Department of the Army Pamphlet 385-64

Safety

Ammunition and Explosives Safety Standards

Headquarters Department of the Army Washington, DC 24 May 2011

SUMMARY of CHANGE

DA PAM 385-64
Ammunition and Explosives Safety Standards

This major revision, dated 24 May 2011--

- o Updates and prescribes Army policy on ammunition and explosive safety standards (throughout).
- o Makes administrative changes (throughout).

Safety

Ammunition and Explosives Safety Standards

By Order of the Secretary of the Army:

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History. This publication is a major revision.

Summary. This pamphlet prescribes Army policy on ammunition and explosives (also referred to as military munitions) safety standards. It implements the safety requirements of DODM 6055. 09–M.

Applicability. This pamphlet applies to the active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless

otherwise stated. It also applies to all Army civilian personnel in a duty status, on or off a DOD installation; and to all persons at any time on an Army installation. DOD military munitions under U.S. title, even though stored in a host country, remain the responsibility of the U.S. Commander. Storage will conform with Army standards for explosives safety unless the use of more stringent criteria has been agreed to or is mandatory. This pamphlet is applicable during full mobilization.

Proponent and exception authority. The proponent for this pamphlet is the Chief of Staff, Army. The proponent has the authority to approve exceptions to this pamphlet that are consistent with applicable controlling laws and regulations. The proponent has delegated approval authority to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this pamphlet by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the command

or senior leader of the requesting activity and forwarded through their higher head-quarters to the policy proponent. Refer to AR 25–30 for specific guidance.

Suggested improvements. Users of this regulation are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Office of the Director, Army Safety (DACS–SF), 2221 South Clark Street, Crystal Plaza 6, Suite 1107, Arlington, VA 22202.

Distribution. This publication is available in electronic media only and is intended for command levels A, B, C, D, and E for the active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

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^{*}This pamphlet supersedes DA Pam 385-64, dated 15 December 1999.

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Glossary

Chapter 1

Explosives Safety Program Management

1-1. Purpose

This pamphlet explains the Army's safety criteria and standards for operations involving ammunition and explosives (AE) (also referred to as Military Munitions) prescribed by AR 385–10, DOD Directive (DODD) 6055.9E, and DODM 6055.09–M for the U.S. Army, and Government-owned, contractor-operated facilities and property.

1-2. References

Required and related publications and prescribed and referenced forms are listed in appendix A. DA Form 7632 (Certificate of Risk Acceptance), will be referred to as acronym "CORA" throughout this publication.

1-3. Explanation of abbreviations and terms

Abbreviations and special terms used in this pamphlet are explained in the glossary.

1-4. Provisions

This pamphlet includes mandatory procedures and guidance as well as preferred and acceptable methods of accomplishment.

- a. The words "shall," "will," and "must" are used to state mandatory requirements. Deviation from these provisions requires a DA Form 7632 per provisions of AR 385–10 and DA Pamphlet (DA Pam) 385–30.
- b. The word "should" indicates an optional or preferred method of accomplishment. Deviation from these provisions requires written authorization from the local commander/senior manager or designee.
 - c. The word "may" indicates an acceptable or suggested means of accomplishment.

1-5. Explosives safety management programs

- a. Per AR 385–10, Army commands (ACOMs), Army service component commands (ASCCs), direct reporting units (DRUs) will develop, implement, and manage a written explosives safety management program (ESMP) as an element of their overall safety and occupational health program. In addition, units at and above the battalion level whose mission and functions involve AE will develop, implement, and manage a written ESMP as an element of their overall safety and occupational health program. The ESMPs will address the safety of AE during production, transportation, storage, handling, use, inspection, testing, maintenance, munition response actions, demilitarization, and disposal.
- b. Commanders, at all levels, will establish and implement a written ESMP that, at a minimum, shall address the following:
- (1) Appointment of an occupational safety and health manager per AR 385-10, qualified under the Office of Personnel Management standards, as the point of contact for all aspects of the Army Safety Program, including management of the ESMP.
 - (2) Compliance with DODD 6055.9E, DODI 6055.16, DODM 6055.09-M, AR 385-10, and this pamphlet.
 - (3) Assurance that subordinate organizations maintain an effective ESMP.
- (4) Designation, in writing, of subordinate officials authorized to exercise CORA approval authority per AR 385–10 and DA Pam 385–30.
- (5) Review of and concurrence on memorandums of agreement (MOAs) concerning the storage or disposal of non-DOD hazardous materials on Army real estate, consistent with the requirements of Section 2692, Title 10, United States Code (10 USC 2692) and with any delegation of authority necessary under 10 USC 2692.
 - (6) Integration of explosives safety into policy, procedures, and activities.
- (7) Notification, as required by applicable laws, regulations or international agreements to which the United States is party, of affected local U.S. and host nation government officials to ensure communication of the risk of operations involving AE. Communications with host nation government officials shall be made in coordination with the U.S. Embassy.
- c. Commanders of garrisons, installations and colonel-level (06) and above commands and agencies with an ammunition or explosives mission will—
- (1) Establish written explosives safety policy to implement AR 385–10 and this pamphlet that outlines the responsibilities of all organizations, including installation and tenant activities with an explosives missions. As part of the ESMP, an MOA or policy that outlines the ESMP requirements and responsibilities of both the garrison or installation commander and tenants will be created.
- (2) Appoint an occupational safety and health manager per AR 385–10 who is qualified under Office of Personnel Management standards as the point of contact for all aspects of the ESMP.
- (3) Ensure competent and qualified personnel initiate and review site plans, safety submissions, and AE facility designs and that garrison or installation master plans take into account ESMP requirements.
 - (4) Ensure personnel who initiate and review explosives safety certificates of risk acceptance for AE-related

operations, facilities or equipment are qualified to provide the commander with the information needed to make an informed decision regarding the risk being accepted.

- (5) Ensure operating, training, and construction plans and budgets provide adequate resources to comply with ESMP requirements and to mitigate to the extent possible any explosives safety hazards per AR 385–10.
- d. The ESMP shall prescribe requirements, responsibilities, and procedures for complying with AR 385–10, DA Pam 385–30, DA Pam 385–65, and this pamphlet. As applicable, the ESMP will address the following:
 - (1) Oversight, management, coordination, and evaluation.
- (2) Technical support requirements (such as, from quality assurance specialist (ammunition surveillance) (QASAS) personnel).
 - (3) Explosives safety training.
 - (4) Explosives safety surveys and inspections to determine compliance with AR 385-10 and this DA Pam.
 - (5) The development and approval of—
 - (a) Explosives safety policy, directives, and standing operating procedures (SOPs).
 - (b) The DDESB- or Army-required explosives safety submissions and licenses (per ACOM, ASCC, or DRU policy).
 - (c) Procedures for completing 1 certificates of risk acceptance.
 - (d) Certificates of compelling reason (CCRs).
- (6) Investigating and reporting accidents, incidents and mishaps involving AE, including submission of serious incident reports (SIR) and chemical event reports (CER) and documentation and dissemination of explosives safety lessons learned.
 - (7) Contractor explosives safety requirements and oversight per their contract.
 - (8) Fire prevention and protection.
- e. Garrison or installation safety offices will, when applicable, develop and administer the ESMP for all tenant units and activities.

1-6. Functions of safety managers

- a. The ACOM, ASCC, and DRU safety directors shall-
- (1) Conduct periodic evaluations to ensure the effectiveness of their and subordinate commands' ESMPs.
- (2) Keep their leadership and staff informed of ESMP requirements and issues, and the status of the commander's ESMP.
 - b. Garrison, installation, and unit safety managers will—
 - (1) Serve as the point of contact for all ESMP-related actions.
- (2) Identify requirement for explosives licenses, explosives safety site plans, safety submissions, and explosives safety certificates of risk acceptance, existing waivers and exemptions, and CCRs, and coordinate, as appropriate, with staff (for example, J-3/G-3/S-3, J-4/G-4/S-4, engineering, and logistics elements) and garrison, installation, and/or unit support personnel.
- (3) Ensure all potential explosion sites (PESs) and exposed sites (ES), both military and civilian, are indicated on approved explosives safety site plans and submissions.
- (4) Ensure that plans and protective construction designs for explosive manufacture, testing, storage, surveillance, maintenance, response actions, demilitarization, and disposal facilities are reviewed for compliance with safety standards, by appropriately trained personnel.
- (5) Ensure a safety inspection is conducted at least annually for all areas where AE-related activities (for example, production, handling, storage, use, maintenance, munition response, demilitarization, and disposal) routinely occur. Maintain a list of all such areas and records of inspections.
- (6) Monitor AE uploads and other activities that involve the transportation and storage of AE to ensure that pertinent requirements are met.
- (7) Serve as the focal point for and coordinate ESMP requirements with tenant unit commanders; and provide concurrence on tenant unit ESMPs.
- (8) Review the garrison or installation master plan and quantity-distance (QD) compliance for planned facilities on existing AE sites both prior to and after construction.
 - (9) Review policies, SOPs, and directives for compliance with explosives safety requirements.
- (10) Review certificates of risk acceptance and certificates of compelling reason for completeness and accuracy prior to forwarding for approval.
- (11) Maintain a list of approved certificates of risk acceptance, waivers, exemptions, and/or deviations; and advise incoming commanders of such and plans for correction of such situations.
- (12) Actively participate in the garrison or installation master planning process and annually review the installation master plan to ensure construction is not planned inside explosives safety quantity distance (ESQD) arcs. When construction that is not related to AE operations is required within ESQD, ensure explosives safety site plans, submissions and explosives licenses are updated and approved at the appropriate level.

- (13) Ensure procedures are developed and in place for—
- (a) Maintaining fire symbols and chemical hazard symbols current with actual AE stored at a particular location.
- (b) Ensuring that personnel responsible for managing AE keep current information on the type and location of AE storage and provide this information to safety and fire fighting personnel.
- (c) Training of personnel responsible for AE-related operations, operational personnel including security personnel, and firefighters in fire symbols and chemical hazard symbols and in precautions and procedures for fighting fires when AE is involved.
- (d) Existence of adequate communications between safety, fire fighting, security, emergency response, and ammunition surveillance and storage personnel.
- (e) Maintenance of current maps, showing all explosives locations with fire and chemical hazard symbols, and current facility response cards and notebooks for AE storage by fire station communication centers.
- (14) Annually review (and document the review) the garrison's or installation's explosives location map to monitor encroachment within ESQD and ensure required explosives safety site plans, submissions and explosives licenses are accomplished.
- (15) Monitor selected AE operations conducted on Army garrisons or installations to ensure all DOD, Federal, State, local, and contractor participants understand and comply with applicable explosives safety standards.
- (16) Monitor, on a periodic basis, selected AE-related activities to evaluate explosives safety and the integration of risk management. Activities that should be monitored include, but may not be limited to the following:
 - (a) AE storage, handling, and operating sites.
 - (b) AE transportation activities.
 - (c) AE disposal and demilitarization activities.
 - (d) Munitions response actions and access to MRS.
 - (e) Weapon systems modifications, special exercises, and test programs, particularly those that involve AE.
 - (f) Planning for contingencies.
 - (g) Combat load and reload operations.
 - (h) Explosives safety training records for unit personnel.
 - (i) Public demonstrations to include "Boss lift," "Organization day," "Open house," and "4th of July" type activities.
- (17) Assist commanders and staffs with resolving explosives safety concerns associated with real property known or suspected to contain munitions and explosives of concern (MEC).
- (18) Investigate and report AE accidents, incidents and mishaps, per DODM 6055.09–M, AR 385–10, and DA Pam 385–40, and document and disseminate explosives safety lessons learned.
- (19) Brief their command and staff, as necessary, to keep the leadership informed of explosives safety requirements and issues and the status of the commander's ESMP.

1-7. Explosives safety support

The QASAS personnel must be adequately trained and qualified in ammunition/explosives safety, as well as ammunition surveillance to support ACOMs, ASCCs, DRUs, garrisons, installations, and shall be utilized to provide technical assistance to commanders and safety directors in the areas listed below. Safety directors and managers remain responsible for management of the Explosives Safety Program.

- a. Developing explosives safety site plans, submissions, and explosives licenses.
- b. Preparing explosives safety certificates of risk acceptance and CCRs.
- c. Reviewing protective construction designs for AE operational facilities (for example, production, manufacture, testing, storage, surveillance, maintenance, demilitarization, and disposal facilities) for compliance with explosives safety standards.
 - d. Conducting safety inspections of AE handling, storage, use, maintenance, and disposal areas at least annually.
- e. Monitoring AE uploads and other activities that involve the transportation, storage or conduct of other AE-related operations for which a certificate of risk acceptance or CCR has been approved or is awaiting approval to ensure that pertinent requirements are met.
- f. Reviewing quantity-distance (QD) compliance of existing and planned facilities, both prior to and after construction.
 - g. Reviewing SOPs and directives for compliance with explosives safety requirements.
- h. Assisting in the garrison or installation master planning process and reviewing, annually, the garrison or installation master plan to ensure construction is not planned within ESQD.
- i. Monitoring AE-related operations to assist Army units with understanding and complying with ESMP requirements.
 - j. Monitoring and evaluating AE-related activities, including the following:
 - (1) Production, storage, handling, maintenance, operating, demilitarization, and disposal.
 - (2) Transportation.

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