



DEPARTMENT OF THE NAVY
COMMANDER NAVY REGION SOUTHWEST
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IN REPLY REFER TO:

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N4513
13 Nov 23

From: Commander Navy Region Southwest
To: Navy Region Southwest Explosive Safety and Environmental Program Managers

Subj: MATERIAL POTENTIALLY PRESENTING AN EXPLOSIVE HAZARD
MANAGEMENT PLAN FOR NAVY REGION SOUTHWEST AND CALIFORNIA

Ref: (a) NAVSEA OP-5, Revision 8, Ammunition and Explosives Safety Ashore
(b) DoD Instruction 4140.62 Change 3, 9 September 2019
(c) DoD 4160.21-M, Change 4, 31 August 2022
(d) DoD 4160.28-M, Change4, 31 August 2022
(e) DTSC Requirements for Generators of Treated Wood Waste Fact Sheet
(f) Title 22, California Code of Regulations Sections 66260.10 and 66261.24(a)(2)(A)

Encl: (1) MPPEH Management Plan
(2) Hazardous Waste Guidance For Expended Shotgun Shell/Cartridges
(3) Management of Waste Wooden Ammunition and Munition Boxes In California

1. Purpose. This Plan establishes criteria for managing and processing material potentially presenting an explosive hazard (MPPEH) and California specific waste disposal requirements for specific material documented as safe within Commander, Navy Region Southwest (CNRSW), per references (a) through (f).

2. Cancellation. CNRSW Region MPPEH Plan of 9 November 17.

3. Background. The potential for MPPEH to present an explosive hazard is the single characteristic that distinguishes it from other Department of Defense (DoD) material to be reused, excessed, recycled, or otherwise disposed. Although other requirements (e.g. trade security, demilitarization, and environmental) may apply to MPPEH and also affect its management, the potential explosive hazards associated with MPPEH make it unique. MPPEH is material that is NOT known with certainty to present an explosion hazard, but may contain hidden explosive material, or minor amounts of explosive material. MPPEH must be assumed to present an explosion hazard until it is visually inspected and/or processed, and certified "safe". Live ordnance that has functioned as designed and unexploded ordnance detonated during clearance or cleanup operations result in a variety of MPPEH. These items require inspection, certification, and disposition. Typical types of MPPEH include, but are not limited to:

a. Used and unused munitions and munition debris, targets, and non-training-related materials collected and removed during routine operational range clearance activities or during munition response actions at other than operational ranges.

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b. Used munitions containers and packaging material not included in a DoD component's established management system and being reused for their intended purpose.

c. Munitions-related material generated as a byproduct of munitions manufacturing, maintenance, and demilitarization.

d. Equipment, drainage systems, holding tanks, piping, ventilation ducts, and building materials (e.g. wood and concrete) that were associated with munitions production, demilitarization, or disposal operations.

e. Soil or other environmental media contaminated with high enough concentrations of explosives such that the materials themselves potentially present an explosive hazard.

f. Specific MPPEH examples include expended base-ejecting artillery projectiles, cluster munition dispensers, flare and signal casings, igniters, smoke grenades, jet assisted takeoff (JATO) motors, rocket tubes, rocket assisted takeoff (RATO) motors, practice munitions, small arms cartridge cases, kinetic penetrators, and shrapnel. Note MPPEH can also be generated off-range, e.g., used munitions containers, packaging material, etc.

4. Scope. This MPPEH Plan (enclosure 1) is applicable to all CNRSW commands, departments, tenants, contractors and non-DoD agencies who generate, handle, transport, or manage military MPPEH, or who have the potential to deal with military MPPEH in such a manner. Enclosures (2) and (3) are applicable to locations in California.

5. Policy. It is CNRSW policy per reference (a) to manage and process MPPEH in support of operational readiness and mission requirements in a way that complies with explosive safety standards and environmental requirements through final disposition. This Plan establishes criteria for managing and processing MPPEH. These criteria are intended to protect personnel and property from unintentional exposure to potential explosive hazards associated with material being transferred within or released from DoD control. The effective management of MPPEH prevents unauthorized use, transfer, or release of MPPEH from DoD control, transfer or release of MPPEH that will unintentionally present an explosive hazard to either a qualified receiver or the public, and shipment of MPPEH that violates hazardous material transportation regulations. Documentation is key to the safe management of MPPEH. Documentation allows certification, chain of custody, and explosives safety status to be tracked and known at all times. MPPEH shall not be transferred within or released from DON control unless its explosive safety status has been assessed and documented. MPPEH must be assumed to present an explosive hazard and written procedures covering proper MPPEH management, including assessment and documentation requirements, must be developed and maintained for all MPPEH operations. Contracts and other legal agreements require compliance with the provisions of this Plan, DoD 4140.62, Material Potentially Presenting an Explosive Hazard, DoD 4145.26, DoD Contractor's Safety Manual for Ammunition and Explosives, DOD 4160.21, Defense Materiel Disposition Manual, and DoD 4160.28, Defense Demilitarization Manual, by all who possess, manage, process, or provide MPPEH disposition. Articles, equipment, buildings, or other items that never contained military munition or were never contaminated with explosives do not pose an explosive hazard and are not considered to be MPPEH.

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Chemically treated wood used for ammunition and munition packaging and expended shotgun cartridges meet California hazardous waste criteria and must be managed properly. Reference enclosure (2) “Hazardous Waste Guidance for Expended Shotgun Shell/Cartridges” and enclosure (3) “Management of Waste Wooden Ammunition and Munition Boxes in California for additional management information.

6. ACTION AND RESPONSIBILITIES. While each Installation Commanding Officer has full responsibility for MPPEH generated at their activity, all CNRSW Programs (Ranges, Weapons, Force Protection, Explosive Ordnance Disposal (EOD), Explosives Safety, Environmental, etc.), tenants, and contractors who deal with MPPEH share the responsibility for compliance with this Plan and reference (a) in a manner that supports operational readiness and mission requirements. The effective management of MPPEH shall prevent: (1) unauthorized use, transfer, or release of MPPEH from Navy control; (2) a transfer or release of MPPEH that will unintentionally present an explosive hazard to either a qualified receiver or the public and; (3) shipment of MPPEH that violates hazardous material transportation regulations; (4) illegal waste disposal in California.

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COMMANDER NAVY REGION SOUTHWEST (CNRSW)

MATERIAL POTENTIALLY PRESENTING AN EXPLOSIVE HAZARD (MPPEH) MANAGEMENT PLAN



13 November 23

CNRSW MPPEH MANAGEMENT PLAN

1. MPPEH Types and Processing. Typical types of MPPEH include, but are not limited to:

(1) Used and unused **military munitions (also referred to as ammunition and explosives)** and munitions debris, targets, and non-training-related materials collected and removed during routine operational range clearance activities or during munitions response actions at other than operational ranges.

(2) Used munitions containers and packaging material not included in Department of Defense (DoD) component's established management system and being reused for their intended purpose.

(3) Munitions-related material generated as a byproduct of munitions manufacturing, maintenance, and demilitarization.

MPPEH processing includes any action or operation involving MPPEH, including but not limited to: collecting, consolidating, sorting, segregating, separating by metal type, inspecting, storing, decontaminating, transferring, certifying, releasing, demilitarizing, (shredding, shearing, chopping, crushing, flattening, cutting, melting), and transporting materials. MPPEH processing is considered an operation involving ammunition and explosives handling, until the material is assessed and documented as safe. Storage of MPPEH is considered ammunition and explosives storage, and must comply with established criteria for such storage. Expended small arms cartridge cases not certified as safe are subject to the reduced storage and siting requirements disclosed in NAVSEA OP-5, paragraph 7-5.5.

(1) Locations used to process MPPEH must have site approval, based on the maximum potential explosives safety hazards that the material is known or expected to present, in accordance with NAVSEA OP-5, paragraph 8-1.2-1.

(2) Locations used for processing MPPEH shall be sited as an exposed site (ES), at not less than intraline distance (ILD) from surrounding potential explosion sites (PES), or a PES when the MPPEH has not been certified or has been certified as posing an explosive hazard.

(3) Areas where MPPEH is processed or stored must be designated as restricted areas in accordance with NAVSEA OP-5, paragraph 2-2.2, and posted in accordance with NAVSEA OP-5, paragraph 7-4.4 until the MPPEH is certified safe.

(4) The hazard classification and net explosive weight of MPPEH shall be based on characteristics of the type of MPPEH involved, its packaging (if any), and the estimated amount of explosives potentially present.

(5) Expended small arms ammunition cartridge cases may be processed as a non-explosive operation prior to being assessed and determined safe, provided that they are screened before processing. Screening is intended to ensure that only .50-caliber and smaller expended cartridge cases are present, and to remove unused cartridges. Screening will be done by locally determined methods included in approved written operating procedures. After the expended small arms cartridge cases have been screened, they must be placed in a closed container and kept in a controlled location, but they do not need to comply with NAVSEA OP-5, paragraphs 13-15.3.2 through 13-15.3.5.

(6) MPPEH shall be covered or stored in closed containers to prevent commingling and exposure to or the collection of precipitation, and the quantity and time MPPEH is accumulated and retained at any location should be minimized.

(7) For MPPEH that is derived from munitions debris and range-related debris, activities should give first consideration to the practicability of providing a closed-circuit process managed by a single entity that maintains a chain of custody and accountability from collection through release from Department of the Navy control before considering other alternatives. Vent or expose any internal cavities of MPPEH, to include training or practice munitions, to confirm that an explosive filler is not present and to prevent the buildup of pressure if the material is later heated. Procedures used to achieve venting include use of shaped charges, crushers, drills, saws, etc. Attended, production, and/or sited venting procedures shall be developed with an engineering design based on a mishap risk assessment (MRA) in accordance with NAVSEA OP-5, paragraph 7-7.3. MPPEH may be transferred within an installation (e.g. between the host and tenant commands or within a command) if both parties agree with the transfer, the maximum explosives safety hazards that it is known or suspected to present is documented on transfer paperwork, the transfer complies with all other safety requirements, including the tagging and marking requirement of NAVSEA OP-5, paragraph 2-1.14.3 and the material is not moved over public routes.

2. Material Documented as Safe (MDAS). MDAS is MPPEH that has been assessed and documented as not presenting an explosive hazard and for which the chain of custody has been established and maintained. This material is no longer considered to be MPPEH. The explosives safety status of MPPEH shall be determined by: visual inspection which requires a 100 percent inspection by one qualified individual, followed by an independent 100 percent re-inspection by another; processing by a DoD Explosive Safety Board (DDESB) approved technical method with appropriate post processing inspection (e.g., sampling, etc.) of the material; application of expert knowledge on a case-by-case basis as approved by Navy Ordnance Safety and Security Activity (NOSSA). A MDAS certification statement shall be signed and dated by a qualified government employee or DoD contracted individual. This documentation is only valid if the material listed is properly segregated and secured, and the chain-of-custody is maintained until material release from DoD control.

(1) MDAS may contain residual explosives; however, these residues shall not be in concentrations or configurations sufficient to pose an explosive hazard. Items shall only be classified as MDAS through visual inspection when every surface is visible and capable of being inspected. Visual inspection is only applicable to pieces of metal that have no cavities, holes, blind spaces, rivets, cracks, or other obscured features. Probes shall NOT be used to inspect any blind cavities. Probes shall NOT be used to satisfy inspection requirements for purposes of documentation as having an explosives safety status of safe.

(2) Technical methods to process MPPEH for safe certification purposes must be approved by NOSSA and DDESB and include, but are not limited to, thermal processing (that is, furnace, hot fire flashing, hot gas decontamination) and chemical treatments. Before implementation, approved method procedures should also be evaluated by environmental staff to determine if a permit is required for hazardous waste treatment. Quality control/quality assurance methods include thermocouples, explosives-treated coupons, infrared thermometers, swab samples, and colorimetric methods. The post processing sampling inspection may range from an approved plan for one item, to a robust quality control and quality assurance program, depending on the scope and hazards for the effort.

(3) MDAS must be segregated in a location with controlled access, preferably a locked facility. MDAS may be released for further demilitarization (for example, mutilating, crushing, smelting) only if the integrity of the containers and the chain of custody is maintained, and the explosives safety status documentation accompanies the material during transfer within or release from DON control. **All containers used to store MDAS shall be marked “MDAS” on the outside of the container.**

3. Material Documented as an Explosive Hazard (MDEH). MDEH is MPPEH that cannot be documented as MDAS, that has been assessed and documented as to the maximum explosive hazard the material is known or suspected to present, and for which the chain of custody has been established and maintained. This material is no longer considered to be MPPEH.

a. MPPEH that cannot be documented as MDAS includes material that:

(1) Has been examined and no contamination can be visually noted on accessible surfaces, but explosives may be present in concealed housings or other hidden areas such as internal cavities or devices that contain explosives. These items are not safe to be treated with open flame, high temperature heating devices, cutting devices, or hammering devices unless the maximum potential safety hazards that the material is known or expected to present are addressed.

(2) Is expected to be free of an explosion hazard, but not enough information is available to certify it as safe. This may be because: There are potentially internal cavities or devices that contain explosives; the material has not been 100 percent inspected, or; the certification process has not been completed to the point of documentation with dual signatures.

(3) Is known or suspected to pose an explosive hazard.

b. Visual inspections supporting an assessment that material is MDEH are often augmented by probes, sensors, color reagents, or other aids. These inspections are only effective if the person performing the inspection is properly qualified and certified for the specific type of MPPEH being examined and the aids employed.

4. MDAS Certification. Certification documentation for MDAS will consist of a designation letter (required to be updated annually) and a Disposal Turn-in Document DD Form 1348-1, or a local form as authorized by the commanding officer. MDAS certification documentation must identify each material type. For example, expended 9mm brass, mixed metal range gleanings, ammunition/munition container or expended Mk76 practice bombs. **Retain copies of all documents supporting explosives safety status of the material as MDAS (signed DD Form 1348-1, designation letter, and any other documents associated with inspection and/or re-inspection of material) for a minimum of three years.** If the required documentation is incomplete or lost, or if the chain of custody is compromised, this material is no longer considered MDAS and reverts back to MPPEH.

a. Documentation as MDAS requires dual signatures on the certification documents that are supplied by individuals that meet the criteria of NAVSEA OP-5, paragraphs 13-15.7 and 13-15.8. The first signature may be provided by either a DoD employee or DoD contractor. The second signature must be provided by a U.S. citizen who may be either a DoD employee or a DoD contractor and independent of the first inspector. Each of the two signatures must be directly above the typed or clearly stamped or legibly printed full name, rank/rate/grade, complete organization name and address, and phone numbers (commercial and DSN) of the respective inspector, as follows:

(1) For material being visually inspected, the first signatory (i.e. certifier) must have performed a 100 percent inspection and the second signatory (i.e., verifier) must have performed an independent 100 percent re-inspection.

(2) For material undergoing NOSSA and DDESB approved technical methods, the first signatory must have performed or witnessed the DDESB-approved processing of the material and the second signatory must have conducted an independent quality assurance inspection of processed material using the approved methodology. In addition to the signatory's data outlined above, the technical method and approval letter must be cited in block 27 "ADDITIONAL DATA" of the DD Form 1348-1, or on the authorized local form.

(3) All MDAS documentation shall include the following statement: **"The material listed on this form has been inspected or processed by DDESB-approved means, as required by DoD policy, and to the best of my knowledge and belief does not pose an explosive hazard"**.

5. MDEH Certification. Certification documentation for MDEH will consist of a designation letter, and Disposal Turn-in Document DD Form 1348-1, a DD Form 2271 (Decontamination Tag), or a local form as authorized by the commanding officer.

a. Documentation as hazardous requires 100 percent visual inspection. When an initial inspection by a qualified and authorized person determines that the material is hazardous, a second independent inspection is not required, and the certification shall be prepared by the inspector. The certification document must provide information about:

(1) Type of explosive hazard or contamination.

(2) Presence of un-vented cavities.

(3) Estimated maximum net explosive weight.

(4) MDEH certifications shall include the following statement: **“This certifies that the material potentially presenting an explosive hazard listed has been 100 percent properly inspected and to the best of my knowledge and belief presents an explosive hazard”**. The MDEH certification statement may be modified or augmented as required.

b. Each signatory must ensure the chain of custody was maintained before signing the certification documentation. **Retain copies of all documents supporting explosives safety status of the material as MDEH (signed DD Form 1348-1, designation letter, and any other documents associated with inspection and/or re-inspection of material) for a minimum of three years.** If the required documentation is incomplete, lost, or if chain of custody is compromised, this material is no longer considered MDEH and reverts back to MPPEH.

c. Containers of material whose explosive safety status has been documented will have permanent marking and labeling, and container seals which are identified on the supporting documentation of type I/II traceable seals traceable to the individual and unit. The contents must be identified on the outside of the container and traceable seals should follow procedures similar to those for ordnance container traceable seals required by NAVSUP P-805 for ready-for-issue ammunition. Large items, such as plant equipment, will have permanent weatherproof tags, or painted or engraved markings traceable to the certification document. Documentation of the material’s explosives safety status must accompany MDAS and MDEH during transfer within or release from Department of the Navy (DON) control. Defense Logistics Agency (DLA) Disposition Service or contracts may impose additional certification requirements.

6. Chain of Custody. In order to maintain the chain of custody, do not commingle MPPEH, MDAS, and/or MDEH. Should commingling occur such that chain of custody cannot be verified, MDAS and/or MDEH shall lose its documented explosives safety status and become MPPEH. To prevent commingling, use a suitable combination of controls such as separate storage location within the storage site, moveable signs and ribbon barriers, checklists, standardized container numbering system with unique identifiers, locked gates, locked or sealed and secured containers, waterproof certification documents attached to boxes, weatherproof container markings or labels, container seals traceable to the transfer documentation, type I/II traceable seals traceable to the individual and unit or other locally determined methods. Methods to ensure the veracity of the chain of custody for MDAS and MDEH (and prevent commingling) may include a combination of such controls but must be documented in written operating procedures. Maintain a chain of custody for MDAS using documentation including approved written operating procedures, labels, and transfer documents (for example, Disposal Turn-in Document DD Form 1348-1).

7. Personnel Designated to Assess And Document Explosives Safety Status. Personnel who are qualified and authorized to inspect MPPEH and document its explosives safety status as MDAS or MDEH, will be so designated in writing by direction of their commanding officer or officer-in-charge (OIC). The designation letter must list the personnel who are qualified and authorized to assess and document the explosives safety status of MPPEH, identify all types of MPPEH they are authorized to inspect, and include sample signatures. **A copy of this designation letter must be provided to any DLA Disposition Service or qualified recycling program (QRP) receiving MDAS and be updated annually based on the issue date.**

When the material's explosive safety status is being assessed and documented by an unexploded ordnance (UXO) contractor under a contract with Naval Facilities Engineering Systems Command (NAVFAC) or Base Realignment and Closure (BRAC) Program Management Office (PMO), the UXO contractor's project manager must make this designation in writing to the cognizant Facilities Engineering Command (FEC) or BRAC PMO. The cognizant Commanding Officer or Director must then endorse the designation letter to the appropriate DLA Disposition Service, QRP, or as specified in the associated Explosives Safety Submission and/or contract.

8. Qualification and Certification for Personnel Authorized to Process MPPEH. Processing of MPPEH is considered handling or physically interacting with ammunition and explosives. All DON personnel who are responsible to process, inspect, and document MPPEH as either MDAS or MDEH must be qualified in accordance with ammunition and explosives handlers' qualification and certification program for those tasks. Reference NAVSEA OP-5, paragraph 2-3.2. All contracted personnel who possess, manage, process, or provide disposition of MPPEH or MDEH must be qualified receivers of MPPEH. See definition of qualified receiver in NAVSEA OP-5, appendix A. Training to support personnel certification shall be tailored to the specified MPPEH to be processed, inspected, or documented as to the explosives safety status and shall include: Recognition and safe handling of used and unused military munitions of the type to be handled; Demilitarization and trade security controls and procedures for release from DoD control that apply to the type of material to be handled and; Management (for example, marking, segregating, securing), processing, and transportation of MPPEH of the type to be handled. The training portion of the qualification requirements can be met by a mixture of formal classroom training, computer based training, and on-the-job training. **NAVSEA OP-5, appendix D contains additional web-based MPPEH training requirements.**

9. Special Considerations.

a. If possible, expended shotgun cartridges that have been certified as MDAS in accordance of written standard operating procedures should be turned into DLA disposition service or a QRP facility. However, if DLA or QRP will not accept them, expended shotgun cartridges that do not exhibit hazardous waste characteristics may be disposed of as solid waste (general trash). **In California certain expended shotgun cartridges contain residual toxic heavy metals that exceed California regulatory hazardous waste threshold limits and are prohibited from being disposed in solid waste general trash dumpsters. See enclosure (2) "Hazardous Waste Guidance For Expended Shotgun Shell/Cartridges" for additional management information.**

b. Small arms lead projectiles or shot that have been fired at ranges used solely for small arms ammunition are not considered MPPEH when they are collected for recycling purposes. Small arms lead projectiles or shot are normally recycled as scrap metal and are exempt from hazardous waste management regulation. If these materials are not properly managed and recycled, however, they may become hazardous waste as indicated in OPNAV M-5090.1 (2021).

10. Empty Containers and Packaging Materials.

a. Unless specifically addressed by exceptions in NAVSEA OP-5, paragraph 11-1.5.1, all containers are subject to this paragraph that were previously used for ammunition and explosives are considered MPPEH until certified as MDAS or MDEH and must be managed as such. **Prior to release from DON control to DLA or a QRP for disposition, all empty containers, except small arms ammunition containers, must be marked with the word "EMPTY" and previous markings removed or obliterated.** See NAVSEA OP-5, paragraph 11-1.5.2 for marking requirements for empty munitions containers to be shipped to other DON or DoD component activities for storage, reuse or salvage. Empty containers that previously held ammunition and/or explosives may be repurposed to another use supporting operational needs if:

(1) The containers are 100 percent visually screened for the presence of munitions by two different individuals in accordance with approved written operating procedures.

(2) All markings associated with the original contents are obliterated. If paint is used to obliterate markings, ensure paint does not contain toxic metals.

(3) The containers are stenciled or labeled on two opposing sides reflecting their current use or repainted in a manner that clearly indicates that they have been repurposed and do not contain ammunition and/or explosives.

If all of these conditions are met, documentation of the explosives safety status of the repurposed containers is not required.

b. Approved cardboard, plastic, and plywood containers and packaging materials for HC/D 1.4S materials may be discarded as solid waste (that is, general trash) provided that the following criteria are met:

(1) The items are 100 percent visually screened for the presence of munitions by two different individuals in accordance with approved written operating procedures.

(2) All previous markings are removed or obliterated. If paint is used to obliterate markings, ensure paint does not contain toxic metals).

(3) The items are broken down or otherwise deformed so that they may not be used for their original purpose.

(4) There are no environmental regulations precluding such disposal. **California state Hazardous Waste (HW) regulations could preclude disposal as a solid waste. NAVSEA OP-5 implies wooden ammunition containers are not HW under federal requirements of Resource Conservation Recovery Act (RCRA), a waste determination still needs to be made regarding state HW regulations. California regulations define HW characteristic of 'toxicity' differently than RCRA. Therefore, if wooden munition containers are chemically treated, they must be evaluated to determine if they meet California toxicity criteria. A waste that is not a HW under RCRA, but is a HW under California law, is often referred to as non-RCRA HW. Reference enclosure (3) "Management of Waste Wooden Ammunition and Munition Boxes in California" for additional management information.**

c. Approved cardboard, plastic, and plywood containers and packaging material items may be discarded as solid waste (that is, general trash) provided that the following criteria are met:

(1) The items are 100 percent visually screened for the presence of munitions by two different individuals in accordance with approved written operating procedures.

(2) All exterior markings and color that indicate munitions or explosives must be obliterated. If paint is used to obliterate markings, ensure paint does not contain toxic metals.

(3) The items are broken down or otherwise deformed so not to conceal a munition nor be for their original purpose.

(4) There are no environmental regulations precluding such disposal; **California HW regulations could preclude disposal as a solid waste. NAVSEA OP-5 implies wooden ammunition containers are not HW under federal requirements of RCRA, a waste determination still needs to be made regarding state HW regulations. California regulations define HW characteristic of ‘toxicity’ differently than RCRA. Therefore, if wooden ammunition containers are chemically treated, they must be evaluated to determine if they meet California toxicity criteria. A waste that is not a HW under RCRA, but is a HW under California law, is often referred to as non-RCRA HW. Reference enclosure (3) “Management of Waste Wooden Ammunition and Munition Boxes in California” for additional management information.**

11. Movement and/or Transportation.

a. Prior to on-site movement, MPPEH must be evaluated and determined to be safe to move as follows:

(1) For munitions response operations, as outlined in NAVSEA OP-5, paragraph 14-8.1.1.

(2) For other than munitions response operations, based on the potential explosive hazard posed by the item and as authorized by the commanding officer, by explosive ordnance disposal, UXO qualified personnel, or technically qualified and authorized personnel.

b. MPPEH is will not be transported over public traffic routes (PTR). Limited MDAS or MDEH transported over PTR as long as the documentation of its explosive safety status accompanies the shipment. If the shipment contains hazardous materials other than explosives, appropriate hazard classification of the hazardous materials classification assignments must accompany the shipment. Expended small arms and ammunitions casings (ESAAC) and associated munitions related material (e.g. containers, links) may be transported over PTR as a nonexplosive operation under limited MDAS determination prior to being fully assessed and determined safe, provided that they are screened before transporting. Screening is intended to ensure that only .50-caliber and small expended cartridge casings are present, and to remove unused cartridges. The following conditions apply:

(1) Screening of ESAAC’s and associated munition-related material will be conducted in accordance with approved written procedures.

(2) The material is 100 percent visually inspected for the presence of unfired rounds by two different individuals. Due to the narrow focus of this effort and nature of the potential explosive hazard, individuals are not required to have designation letters or MPPEH and Military Munitions Rule training listed in NAVSEA OP5 Table D-1.

(3) Limited MDAS determinations documented on a DD Form 1348-1 or locally developed screening form prior to transport. Documentation will contain the names of the two individuals performing the screening, the date, and type of material being screened and will be retained until the material returns to the Navy installation and all of the limited MDAS material is properly certified and verified as MDAS.

(4) Once material is returned to a Navy Installation it will be properly assessed and documented as safe by personnel who meet the requirements of paragraph 13-15.7 and paragraph 13-15.8 before it is released from Navy control.

(5) Empty small arms ammunition containers returned to a Navy installation using these screening procedures will also meet empty container requirements of NAVSEA OP-5 13-15-10.

(6) Collected unfired rounds will be repackaged into the original container, managed as the appropriate hazard classification, and returned to the supporting Navy ordnance activity (e.g., Navy Munitions Command).

c. MDEH shipments shall not be transported over public traffic routes unless determined safe for transport by qualified and authorized personnel in accordance with NAVSEA OP-5, table 14-1.

(1) For MDEH other than munitions and explosives of concern, explosive ordnance disposal, UXO Technician III or higher (as defined by TP 18) or personnel who the commanding officer or responsible authority certifies as technically qualified may be authorized, based on the material type, to make such a determination. For example, personnel documenting the explosives safety status of ammunition containers, packaging materials, or expended small arms ammunition cartridge cases shall satisfy minimal qualifications and could be trained to perform the required task through on-the-job training. In contrast, individuals documenting the explosives safety status of range-related debris from range clearance activities require extensive formal training and levels of experience commensurate with UXO Technician III qualifications.

(2) These personnel will provide a signed "safe to transport" certification that must accompany the shipment.

(3) MDEH that cannot be shipped in accordance with an existing hazard classification, must not be transported over public traffic routes until an interim hazard classification (IHC) is obtained from NOSSA. Note that IHCs are not required for MDEH transported as hazard Class/Division 1.1 in military vehicles as outlined in NAVSEA OP-5, table 14-1. If required, hazard classification assignments must also accompany the shipment.

12. Release of MPPEH. No MPPEH shall be sold or transferred, unless it is MDAS or assessed and determined to be MDEH. MDEH may only be transferred or released to a qualified receiver. See definition of qualified receiver in NAVSEA OP-5, appendix A.

13. Demilitarization of MDAS and Turn-in to DLA Disposition Service.

a. Demilitarization is often a separate requirement from documenting the explosives safety status of the material. MPPEH is often determined to be MDAS before demilitarization. Demilitarization emphasizes removing the capability to reuse munitions for their original purpose, and meeting trade security requirements. In some cases, a demilitarization requirement (such as venting or burning) may be satisfied before the material can become MDAS.

b. Compliance with DLA demilitarization requirements for purposes of meeting trade security controls and other controls on munitions list items beyond certification of an explosives safety status of safe are not covered here. Contact NOSSA or MARCORSYSCOM PM Ammo for assistance in resolving any conflicts between Navy and DLA requirements.

c. DLA Disposition Service issue specific demilitarization requirements in DoD 4160.21- and DoD 4160.28 for all MPPEH.

d. When using DLA to provide disposition of MDAS, documentation must be provided according to DLA guidance as contained in DoD 4160.21 and DoD 4160.28. In addition, all MDAS must be assessed and documented as safe per NAVSEA OP-5, paragraphs 13-15.7 and 13-15.8.

e. Refer to DoD 4160.28-M and related DLA guidance for minimum demilitarization requirements for MPPEH in addition to the requirements for MDAS as described herein. Note: scrap metal is often collected, stored for some time, then sold and resold. Once MDAS enters the recycling stream, the mere appearance of being a live munition may result in confusion and callbacks to military explosive ordnance disposal personnel to remove a perceived explosion hazard. Therefore, demilitarization should, to the greatest extent possible, process MDAS until a reasonable person will not mistake it for a munition item.

14. Recycling MDAS in the Qualified Recycling Program.

a. A written, explosives Mishap Risk Assessment (MRA) (see NAVSEA OP-5, paragraph 7-7.3) or Operational Risk Management (ORM) assessment in accordance with OPNAVINST 3500.39 will be performed before any QRP may receive MDAS. The results of the MRA or ORM assessment will be used to develop approved written procedures for processing MDAS prior to transfer to the QRP. Formal, exhaustive, quantitative risk assessments are normally not required for routine processing of material that is eligible for the QRP.

b. The MRA or ORM assessment will identify: The nomenclature and description of the MDAS and the potential explosive hazard associated with the MDAS. The MRA or ORM assessment will evaluate the adequacy of the QRP training, oversight, record keeping, processing methods, equipment, and storage facilities. The MRA or ORM will be reviewed by the cognizant Explosives Safety Office (ESO) for approval at the command level.

c. Only the following material is eligible for the QRP:

(1) Expended small arms ammunition cartridge cases which includes .50 caliber (12.7mm) and below.

(2) Mixed metals gleaned from range clearance as follows:

- Empty metal small arms ammunition (.50 caliber and below) containers that have been damaged and are not acceptable for reuse.

- Metal packaging and crating material, such as banding and pallet skids.

- Munitions debris consisting of unrecognizable fragments of metal and metal ammunition clips and links.

- Metal debris from non-Munitions List Item (MLI) or Commerce Control List Item (CCLI) targets consisting of unrecognizable pieces and fragments of metal. Any debris resulting from a target that was designed to resemble a munitions item must be deformed or otherwise destroyed so that it cannot be misidentified as a munitions item. Such material is considered most likely to be free of explosive contamination, by its nature, and thus most suitable for turn-in to the QRP following MDAS certification.

d. Anything requiring demilitarization (reference definition in NAVSEA OP-5, appendix A) or that is an MLI or a CCLI, is not QRP eligible, with the exceptions noted above. In addition, prior to public sale via a QRP: Expended small arms cartridge cases must be crushed, shredded, deformed, or otherwise destroyed prior to public sale, and debris from targets must be flattened or otherwise altered so that it cannot possibly contain a munitions item.

e. Only MDAS is acceptable for transfer to the QRP for direct sale, or to DLA Disposition Services for sale to reimburse the QRP.

f. QRP personnel who may receive expended small arms ammunition cartridge cases or mixed metals gleaned from range clearance must be trained at a minimum to do the following:

- Recognize QRP eligible material.

- Verify signatures on all turn-in documents, such as Disposal Turn-in Document DD Form 1348-1, against the current list of personnel authorized to certify as safe.

- Visually inspect certified QRP eligible material, and recognize potential explosives safety hazards.

- Respond properly if an unsafe condition is identified.

g. The QRP must develop written operating procedures for MDAS management that ensure chain of custody and MDAS documentation requirements are met. These written procedures are particularly important if the following occur to MDAS at the QRP prior to release from DON control.

h. Crushed, shredded, deformed, or otherwise destroyed, or

i. Re-containerized or otherwise consolidated.

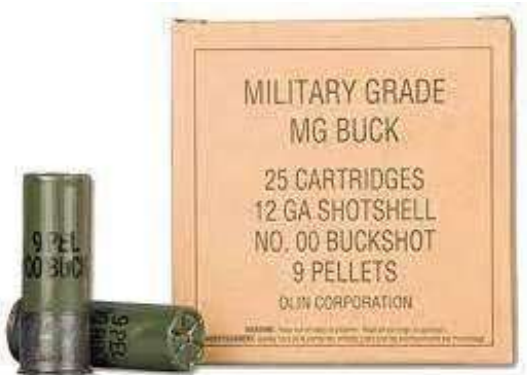
j. Include the following Dangerous Property Statement on turn-in documentation in addition to the safe certification:

- Purchasers are cautioned that articles or substances of a dangerous nature may remain in the property regardless of the care exercised to remove same. The U.S. Government assumes no liability for damages to property of the Purchaser or for personal injury, disability or death of the Purchaser, its employees, or to any other person arising from or affiliated with the purchase, use or dispositions of this material. The purchaser shall hold the U.S. Government harmless from any and all such demands, suits, actions, or claims arising from or otherwise relating to the purchase of this material.

15. Reporting MPPEH Incidents. Explosive incidents involving MPPEH or MDEH, or unauthorized transfer or release of uncertified MPPEH or MDEH, or transfer or release of MPPEH that presented an unintentional hazard to a qualified receiver, shall be immediately reported. For Naval incidents, notify NOSSA at DSN 354-6003 or fax DSN 354-6749. NOSSA is responsible for reporting to higher authorities as required. For Marine Corps incidents, notify MARCORSYSCOM at DSN 378-8781/8780. Contractors will report such incidents in accordance with DoD 4145.26 requirements for Mishap Investigation and Reporting. This requirement is in addition to the applicable requirements in NAVSEA OP-5, paragraph 1-5.3 for reporting explosive mishaps and incidents.

HAZARDOUS WASTE GUIDANCE FOR EXPENDED SHOTGUN SHELL/CARTRIDGES

- Installations that operate small arms ranges generate expended shotgun shell/cartridge waste streams.



- Once a shotgun shell/cartridge is expended, it must be managed by trained individuals as a Material Potentially Presenting an Explosive Hazard (MPPEH) until certified as Material Documented as Safe (MDAS).
- After MDAS certification, expended shotgun shell/cartridges must be identified and managed either as a hazardous waste or a solid waste.
- Certain expended shotgun shell/cartridges are prohibited from being disposed in solid waste trash dumpsters as they contain residual toxic heavy metals that exceed California regulatory hazardous waste threshold limits.
- Munition Department of Defense Identification Codes (DODIC) A017, A023, AA54 exceed hazardous waste threshold limits and must be managed as a hazardous waste in California.
- Munition DODIC A011 did not exceed California regulatory hazardous waste threshold limits and may be managed as a solid waste.

- Expended shotgun shell/cartridges determined to be a hazardous waste must be placed in approved containers by trained individuals and properly labeled as a hazardous waste according to hazardous waste labeling requirements.



- All hazardous waste containers must be staged in approved hazardous waste accumulation areas.



MANAGEMENT OF WASTE WOODEN AMMUNITION AND MUNITION BOXES IN CALIFORNIA

Introduction:

[This guidance does not address explosive safety procedures required by NAVSEA OP prior to disposal]

When ready for disposal, wooden **military munition (also referred to as ammunition and explosives)** boxes that are treated with chemical preservatives registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) that exhibit the characteristics of toxicity under California hazardous waste regulations are considered **Treated Wood Waste (TWW)** in California. Waste ammunition & munition boxes should be presumed to be a hazardous waste (HW) unless toxicity testing demonstrates otherwise.

Boxes that are HW must be managed, and disposed of, in accordance with the **Alternative Management Standards (AMS)** or as **non-RCRA HW**. However, if it can be demonstrated that ammunition & munition boxes do not exhibit the characteristics of toxicity through a waste determination ⁽¹⁾, they may be disposed of as solid waste. In addition, waste boxes that were never chemically treated are not TWW and can be disposed of as solid waste without toxicity testing.

Munition Boxes as TWW:

Stamps on the outside of the boxes provide information on the type of treatment and chemical preservatives used for the treatment. Make sure to check the entire box for stamps, even the underside. Stamps observed to-date on munition boxes:

- **HT:** Heat Treated (no chemical treatment)
- **PA:** Copper-8-quinolinolate
- **PB:** Zinc naphthenate
- **PC:** Copper naphthenate
- **PD:** Mixture of propiconazole, tebuconazole, imidacloprid, and borate

Boxes treated with other FIFRA-registered chemicals, such as pentachlorophenol (PCP or P stamp), for which there is no supporting lab data, should be managed as **Presumptive HW or complete a new waste determination.**¹

Based on recent analyses (refer to Table 1), waste munition boxes treated with PA, PB, PC, and PD must be managed as follow:

- **AMS or Non-RCRA hazardous waste:** Boxes with PA or PC stamps
- **Solid waste:** Boxes with PB or PD stamps

Boxes stamped with **only HT** (no other stamps observed anywhere on the box) are not considered TWW and can be disposed of as solid waste.

***Note:** New waste determinations are needed if the demilitarization process introduces a new characteristic (e.g. painting over boxes with paint containing toxic metals), and/or waste ammunition boxes have been treated with chemicals (e.g. fire retardants) other than, or in addition to, the ones addressed here.*



(1) Waste determination must include the following tests: Total Digestion (compare results to Total Threshold Limit Concentration (TTL) values), Waste Extraction Test (WET - compare results to Soluble Threshold Limit Concentrations (STLC) values), and the Acute Aquatic Toxicity (per 22 CCR 66262.24).

AMS Requirements (Health and Safety Code (HSC) 25230 – 25230.18):

AMS requirements present alternative standards that are less stringent than hazardous waste requirements for the compliant management of TWW, i.e. non-RCRA hazardous waste ammunition boxes (PA and PC). These requirements are summarized below:

- **Storage and accumulation time (HSC 25230.6):**
 - Off the ground and protected from precipitation: 90 days
 - Containment pad with impervious surface and protected from precipitation: 180 days
 - Closed containers/dumpsters: 1 year (or 90 days after being filled)
 - Inside a storage building: 1 year
 - Prevent unauthorized access

- **Labeling (HSC 25230.5(b)):**
 - Each unit or area used for the accumulation of TWW must be labelled ⇒

- **Transportation and offsite disposal (HSC 25230.7 & 25230.8)**
 - Hazardous waste manifest not needed – use a non-hazardous shipping paper and keep records for 3 years
 - Transporter doesn't need to be a hazardous waste hauler - contact your solid waste service provider
 - TWW can be taken either to a Class 1 hazardous waste landfill or to a **composite-lined solid waste landfill that is authorized by the Regional Water Quality Control Board** to accept TWW (click [here](#) for the list of authorized landfills)

- **Prohibited activities (HSC 25230.4)**
 - Do **not** burn, scavenge, commingle with non-hazardous waste
 - Do **not** treat (can only resize for containerizing purposes and sawdust generated by resizing must be managed under AMS or as HW)
 - Do **not** grind, sand, chip for mulch
 - Do **not** paint over, remove, obliterate, deface or destroyed stamps identifying the boxes as TWW
 - Do **not** allow contact with the ground during accumulation

- Do **not** dispose at a landfill that is not a hazardous waste landfill or is not authorized to accept TWW (*Note: Miramar Landfill is not an authorized landfill for TWW; it accepts non-hazardous wood waste as “Special Waste” – Click [here](#) for more information*)

- **Notification requirements (HSC 25230.9)**
 - DTSC must be notified **within 30 days** when **10,000 lbs** of TWW have been generated within a calendar year, based on location identified by EPA ID. Project managers accumulating and disposing of TWW must coordinate with the Installation EV staff.
 - A copy of the notification form can be found on the next page; it can also be found online here: <https://dtsc.ca.gov/tww-handler-notification-form/>

<p>“TREATED WOOD WASTE - Do not burn or scavenge.</p> <p>Treated Wood Waste Handler Name and Address:</p> <p>_____</p> <p>_____</p> <p>Accumulation Date: _____</p>

- **Training requirements (HSC 25230.12)**
 - Training must include: procedures for ID & segregating TWW; safe handling practices; requirements of AMS; proper disposal method

FOR ADDITIONAL SUPPORT, CONTACT YOUR INSTALLATION ENVIRONMENTAL TEAM OR THE CORE EV1.3 TEAM



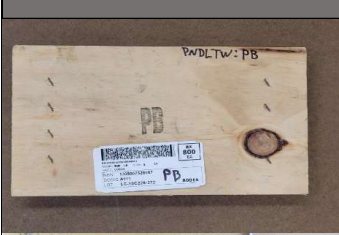

TREATED WOOD WASTE NOTIFICATION

Date:	
TWW Generator Name:	
EPA ID Number:	
Mail Label:	
Mailing Address 1:	
Mailing Address 2:	
City:	
State:	
Zip Code:	
TWW Contact, First Name:	
Last Name:	
Telephone:	
TWW Activity:	
Street/Location 1:	
Street/Location 2:	
City:	
State:	
County:	
Zip Code:	
E-mail Address:	
Date Exceeded 10,000 lbs:	

Please email completed form to: tww_help@dtsc.ca.gov

By submitting this notification, I am indicating that I am a duly authorized representative of this TWW Handler and that the TWW Handler has generated more than 10,000 pounds of TWW this calendar year.

Table 1: Munition Boxes – Analytical Waste Determination and Management Options - Analytical reports available on [EV1.3 Sharepoint](#)

CODE	TREATMENT DESCRIPTION	TTLIC	STLC	AqTox - LC 50	TCLP	MANAGEMENT
	PA Copper-8-quinolinolate (aqueous)	< thresholds	< thresholds	Failed	< thresholds	non-RCRA HW
	PC Copper Naphthenate (Note: gives the wood a greenish tint)	Failed for Copper (NBC)	Failed for Copper (Camp Pendleton)	> 750 mg/l	< thresholds	non-RCRA HW
	PB Zinc Naphthenate (aqueous)	< thresholds	< thresholds	> 750 mg/l	< thresholds	Solid waste
	PD Mixture of propiconazole, tebuconazole, imidacloprid, and borate (aqueous)	< thresholds	< thresholds	> 750 mg/l	< thresholds	Solid waste
<p>Based on analyses conducted by Camp Pendleton (*) and NBC / Explosive Safety (**)</p> <p>(*) Total Threshold Limit Concentration (TTLIC) values, Waste Extraction Test (WET) for Soluble Threshold Limit Concentration (STLC) values, acute aquatic toxicity, and Toxicity Characteristic Leaching Procedure (TCLP) on PA, PB, PC, PD</p> <p>(**) TTLIC on PB, PC, PD</p>						