for semifixed and mortar ammunition, grommets, and nose plugs.

Packing containers and packing material authorized at DS level are limited because storage space for them is limited. These materials are listed in TM 9-1300-250.

General Support. TOE 9-74 conventional ammunition companies in the COMMZ perform GS maintenance. GS maintenance units perform that part of the maintenance mission that the DS ammunition company cannot.

DS/GS Maintenance Planning. The objective of all DS/GS planning is the construction of a maintenance line that processes an item as efficiently as possible. The planning process is as follows:

- DS/GS support units perform ammunition maintenance and demilitarization only after they receive a properly validated work authorization. Such work authorization may be a maintenance request (DA Form 2407), an endorsement to the Ammunition Condition Report (DA Form 2415), or a letter of authorization. Instructions for using these forms are in DA Pam 738-750. The maintenance officer may create an assignment sheet (work order) when the validated work authorization does not furnish enough information.
- All the information on the item to be processed

should be collected from the validated work authorization and/or the appropriate data sheets and carefully studied in order to decide how the job can be completed. A process flow sheet should then be prepared. This is a compact chart for recording the proper sequence of everything that has to be done. For more details on making one see TM 9-1300-250. Next, write the SOP to supplement the flow sheet. Get instructions for preparing the SOP in TM 9-1300-250. Depot maintenance work requirements (DMWRs) for renovation, repair, or demilitarization of ammunition provide information concerning the technical features of various maintenance operations. They consist of a series of sheets in pamphlet form. Approval for the DMWR is by the commanding officer of the US Army Armament Munitions and Chemical Command, Rock Island, IL, but a qualified staff member can also be delegated the responsibility for reviewing and the authority for approving the DMWR. When a DMWR is received in the field, it should be used as a guide for making up the maintenance SOP for that particular operation. TM 9-1300-250 provides a sample page of a DMWR.

- When flow sheet and SOP (to include the index of operations and operations format) are done, the ammunition officer with the help of the key NCOs should give the service section a list of all the special tools that will be needed.
- Now, determine the shape of the maintenance line based on the flow sheet. It is usually a

straight line or a “U” shaped line. The straight line is most often used when two roads are available, one at the incoming end of the line and the other at the outgoing. TM 9-1300-250 shows a sample straight-line operation. The U line is usually used when there is only one road available for supplying and removing processed items, TM 9-1300-250 also shows a sample U line operation.

SAFETY

Safety in ammunition maintenance is covered in AR 385-10, TM 9-1300-206, and maintenance manuals for specific items of ammunition. Explosives safety, covering fire fighting procedures, the handling and storing of ammunition, operational precautions, QD requirements, barricades, operational shields, personnel and explosives limits, and safety tools and equipment, is covered in Chapter 1 of this manual.

AMMUNITION INSPECTIONS AND SURVEILLANCE

INSPECTIONS

Inspections in maintenance organizations are one of the requirements of the Ammunition Surveillance and Quality Evaluation Program (see AR 702-6, AR 740-1, and SB 742-1).

A QASAS, or MOS 55X soldier under the guidance of a QASAS, periodically inspects ammunition items to determine the serviceability of the ammunition according to SB 742-1 as well as other pertinent

SBs for the specific classes of ammunition. Inspections to determine serviceability will also be done when ammunition is turned in by using units. An additional inspection will be done after maintenance to see if unserviceable items have been made serviceable. The inspector performs and certifies this inspection before the ordnance goes back to the storage area.

SURVEILLANCE

Ammunition surveillance is the observation, inspection, and classification of ammunition and ammunition components during movement, storage, and maintenance. It includes the inspection of all ammunition, equipment, facilities, and operations. Surveillance is conducted at all theater installations responsible for the storage, maintenance, disposal, and shipment of ammunition and components. Surveillance ends when the ammunition is expended or destroyed.

Within theater ammunition units, surveillance is performed by attached civilian and assigned military ammunition inspectors. The civilians, the QASAS, are inspectors with over a year of technical training plus an apprenticeship. Periodically, throughout their careers, they receive additional resident training. The military inspector (MOS-55X) is recruited from the ammunition career management field and receives additional formal school training. This training concentrates on the practical inspection of conventional ammunition and small missiles. The training and experience of the military inspectors provide adequate technical expertise for them to

work with QASAS. Surveillance will in general be accomplished as specified in SB 742-1.

Responsibilities. Theater Army headquarters has general supervision over ammunition surveillance in the theater of operations. The COSCOM or ammunition group has this function within the corps. The commanding officer of any ammunition service unit conducts a Quality Assurance Ammunition Surveillance Program for all ammunition and ammunition operations under that command. The ammunition inspectors carry out this responsibility. Military inspectors help conduct the surveillance program as directed by the proper battalion or group commander.

Functions. The duties of military and civilian ammunition inspectors are as follows:

- Inspect storage buildings and outdoor storage sites to make sure they comply with all safety standards of storage.
- Inspect surrounding areas for fire hazards and other nonstandard conditions.
- Take and record maximum and minimum temperature and humidity readings.
- Look for nonstandard conditions that could speed up the normal deterioration rate of the items in storage, thus create a hazard.
- Help inspect and test the lightning protection system in magazines or explosives areas.
- Help pick samples to ship to CONUS proving grounds and laboratories for ballistic and surveillance tests or investigations.

- Teach surveillance and ammunition safety.
- Prepare and keep proper correspondence, records, and reports to cover all ammunition activities.
- Observe, inspect, and investigate to determine the current degree of serviceability of ammunition and components.
- Monitor methods of storage, handling, and maintenance, and recommend changes for increased safety or operational effectiveness.
- Recommend to the commanding officer the controls needed to maintain approved standards of security.
- Act as technical advisors to the commanding officer on all ammunition surveillance matters.
- Conduct unit basic load inspections.
- Help investigate ammunition malfunctions and accidents.
- Help plan, coordinate, and administer the explosives safety program. The program includes review, evaluation, and inspection of all operations, procedures, equipment, and facilities used with ammunition and explosives operations to assure application of and compliance with pertinent safety standards.
- Help plan construction of explosives storage facilities based on current QD and storage criteria.
- Help prepare waivers for ammunition facilities as required.

- Prepare and maintain accurate records of all observations, inspections, and investigations performed.
- Maintain files and indexes for all drawings and specifications covering ammunition and methods of packing and storing.
- Inspect all incoming and outgoing shipments of ammunition for sabotage devices; proper blocking, bracing, and loading condition and serviceability, and compliance with existing instructions and regulations.
- Inspect dunnage used and methods of storage for compliance with specifications, drawings, and safety regulations.
- Furnish safety advice to the unit's operating elements. Inspect all facilities and methods used in connection with storage, handling, shipping, assembling, loading, preserving, maintaining, salvaging, and destroying ammunition for compliance with existing regulations.
- Maintain and update ammunition suspension file, both local and worldwide. Refer to Appendix E for ammunition condition codes.