



DoD DIRECTIVE 6055.09E

EXPLOSIVES SAFETY MANAGEMENT (ESM)

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Approved by:	Robert O. Work, Deputy Secretary of Defense
Change 3 Approved by:	Sajeel S. Ahmed, Acting Director of Administration and Organizational Policy, Office of the Chief Management Officer of the Department of Defense

Purpose: This issuance:

- Implements Section 172 of Title 10, United States Code (U.S.C.) by establishing the DoD Explosives Safety Board (DDESB).
- Establishes policy and assigns responsibilities for the DDESB and DoD ESM, in accordance with Section 172 of Title 10, U.S.C., and DoD Directives 5134.01 and 4715.1E.
- Provides for the maintenance, oversight, and management of the DDESB as a standing joint board with a full-time staff.
- Designates the Secretary of the Army as the DoD Executive Agent for Emergency Response to Transportation Mishaps involving DoD Military Munitions in accordance with DoD Directive 5101.1.
- Authorizes the development and maintenance of supporting and clarifying DoD issuances and other publications, such as DoD Explosives Safety Regulations and DoD Explosives Safety Standards.

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SECTION 1: GENERAL ISSUANCE INFORMATION

1.1. APPLICABILITY. This issuance applies to:

a. OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff (CJCS) and the Joint Staff, the Combatant Commands (CCMDs), the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this issuance as the “DoD Components”).

b. ESM associated with:

(1) DoD operations, activities, installations, and facilities worldwide, including when participating in or supporting multinational and coalition operations.

(2) Government-owned, contractor-operated DoD military munitions operating facilities.

(3) Non-DoD activities, including non-DoD munitions or explosives-related activities, that lease or use real property or facilities on DoD land.

(4) DoD military munitions on DoD land or in DoD facilities, on non-DoD land, or in non-DoD facilities.

(5) The potential impact to DoD activities or operations of non-DoD activities or operations, on-base or nearby.

(6) Transportation of DoD military munitions within and outside the United States, to include when they are located or handled at a commercial port or anchorage, regardless of other (e.g., U.S. Coast Guard) authorizations or approvals.

(7) DoD military munitions throughout their life cycles.

1.2. POLICY. The DoD:

a. Protects people and property from the unintentional, potentially-damaging effects of DoD military munitions.

b. Exposes the minimum number of people for the minimum time to the minimum amount of DoD military munitions required to safely and effectively execute the mission.

c. Provides for the explosives and chemical agent safety of DoD military munitions (also referred to as ammunition and explosives (AE)) throughout the munition’s life cycle as a DoD military munition and without regard to its location.

d. Provides for explosives and chemical agent safety during munitions response actions.

- e. Develops explosives and chemical agent safety standards that provide minimum safety standards for the military munitions covered by this issuance.
- f. Requires DoD Components to implement and maintain an effective ESM Program (ESMP).
- g. When outside the United States, in accordance with applicable international agreements, respects host-nation, coalition, or multinational explosives safety standards, and applies them when more protective than U.S. standards.
- h. Prohibits the disposal (e.g., burying, dumping) of DoD military munitions on land or in water, except when specifically authorized by the applicable DoD Component head. This does not preclude the covering of DoD military munitions to control fragments or noise during authorized destruction by detonation or the use of *in-situ* capping when implemented as an engineered remedy under an authorized response action.
- i. In outgrants for, or transfers of, real property known or suspected to contain DoD military munitions that are unexploded ordnance or discarded military munitions, includes appropriate protections for the United States that ensure future use of the property does not interfere with the continued military mission on nearby or adjoining property.
- j. Provides that explosives and chemical agent safety standards and regulations developed and maintained by the Office of the Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)), through the DDESB, carry the full weight and authority of the Secretary of Defense.
- k. Gives precedence to ESM principles and requirements that provide for immediate protection of people and property when complying with applicable environmental regulations.

1.3. SUMMARY OF CHANGE 3. This change is administrative and updates references and organizational symbols to reflect the reorganization of the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, pursuant to the July 13, 2018 Deputy Secretary of Defense Memorandum.

SECTION 2: RESPONSIBILITIES

2.1. USD(A&S). The USD(A&S):

- a. Integrates ESM tenets and requirements into DoD military munitions acquisition, foreign military sales, and international agreements and contracts that involve munitions.
- b. As the U.S. National Armaments Director at the North Atlantic Treaty Organization (NATO) Conference of National Armaments Directors, and in other similar National Armaments Director-level multilateral and bilateral forums (e.g., the Conference of National Armaments Directors, the Senior NATO Logisticians' Conference, and the NATO Research and Technology Organization), establishes and publishes policies and procedures governing explosives safety and munitions risk management (ESMRM) activities.
- c. Provides policy oversight for commercial motor carrier quality and safety when transporting DoD military munitions.

2.2. ASSISTANT SECRETARY OF DEFENSE FOR SUSTAINMENT (ASD(S)). Under the authority, direction, and control of the USD(A&S), the ASD(S):

- a. Oversees ESM and the DDESB.
- b. Maintains the DDESB as a standing joint board.
- c. Develops and maintains DoD explosives and chemical agent safety regulations and standards and coordinates board-approved substantive changes with affected DoD Components consistent with the procedures in DoD Instruction 5025.01.
- d. Integrates ESM tenets and requirements into ASD(S) mission areas, emphasizing integration into the master planning and military construction processes.
- e. Establishes selection procedures and oversees the selection process for the Executive Director, DDESB.
- f. Provides direction to the Executive Director, DDESB.
- g. Exercises DoD-wide oversight of DoD Component-level ESMPs to maintain effective DoD ESM, including performing programmatic and technical reviews.
- h. Establishes DoD ESM priorities for use by the DoD Components in ESM planning, programming, and budgeting.

2.3. UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING. In coordination with the Secretaries of the Military Departments, the Under Secretary of Defense for Research and Engineering addresses ESM technology requirements in research and engineering investments.

2.4. DIRECTOR, DEFENSE CONTRACT MANAGEMENT AGENCY. Under the authority, direction, and control of the USD(A&S), through the Assistant Secretary of Defense for Acquisition, the Director, Defense Contract Management Agency:

a. In coordination with the Executive Director, DDESB, incorporates requisite aspects of commercial endeavors connected with the DoD military munitions life cycle, including pre-award and post-award contract monitoring, into the agency ESMP.

b. Maintains direct coordination with the Army Joint Munitions Command, Joint Ordnance Commanders' Group Safety Subgroup, and Defense Ammunition Center/U.S. Army Technical Center for Explosives Safety to monitor explosives safety at Army ammunition plants.

2.5. DoD COMPONENT HEADS. The DoD Component heads:

a. Establish, provide resources for, implement, and maintain effective DoD Component-level ESMPs that provide for compliance with and implementation of this issuance and implementing guidance.

b. Provide the DDESB with timely access to installations and facilities, requested program information, and DoD military munitions mishap sites and data.

c. Address the hazards of electromagnetic radiation to ordnance throughout the DoD military munitions life cycle, in accordance with DoD Instruction 3222.03.

d. Accept risk greater than that afforded by the minimum explosives safety standards only when required by strategic or compelling operational necessity and when acceptance is supported by a written risk assessment leading to an informed management decision. When a compelling necessity exists, documentation may occur after the risk acceptance decision has been made.

2.6. SECRETARIES OF THE MILITARY DEPARTMENTS. In addition to the responsibilities in Paragraph 2.5., the Secretaries of the Military Departments:

a. Assign a qualified officer to serve as the Department's full-time military representative on the DDESB staff. The officer's grade will be:

(1) Army, Navy, and Air Force: O-6.

(2) Marine Corps: O-5 or O-6.

b. Appoint two or more senior qualified individuals (one primary and one or more alternates) to serve as the DDESB voting and alternate voting members.

c. Develop Departmental career programs that produce personnel qualified to serve as explosives safety subject matter experts.

d. Develop and maintain ESM research, development, test, and evaluation, special studies, and testing programs that include coordination with the Executive Director, DDESB.

e. Submit, in a timely manner, copies of all Department-approved deviations from minimum explosives or chemical agent safety standards, including supporting rationale documentation, to the affected CCMD and the Executive Director, DDESB.

2.7. SECRETARY OF THE ARMY. In addition to the responsibilities in Paragraphs 2.5. and 2.6., the Secretary of the Army:

a. Provides the Executive Director, DDESB, and DDESB staff with sufficient resources (e.g., budgeting, funding, civilian personnel, security, secure communications) and required administrative services, including special compartmented information billet support, to maintain effective DoD-wide executive-level ESM and oversight.

b. Funds the DDESB ESM research, development, test, and evaluation program to maintain effective DoD ESM.

c. As the DoD Executive Agent for Emergency Response to Transportation Mishaps involving DoD military munitions, coordinates, after an initial emergency response, required responses to transportation incidents or mishaps involving DoD military munitions (e.g., mechanical breakdowns that may require reloading, trans-loading, securing, or storing the DoD military munitions). This authority is limited to:

(1) Developing command and control procedures, including Service tasking authority.

(2) Ensuring timely action is taken upon request for support or notification that a commercial carrier transporting DoD military munitions has:

(a) Been involved in an incident or mishap.

(b) Experienced a mechanical breakdown and requires transloading.

2.8. CJCS. In addition to the responsibilities in Paragraph 2.5., the CJCS:

a. Issues and maintains doctrine on ESMRM in operations planning, training, and execution.

b. Integrates ESMRM into operational and exercise planning and assessments.

c. Involves the DoD Components in ESMRM decision making.

d. Coordinates with the ASD(S) on joint and multinational ESMRM issues.

2.9. COMBATANT COMMANDERS. In addition to the responsibilities in Paragraph 2.5., the Combatant Commanders:

a. Integrate ESMRM into all phases of operations planning, training, and warfighting.

b. Make DoD military munitions and other munitions-related risk decisions when compelled by strategic or operational necessity and when minimum explosives safety standards cannot be

met (i.e., in deviation situations). Base these decisions on the methodology and requirements prescribed in related issuances, DoD explosives safety regulations and standards, and CJCS Instruction 4360.01A.

c. Submit, in a timely manner, copies of all CCMD-approved deviations from minimum explosives safety standards, including supporting rationale documentation, to the affected Military Services and the Executive Director, DDESB.

d. Coordinate, notify, and communicate munitions-related risk decisions to affected commands and, as appropriate, affected local and host-nation government officials (through the U.S. Embassy) and coalition and multinational commanders, to maintain awareness of the potentially-damaging effects of DoD military munitions incidents or mishaps.

e. Provide the DDESB with timely access to installations, facilities, and operating locations in their areas of responsibility; requested ESMP information; and DoD military munitions mishap sites and data.

f. Involve the DoD Components in ESMRM decision making.

2.10. COMMANDER, UNITED STATES TRANSPORTATION COMMAND

(USTRANSCOM). In addition to the responsibilities in Paragraphs 2.5. and 2.9., the Commander, USTRANSCOM:

a. Includes in USTRANSCOM's ESMP the requisite aspects of DoD military munitions transportation, terminal, and yard operations for each mode of commercial carriage within the United States, or from points of U.S. origin through land, aerial, and seaports of embarkation and debarkation worldwide.

b. Coordinates with the ASD(S) and the Secretary of Transportation regarding ESM matters related to transporting DoD military munitions.

c. In collaboration with the Military Services and the DDESB, develops and maintains requisite allowances, authorities, or pre-approvals to be immediately activated, when necessary, to allow the expedited movement of DoD military munitions during periods of national emergency, contingency, or wartime. Informs the Executive Director, DDESB, when such activations occur.

d. Investigates carrier incidents involving AE, including mishaps and near misses involving DoD military munitions, to determine potential root causes and identify corrective actions that could mitigate the recurrence of the mishap or the potential for more significant mishaps.

e. Evaluates carrier incident data involving DoD military munitions to identify trends and patterns that could suggest systemic weaknesses (e.g., mechanical breakdowns or unusual delays that represent a heightened potential public safety risk) and takes action to address any identified weaknesses.

f. Maintains the Defense Transportation Tracking System that:

(1) Maintains continuous surveillance of DoD military munitions transported by motor carrier within the 48 contiguous states, Alaska, and Canada, when required by Chapter 205 of Part II of Defense Transportation Regulation 4500.9-R. Satellite surveillance information is provided through the Defense Transportation Tracking System.

(2) Provides initial notification of transportation incidents (e.g., accidents, breakdowns) involving DoD military munitions.

(3) Collects performance and incident data to identify trends and patterns that could suggest systemic weaknesses for use in commercial carrier performance management and carrier safety intervention programs.

SECTION 3: DDESB

3.1. ORGANIZATION AND MANAGEMENT. The DDESB:

- a. Is composed of an Executive Director and voting representatives selected by each Military Service, supported by a military and permanent civilian staff.
- b. Recommends new and updated explosives and chemical agent safety regulations and standards to the ASD(S) for submittal to the USD(A&S).
- c. Performs ESM functions.
- d. Receives its legal advice and support from the DoD Deputy General Counsel for Environment, Energy, and Installations.

3.2. EXECUTIVE DIRECTOR, DDESB. Under the authority, direction, and control of the ASD(S), the Executive Director, DDESB:

- a. Performs the hazard classification approval duties assigned to the Chair, DDESB, described in Section 173.56 of Title 49, Code of Federal Regulations.
- b. Presides over meetings of the DDESB.
- c. Directs the DDESB staff.
- d. Performs other ESM functions, as directed by the ASD(S).
- e. Provides impartial and objective advice to the Secretary of Defense and the DoD Component heads on ESM.
- f. Serves as the DoD principal representative and advisor on ESM matters.
- g. Assists and advises the USD(A&S) Deputy Director of Land Warfare and Munitions in munitions acquisition oversight and technology advancement for DoD military munitions, especially in the areas of explosives and chemical agent safety and demilitarization.
- h. Assists and advises the Assistant Secretary of Defense for Logistics and Material Readiness in sustainment oversight of DoD military munitions, especially in the areas of explosives and chemical agent safety, storage, transportation, and demilitarization.
- i. Develops and recommends issuances to define DDESB functions.
- j. Establishes joint hazard classification procedures with the DoD Components.
- k. Recommends to the USD(A&S) explosives and chemical agent safety tenets and requirements.
- l. Conducts oversight of DoD ESMPs.

GLOSSARY

G.1. ACRONYMS

AE	ammunition and explosives
ASD(S)	Assistant Secretary of Defense for Sustainment
CJCS	Chairman of the Joint Chiefs of Staff
CCMD	Combatant Command
DDESB	DoD Explosives Safety Board
ESM	explosives safety management
ESMP	Explosives Safety Management Program
ESMRM	explosives safety and munitions risk management
NATO	North Atlantic Treaty Organization
U.S.C.	United States Code
USD(A&S)	Under Secretary of Defense for Acquisition and Sustainment
USTRANSCOM	United States Transportation Command

G.2. DEFINITIONS. Unless otherwise noted, these terms and their definitions are for the purposes of this issuance.

Defense Transportation Tracking System. A satellite surveillance system designed to track and monitor the movement of DoD arms, AE, and other sensitive material via commercial carriers over public highways throughout North America using satellite technology and 24-hour staff oversight. Monitoring is accomplished by using periodic satellite positioning and other coded messages from equipped vehicles. The Defense Transportation Tracking System acts as an intermediary between the commercial carrier, local first responders, and appropriate DoD agencies when the nature of the accident or incident requires additional DoD support or resources.

ESM. The application of policies, regulations, procedures, standards, engineering, and resources that define a risk management process designed to: sustain operational capabilities and readiness; be cost effective; and protect people, property, and the environment from, and prevent accidents, injuries, and other adverse consequences that may be caused by, DoD military munitions or other encumbering explosives or munitions.

ESMP. The DoD program that integrates and applies ESM tenets and requirements into DoD planning, decision making, and day-to-day operations.

ESMRM. A systematic approach that integrates risk analysis into operational planning, military training exercises, and contingency operations with the goal of identifying potentially adverse

consequences associated with munitions operations and risk reduction alternatives and providing risk acceptance criteria for senior officials to make risk decisions.

hazards of electromagnetic radiation to ordnance. Defined in the DoD Dictionary of Military and Associated Terms.

military munitions. Defined in Section 101(e)(4) of Title 10, U.S.C.

outgrant. A grant of a real property interest or a right to use government real property by a lease, easement, license, permit, or other real property document.

qualified person. A person experienced in the management, storage, and disposition of DoD military munitions or other related discipline.

REFERENCES

- Chairman of the Joint Chiefs of Staff Instruction 4360.01A, “Explosives Safety and Munitions Risk Management for Joint Operations Planning, Training, and Execution,” November 25, 2014
- Code of Federal Regulations, Title 49, Section 173.56
- Defense Transportation Regulation 4500.9-R, Part II, Chapter 205, “Cargo Movement: Transportation Protective Service (TPS),” May 2014, as amended
- Deputy Secretary of Defense Memorandum, “Establishment of the Office of the Under Secretary of Defense for Research and Engineering and the Office of the Under Secretary of Defense for Acquisition and Sustainment,” July 13, 2018
- DoD Directive 4715.1E, “Environment, Safety, and Occupational Health (ESOH),” March 19, 2005, as amended
- DoD Directive 5101.1, “DoD Executive Agent,” September 3, 2002, as amended
- DoD Directive 5134.01, “Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)),” December 9, 2005, as amended
- DoD Instruction 3222.03, “DoD Electromagnetic Environmental Effects (E3) Program,” August 25, 2014, as amended
- DoD Instruction 5025.01, “DoD Issuances Program,” August 1, 2016, as amended
- Office of the Chairman of the Joint Chiefs of Staff, “DoD Dictionary of Military and Associated Terms,” current edition
- United States Code, Title 10