



## Document Cover Sheet

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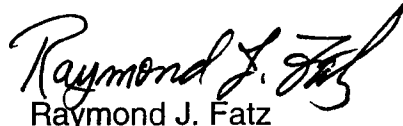
**APR 21 2005**

MEMORANDUM FOR THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION  
MANAGEMENT

SUBJECT: Munitions Response Terminology

1. This memorandum replaces my October 28, 2003 memorandum, subject: Definitions Related to Munitions Response Terms, and requests your office ensure that the enclosed terms and their definitions (Enclosure 1) are used, when appropriate, in correspondence (e.g., policies, guidance) and briefings concerning the Army's implementations of its Military Munitions Response Program (MMRP), Sustainable Range Management Program (SRMP) and, as appropriate, in other munitions-related matters.
2. In the past three years, the Department of Defense (DoD) has developed policies and guidance to implement its MMRP and SRMP. It has also worked to close a policy gap related to the management of material that may pose explosives hazards to DoD personnel and/or the public. During this period, DoD has been actively engaged, through the Munitions Response Committee (MRC), with the U.S. Environmental Protection Agency, Federal Land Managers, states, and with American Indians and Alaska Natives, to address issues related to the cleanup of munitions response sites.
3. To provide clarity and consistency in these efforts and in internal and external discussions, DoD has been working to establish and use common terms and definitions. The consistent use of accurate, descriptive terms, the definitions of which are commonly understood, is important to our dialogue with environmental regulators and safety officials, stakeholders, and the public.
4. Many of the terms that DoD has adopted for use in addressing munitions-related issues are now codified in Federal statute. On December 14, 2004, the Department of Defense Explosives Safety Board approved revisions to DoD 6055.9-STD, Ammunition and Explosives Safety Standards, using the enclosed terms.
5. The U.S. Army Technical Center for Explosives Safety, in coordination with other agencies, developed the enclosed matrix (Enclosure 2) to help the communities (e.g., operational, explosives safety, logistical, and cleanup) involved in addressing munitions-related operations to better understand how some of the new terms apply to actions they conduct.

6. Use of this terminology does not imply any specific funding authority, nor does it alter the DERP Management Guidance's program eligibility criteria.
7. My staff point of contact is J. C. King at (703) 697-5564 or [jc.king@us.army.mil](mailto:jc.king@us.army.mil).



Raymond J. Fatz  
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(Environment, Safety and Occupational Health)  
OASA(I&E)

Enclosures

cf:  
G-3  
G-4  
DAIM-BD  
SFIM-OP  
SAGC  
OTJAG-ELD  
NGB  
CEMP-R  
USACE  
AEC

## Enclosure 1: Military Munitions-Related Terms and Definitions

<u>Consolidated Definitions</u>
<b>Anomaly Avoidance.</b> Techniques employed on property known or suspected to contain UXO, other munitions that may have experienced abnormal environments (e.g., DMM), munitions constituents in high enough concentrations to pose an explosive hazard, or CA, regardless of configuration, to avoid contact with potential surface or subsurface explosive or CA hazards, to allow entry to the area for the performance of required operations.
<b>Chain of Custody.</b> The activities and procedures taken throughout the inspection, re-inspection and documentation process to maintain positive control of MPPEH to ensure the veracity of the process used to determine the status of material as to its explosive hazard. This includes all such activities from the time of collection through final disposition.
<b>Chemical Agent (CA).</b> A chemical compound (to include experimental compounds) that, through its chemical properties produces lethal or other damaging effects on human beings, is intended for use in military operations to kill, seriously injure, or incapacitate persons through its physiological effects. Excluded are research, development, testing and evaluation (RDTE) solutions; riot control agents; chemical defoliants and herbicides; smoke and other obscuration materials; flame and incendiary materials; and industrial chemicals.
<b>Chemical Agent (CA) Hazard.</b> A condition where danger exists because CA is present in a concentration high enough to present potential unacceptable effects (e.g., death, injury, damage) to people, operational capability, or the environment.
<b>Chemical Agent (CA) Safety.</b> A condition where operational capability and readiness, people, property, and the environment are protected from the unacceptable effects or risks of a mishap involving chemical warfare material (CWM) and CA in other than munitions configurations.
<b>Chemical Warfare Material (CWM).</b> Items generally configured as a munition containing a chemical compound that is intended to kill, seriously injure, or incapacitate a person through its physiological effects. CWM includes V- and G-series nerve agents or H-series (mustard) and L-series (lewisite) blister agents in other-than-munition configurations; and certain industrial chemicals (e.g., hydrogen cyanide (AC), cyanogen chloride (CK), or carbonyl dichloride (called phosgene or CG)) configured as a military munition. Due to their hazards, prevalence, and military-unique application, chemical agent identification sets (CAIS) are also considered CWM. CWM does not include: riot control devices; chemical defoliants and herbicides; industrial chemicals (e.g., AC, CK, or CG) not configured as a munition; smoke and other obscuration producing items; flame and incendiary producing items; or soil, water, debris or other media contaminated with low concentrations of chemical agents where no CA hazards exist.
<b>Chemical Warfare Material (CWM) Response.</b> Munitions responses and other responses to address the chemical safety; explosives safety, when applicable; human health; or environmental risks presented by CA-filled munitions and CA in other than munitions configurations. (See munitions response.)
<b>Construction Support.</b> Assistance provided by DoD EOD or UXO-qualified personnel and/or by personnel trained and qualified for operations involving CA, regardless of configuration, during intrusive construction activities on property known or suspected to contain UXO, other munitions that may have experienced abnormal environments (e.g., DMM), munitions constituents in high enough concentrations to pose an explosive hazard, or CA, regardless of configuration, to ensure the safety of personnel or resources from any potential explosive or CA hazards.
<b>Cultural Debris.</b> Debris found on operational ranges or munitions response sites, which may be removed to facilitate a range clearance or munitions response, that is not related to munitions or range operations. Such debris includes, but is not limited to: rebar, household items (refrigerators, washing machines, etc.), automobile parts and automobiles that were not associated with range targets, fence posts, and fence wire.
<b>Defense Sites.</b> Locations that are or were owned by, leased to, or otherwise possessed or used by the Department of Defense. The term does not include any operational range, operating storage or manufacturing facility, or facility that is used for or was permitted for the treatment or disposal of military munitions. (10 U.S.C. 2710(e)(1))
<b>Discarded Military Munitions (DMM).</b> Military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include unexploded ordnance, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of, consistent with applicable environmental laws and regulations. (10 U.S.C. 2710(e)(2))
<b>Disposal.</b> End of life tasks or actions for residual materials resulting from demilitarization or disposition operations.
<b>Disposition.</b> The process of reusing, recycling, converting, redistributing, transferring, donating, selling, demilitarizing, treating, destroying, or fulfilling other life-cycle guidance, for DoD property.

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<p><b><u>Documentation of the Explosives Safety Status of Material.</u></b> Documentation attesting that material: (1) does not present an explosive hazard and is consequently safe for unrestricted transfer within or release from DoD control, or (2) is MPPEH, with the known or suspected explosive hazards stated, that is only transferable or releasable to a qualified receiver. This documentation must be signed by a technically qualified individual with direct knowledge of: (1) the results of both the material's 100 percent inspection and 100 percent re-inspection or of the approved process used and the appropriate level of re-inspection, and (2) the veracity of the chain-of-custody for the material. This signature is followed by the signature of another technically qualified individual who inspects the material on a sampling basis (sampling procedures are determined by DoD entity that is inspecting the material).</p>
<p><b><u>Environmental Regulators and Safety Officials.</u></b> Include, but may not be limited to environmental regulators, environmental coordinators or hazardous material coordinators, law enforcement officers, and safety personnel of the U.S. Environmental Protection Agency (USEPA), American Indians and Alaska Natives, other Federal Land Managers, and/or the States. When appropriate, public health officials of various agencies may also be involved.</p>
<p><b><u>Explosive Hazard.</u></b> A condition where danger exists because explosives are present that may react (e.g., detonate, deflagrate) in a mishap with potential unacceptable effects (e.g., death, injury, damage) to people, property, operational capability, or the environment.</p>
<p><b><u>Explosive Ordnance Disposal (EOD).</u></b> The detection, identification, on-site evaluation, rendering safe, recovery, and final disposal of unexploded ordnance and of other munitions that have become an imposing danger, for example, by damage or deterioration.</p>
<p><b><u>Explosive Ordnance Disposal (EOD) Personnel.</u></b> Military personnel who have graduated from the Naval School, Explosive Ordnance Disposal; are assigned to a military unit with a Service-defined EOD mission; and meet Service and assigned unit requirements to perform EOD duties. EOD personnel have received specialized training to address explosive and certain CA hazards during both peacetime and wartime. EOD personnel are trained and equipped to perform Render Safe Procedures (RSP) on nuclear, biological, chemical, and conventional munitions, and on improvised explosive devices.</p>
<p><b><u>Explosive Ordnance Disposal (EOD) Unit.</u></b> A military organization constituted by proper authority; manned with EOD personnel; outfitted with equipment required to perform EOD functions; and assigned an EOD mission.</p>
<p><b><u>Explosives or Munitions Emergency Response.</u></b> All immediate response activities by an explosives and munitions emergency response specialist to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency. An explosives or munitions emergency response may include in-place render-safe procedures, treatment or destruction of the explosives or munitions, and/or transporting those items to another location to be rendered safe, treated, or destroyed. Any reasonable delay in the completion of an explosives or munitions emergency response caused by a necessary, unforeseen, or uncontrollable circumstance will not terminate the explosives or munitions emergency. Explosives and munitions emergency responses can occur on either public or private lands and are not limited to responses at RCRA facilities. (Military Munitions Rule, 40 CFR 260.10)</p>
<p><b><u>Explosives Safety.</u></b> A condition where operational capability and readiness, people, property, and the environment are protected from the unacceptable effects or risks of potential mishaps involving military munitions.</p>
<p><b><u>Interim Holding Facility (IHF).</u></b> A temporary storage facility designed to hold recovered chemical warfare material (RCWM).</p>
<p><b><u>Land Use Controls (LUC).</u></b> LUC are physical, legal, or administrative mechanisms that restrict the use of, or limit access to, real property, to manage risks to human health and the environment. Physical mechanisms encompass a variety of engineered remedies to contain or reduce contamination and/or physical barriers to limit access to real property, such as fences or signs.</p>
<p><b><u>Long-Term Management (LTMgt).</u></b> The period of site management (including maintenance, monitoring, record keeping, 5-year reviews, etc.) initiated after response (removal or remedial) objectives have been met (i.e., after Response Complete).</p>
<p><b><u>Material Potentially Presenting an Explosive Hazard (MPPEH).</u></b> Material potentially containing explosives or munitions (e.g., munitions containers and packaging material; munitions debris remaining after munitions use, demilitarization, or disposal; and range-related debris); or material potentially containing a high enough concentration of explosives such that the material presents an explosive hazard (e.g., equipment, drainage systems, holding tanks, piping, or ventilation ducts that were associated with munitions production, demilitarization or disposal operations). Excluded from MPPEH are munitions within DoD's established munitions management system and other hazardous items that may present explosion hazards (e.g., gasoline cans, compressed gas cylinders) that are not munitions and are not intended for use as munitions.</p>

## Enclosure 1: Military Munitions-Related Terms and Definitions

**Military Munitions.** Military munitions means all ammunition products and components produced for or used by the armed forces for national defense and security, including ammunition products or components under the control of the Department of Defense, the Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants; explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives, and chemical warfare agents; chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges; and devices and components thereof.

The term does not include wholly inert items; improvised explosive devices; and nuclear weapons, nuclear devices, and nuclear components, other than nonnuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) have been completed. (10 U.S.C. 101(e)(4)(A) through (C))

**Military Munitions Burial Site.** A site, regardless of location, where military munitions or CA, regardless of configuration, were intentionally buried, with the intent to abandon or discard. This term includes burial sites used to dispose of military munitions or CA, regardless of configuration, in a manner consistent with applicable environmental laws and regulations or the national practice at the time of burial. It does not include sites where munitions were intentionally covered with earth during authorized destruction by detonation, or where in-situ capping is implemented as an engineered remedy under an authorized response action.

**Minimum Separation Distance (MSD).** MSD is the distance at which personnel in the open must be from an intentional or unintentional detonation.

**Munition with the Greatest Fragmentation Distance (MGFD).** The munition with the greatest fragment distance that is reasonably expected (based on research or characterization) to be encountered in any particular area.

**Munitions and Explosives of Concern (MEC).** This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks means: (A) Unexploded ordnance (UXO), as defined in 10 U.S.C. 101(e)(5); (B) Discarded military munitions (DMM), as defined in 10 U.S.C. 2710(e)(2); or (C) Munitions constituents (e.g., TNT, RDX), as defined in 10 U.S.C. 2710(e)(3), present in high enough concentrations to pose an explosive hazard.

**Munitions Constituents (MC).** Any materials originating from unexploded ordnance (UXO), discarded military munitions (DMM), or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions. (10 U.S.C. 2710(e)(3)).

**Munitions Debris.** Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal.

**Munitions Response.** Response actions, including investigation, removal actions and remedial actions to address the explosives safety, human health, or environmental risks presented by unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC), or to support a determination that no removal or remedial action is required.

**Munitions Response Area (MRA).** Any area on a defense site that is known or suspected to contain UXO, DMM, or MC. Examples include former ranges and munitions burial areas. A munitions response area is comprised of one or more munitions response sites.

**Munitions Response Site (MRS).** A discrete location within an MRA that is known to require a munitions response.

**Mutual Agreement.** A meeting of the minds on a specific subject, and a manifestation of intent of the parties to do or refrain from doing some specific act or acts. Inherent in any mutual agreement or collaborative process are the acknowledgement of each member's role in the process and their differing views of their authorities. The mutual agreement process will provide a means of resolving differences without denying the parties an opportunity to exercise their respective authorities should mutual agreement fail to be achieved.

**One Percent Lethality Distance.** A distance calculated from a given CA Maximum Credible Event (MCE) and meteorological conditions (temperature, wind speed, Pasquill stability factor) and established as the distance at which dosage from that MCE agent release would be 150 mg-min/m<sup>3</sup> for H and HD agents, 75 mg-min/m<sup>3</sup> for HT agent, 150 mg-min/m<sup>3</sup> for Lewisite, 10 mg-min/m<sup>3</sup> for GB agent, 4.3 mg-min/m<sup>3</sup> for VX vapor, and 0.1 mg-min/m<sup>3</sup> for inhalation and deposition of liquid VX.

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<b>On-call Construction Support.</b> Construction support provided, on an as needed basis, where the probability of encountering UXO, other munitions that may have experienced abnormal environments (e.g., DMM), munitions constituents in high enough concentrations to pose an explosive hazard, or CA, regardless of configuration, has been determined to be low. This support can respond from off-site when called, or be on-site and available to provide required construction support.
<b>On-site Construction Support.</b> Dedicated construction support, where the probability of encountering UXO, other munitions that may have experienced abnormal environments (e.g., DMM), munitions constituents in high enough concentrations to pose an explosive hazard, or CA, regardless of configuration, has been determined to be moderate to high.
<b>On-the-Surface.</b> A situation in which UXO, DMM or CA, regardless of configuration, are: (A) entirely or partially exposed above the ground surface (i.e., the top of the soil layer); or (B) entirely or partially exposed above the surface of a water body (e.g., because of tidal activity).
<b>Open Burn (OB).</b> An open-air combustion process by which excess, unserviceable, or obsolete munitions are destroyed to eliminate their inherent explosive hazards.
<b>Open Detonation (OD).</b> An open-air process used for the treatment of excess, unserviceable or obsolete munitions whereby an explosive donor charge initiates the munitions being treated.
<b>Operational Range.</b> A range that is under the jurisdiction, custody, or control of the Secretary of Defense and that is used for range activities; or although not currently being used for range activities, that is still considered by the Secretary to be a range and has not been put to a new use that is incompatible with range activities. (10 U.S.C. 101(e)(3)(A) and (B)). Also includes "military range," "active range," and "inactive range" as those terms are defined in 40 CFR §266.201.
<b>Primary Explosives.</b> Primary explosives are highly sensitive compounds that are typically used in detonators and primers. A reaction is easily triggered by heat, spark, impact or friction. Examples of primary explosives are lead azide and mercury fulminate.
<b>Public Access Exclusion Distance (PAED).</b> The PAED is defined as longest distance of the hazardous fragment distance, inhabited building distance (IBD) for overpressure, or the One Percent Lethality Distance. For siting purposes, the PAED is analogous to the IBD for explosives; therefore, personnel not directly associated with the chemical operations are not to be allowed within the PAED.
<b>Qualified Receiver.</b> Entities that have personnel who are, or individuals who are, trained and experienced in the identification and safe handling of used and unused military munitions, and any known or potential explosive hazards that may be associated with the MPPEH they receive; and are licensed and permitted or otherwise qualified to receive, manage, and process MPPEH.
<b>Range.</b> A designated land or water area that is set aside, managed, and used for range activities of the Department of Defense. The term includes firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, electronic scoring sites, buffer zones with restricted access, and exclusionary areas. The term also includes airspace areas designated for military use in accordance with regulations and procedures prescribed by the Administrator of the Federal Aviation Administration. (10 U.S.C. 101(e)(1)(A) and (B))
<b>Range activities.</b> Research, development, testing, and evaluation of military munitions, other ordnance, and weapons systems; and the training of members of the armed forces in the use and handling of military munitions, other ordnance, and weapons systems. (10 U.S.C. 101(e)(2)(A) and (B))
<b>Range Clearance.</b> The destruction, or removal and proper disposition of used military munitions (e.g., unexploded ordnance (UXO) and munitions debris) and other range-related debris (e.g., target debris, military munitions packaging and crating material) to maintain or enhance operational range safety or prevent the accumulation of such material from impairing or preventing operational range use. "Range clearance" does not include removal, treatment, or remediation of chemical residues or munitions constituents from environmental media, nor actions to address discarded military munitions (e.g., burial pits) on operational ranges.
<b>Range-Related Debris.</b> Debris, other than munitions debris, collected from operational ranges or from former ranges (e.g., target debris, military munitions packaging and crating material).
<b>Recovered Chemical Warfare Material (RCWM).</b> CWM used for its intended purpose or previously disposed of as waste, which has been discovered during a CWM response or by chance (e.g., accidental discovery by a member of the public), that DoD has either secured in place or placed under DoD control, normally in a DDESB-approved storage location or interim holding facility, pending final disposition.



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<b><u>Render Safe Procedures (RSP).</u></b> The portion of EOD procedures that involves the application of special disposal methods or tools to interrupt the functioning or otherwise defeat the firing train of UXO from triggering an unacceptable detonation.
<b><u>Secondary Explosives.</u></b> Secondary explosives are generally less sensitive to initiation than primary explosives and are typically used in booster and main charge applications. A severe shock is usually required to trigger a reaction. Examples are TNT, cyclo-1,3,5-trimethylene-2,4,6-trinitramine (RDX or cyclonite), HMX, and tetryl.
<b><u>Small Arms Ammunition.</u></b> Ammunition, without projectiles that contain explosives (other than tracers), that is .50 caliber or smaller, or for shotguns.
<b><u>Team Separation Distance (TSD).</u></b> The distance that munitions response teams must be separated from each other during munitions response activities involving intrusive operations.
<b><u>Technical Escort Unit (TEU).</u></b> A DoD organization manned with specially trained personnel that provide verification, sampling, detection, mitigation, render safe, decontamination, packaging, escort and remediation of chemical, biological and industrial devices or hazardous material.
<b><u>Technology-aided Surface Removal.</u></b> A removal of UXO, DMM or CWM on the surface (i.e., the top of the soil layer) only, in which the detection process is primarily performed visually, but is augmented by technology aids (e.g., hand-held magnetometers or metal detectors) because vegetation, the weathering of UXO, DMM or CWM, or other factors make visual detection difficult.
<b><u>Time Critical Removal Action (TCRA).</u></b> Removal actions where, based on the site evaluation, a determination is made that a removal is appropriate, and that less than 6 months exists before on-site removal activity must begin. (40 CFR 300.5)
<b><u>Unexploded Ordnance (UXO).</u></b> Military munitions that (A) have been primed, fuzed, armed, or otherwise prepared for action; (B) have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and (C) remain unexploded whether by malfunction, design, or any other cause. (10 U.S.C. 101(e)(5)(A) through (C)))
<b><u>UXO Technicians.</u></b> Personnel who are qualified for and filling Department of Labor, Service Contract Act, Directory of Occupations, contractor positions of UXO Technician I, UXO Technician II, and UXO Technician III.
<b><u>UXO-Qualified Personnel.</u></b> Personnel who have performed successfully in military EOD positions, or are qualified to perform in the following Department of Labor, Service Contract Act, Directory of Occupations, contractor positions: UXO Technician II, UXO Technician III, UXO Safety Officer, UXO Quality Control Specialist, or Senior UXO Supervisor.
<b><u>Venting.</u></b> Exposing any internal cavities of MPPEH, to include training or practice munitions (e.g., concrete bombs), using DDESB- or DoD Component-approved procedures, to confirm that an explosive hazard is not present.



# **Military Munitions-Related Terms (1)** **How do they apply to specific types of material?**

Type of Material (These are only examples.)	What is it <b>BEFORE</b> it is inspected for explosives hazards? (2)		What is it <b>AFTER</b> it is inspected for explosive hazards?			
	What is it <b>BEFORE</b> it is inspected? (16)		If it presents an explosive hazards?		If it does not present an explosive hazards?	
	MPPEH	Other	MEC		MC (5)	Munitions Debris
			UXO	DMM (3)	MC (4)	
Used military munition, on a range, fired	X		X			X
Unused military munition, on a range, apparently discarded	X			X		X
Used military munition, in a burial pit, on an operational range or on former ranges	X		X (6)			X
Unused military munition, in a burial pit on an operational range or on former ranges	X			X (6)		X
Explosives in the soil	X				X (7)	X
Refrigerator, nails, soft drink cans, old fence wire, etc.		(8)	NA	NA	NA	(8)
Used cartridge cases, from a range, with live unused munitions possibly mixed in	X			X		(9)
Target from a range (other than small arms range)	X		(10)	(10)	(10)	(11)
Remnants of munitions from an operational range or former range	X		X (12)	X (12)	X (12)	X (13)
Kicked out military munition from a former open burn or open detonation ground	X			X (14)		X
Residual MC in a melt kettle of a former (closed) explosive cast loading building	X		(15)	(15)	X (15)	X (16)
Residual MC in a floor drain pipe from an explosives-laden wash water drain of a former (closed) explosives cast loading facility.	X		(15)	(15)	X (15)	X (16)
Residual MC in cracks in floor slab (and in soil underneath floor cracks) in a former explosives manufacturing building	X		(15)	(15)	X (15)	X (16)
Small arms bullets or lead particulates in the soil from small arms use at a former small arms range used only for firing small arms ammunition		X (17)	Not Applicable (17)		X	

Note: The examples in this table are not all inclusive. The numbers in the table refer to footnotes that are found on the next page. It is important to read the footnotes, as they provide additional information of importance to understanding.

**Endnotes:**

- (1) DoD has been working to standardize terms related to military munitions.
- (2) Before material that is considered MPPEH can be either transferred within or released from DoD, its explosives safety status must be determined (see definition--Documentation of the Explosives Safety Status of Material). The type material involved determines the type of inspection (e.g., visual examination, chemical analysis, X-ray) required. Personnel qualified to determine the status of the particular material being examined must perform required inspections. For example, EOD and UXO-qualified personnel may inspect UXO and DMM during a munitions response or during range clearance activities. A QASAS or certified Wage Grade ammunition operator may inspect steamed-out projectiles at a depot's steam-out operation. A laboratory technician may perform a chemical analysis of soil to determine the percent explosives in the soil.
- (3) Munitions generally considered as DMM include: buried munitions; un-recovered kick outs from open detonations; munitions left behind or discarded accidentally during munitions-related activities; munitions intentionally disposed of without authorization during munitions-related activities. Munitions removed from storage for the purpose of disposal that are awaiting disposal are not DMM.
- (4) This is MC that is both (a) an explosive; and (b) present in sufficient concentrations to present explosive hazards.
- (5) This is MC that is either (a) not an explosive (e.g., lead, beryllium, and cadmium); or (b) an explosive not present in sufficient concentrations to present explosive hazards.
- (6) Although military munitions in a burial pit will normally be DMM, some may be UXO. For explosives safety reasons, munitions in a burial pit should be approached as UXO until assessed by technically qualified personnel (e.g., EOD personnel, UXO-qualified personnel) and determined that they are not UXO or that they do not present explosive hazards similar to UXO.
- (7) Explosive soil is typically found in sumps and settling lagoons for explosives-laden wastewater, and in and around drainage ditches and pipes that carry the wastewater to such sumps and lagoons.
- (8) These items are cultural debris.
- (9) After determination of their explosives safety status, used cartridge cases documented as safe would, after any demilitarization required to remove their military characteristics, be available for release from DoD. In addition to these DoD requirements, other regulatory criteria may apply.
- (10) A target is a type of range-related debris. Although a target is not MEC, it may contain UXO, DMM, or MC. Prior to its release from DoD control, its explosives safety status must be documented.

- (11) A target's explosives safety status must be documented and any demilitarization required to remove its military characteristics must be performed prior to its release from DoD control.
- (12) UXO, DMM, or MC may be found on operational ranges and on former ranges (previously referred to as closed, transferring or transferred ranges). An inspection of the material will determine into which category this material falls. For example, if a projectile breaks apart on impact, one could find (a) a sheared-off fuze, which would be UXO or (b) explosive filler, which would be MC, that broke away from the projectile's open body. If during an open detonation of an unserviceable munition that is conducted on an operational range, the donor charge detonates, but the munition being destroyed breaks up, but does not detonate, the remnants of the munition would be DMM or, if explosive residue (e.g., clumps of TNT), MC.
- (13) After determination of its explosives safety status, scrap metal from used munitions on a range that is documented as safe would, after any demilitarization required to remove its military characteristics, be available for release from DoD control. In additions to these DoD requirements, other regulatory criteria may apply.
- (14) Prudent safety practice is to consider kick outs, which have experienced an unknown environment, to be equally dangerous and managed like UXO until technically qualified personnel assess and determine that they are not UXO or do not present explosive hazards similar to UXO.
- (15) Of itself, such material (e.g., mettle kettle, drainpipes, floor slabs) do not present an explosive hazard and would not be classified as UXO, DMM or MC. However, residual MC (e.g., TNT, RDX, HMX) could remain in such material in high enough concentrations to present an explosive hazard.
- (16) After determination of its explosives safety status, such material (e.g., mettle kettle, drainpipes, floor slabs) when documented as safe would be available for release from DoD control. In addition to this DoD requirement, other regulatory criteria may apply.
- (17) At operational ranges or former ranges used exclusively for live fire of small arms ammunition, some unfired small arms ammunition may be found. Although this ammunition is considered DMM and would be MPPEH, it is not considered to present a significant explosive hazard.