MILITARY MUNITIONS RESPONSE PROGRAM
DEFINITION DICTIONARY

The following definitions are presented as a reference for many of the terms associated with the Military Munitions Response Program (MMRP). These frequently encountered MMRP terms have been excerpted from a number of diverse resources to provide a single comprehensive list and to offer consistency in the definitions.

Term	Description
Aboveground Magazine (AGM)[1]	Any open area, vehicle, or any aboveground structure not meeting the requirements of an earth-covered magazine that is used for explosives storage.
Aboveground Storage Tank (AST)[7]	Aboveground storage tank sites result from release of substances to surrounding areas from aboveground tanks, containers, and associated piping.
Aboveground Structure/Site (AGS)[1]	Any aboveground, non-earth-covered structure and/or site.
Action Level[1]	One-half of the exposure limit for a chemical agent averaged over an 8-hour work shift.
Action Memorandum[14]	Approves time-critical removal action and concludes the engineering evaluation/cost analysis. Provides a concise, written record of the decision to select an appropriate removal action. As the primary decision document, it substantiates the need for a removal action, identifies the proposed action, and explains the rationale for the removal action selected.
Active Installation[9]	A military installation that is currently in service and being regularly used for military activities.
Administration Area[1]	The area containing administrative buildings that support the installation as a whole, excluding those offices located near and directly serving ammunition and explosives storage and operating areas.
Airborne Exposure Level (AEL)[1]	Time-weighted averages or ceiling values that define the permissible limits of toxic chemical agent exposure for unprotected personnel.
Air-to-Air Range[16]	Ranges that support, for example, air-to-air operations involving simulated and actual employment of missiles, air-to-air gunnery, aeronautical system testing, unmanned vehicles, and Electronic Combat require a substantial amount of range space and a sophisticated range infrastructure. This infrastructure may include high fidelity simulators, visual simulators, end-game scoring capabilities, command and control systems, communication networks, data display/processing capabilities, instrumentation systems, flight termination systems, and flight hazard analysis/impact prediction capability.

Term	Description
Air-to-Surface Range[16]	Ranges that support, for example, complex multi- aircraft operations, air-to-surface missiles, aeronautical system testing, unmanned vehicles, and cruise missiles require a substantial amount of range space and a sophisticated range infrastructure. This infrastructure may include high fidelity threat simulators, visual threat simulators, scoring capabilities, realistic surface attack target arrays, command and control systems, communication networks, data display/processing capabilities, nstrumentation/debrief systems, flight termination systems, and flight hazard analysis/impact prediction capability.
Ammunition and Explosives[1]	Includes, but is not necessarily limited to, all items of U.S.-titled (i.e., owned by the U.S. Government through the DoD Components) ammunition; propellants, liquid and solid; pyrotechnics; high explosives; guided missiles; warheads; devices; devices, and chemical agent substances and components presenting real or potential hazards to life, property and the environment. Excluded are wholly inert items and nuclear warheads and devices, except for considerations of storage and stowage compatibility, blast, fire, and non-nuclear fragment hazards associated with the explosives.
Ammunition and Explosives Area[1]	An area specifically designated and set aside from other portions of an installation for the development, manufacture, testing, maintenance, storage, or handling of ammunition and explosives.
Ammunition and Explosives Facility[1]	Any structure or location containing ammunition and explosives. (NOTE: formerly called explosives facility).
Ammunition Storage Unit (ASU)[1]	All types of explosives storage magazines; e.g., open storage areas, sheds, bunkers, earth-covered magazines and above-ground magazines.
Anomaly[4]	Any identified subsurface mass that may be geologic in origin, unexploded ordnance (UXO), or some other man-made material. Such identification is made through geophysical investigation and reflects the response of the sensor used to conduct the investigation.
Anomaly Avoidance[1]	Techniques employed on property known or suspected to contain unexploded ordnance, other munitions that may have experienced abnormal environments (e.g., discarded military munitions), munitions constituents in high enough concentrations to pose an explosive hazard, or chemical agents (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.

Term	Description
Applicable or Relevant and Appropriate Requirements (ARARs)[14]	Applicable requirements are cleanup standards, standards of control, and other substantive environmental protection requirements promulgated under Federal or state environmental law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location or other circumstance found at a CERCLA site. Relevant and appropriate requirements are cleanup standards that, while not "applicable," address situations sufficiently similar to those encountered at a CERCLA site that their use is well suited to the particular site.
Artillery[12]	Large-caliber weapons capable of firing an explosive shell or rocket and require a specialized mount for firing and transport. Weapons covered by this term include cannon, howitzers, and rocket launchers.
Auxiliary Building[1]	Any building (e.g., power plant, change house, paint and solvent locker) and similar facilities related to or maintained and operated to serve an operating building, line, plant, or pier area. Ammunition and explosives are not present in an auxiliary building.
Barricade[1]	An intervening natural or artificial barrier of such type, size, and construction that limits the effect of an explosion on nearby buildings or exposures in a prescribed manner.
Barricaded Open Storage Module[1]	A series of connected, barricaded cells with hard surface storage pads.
Barrier to munitions response site - access is incomplete[5]	There is a barrier preventing access to parts of the munitions response site, but not the entire munitions response site.
Barrier to munitions response site - access is complete, but not monitored[5]	There is a barrier preventing access to all parts of the munitions response site, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the munitions response site.
Barrier to munitions response site - access is complete and monitored[5]	There is a barrier preventing access to all parts of the munitions response site, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the munitions response site.
Biological Warfare[12]	The use of disease-producing microorganisms, toxic biological products, or organic biocides to cause death or injury to humans, animals, or plants.
Blast Impulse[1]	The area under the positive phase of the overpressure-time curve.
Blast Overpressure[1]	The pressure above ambient in a shock wave.

Term	Description
Bombs[12]	Bombs are air-dropped munitions ranging in weight from 1 to 3,000 pounds and in length from 2 to 10 feet. There are multiple specific bomb configurations but generally speaking, bombs all have similar components including a container or body, a fuze or fuzes, a booster and a stabilizing device. Categories include general purpose (GP), demolition, fragmentation, and penetration. There are also two other common categories of bombs: cluster or dispenser bombs, and incendiary or firebombs.
Boosters[12]	The components of the explosive train that function to transmit and augment the force and flame from the initiating explosive.
Boresight Range[12]	Boresight ranges were used to align the fixed machine guns or cannon on an airplane, so that the rounds would impact at a desired point in front of the aircraft. The specific types of munitions and explosives of concern and munitions constituents likely to be encountered are a function of the types of aircraft and armaments tested at the ranges. If the range was used to align aircraft-mounted machine guns, then it is anticipated that munitions of .50-caliber or less (i.e., small arms) would be present. If the range was used to align aerial cannon, then it is anticipated that munitions of 20-milimeter (mm) or larger would be present.
Buffer Zone[10]	A neutral area established around impact/target areas to provide additional safety to those areas adjacent to the impact/target area.
Building Demolition/Debris Removal (BD/DR) Site[9]	Sites or facilities that are or were owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense where the removal of unsafe buildings and structures under the BD/DR program occurs.
Burn Area[12]	Sites consisting of pits or surface areas that were used for open-air incineration of waste.
Burning Reaction[1]	The energetic material ignites and burns non-propulsively. The case may open, melt or weaken sufficiently to rupture non-violently, allowing mild release of combustion gases. Debris primarily remains within the area of the reaction. The debris is not expected to cause fatal wounds to personnel or be a hazardous fragment beyond 50 ft [15.2 m].
Burster[12]	Articles consisting of a small charge of explosive to open projectiles or other ammunition in order to disperse their contents.
Cavern Storage Site[1]	A natural or man-made cavern adapted for the storage of ammunition and explosives.
Ceiling Value[1]	The concentration of chemical agent that may not be exceeded for any period of time.

Term	Description
Chain of Custody[1]	The activities and procedures taken throughout the inspection, re-inspection and documentation process to maintain positive control of munitions potentially possessing an explosive hazard (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.
Chamber Storage Site[1]	An excavated chamber or series of excavated chambers especially suited to the storage of ammunition and explosives. A cavern may be subdivided or otherwise structurally modified for use as a chamber storage site.
Chemical Agent (CA)[5]	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.
Chemical Agent (CA) Hazard[5]	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.
Chemical Agent Identification Sets (CAIS)[5]	Military training aids containing small quantities of various chemical agents and other chemicals.
Chemical Disposal Unit[12]	Chemical disposal units are areas that have been used for the disposal of chemicals, typically of an unknown type. The unit may be a burial area where bottles or packages of chemicals were placed or an area where liquids were disposed of on the soil.
Chemical Munitions and Agents[6]	An agent or munition that, through its chemical properties, produces lethal or other damaging effects to human beings, except that such term does not include riot control agents, chemical herbicides, smoke or other obscuration materials.

Term	Description
Chemical Warfare Materiel (CWM)[5]	Items generally configured as a munitions 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.
Chemical Warfare Material (CWM), bulk container[5]	All discarded (e.g., buried) nonmunitions-configured containers of chemical agent (e.g., a ton container) and CAIS K941, toxic gas set M-1 and K942, toxic gas set M-2/E11.
Chemical Warfare Material (CWM), explosively configured[5]	All unexploded ordnance or discarded military munitions that contain a chemical agents (CA) fill and any explosive component. Examples are M55 rockets with CA, the M23 VX mine, and the M360 105-mm GB artillery cartridge.
Chemical Warfare Material (CWM), nonexplosively configured[5]	All UXO or DMM that contain a CA fill but that do not contain any explosive components. Examples are any chemical munition that does not contain explosive components and VX or mustard agent spray canisters.
Chemical Warfare Materiel (CWM) Response[4]	Munitions responses and other responses to address the chemical safety; explosives safety, when applicable; human health; or environmental risks presented by chemical agent (CA)-filled munitions and CA in other than munitions configurations.
Chemical Warfare Material Sites[4]	Chemical Warfare Materiel (CWM) sites present unique challenges not encountered in other Military Munitions Response Program cohort types. In addition to the explosive hazards posed by conventional munitions and explosives of concern, CWM present significant acute toxicity risks to human health, due to its chemical or biological filler (i.e., mustard gas, VX nerve agent, etc.). When CWM is present at a Munition Response Area, explosive hazards are addressed and mitigated first, followed by non-stockpile CWM hazards.
Closed Range[9]	A military range that has been taken out of service as a range and that either has been put to new uses that are incompatible with range activities or is not considered by the military to be a potential range area. A closed range is still under the control of a Component.

Term	Description
Closure Block[1]	A protective construction feature designed to seal the entrance tunnel to an underground storage chamber in the event of an explosion within the chamber.
Cluster Bomb/Dispener Unit (CBU)[1]	Usually subsets of non-robust ammunition and explosives (AE) that are designed to carry out and dispense sub-munitions.
Combat Aircraft Parking Area (CAPA)[1]	Any area specifically designated for aircraft loading or unloading of combat-configured munitions or for parking aircraft loaded with combat-configured munitions.
Combustible Construction[1]	Construction that uses materials that readily ignite and burn when exposed to fire (i.e. wood-frame structures are an example of combustible construction).
Compatibility[1]	Ammunition and explosives are considered compatible if they may be stored or transported together without significantly increasing either the probability of an accident or, for a given quantity, the magnitude of the effects of such an accident.
Compatibility Group (CG)[1]	Letter designation assigned to ammunition and explosives to indicate what may be shipped and transported together without significantly increasing either the probability of an accident or, for a given quantity, the magnitude of the effects of such an accident.
Conceptual Site Model (CSM)[13]	The CSM is a description of a site and its environment that is based on existing knowledge. It describes sources of munitions and explosives of concern or hazardous, toxic and radioactive waste at a site; actual, potentially complete, or incomplete exposure pathways; current or reasonably anticipated future land use; and potential receptors. The source-receptor interaction is a descriptive output of a CSM. The CSM serves as a planning instrument, a modeling and data interpretation aid, and a communication device among the Project Team.
Conditional Exemption (CE)[1]	An exemption from the regulatory definition of hazardous waste (and therefore from compliance with specific environmental requirements pertaining to the storage of hazardous waste) conditioned on compliance with certain criteria requirements, as in 40 CFR Section 266.205.

Term	Description
Confirmed Subsurface, active[5]	• Physical evidence indicates the presence of unexploded ordnance (UXO) or discarded military munitions (DMM) in the subsurface of the munitions response site (MRS), and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. • Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.
Confirmed Subsurface, stable[5]	• Physical evidence indicates the presence of unexploded ordnance (UXO) or discarded military munitions (DMM) in the subsurface of the munitions response site (MRS) and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. • Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.
Confirmed Surface[5]	Physical evidence and/or historical evidence (e.g., confirmed incident report or accident report) that there are unexploded ordnance or discarded military munitions on the surface of the munitions response site.
Connected-Chamber Storage Site[1]	A chamber storage site consisting of two or more chambers connected by ducts or passageways. Such chambers may be at the ends of branch tunnels off a main passageway.
Constriction[1]	Constrictions are short lengths of tunnel whose cross-sectional areas are reduced to one-half or less of the normal tunnel cross-section and are used to reduce the airblast effects passing through them.

Term	Description
Construction Support[1]	Assistance provided by DoD explosive ordnance disposal (EOD) or unexploded ordnance (UXO)-qualified personnel and/or by personnel trained and qualified for operations involving chemical agents (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., discarded military munitions), 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.
Container[1]	A package designed to protect ammunition and explosives from hazardous environments during transportation and storage.
Contaminated Fill[12]	Contaminated fill areas consist of contaminated fill resulting from excavations for construction, tanks, and other purposes.
Contaminated Groundwater[12]	Contaminated groundwater results from various types of releases of known or unknown origin, such as migration of leachate from disposal areas and migration of substances from contaminated surface and subsurface soil.
Contaminated Sediments[12]	Contaminated sediments include sediments from bodies of water that have been contaminated by surface runoff, subsurface migration, or direct discharge of contaminants.
Contaminated Soil Pile[12]	Contaminated soil piles consist of contaminated soil that has been staged after an excavation activity.
Data Quality Objective (DQO)[13]	A DQO is a qualitative and quantitative statement developed to clarify study objectives, define the type of data needed, and specify the tolerable levels of potential decision errors. A DQO is used as the basis for establishing the type, quality, and quantity of data needed to support the decisions that will be made.
Debris[1]	Any solid particle thrown by an explosion or other strong energetic reaction. For aboveground explosions, debris refers to secondary fragments. For explosions in underground facilities, debris refers to both primary and secondary fragments.
Debris Trap[1]	A protective construction feature in an underground facility designed to capture fragments and debris from an explosion within the facility.

Term	Description
Decision Document[9]	The Department of Defense has adopted the term Decision Document for the documentation of removal or interim remedial action (IRA) and remedial action (RA) decisions at non-National Priorities List (NPL) installations, and sites at NPL installations at which removal or IRA decisions have been made. The decision document shall address the following: Purpose, Site Risk, Remedial Alternatives, Public/Community Involvement, Declaration, and Approval and Signature. A Decision Document for sites not covered by an interagency agreement or federal facility agreement is still required to follow a CERCLA response. All Decision Documents will be maintained in the installation Administrative Record and the installation's permanent environmental restoration files.
Defense Sites[3]	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)).
Deflagration Reaction[1]	Ignition and rapid burning of the confined energetic materials builds up high local pressures leading to non-violent pressure release as a result of a low strength case or venting through case closures (e.g., loading ports or fuze wells). The case may rupture but does not fragment; closure covers might be expelled, and unburned and burning energetic materials might be thrown about and spread the fire. Propulsion may launch an unsecured test item, causing an additional hazard. No blast or significant fragmentation damage to the surroundings is expected, only heat and smoke damage from the burning explosive substances.
Demolition Bombs[12]	Demolition bombs have an explosive weight equal to approximately 65 to 80 percent of the total weight. These bombs have a relatively thin-walled casing to maximize blast effects while penetration and fragmentation effects are limited.
Demolition Charge[12]	A prepared explosive device used to breech defenses or destroy building, bridges or other large objects.
Department of Defense (DoD) Components[5]	The Office of the Secretary of Defense (OSD), the Military Departments, the Defense Agencies, the Department Field Activities, and any other Department organizational entity or instrumentality established to perform a government function.
Department of Defense (DoD) Control[5]	The munitions response site is on land or is a water body that is owned, leased, or otherwise possessed by the Department. With respect to property that is leased or otherwise possessed, the Department must control access to the munitions response site 24 hours per day, every day of the calendar year.

Term	Description
Depleted Uranium (DU)[16]	DU is Uranium ore processed to remove material useful for Nuclear reactor fuel and Nuclear weapons. Natural Uranium consists primarily of a mixture of two isotopes of uranium: Uranium-235 and Uranium-238, 0.7 and 99.3 percent, respectively. The resulting Uranium-238 is Depleted Uranium, which is 0.7 times as radioactive as Natural Uranium. DU is a dense, heavy metal with a limited health hazard, and has two properties that make it ideal for military applications: extreme density and its surface ignites on impact (especially with steel).
Detonation Reaction[1]	A supersonic decomposition reaction propagates through the energetic materials and produces an intense shock in the surrounding medium and very rapid plastic deformation of metallic cases, followed by extensive fragmentation. All energetic materials will be consumed. Effects will include: large ground craters for items on or close to the ground; holing, plastic flow damage, and fragmentation of adjacent metal structures; and blast overpressure damage to nearby structures.
Dip Tank[12]	Dip tanks typically are metal or concrete units located in coating shops. They range in size from 50 gallons to more than 500 gallons. The tanks are used to clean parts before treatment or to coat parts with various materials, including metals and plastics.
Discarded Military Munitions (DMM)[3]	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)).
Disposal[1]	End of life tasks or actions for residual materials resulting from demilitarization or disposition operations.
Disposal Pit/Dry Well[12]	Disposal pit/dry well sites consist of small, unlined excavations and structures that were used over a period of time for disposing of small quantities of liquid wastes.
Disposition[1]	The process of reusing, recycling, converting, redistributing, transferring, donating, selling, demilitarizing, treating, destroying, or fulfilling other life-cycle guidance, for DoD property.
Dividing Wall[1]	A wall designed to prevent, control, or delay propagation of a reaction involving AE on opposite sides of the wall.

Term	Description
DoD Explosives Operations/Storage[1]	Explosives operations conducted by the DoD, or other federal agency, under DoD oversight, procedure, or control and in accordance with the explosives safety standards of this Standard. This term is applicable only to DoD and federal explosives operations, and to non-DoD commercial enterprises directly supporting the DoD and federal explosives contractual efforts.
DoD Explosives Safety Board (DDESB)[15]	The DoD organization charged with promulgation of ammunition and explosives safety policy and standards, and with reporting on the effectiveness of the implementation of such policy and standards.
Donor/Acceptor[1]	A total quantity of stored ammunition may be subdivided into separate storage units in order to reduce the maximum credible event, and, consequently, the quantity-distance of an accidental detonation. The separation distances, with or without an intervening barrier, should be sufficient to ensure that a detonation does not propagate from one unit to another. For convenience the storage unit which detonates is termed the donor, and nearby units, which may be endangered, are termed acceptors. The locations of the donor and acceptor define the potential explosion site and exposed site, respectively.
Drainage Ditch[12]	Drainage ditch units typically consist of a natural or man-made ditch used as a runoff control structure for rainfall. The unit also may be used for runoff from other sources, such as process operations. Man-made units may be concrete lined.
Dunnage[1]	Inert material associated with the packaging, containerization, blocking and bracing of ammunition and explosives.
Dynamite[12]	Any of a class of powerful explosives composed of nitroglycerin or ammonium nitrate dispersed in an absorbent medium with a combustible dope, such as wood pulp, or an absorbent powder, such as calcium carbonate.
Earth-Covered Magazine (ECM)[1]	An aboveground, earth covered structure that meets soil cover depth and slope requirements for the storage of ammunition and explosives.
Electrically Initiated Device (EID)[1]	A single unit, device, or subassembly that uses electrical energy to produce an explosive, pyrotechnic, thermal, or mechanical output.
Electro-Explosive Device (EED)[1]	An explosive or pyrotechnic component that initiates an explosive, burning, electrical, or mechanical train and is activated by the application of electrical energy.
Electromagnetic Radiation (EMR)[1]	Radiation made up of oscillating electric and magnetic fields and propagated with the speed of light. Includes gamma radiation, X-rays, ultraviolet, visible, and infrared radiation, and radar and radio waves.

Term	Description
Emergency Response[2]	Emergency response is performed when an immediate or imminent danger to public health or the environment is present and action is required within hours. Trained responders identify the explosive threat and make the decision as to whether the munitions and explosive of concern should be moved or blown in place and ensure the threat is removed safely and expeditiously.
Emergency Withdrawal Distance[1]	The distance personnel are evacuated to and from an exposed site during an explosive accident or incident.
Energetic Liquid[1]	A liquid, slurry, or gel, consisting of, or containing an explosive, oxidizer, fuel, or combination of the above, that may undergo, contribute to, or cause rapid exothermic decomposition, deflagration or detonation.
Engineering Controls[1]	The management of facility operations using engineering principles (e.g., facility design, operation sequencing, equipment selection, or process limitations).
Engineering Evaluation/Cost Analysis (EE/CA)[14]	An EE/CA is prepared for all non-time-critical removal actions as required by Section 300.415(b)(4)(i) of the NCP. The goals of the EE/CA are to identify the extent of a hazard, to identify the objectives of the removal action, and to analyze the various alternatives that may be used to satisfy these objectives for cost, effectiveness, and implementability.
Environmental Regulators and Safety Officials[1]	Including, but not 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.
Essential Personnel[1]	Individuals, as identified by the DoD Component, associated with an ammunition and explosives operation.
Evidence of no chemical warfare materials (CWM)[5]	Following investigation, the physical evidence indicates that CWM are not present at the munitions response site (MRS), or the historical evidence indicates that CWM are not present at the MRS.
Evidence of No Munitions[5]	Following investigation of the munitions response site (MRS), there is physical evidence that no unexploded ordnance (UXO) or discarded military munitions (DMM) are present, or there is historical evidence indicating that no UXO or DMM are present.
Expansion Chamber[1]	A protective construction feature in an underground storage facility designed to reduce the overpressure exiting the facility by increasing the total volume of the tunnel chamber complex.

Term	Description
Explosion Reaction[1]	Ignition and rapid burning of the confined energetic materials builds up high local pressures leading to breakup of the confining structure. Metal cases are fragmented (e.g., brittle fracture) into large pieces that are often thrown long distances. Unreacted or burning energetic materials are also thrown about. Fire and smoke hazards will exist. Air shocks are produced that can cause damage to nearby structures. The blast and high velocity fragments can cause minor ground craters and damage (e.g., breakup, tearing, gouging) to adjacent metal plates.
Explosive[1]	A substance or a mixture of substances that is capable by chemical reaction of producing gas at such temperature, pressure and speed as to cause damage to the surroundings. The term explosive includes all substances variously known as high explosives and propellants, together with igniter, primer, initiation and pyrotechnic (e.g., illuminant, smoke, delay, decoy, flare and incendiary compositions).
Explosive Detonators[12]	A device such as a fuse or percussion cap used to set off an explosive charge.
Explosive Equivalent[1]	The weight of a standard explosive, usually taken as TNT, required to produce a selected shockwave parameter of equal magnitude at a specific location to that produced by a unit weight of the explosive in question.
Explosive Hazard[5]	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.
Explosive Ordnance Disposal (EOD) [4]	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.
Explosive Ordnance Disposal (EOD) Area[12]	Ordnance disposal areas consist of open-air areas that were used for detonation, demilitarization, burial, or disposal of explosives.
Explosive Ordnance Disposal (EOD) Personnel[4]	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 chemical agent 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.

Term	Description
Explosive Ordnance Disposal (EOD) Unit[4]	A military organization constituted by proper authority; manned with EOD personnel; outfitted with equipment required to perform EOD functions; and assigned an EOD mission.
Explosives or Munitions Emergency Response[6]	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.
Explosives Safety[8]	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.
Explosives Safety Management[8]	A process of risk management, consisting of policies, procedures, and engineering controls that reduce the probability and the consequences of an ammunition or explosives mishap.
Exposed Site (ES)[1]	A location exposed to the potential hazardous effects (e.g., blast, fragments, debris, or heat flux) from an explosion at a potential explosion site.
Explosives Site Plan[8]	Package consisting of all information necessary to assess compliance with explosives safety standards (especially quantity-distance standards) for an explosives storage or operating location. Once approved, this package identifies storage and operational limitations, and provides a tool for management of risks associated with the storage or operating location.
Extremely Insensitive Detonating Substance (EIDS)[9]	A substance which, although capable of sustaining a detonation, has demonstrated, through tests, that it is so insensitive that there is a very low probability of accidental initiation.
Facility[2]	(A) Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (B) Any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel.

Term	Description
Federal Facility Identification (FFID) Number[12]	The FFID number is a unique identifier, assigned to an installation/property in RMIS. The 14-character aggregate string is used in RMIS as the key column for each data table and is used to track all associated records for each installation. An installation may have a single range or multiple ranges (and each range may have more than one site contained within its boundaries) and a single or multiple sites not associated with a range.
Fire/Crash Training Area[12]	Fire/crash rescue training areas consist of trenches and/or pits where flammable materials were ignited periodically for demonstrations and training exercises.
Firebrand[1]	A projected hot fragment or burning energetic material or debris whose thermal energy is transferred to the surroundings.
Firing Line[12]	The line of positions from which weapons fire is directed at a target.
Firing Range[12]	Firing ranges consist of large areas of land used for practice firing large artillery or mortars or as a practice bombing range for aircraft. These areas typically are contaminated with unexploded ordnance, which may be found both on and below the ground surface.
Five-Year Reviews[13]	Reviews conducted no less often than every 5 years after the start of the remedial action or more frequently if required by the ROD/DD for remedial actions that do not allow unlimited use and unrestricted exposure. These reviews are conducted to ensure that the remedial actions are still protective of human health, safety, and the environment.
Flare[12]	A device that produces a bright light for signaling, illumination, or identification.
Former Burial Pit or Other Disposal Area[5]	Location where discarded military munitions were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.
Former Firing Points[5]	A firing point, where the firing point is delineated as an munitions response area separate from the rest of a former military range.
Former Industrial Operating Facilities[5]	Location that is a former munitions maintenance, manufacturing, or demilitarization facility.
Former Maneuver Area[5]	An area where no munitions other than flares, simulators, smokes, and blanks were used during training maneuvers.
Former Missile or Air Defense Artillery Emplacement[5]	Former missile defense or air defense artillery emplacement not associated with a military range.

Term	Description
Former Munitions Treatment (i.e., OB/OD) Unit[5]	Location where unexploded ordnance or discarded military munitions (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.
Former Practice Munitions Range[5]	Former military range on which only practice munitions without sensitive fuzes were used.
Former Range[5]	Former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.
Former Small Arms Range[5]	Former military range where only small arms ammunition was used.
Former Storage or Transfer Point[5]	Location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).
Former Storage or Transfer points of Chemical Warfare Materials (CWM)[5]	The munitions response site is a former storage facility or transfer point (e.g., intermodal transfer) for CWM.
Formerly Used Defense Sites (FUDS)[13]	Facility or site (property) that was under the jurisdiction of the Secretary of Defense and owned by, leased to, or otherwise possessed by the United States at the time of actions leading to the contamination by hazardous substances. By the DoD Environmental Restoration Program policy, the FUDS program is limited to those real properties that were transferred from DoD control prior to 17 October 1986. FUDS properties can be located within the 50 States, District of Columbia, Territories, Commonwealths, and possessions of the United States.
Fragmentation[1]	Fracture of ammunition and explosives confining cases and structures as the result of an initiation.
Fragmentation Bombs[12]	These bombs are intended to disperse and project high-velocity fragments. The fragments are the principal damage mechanism of the weapons, with blast effects being a secondary consideration.
Fragmenting Ammunition and Explosives (AE)[1]	Items that have cases that are designed to fragment (e.g., naturally fragmenting warheads, continuous rod warheads, items with scored cases and items that contain pre-formed fragments).
Fuse[12]	A cord of readily combustible material that is lighted on one end to carry a flame along its length to detonate an explosive at the other end.
Fuze[12]	A mechanical or chemical mechanism that is used to detonate an explosive charge or device such as a bomb or grenade.

Term	Description
General public[1]	Persons not associated with a DoD installation's mission or operations (e.g., visitors, guests of personnel assigned to the installation, or persons not employed or contracted by the DoD or the installation).
General Purpose (GP) Bombs[12]	GP bombs usually have an explosive weight equal to approximately 50 percent of the total weight of the bomb. This bomb type was given the designation GP because of its versatility. GP bombs are all cylindrical in shape and are equipped with conical fins or retarders. They are adapted for both nose and tail fuses to ensure reliability and to cause the desired effects.
Grenade[12]	There are three major types of grenades including hand grenades, rifle grenades, and projected grenades. Grenades may be used as antipersonnel, antitank, smoke, incendiary, chemical, target practice, and illumination weapons. Hand grenades are deployed by troops by throwing the grenade at an enemy target. Rifle grenades are grenades that are designed to be deployed from standard infantry rifles. Projected grenades are grenades which are projected from a specially designed gun platform.
Grounding[1]	The method used for providing an electrical path to the earth or to the earth electrode system. Good grounding is a function of: the earth itself; temperature and moisture condition; an ionizing medium such as naturally occurring salts; or the volume of the earth electrode.
Ground Shock[1]	Coupling of energy to the ground as a result of an ammunition and explosives reaction. Localized movement of the ground or structures in the vicinity will occur.
Guided Missiles[11]	An unmanned vehicle moving above the surface of the Earth whose trajectory or flight path is capable of being altered by an external or internal mechanism.
Hazard Classification[1]	Process by which hazardous materials are assigned to one of the nine U.N.-recognized classes of dangerous goods.
Hazard Division (HD)[1]	One of six divisions designating the predominant hazard within U.N. Class 1, Explosives.
Hazardous Fragment[1]	A hazardous fragment is one having an impact energy of 58 ft-lb or greater.
Hazardous Fragment Density[1]	An areal number density of hazardous fragments or debris exceeding one per 600 ft^2 [55.7 m^2].

Term	Description
Hazardous Substance[2]	(A) Any substance designated pursuant to Section 1321(b)(2)(A) of title 33; (B) any element, compound, mixture, solution, or substance designated pursuant to Section 9602 of this title (title 42); (C) any hazardous waste having the characteristics identified under or listed pursuant to Section 3001 of the Solid Waste Disposal Act [42 U.S.C. 6921] (but not including any waste the regulation of which under the Solid Waste Disposal Act [42 U.S.C. 6901 et seq.] has been suspended by Act of Congress); (D) any toxic pollutant listed under Section 1317(a) of title 33; (E) any hazardous air pollutant listed under Section 112 of the Clean Air Act [42 U.S.C. 7412]; and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to Section 2606 of Title 15. The term does not include petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) – (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).
Hazardous Waste Constituent[6, 13]	A hazardous waste constituent is the specific substance in a hazardous waste that makes it hazardous and, therefore, subject to regulation under Subtitle C of RCRA. 40 CFR Part 260.10 defines the term hazardous waste constituent as a constituent that caused the (EPA) Administrator to list the hazardous waste in Part 261, Subpart D, of this chapter, or a constituent listed in Table 1 of Part 261.24 of this chapter.
High Explosives (HE)[1]	An explosive substance designed to function by detonation (e.g., main charge, booster or primary explosives).
High Explosive Equivalent[1]	The weight of a standard explosive, usually taken as TNT, required to produce a selected shockwave parameter of equal magnitude at a specific location to that produced by a unit weight of the explosive in question.
High Performance Magazine (HPM)[1]	An earth-bermed, 2-story, box-shaped structure with internal non-propagation walls designed to reduce the maximum creditable event.
Holding Yard[1]	A temporary holding location for railcars, trucks, trailers or shipping containers before storage or transportation.
Hybrid Propellants[1]	A propellant charge using a combination of physically separated solid and liquid (or gelled) substances as fuel and oxidizer.
Hygroscopic[1]	A tendency of material to absorb moisture from its surroundings.
Hypergolic[1]	A property of various combinations of chemicals to self-ignite upon contact with each other without a spark or other external initiation source.

Term	Description
Improvised Explosive Device (IED)[11]	A device placed or fabricated in an improvised manner incorporating destructive, lethal, noxious, pyrotechnic or incendiary chemicals, designed to destroy, disfigure, distract, or harass. It may incorporate military stores, but are normally devised from non-military components.
Incendiary/Firebombs[12]	With incendiary and firebombs, fire is effective in interrupting operations of enemy personnel and in damaging supplies stored in the open. Incendiaries: produce intense, localized heat designed to ignite adjacent combustible target materials. The true incendiary produces no fireball and relatively little flame.
Incinerator[12]	Incinerators typically consist of a furnace and stack unit used for a variety of disposal activities, including the incineration of medical waste or of an installation's dunnage. These units vary in size and may be either freestanding or part of other operations, such as hospitals.
Industrial Discharge[12]	Industrial discharge units consist of a pipe system used to discharge industrial effluent to the environment. The unit may discharge to a natural or man-made water body, a dry creek bed, or other natural feature.
Inhabited Building Distance (IBD)[1]	Distance to be maintained between a potential explosion site and an inhabited building.
Inhabited Buildings[1]	Structures, other than AE-related buildings, occupied by personnel or the general public, both within and outside DoD establishments (e.g., schools, churches, residences, quarters, service clubs, aircraft passenger terminals, stores, shops, factories, hospitals, theaters, mess halls, post offices, or post exchanges).
Initiating Explosives[14]	Explosives that will not burn but will detonate if ignited. Initiating explosive are used in munitions for initiating and intensifying high-order explosions.
Inspection Station[1]	A designated location at which trucks and railcars containing AE are inspected.
Installation-Related Personnel[1]	Military personnel (to include family members), DoD employees, DoD contractor personnel, and other personnel having either a direct operational (military or other federal personnel undergoing training at an installation) or logistical support (e.g., vendors) relationship with installation activities.
Installed Explosives[8]	Explosives items installed on aircraft or contained in survival and rescue kits such as flares, signals, egress system components, squibs, and detonators for jettisoning external stores, engine-starter cartridges, fire-extinguisher cartridges, destructors in electronic equipment, explosives components of emergency equipment, and other such items or materials necessary for safe flight operations.

Term	Description
Interim Holding Facility (IHF)[1]	A temporary storage facility designed to hold recovered chemical warfare material (RCWM).
Interchange Yard[1]	An area on a DoD installation set aside for exchanging railroad cars or vehicles with a common carrier.
Intermagazine Distance (IMD)[1]	Distance to be maintained between two ammunition and explosives storage locations.
Intraline Distance[1]	The distance to be maintained between any two AE related buildings or sites within an AE related operating line.
Joint DoD - Non-DoD Use Runway/Taxiway[1]	A runway or taxiway serving both DoD and commercial aircraft. A runway or taxiway serving solely the DoD, DoD chartered, or Non-DoD aircraft on DoD authorized business is not joint use.
Joint Hazard Classification System (JHCS)[1]	A data base containing hazard classification and safety data for DoD ammunition and explosives.
Joint Storage[1]	AE storage in a facility that includes both DoD-titled and non-DoD-titled ammunition and explosives. Other than ownership, the stored ammunition and explosives items are similar.
K Factor[1]	The factor in the formula D=KW1/3 used in quantity-distance determinations where D represents distance in feet and W is the net explosive weight in pounds. The K factor is a constant and represents the degree of protection that is provided.
Land Use Controls (LUCs)[9]	Physical, legal, or administrative mechanisms that restrict the use of, or limit access to, contaminated property in order to reduce risk 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 property, such as fences or signs. The legal mechanisms are generally the same as those used for institution controls (ICs) as discussed in the National Contingency Plan. ICs are a subset of LUCs and are primarily legal mechanisms imposed to ensure the continued effectiveness of land use restrictions imposed as part of a remedial decision. Legal mechanisms include restrictive covenants, negative easements, equitable servitudes, and deed notices. Administrative mechanisms include notices, adopted local land use plans and ordinances, construction permitting, or other existing land use management systems that may be used to ensure compliance with use restrictions.
Landfill[12]	Landfill sites typically are areas formerly used for disposing of both domestic and industrial hazardous waste.

Term	Description
Landmines[12]	An explosive mine usually laid just below the surface of the ground. Landmines are unique in the fact that they are designed to remain unexploded until acted upon, influenced, or a predetermined amount of time passes. Landmines are often discussed separately from unexploded ordnance (UXO) because of the fact that UXO remains unexploded not by design but by a failure in the delivery, functioning mechanism, or other problems. There are hundreds of different types of mines, most of which can be grouped into three categories: anti-personnel, anti-tank, or anti-material.
Large Caliber Ammunition[12]	Large caliber refers to weapons systems larger than 40mm caliber and include various types of artillery such as cannon, howitzers, mortars, and rockets. A wide variety of projectiles such as high-explosive; bomblet; canister or anti-personnel; illuminating or star-shell; armour-piercing; incendiary; gas or aerosol, chemical or biological; smoke; and nuclear are included as part of their lethal mechanism.
Launch Pad[1]	The load-bearing base, apron, or platform upon which a rocket, missile, or space vehicle and its launcher rest prior to launch.
Leach Field[3]	Leach fields typically consist of a subsurface area generally associated with septic tanks. The unit serves the purpose of biologically treating sanitary sewage; however, in cases where these units were used at industrial facilities, there is also contamination from non-biodegradable industrial contaminants.
Less Sensitive Explosives[12]	High explosives that are less vulnerable to significant energy releases such as fires and explosion.
Liquid Propellants[1]	Energetic liquids used for propulsion or operating power for missiles, rockets, AE and other related devices.
Live-fire involving Chemical Warfare Materials (CWM)[5]	• The munitons response site (MRS) is a former military range that supported live-fire of explosively configured CWM and the CWM/unexploded ordnance (UXO) are known or suspected of being present on the surface or in the subsurface. • The MRS is a former military range that supported live-fire with conventional munitions, and CWM/DMM are on the surface or in the subsurface commingled with conventional munitions that are UXO.
Loading Density[1]	Quantity of explosive per unit volume expressed as lbs/ft3 [kg/m3].
Loading Docks[1]	Facilities, structures, or paved areas used for transferring ammunition and explosives between modes of transportation.

Term	Description
Long-Term Management (LTM)[9]	Term used for environmental monitoring, review of site conditions, and maintenance of a remedial action to ensure continued protection as designed once a FUDS achieves Response Complete. Examples of LTM include landfill cap maintenance, leachate disposal, fence monitoring and repair, 5-year review execution, and land use control enforcement. This term should be used until no further environmental restoration response actions are appropriate or anticipated. LTM is reserved for monitoring once a site achieves Response Complete, and should not be used to refer to monitoring after Remedy in Place (this includes sites for which the selected response action is natural attenuation).
Magazine[1]	Any building or structure used exclusively for the storage of ammunition and explosives.
Maintenance Yard[12]	Maintenance yards consist of paved or unpaved areas where vehicles and other maintenance equipment are stored and often serviced. Typically, maintenance supplies are stored at these units.
Material that Potentially Presents an Explosive Hazard (MPPEH)[17]	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.
Maximum Credible Event (MCE)[1]	In hazards evaluation, the MCE from a hypothesized accidental explosion, fire, or toxic chemical agent release (with explosives contribution) is the worst single event that is likely to occur from a given quantity and disposition of AE. The event must be realistic with a reasonable probability of occurrence considering the explosion propagation, burning rate characteristics, and physical protection given to the items involved. The MCE evaluated on this basis may then be used as a basis for effects calculations and casualty predictions.
Medium Caliber Ammunition[12]	Medium caliber refers to weapons systems larger in caliber than .50 caliber machine guns and usually includes cannons in the 20mm through 40mm caliber range. Projectiles in this caliber range are large enough to have an explosive charge included as part of their lethal mechanism.

Term	Description
Military Installation[9]	A base, camp, post, station, yard, center, or other activity under the jurisdiction of the Secretary of a military department or, in the case of an activity in a foreign country, under the operational control of the Secretary of a military department or the Secretary of Defense, without regard to the duration of operational control (10 USC 2801).
Military Munitions[5]	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[12]	A site, regardless of location, where military munitions or chemical agent (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.
Military Range[6]	Designated land and water areas set aside, managed, and used to research, develop, test, and evaluate military munitions, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas.
Minimum Separation Distance (MSD)[1]	MSD is the distance at which personnel in the open must be from an intentional or unintentional detonation.
Mitigation[1]	A feature that reduces, limits or controls the consequences of an ammunition and explosive reaction.

Term	Description
Mishap[4]	An accident or an unexpected event involving DoD ammunition and explosives.
Mixed Waste Area[12]	Areas used to store or dispose of hazardous wastes that have been mixed with or contaminated by radioisotopes.
Mortars[11]	A muzzle-loading, indirect fire weapon with either a rifled or smooth bore. It usually has a shorter range than a howitzer, employs a higher angle of fire, and has a tube with a length of 10 to 20 calibers.
Munitions and Explosives of Concern (MEC)[5]	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 (MC) (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 Constituent (MC)[3]	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.
Munitions Debris[4]	Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal.
Munitions Response[5]	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)[5]	Any area on a defense site that is known or suspected to contain unexploded ordnance, discarded military munitions, or munitions constituents. 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)[5]	A discrete location within an mention response area that is known to require a munitions response.
Munitions with the Greatest Fragmentation Distance (MGFD)[12]	The munitions with the greatest fragment distance that is reasonably expected (based on research or characterization) to be encountered in any particular area.

Term	Description
Mutual Agreement[12]	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.
Natural Attenuation[13]	The reduction of contaminant concentrations in the environment through biological processes (aerobic and anaerobic biodegradation, plant and animal uptake), physical phenomena (advection, dispersion, dilution, diffusion, volatilization, sorption/desorption), and chemical reactions (ion exchange, complexation, abiotic transformation). Terms such as intrinsic remediation or biotransformation are included within the more general natural attenuation definition.
Net Explosive Weight (NEW)[1]	The total weight of all high explosive and all propellants expressed in pounds.
Net Explosive Weight for Quantity-Distance (NEWQD)[1]	The total quantity, expressed in pounds [kilograms], of high explosives equivalency in each item or round to be used when applying quantity-distance (Q-D) criteria or other standards. The NEWQD is equal to the NEW unless hazard classification testing has shown that a lower weight is appropriate for Q-D purposes.
No Barrier[5]	There is no barrier preventing access to any part of the muntions response site (MRS) (i.e., all parts of the MRS are accessible).
Non-DoD Components[1]	Any entity (Government, private, or corporate) that is not a part of the DoD.
Non-DoD control[5]	The munitions response site (MRS) is on land or is a water body that is owned, leased, or otherwise possessed by the Department. With respect to property that is leased or otherwise possessed, the Department must control access to the MRS 24 hours per day, every day of the calendar year.
Non-DoD Explosives Operations/Storage[1]	Non-DoD explosives operations/storage conducted on DoD property, but not under DoD oversight.
Non-Essential Personnel[1]	Individuals, as identified by the DoD Component, not associated with an ammunition and explosive operation.
Non-Robust Munitions[1]	Those ammunition and explosives that are not members of one of the following groups: Robust Munitions or Fragmenting Munitions (e.g., air-to-air missile warheads, CBU type munitions). Examples of Non-Robust Munitions include torpedoes and underwater mines.

Term	Description
Non-Time Critical Removal Actions (NTCRAs)[2]	A NTCRA is an action initiated in response to a release or threat of a release that poses a risk to human health and welfare, or the environment. Initiation of removal cleanup actions may be delayed for six months or more.
Oil/Water Separator[12]	Oil/water separators typically are small units that skim oil from stormwater runoff. The oil/water separator site consists of the unit and any associated piping.
One Percent Lethality Distance[12]	A distance calculated from a given chemical agent (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 3 for H and HD agents, 75 mg-min/m3 for HT agent, 150 mg-min/m3 for Lewisite, 10 mg-min/m3 for GB agent, 4.3 mg-min/m3 for VX vapor, and 0.1 mg-min/m3 for inhalation and deposition of liquid VX.
On-call Construction Support[12]	Construction support provided, on an as needed basis, where the probability of encountering unexploded ordnance, other munitions that may have experienced abnormal environments (e.g., discarded military munitions), munitions constituents in high enough concentrations to pose an explosive hazard, or chemical agent, 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.
On-site Construction Support[12]	Dedicated construction support, where the probability of encountering unexploded ordnance, other munitions that may have experienced abnormal environments (e.g., discarded military munitions), munitions constituents in high enough concentrations to pose an explosive hazard, or chemical agents, regardless of configuration, has been determined to be moderate to high.
On-the-Surface[12]	A situation in which unexploded ordnance, discarded military munitions or chemical agents, 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).
Open Burn (OB)[12]	An open-air combustion process by which excess, unserviceable, or obsolete munitions are destroyed to eliminate their inherent explosive hazards.
Open Detonation (OD)[12]	An open-air process used for the treatment of excess, unserviceable or obsolete munitions whereby an explosive donor charge initiates the munitions being treated.

Term	Description
Operational Range[3]	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.
Operating Building[1]	Any structure, except a magazine, in which operations associated with ammunition and explosives are conducted (e.g., manufacturing, processing, handling, loading, or assembling).
Operating Line[1]	A group of buildings, facilities, or related workstations so arranged as to permit performance of the consecutive steps of operations associated with ammunition and explosives (e.g., manufacture, loading, assembly, modification, or maintenance).
Operational Shield[1]	A barrier constructed at a particular location or around a particular machine or operating station to protect personnel, material, or equipment from the effects of a localized fire or explosion.
Optical Shop[12]	Shops typically consisting of laboratory units located within a building. Activities include grinding lenses used in eye glasses or other optical instruments.
Ordnance[1]	Explosives, chemicals, pyrotechnics, and similar stores (e.g., bombs, guns and ammunition, flares, smoke, or napalm).
Ordnance and Explosives (OE)[12]	Military munitions that have been abandoned, expelled from demolition pits or burning pads, lost, discarded, or buried. These include dud-fired unexploded ordnance; soil presenting explosive hazards, buildings with explosives residues that present explosion hazards.
Other Than Operational Range[12]	Any range that does not fall under the definition of “operational range” in 10 USC 101, such as transferred ranges. The MMRP only applies to Other Than Operational Ranges.
Penetration Bombs[12]	These bombs are designed to penetrate and explode inside a hard target such as a concrete bunker. They are built with heavy cases and are aerodynamically designed to counter break-up.
Pesticide Shop[12]	Shops typically used to store and prepare large volumes of pesticides and solvents for maintenance activities. The units may be located in a freestanding building or may be attached to another building. Areas near the unit may have been used for the disposal of off-specification pesticides.
Pistol Range[12]	Located indoors or outdoors and are used for target practice. Outdoor units include a soil or sandbag berm located behind the targets to prevent bullets from traveling outside the range area.

Term	Description
Plating Shop[12]	Shops consisting of a building, or a room within a building, used for coating metal parts. The unit contains several tanks of solvents that are used in the plating process.
Petroleum, Oil, and Lubricant (POL)[12]	Substances, including fuels and lubricating products, used in aircraft and vehicle operations and maintenance.
Petroleum, Oil, and Lubricant (POL) Lines[12]	POL distribution lines are used to transport petroleum, oil, and lubricant products from storage to dispensing facilities.
Pollutant and Contaminant[2]	These terms include, but are not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring; except that the term pollutant or contaminant shall not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance and shall not include natural gas, liquefied natural gas, or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas).
Potential Explosion Site (PES)[1]	The location of a quantity of ammunition and explosives that will create a blast, fragment, thermal, or debris hazard in the event of an accidental explosion of its contents.
Practice Munitions[5]	All unexploded ordnance and discarded military munitions that are not associated with a sensitive fuze and that have not: - Been damaged by burning or detonation - Deteriorated to the point of instability.
Primary Explosives[5]	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.
Primary Fragment[1]	A fragment from material in intimate contact with reacting ammunition and explosive.
Prohibited Area[1]	A designated area at airfields, seadromes, or heliports where ammunition and explosives facilities are prohibited.
Projectile[4]	An object projected by an applied force and continuing in motion by its own inertia, as mortar, small arms, and artillery projectiles. Also applied to rockets and to guided missiles.
Propagation[1]	Transfer of a reaction between ammunition and explosives.

Term	Description
Propellant[12]	An explosive charge or a rocket fuel, that propels or provides thrust.
Public Access Exclusion Distance (PAED)[12]	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.
Public Exclusion Distance[1]	The calculated distance from the toxic chemical agent source at which no more than 10.0, 4.3, and 150 milligrams per minute per cubic meter is present for GB, VX, and mustard, respectively, or the explosives safety inhabited building distance, whichever is greater.
Public Traffic Route (PTR)[1]	Any public street, road, highway, navigable stream, or passenger railroad, including roads on a military reservation used routinely by the general public for through traffic.
Public Traffic Route Distance (PTRD)[1]	Distance to be maintained between a potential explosion site and a PTR exposure.
Pyrotechnics[12]	Pyrotechnics are used to send signals, illuminate areas, simulate weapons during training, and as ignition elements for some weapons. Pyrotechnics consist of a wide range of materials that, when combined, produce the desired effects of specific time delays, heat, noise, smoke, light or infrared radiation.
Pyrotechnic/Practice Ordnance Sites[12]	Practice ordnance is ordnance manufactured to serve a training purpose. Practice ordnance generally does not carry a full payload. Practice ordnance may still contain explosive components such as spotting charges, bursters, and propulsion charges
Qualified Receiver[17]	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 munitions potentially possessing an explosive hazard (MPPEH) they receive; and are licensed and permitted or otherwise qualified to receive, manage, and process MPPEH.
Quantity-Distance (QD)[1]	The quantity of explosive material and distance separation relationships that provide defined levels of protection. The relationships are based on levels of risk considered acceptable for specific exposures and are tabulated in applicable Q-D tables. These separation distances do not provide absolute safety or protection. Greater distances than those in the Q-D tables should be used if practical.
Radioactive Waste Area[12]	Radioactive waste areas are used to store or dispose of low-level radioactive materials of various types (for example, radium paint and radioactive instruments and propellants).

Term	Description
Range[3]	A designated land or water area that is set aside, managed, and used for range activities of the Department of Defense. Such term includes the following: (A) 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. (B) Airspace areas designated for military use in accordance with regulations and procedures prescribed by the Administrator of the Federal Aviation Administration.
Range Activities[3]	(A) Research, development, testing, and evaluation of military munitions, other ordnance, and weapons systems; and (B) the training of members of the armed forces in the use and handling of military munitions, other ordnance, and weapons systems.
Range Clearance[18]	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.
Range-Related Debris[18]	Debris, other than munitions debris, collected from operational ranges or from former ranges (e.g., targets, military munitions packaging and crating material).
Range Residue[16]	Material, including but not limited to, parts and sections of practice bombs, artillery, small arms, mortars, projectiles, bombs, missiles, rockets, rocket mortars, targets, grenades, incendiary devices, experimental items, demolition devices, and any other material fired on or discovered on a range.
Ready Ammunition Storage[1]	A location where ammunitions and explosives are stored for near-term tactical or training use.
Real Property[1, 9]	Real estate owned by the United States and under the control of the DoD. Includes lands, buildings, structures, utilities systems, improvements and appurtenances thereto. Includes equipment attached to and made part of buildings and structures (such as heating systems) but not moveable equipment (such as plant equipment).

Term	Description
Recovered Chemical Warfare Materiel (RCWM)[13]	An item configured as a munition containing a chemical substance that is intended to kill, seriously injure, or incapacitate a person through its physiological effects. Also includes V- and G- series nerve agents, H- series blister agent, and lewisite in other-than-munition configurations. Due to their hazards, prevalence, and military-unique application, chemical agent identification sets (CAIS) are also considered CWM. CWM does not include: riot control agents, chemical herbicides; smoke and flame producing items; or soil, water, debris, or other media contaminated with chemical agent. (HQDA Interim Guidance for Biological Warfare Materiel and Non-Stockpile Chemical Warfare Materiel Response Activities).
Relative Risk[9]	The evaluation of individual sites to determine high, medium, or low relative risk to human health and the environment, based on contaminant hazards, migration pathways and receptors, in accordance with the DoD's *Risk-Based Site Evaluation Primer,* Summer 1997.
Remedial or Remedial Action (RA)[2]	Those actions consistent with permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health, welfare or the environment. The term includes, but is not limited to, such actions at the location of the release as storage; confinement; perimeter protection using dikes, trenches, or ditches; clay cover; neutralization; cleanup of released hazardous substances and associated contaminated materials; recycling or reuse; diversion; destruction; segregation of reactive wastes; dredging or excavations; repair or replacement of leaking containers; collection of leachate and runoff; onsite treatment or incineration; provision of alternative water supplies; and any monitoring reasonably required to assure that such actions protect the public health, welfare and the environment. The term includes the costs of permanent relocation of residents and businesses and community facilities where the President determines that, alone or in combination with other measures, such relocation is more cost-effective and environmentally preferable to the transportation, storage, treatment, destruction, or secure disposition offsite of hazardous substances, or may otherwise be necessary to protect the public health or welfare. The term includes offsite transport and offsite storage, treatment, destruction, or secure disposition of hazardous substances and associated contaminated materials.
Remedial Action-Construction (RA-C)[9]	The period during which the final remedy is being put in place. The end date signifies that the construction is complete, all testing has been accomplished and that the remedy will function properly.

Term	Description
Remedial Action-Operations (RA–O)[9]	The period during which the remedy is in place and operating to achieve the cleanup objective identified in the Record of Decision or equivalent agreement. Any system operation or monitoring requirements during this time shall be termed RA-O.
Remedy In Place[9]	Designation that a final remedial action has been constructed and implemented and is operating as planned in the remedial design. An example of a remedy in place is a pump-and-treat system that is installed, is operating as designed, and will continue to operate until cleanup levels have been attained. Because operation of the remedy is ongoing, the site cannot be considered Response Complete.
Removal[2]	The cleanup or removal of released hazardous substances from the environment. Such actions may be taken in the event of the threat of release of hazardous substances into the environment, such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances, the disposal of removed material, or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release. The term includes, in addition, without being limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under Section 9604(b) of this title, and any emergency assistance which may be provided under the Disaster Relief and Emergency Assistance Act [42 U.S.C. 5121 et seq.]
Render Safe Procedures (RSP)[4]	The portion of explosive ordnance disposal (EOD) procedures that involves the application of special disposal methods or tools to interrupt the functioning or otherwise defeat the firing train of unexploded ordnance (UXO) from triggering an unacceptable detonation.
Response Complete (RC)[9]	The remedy is in place and required remedial action–operations (RA-O) have been completed. If there is no RA-O phase, then the remedial action–construction end date will also be the RC date.
Risk[1]	The product of the probability or frequency that an accident will occur within a certain time and the accident's consequences to people, property or the environment.
Riot Control Munition[12]	All unexploded ordnance or discarded military munitions containing a riot-control agent filler (e.g., tear gas).
Risk Reduction[19]	The movement of any site from a higher to lower relative risk category as a result of natural attenuation, interim remedial, remedial, or removal actions taken.

Term	Description
Robust Munitions[1]	These are munitions meeting two of the following three criteria: (1) have a ratio of the explosive weight to empty case weight less than 1.00; (2) have a nominal wall thickness of at least 0.4 inches; and (3) have a case thickness/net explosive weight 1/3 >0.05in/lb 1/3. The following cartridges are, by definition, robust: 20, 25, and 30 mm.
Rock Strength[1]	Designations (e.g., strong, moderately strong or weak rock) providing a general classification of rock types.
Rocket[10]	A motor which derives its thrust from ejection of hot gases generated from propellants carried within the motor casing.
Roll-on or Roll-off (RORO)[1]	An ammunition and explosives (AE) operation that involves the movement, without lifting, of AE-laden semi-trailers, railcars, or similar wheeled conveyances into or from a transporter (e.g., a barge, a ship, a railcar or aircraft), such that the conveyances remain in a transportation mode through a trans-shipment point.
Safety Fan[12]	A safety fan is a controlled area to prevent injury in the event of accidental discharge or stray projectile that does not impact within the impact area or berm. This area is within the boundaries formed by: 1) the firing line; 2) a line at an angle of 45 degrees from and to the right of a line perpendicular to the firing line extending toward the target line that: A) begins at the right end of the firing line; and B) ends at a point that is the maximum safe distance for the weapon type being used; 3) a line at an angle of 45 degrees from and to the left of a line perpendicular to the firing line extending toward the target line that: A) begins at the left end of the firing line; and B) ends at a point that is the maximum safe distance for the weapon type being used; 4) a line that: A) is drawn between the end points of the lines described by 2 and 3 above.
Scheduled for transfer from DoD control[5]	The munitions response site is on land or is a water body that is owned, leased, or otherwise possessed by the Department, and the Department plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.
Scrap[10]	Any item that has been inspected by a explosive ordnance disposal (EOD) Technician and designated to be in a safe condition (cleaned, decontaminated, and free of explosive safety hazard).
Secondary Explosives[5]	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.

Term	Description
Secondary Fragment[1]	Fragments produced by the impact of primary fragments or airblast into surrounding structures, AE or earth.
Secretarial Exemptions or Certifications[1]	A written authorization granted by the Service Secretary for strategic or other compelling reasons that permits long-term noncompliance with a mandatory requirement of DoD explosives safety criteria.
Secure Explosives Holding Area[1]	An area designated for the temporary parking of commercial carriers' motor vehicles transporting DoD-owned ammunition and expolsives.
Secure Non-explosives Holding Area[1]	An area designated for the temporary parking of commercial carriers' motor vehicles transporting Categorized DoD Arms, classified (SECRET or CONFIDENTIAL) materials, and controlled cryptographic items.
Sensitivity Group (SG)[1]	A category used to describe the susceptibility of ammunition and explosives to sympathetic detonation (SD). The SG are: Robust, Non-Robust, Fragmenting, cluster bomb unit weapons, and SD Sensitive.
Service Magazine[1]	A building of an operating line used for the intermediate storage of explosive materials.
Sewage Effluent Settling Pond[12]	Sewage effluent settling ponds consist of a lagoon, or lagoons, used for settling solids and/or for biological treatment of sewage. The units also may be used as infiltration galleries.
Sewage Treatment Plant[12]	Sewage treatment plants typically consist of a complex of tanks, piping, and sludge management areas used to treat sanitary sewage generated at an installation. The unit may use chemical or biological treatment methods. Lagoons associated with the biological treatment of sewage may be considered separate units.
Shared Launch Facility[1]	Any space or orbital launch facility supporting both DoD and non-DoD launch services and operations, as determined by the DoD Component involved or by mutual agreement when multiple DoD Components are involved.
Simulators[12]	Practice ordnance used to simulate the weight, operation, and characteristics of an actual weapon. Practice ordnance usually carries a small spotting charge to allow observers to assess the accuracy of impact.
Single-Chamber Storage Site[1]	An excavated chamber with its own access to the natural ground surface that is not connected to any other storage chamber.

Term	Description
Site (as defined in the Restoration Management Information System Data Element Dictionary for a SITE_ID)[9]	A unique name given to a distinct area of an installation containing one or more releases or threatened releases of hazardous substances treated as a discrete entity or consolidated grouping for response purposes. Includes any building, structure, impoundment, landfill, storage container, or other site or area where a hazardous substance was or has come to be located, including formerly used sites eligible for building demolition/debris removal. Installations and ranges may have more than one site.
Small Arms (SA) Ammunition[12]	Ammunition up to and including .50 caliber, no longer than 4 inches in length, and without projectiles that contain explosives. SA ammunition is fired from pistols, rifles, shot guns, and machine guns.
Small Arms Range[12]	Small arms ranges typically are located outdoors and are used for target practice with small arms, usually .50 caliber or less. The unit may include a soil or sandbag berm or a hill located behind the targets to prevent bullets from traveling outside the range area.
Source Emission Limits[1]	The amount of toxic chemical agent that may be released at a particular point that allows for natural dilution, ventilation, and meteorological conditions.
Spall[1]	Pieces of a material (and the process by which they are formed) that are broken loose from the surface of a parent body by tensile forces that are created when a compression shock wave travels through the body and reflects from the surface. For underground storage, spall normally refers to the rock broken loose from the wall of an acceptor chamber by the shock wave transmitted through the rock from an explosion in a nearby donor chamber.
Spill Site Area[12]	Small areas where spills from drums, tanks, or other waste storage units have taken place.
Standoff distance[1]	Minimum separation distance between a wall or barrier and the edge of a stack of ammunition and explosives.
Static Test Stand[1]	Locations where liquid propellant engines or solid propellant motors are tested in place.
Storage Area Site[12]	Storage area sites are areas where spills and leaks from stored containers or equipment have occurred.
Storm Drain[12]	Storm drains typically consist of a natural or man-made drain used as a runoff control structure for rainfall. The unit also may be used for runoff from other sources such as process operations. Man-made units may be concrete lined.
Strafing Range[12]	Range area utilized for training personnel to attack ground targets using a machine gun or cannon from a low-flying aircraft.

Term	Description
Submunitions[11, 12]	Any munition that, to perform its task, separates from a parent munition. Submunitions include bomblets, grenades, and mines filled with explosives or chemical agents. Submunitions are extremely hazardous because even very slight disturbances can cause them to explode.
Subsurface (physical evidence)[5]	There is physical evidence (e.g., munitions debris, such as fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of unexploded ordnance (UXO) or discarded military munitions (DMM), indicating that UXO or DMM may be present at the munitions response site.
Support Facilities[1]	Facilities that support ammunition and explosives (AE) operations (e.g., field offices, AE support equipment maintenance, forklift charging stations, dunnage storage, or inert storage buildings).
Surface Disposal Area[12]	Surface disposal area sites consist of small areas formerly used for disposal of solid wastes with little or no free liquids. Typical materials include rags, filters, paint cans, small capacitors, and batteries.
Surface Impoundment/Lagoon[12]	Surface impoundments/lagoons are unlined depressions, excavations, or diked areas that were used to accumulate liquid waste, waste containing free liquid, or industrial wastewater.
Surface Runoff[12]	Surface runoff sites are areas that typically experience sheet runoff from rain. The runoff may contain contaminants.
Surface-to-Air Range[16]	Ranges that support, for example, endo-exoatmospheric missile intercepts, aeronautical system testing, and ballistic missiles require a substantial amount of range space and a sophisticated range infrastructure. This infrastructure may include high fidelity simulators, visual simulators, end-game scoring capabilities, command and control systems, communication networks, data display/processing capabilities, instrumentation systems, flight termination systems, and flight hazard analysis/impact prediction capability.
Suspect Truck and Railcar Holding Areas[1]	A designated location for placing trucks and railcars containing ammunition or explosives that are suspected of being in a hazardous condition. These sites are also used for trucks and railcars that may be in a condition that is hazardous to their contents.
Suspected (physical evidence)[5]	There is physical evidence (e.g., munitions debris, such as fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of unexploded ordnance (UXO) or discarded military munitions (DMM), indicating that UXO or DMM may be present at the MRS.

Term	Description
Suspected (historical evidence)[5]	There is historical evidence indicating that unexploded ordnance or discarded military munitions may be present at the munitions response site.
Sympathetic Detonation (SD)[11]	The detonation of ammunition and explosives (AE) produced by the detonation of adjacent AE.
Tactical Facilities[1]	Prepared locations with an assigned combat mission, such as missile launch facilities, alert aircraft parking areas, or fixed-gun positions.
Target Area[12]	Location of a designated target.
Taxiway[1]	Any surface designated as such in the basic airfield clearance criteria specified by a DoD Component publication or Federal Aviation Regulation.
Team Separation Distance (TSD)[12]	The distance that munitions response teams must be separated from each other during munitions response activities involving intrusive operations.
Technical Escort Unit (TEU)[12]	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.
Technology-aided Surface Removal[12]	A removal of unexploded ordnance (UXO), discarded military munitions (DMM) or chemical warfare materials (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.
Time Critical Removal Action (TCRA)[13]	A TCRA is a response to a release or threat of release that poses such a risk to public health (serious injury or death), or the environment, that cleanup or stabilization actions must be initiated within 6 months.
Torpedoes[12]	Self-propelled underwater projectile launched from a submarine, aircraft, or ship and designed to detonate on contact with or in the vicinity of a target.
Toxic Chemical Agent[1]	A substance intended for military use with lethal or incapacitating effects on personnel through its chemical properties. Excluded from toxic chemical agents for purposes of this Standard are riot control agents, chemical herbicides, smoke- and flame-producing items, and individual dissociated components of toxic chemical agent munitions.

Term	Description
Toxic Chemical Agent Maximum Creditable Event (MCE)[1]	The hypothesized maximum quantity of toxic chemical agent that could be accidentally released from ammunition and explosives without explosive contribution, bulk container, or process as a result of a single unintended, unplanned, or accidental occurrence. It must be realistic with a reasonable probability of occurrence.
Toxic Chemical Munitions[1]	Ammunition and explosives that through its chemical properties, produces lethal or other damaging effects to human beings, except that such term does not include riot control agents, chemical herbicides, smoke and other obscuration materials (40 CFR Section 266.201 and 50 USC Section 1521 (j) (1)).
Training and Maneuver Area[12]	Designated non-impact area utilized for personnel training and practice.
Transferred Range[9]	A property formerly used as a military range that is no longer under military control and had been leased by the DoD, transferred, or returned from the DoD to another entity, including federal entities. This includes a military range that is no longer under military control but was used under the terms of a withdrawal, executive order, special-use permit or authorization, right-of-way, public land order, or other instrument issued by the federal land manager.
Transferring Range[9]	A military range that is proposed to be transferred or returned from the DoD to another entity, including federal entities. This includes a military range that is used under the terms of a withdrawal, executive order, act of Congress, public land order, special-use permit or authorization, right-of-way, or other instrument issued by the federal land manager or property owner. An operational or closed range will not be considered a “transferring range” until the transfer is imminent.
Trap/Skeet Range[12]	Sport range where shooters compete and/or practice by firing shotguns at clay pigeons (discs) as the clay pigeons are mechanically projected into the air.
Underground Storage Facility[1]	Underground storage facilities may consist of a single chamber or a series of connected chambers and other protective construction features. The chambers may be either excavated or natural geological cavities.

Term	Description
Underground Storage Tank (UST)[7]	Any one or combination of tanks (including underground pipes connected thereto) which is used to contain an accumulation of regulated substances, and the volume of which (including the volume of the underground pipes connected thereto) is 10 per centum or more beneath the surface of the ground. Such term does not include any— (A) farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes, (B) tank used for storing heating oil for consumptive use on the premises where stored, (C) septic tank, (D) pipeline facility (including gathering lines)— (i) which is regulated under chapter 601 of title 49, or (ii) which is an intrastate pipeline facility regulated under State laws as provided in chapter 601 of title 49, and which is determined by the Secretary to be connected to a pipeline or to be operated or intended to be capable of operating at pipeline pressure or as an integral part of a pipeline, (E) surface impoundment, pit, pond, or lagoon, (F) storm water or waste water collection system, (G) flow-through process tank, (H) liquid trap or associated gathering lines directly related to oil or gas production and gathering operations, or (I) storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor. The term “underground storage tank” shall not include any pipes connected to any tank which is described in subparagraphs (A) through (I).
Unexploded Munitions/Ordnance Areas[12]	Unexploded munitions/ordnance areas are areas that have been used for munitions and ordnance training.
Unexploded Ordnance (UXO)[3]	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.
Unexploded Ordnance (UXO) Technicians[12]	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.
Unexploded Ordnance (UXO)-Qualified Personnel[12]	Personnel who have performed successfully in military explosive ordnance disposal (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.

Term	Description
Unit Risk[1]	The risk to personnel or facilities that is associated with debris, fragment or blast hazards that is the result of the detonation of a single round of ammunition.
Venting[17]	Exposing any internal cavities of munitions potentially possessing an explosive hazard (MPPEH), to include training or practice munitions (e.g., concrete bombs), using DoD Explosives Safety Board- or DoD Component-approved procedures, to confirm that an explosive hazard is not present.
Waiver or Exemption[1]	A written authorization granted by the proper authority within a DoD Component for strategic or other compelling reasons that permits deviation from a mandatory requirement of DoD explosives safety criteria.
Warhead[10]	That portion of a rocket or guided missile containing the high explosives charge or other destructive agent.
Washrack[3]	Sites typically consisting of a building designed for washing vehicles, such as tanks, aircraft, and other military vehicles. This unit also may consist of a paved area where vehicles are washed.
Waste Lines[3]	Underground piping used to carry industrial wastes from shop facilities to a wastewater treatment plant.

Term	Description
Waste Military Munition[6]	An unused military munition is a solid waste when any of the following occurs: (1) The munition is abandoned by being disposed of, burned, detonated (except during intended use as specified in paragraph (a) of this section), incinerated, or treated prior to disposal; or (2) The munition is removed from storage in a military magazine or other storage area for the purpose of being disposed of, burned, or incinerated, or treated prior to disposal, or (3) The munition is deteriorated or damaged (e.g., the integrity of the munition is compromised by cracks, leaks, or other damage) to the point that it cannot be put into serviceable condition, and cannot reasonably be recycled or used for other purposes; or (4) The munition has been declared a solid waste by an authorized military official. (c) A used or fired military munition is a solid waste: (1) When transported off range or from the site of use, where the site of use is not a range, for the purposes of storage, reclamation, treatment, disposal, or treatment prior to disposal; or (2) If recovered, collected, and then disposed of by burial, or landfilling either on or off a range. (d) For purposes of RCRA section 1004(27), a used or fired military munition is a solid waste, and, therefore, is potentially subject to RCRA corrective action authorities under sections 3004(u) and (v), and 3008(h), or imminent and substantial endangerment authorities under section 7003, if the munition lands off-range and is not promptly rendered safe and/or retrieved. Any imminent and substantial threats associated with any remaining material must be addressed. If remedial action is infeasible, the operator of the range must maintain a record of the event for as long as any threat remains. The record must include the type of munition and its location (to the extent the location is known).
White Phosphorus[12]	White phosphorus is used by the military in various types of ammunition, and to produce smoke for concealing targets and troop movements. It can also function as an antipersonnel flame compound capable of causing serious burns.
Wingwall[1]	A wall located on either side of an earth-covered magazine's (ECM's) headwall. It may slope to the ground or may join a wingwall from an adjacent ECM. It may be monolithic (of single construction) or separated by expansion joints from the headwall. The purpose of a wingwall is to retain the earth fill along the side slope of an ECM.

Notes:

1. DoD 6055.9-STD, DoD Ammunition and Explosives Safety Standards (October 2004 and June 2005 corrections).
2. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended, 42 USC § 9601 et seq.
3. Defense Environmental Restoration Program implementing policy, 10 USC § 2701 et seq.
4. Handbook on the Management of Munitions Response Actions, Interim Final, EPA, May 2005.
5. Munitions Response Site Prioritization Protocol, 32 CFR Part 179, October 2005.
6. Military Munitions Rule, 40 CFR Parts 260 – 266 (266, Subpart M), February 1997.
7. Resource Conservation and Recovery Act, 42 USC § 6901 et seq.
8. Explosive Safety Standards, Air Force Manual 91-201, October 2001.
9. Management Guidance for the Defense Environmental Restoration Program, September 2001.
10. Ammunition and Explosives Safety Standards, Pamphlet 385-64, December 1999
11. Department of Defense Dictionary of Military terms, www.dtic.mil
12. General Dictionary Definition from Multiple Sources (i.e., globalsecurity.com, denix UXO safety glossary, UXOInfo.com)
13. Formerly Used Defense Sites (FUDS) Program Policy, ER 200-3-1, May 2004
14. National Contingency Plan, 40 CFR Part 300, July 2005.
15. DoD Directive 6055.9, DoD Explosives Safety Board (DDESB) and DoD Component Explosives Safety Responsibilities, July 1996.
16. AFI 13-212, Range Planning and Operations, August 2001.
17. DoD Instruction 4140.62, Management and Disposition of Material Potentially Presenting an Explosive Hazard (MPPEH), December 2004.
18. DoD Instruction 3200.16, Operational Range Clearance, June 2005.
19. DoD Instruction 4715.7, Environmental Restoration Program, April 1996.