

Department of the Army
 Devens Reserve Forces Training Area
 Devens, Massachusetts 01434-4424
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Environmental Protection and Enhancement
HAZARDOUS WASTE ACCUMULATION AREA (HWAA)
STANDARD OPERATING PROCEDURE

HISTORY. This is the initial publication of this procedure under the Devens Reserve Forces Training Area (Devens RFTA).

SUMMARY. This procedure covers the management of hazardous waste accumulation areas at Devens RFTA.

APPLICABILITY. This procedure applies to all Devens Reserve Forces Training Area (Devens RFTA) directorates, staff activities, military and civilian organizations, government agencies, contractors, and individuals training, doing business, conducting research, or otherwise using Devens RTFA facilities. It is both informative and directive in nature.

SUGGESTED IMPROVEMENTS. The proponent of this memorandum is the Directorate of Public Works (DPW) Environmental Division. Users are invited to send comments and suggested improvements on Department of the Army (DA) Form 2028 (Recommended Changes to Publications and Blank Forms) to Commander, Devens RFTA, ATTN: IMNE-DEV-PWE, Devens, MA 01434-4424.

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CHAPTER 1. INTRODUCTION

1-1. Purpose. The purpose of this procedure is to discuss the regulatory requirements that comply with Army, state and federal regulations.

1-2. Applicability. Intended users of this guidance are the managers and operators of hazardous waste accumulation areas located on the Devens Reserve Forces Training Area (Devens RFTA).

1-3. Scope. Implementing regulations for this procedure are found in Title 40 of the Code of Federal Regulations (CFR) Part 264, and Title 310 of the Code of Massachusetts Regulation (CMR), Chapter 30.

CHAPTER 2. DEFINITIONS AND ACRONYMS

2-1. Definitions. The following terms are used in this standard operating procedure.

- a. Generator—The person having leadership capacity for an organization or activity whose operations produce waste oil or hazardous waste.
- b. Hazardous Waste—A solid waste that is either listed at 310 CMR 30.131 through 30.136 as a hazardous waste, or is characterized as hazardous for ignitability, corrosivity, reactivity, or toxicity, as defined at 310 CMR 30.120 through 30.125B.
- c. Hazardous Waste Accumulation Area—This is also called a 90-day area, a location for collecting and staging hazardous waste for no more than 90 days.
- d. Regulated Waste Site—A location for collecting or staging hazardous waste.

2-2. Acronyms.

Acronyms	Terms
CFR	Code of Federal Regulations
CMR	Code of Massachusetts Regulations
DRMO	Defense Reutilization and Marketing Office
HWAA	Hazardous Waste Accumulation Area
ISCP	Installation Spill Contingency Plan
TID	Turn-In Document

CHAPTER 3. OVERVIEW OF HAZARDOUS WASTE ACCUMULATION AREAS

a. Federal and state regulations require that during its generation hazardous waste must be properly managed. A waste is hazardous only if it is defined as hazardous by state and federal regulations. There are two categories of hazardous waste—“listed” and “characteristic.” A

waste is a "listed" hazardous waste if it is included on any federal or state lists of hazardous waste. "Listed" hazardous wastes include "F", "K", "P", and "U". Most "listed" hazardous waste will be found on either the "P" or "U" lists (40 CFR Part 261.33). In order to be on the P or U list, a waste must be either a commercial chemical product, a manufacturing chemical intermediate, or an off-specification commercial chemical product or manufacturing chemical intermediate.

b. A waste is a "characteristic" hazardous waste if it exhibits the characteristic of ignitable, corrosive, reactive, or toxic as defined in federal regulations (40 CFR Part 261) and the state regulatory code. Laboratory analysis maybe required to determine if a waste is a characteristic hazardous waste.

c. At Devens RFTA, generators of hazardous waste are accorded certain privileges with respect to collecting and staging such waste prior to transportation for disposal or treatment. One of the options available to generators at Devens RFTA is to be able to store an unlimited number of full containers of a hazardous waste at a hazardous waste accumulation area (HWAA) for a maximum time period of 90 days. Devens RFTA currently has several HWAA's on-site; each is located near the activity where the hazardous waste is generated.

CHAPTER 4. OPERATIONAL STANDARDS FOR HWAA's

4-1. Security. Each activity at Devens RFTA will establish security measures that prevent unauthorized access to hazardous waste within the HWAA. The following minimum security measures are mandatory.

- a. Gated areas must be locked when unattended.
- b. HWAA's must be locked at all times.
- c. Containers must be closed at all times except when adding to or removing from the container. An open container is a violation of state and federal regulations.

To further aid in prevention of a security breach, operators of HWAA's shall follow the inspection procedures described in Chapter 5.

4-2. Spills.

- a. Leaking/deteriorated containers must be transferred to an overpack, or the material in the container transferred to a sound container, as soon as a leak or deteriorated condition such as bulging, seepage, wetness, or other signs of container integrity deterioration is discovered.
- b. In the event of a hazardous waste spill emergency, the generator must immediately activate the Installation Spill Contingency Plan (ISCP), and any special emergency plans specific to the activity's operations. For notification purposes, the discoverer or their supervisor should follow the Devens RFTA Spill Quick Reference in Appendix B. For small spills, which are not

an emergency, the generator should begin clean up and contact the hazardous waste manager for guidance.

4-3. Marking and Labeling of Containers.

a. Labels must be filled out with permanent ink.

b. The generator must label the container with a Massachusetts approved hazardous waste label as soon as the first amount of hazardous waste is placed into the container. The label must be placed on the side of the container facing outward so that an inspector can view it easily. The following information is required.

(1) Name of the waste. Enter the common name of the contents and composition of the waste in the container.

(2) Hazard(s). List the hazard associated with the waste (ignitable, toxic, corrosive, reactive and/or specific hazardous waste numbers such as D001, MA01, or D008).

(3) Accumulation start date. Enter the month/day/year that the container was placed into the HWAA.

CHAPTER 5. INSPECTIONS

a. All HWAA must be inspected weekly by the generator. Inspector should look for the following:

(1) Evidence of container leaks, dents, bulges, punctures, corrosion, or other deterioration, and opened or unsecured lids or bungs.

(2) Proper aisle space, labels oriented toward inspector, and separation of incompatible waste.

(3) Proper container markings and labels.

(4) Sufficient supply of spill response materials, and proper functioning of emergency equipment.

b. Inspection results must be documented and kept on file for three years. All noncompliance issues should be corrected at once, and inspection results maintained at the activity, with a copy forwarded to the hazardous waste manager monthly.

CHAPTER 6. WASTE SEPARATION AND SEGREGATION

6-1. Segregation of Waste Types.

- a. Hazardous wastes are not to be mixed in the same container with any other type of hazardous or non-hazardous waste or with any other material.
- b. Separate containers are required for each type of waste that is generated or accumulated. For example, waste oil, brake fluid, solvent, and antifreeze will each require a separate container.

6-2. Separation of Containers.

- a. Aisle spacing must be sufficient to allow inspection of each row of containers. Containers must be oriented so that a waste handler, inspector, or firefighter may easily read the label.
- b. Aisles for ignitable or reactive hazardous waste containers must be at least 4 feet wide.
- c. Containers holding ignitable or reactive hazardous waste must be placed within 12' of the aisle.
- d. Containers equal to or smaller than 5 gallons may be stacked no more than two containers high. Containers larger than 5 gallons are not to be stacked.

6-3. Segregation from Materials. Usable materials, hazardous or non-hazardous, are not to be kept within the HWAA.

6-4. Separation of Incompatible Wastes.

a. Incompatible Wastes.

(1) Within the HWAA, certain hazardous waste may react with one another to create dangerous conditions such as heat, fire, explosion, or poisonous vapors. These vapors are considered to be chemically incompatible.

(2) Hazardous material compatibility rules are located in Appendix A. These rules are included only as a reminder that not all hazardous wastes are alike. Incompatibility is part of the reason wastes are called hazardous.

(3) Activities that generate waste or use hazardous materials, must contact the Safety Office for guidance on safe management of chemically incompatible materials and wastes.

(4) Containers of incompatible wastes must be placed in separate sections of the HWAA.

b. Compatible wastes.

(1) Certain wastes such as combustibles and flammables (e.g., fuels, lubricants, solvents, paints, and thinners) may be stored together without risk of creating dangerous conditions. These wastes may be kept in the same section of the HWAA. The Safety Officer can determine which of your wastes may be stored together.

6-5. Separation from Ignition or Reaction Sources. Ignitable and reactive wastes must be prevented from igniting or reacting and stored at least 50 feet away from the installation property line. Therefore, if an activity's property includes an installation boundary line, the HWAA for the activity must be placed at least 50 feet away from that boundary line.

CHAPTER 7. CONTAINER MANAGEMENT

7-1. Inventory. The activity must keep at the site a log, which records each container that is placed into or removed from the HWAA.

7-2. Condition. Hazardous wastes must be held in containers, which are in good condition and are compatible with the waste. Containers must be free of leaks, rust, and deterioration, and have no apparent structural defects.

7-3. Open Containers. Hazardous waste containers must be closed at all times. Containers may only be opened when waste is being added or removed, and must be closed immediately afterwards. Open hazardous waste containers are a violation of federal and state hazardous waste regulations.

7-4. Liquid Waste Containers. Liquid wastes are to be held only in tight head (bung-type) drums/containers. To prevent overflow, due to expansion, leave the following headspace:

- a. 55-gallon drum—3 to 4 inches
- b. 5-gallon cans—1.5 to 2 inches
- c. 1 gallon cans—1 inch

7-5. Overpack Containers. An overpack container is used to hold a leaking, corroded, or otherwise deteriorated container. When using overpack containers, adhere to the following guidelines:

a. Overpack containers must be durable, leak proof, and constructed to safely contain the material being placed into it. One of the following options will usually be used:

(1) Liquids. When overpacking containers of liquid wastes, place enough inert absorbent in the overpack container to absorb any liquid that could leak out of the original container.

(2) Solids. When overpacking non-liquid wastes, it is usually sufficient to simply place the damage container in an appropriate overpack container.

(3) The contents of a leaking container may be transferred into a new container instead of overpacking.

b. Overpack containers must be labeled and marked in the same manner as all hazardous waste containers.

c. Overpack containers must be kept closed at all times. Both the lid and the retaining ring must be in place and tightened for the container to be considered closed.

d. For assistance in determining the appropriate size and type of overpack container, or to determine if an emptied container is a hazardous waste contact the hazardous waste manager.

CHAPTER 8. WASTE REMOVAL

a. Containers must be removed from Devens RFTA HWAA to a licensed recycling or disposal facility within 90 days of the accumulation start date.

b. All disposal arrangements must be made through the hazardous waste manager.

c. The process of transporting and disposing of hazardous waste is initiated when the generator moves a container to the HWAA and calls the hazardous waste manager.

d. The generator is strongly advised to complete a Turn-in-document as soon as the drum enters the HWAA. This allows maximum time for processing and also serves to keep track of the drum after it has been placed in the HWAA.

e. Most waste is disposed or recycled through the DRMO at Groton, Connecticut.

f. Turn-in document (TID). A turn-in document, DD Form 1348-1a, with assigned document number must accompany every order for hazardous waste removal.

(1) The hazardous waste manager completes a TID, assigns a document number, and logs in the order.

(2) The hazardous waste manager submits the TID to the DRMO, reports the assigned document number to the generator.

(3) The generator marks the TID document number onto the drum.

OFFICIAL:

Caryn Suzanne Heard
CARYN SUZANNE HEARD
LTC, EN
Commanding

DISTRIBUTION:
Devens Web Site
A, B, C

APPENDIX A. COMPATIBILITY

A-1. General Compatibility Rules.

- a. Reactives must be segregated from Ignitables.
- b. Acids must be segregated from Caustics.
- c. Corrosives should be segregated from Flammables.
- d. Oxidizers should be segregated from EVERYTHING.
- e. Many Corrosives are "Water Reactive".
- f. Most Organic Reactives must be segregated from Inorganic Reactives (metals).

A-2. Hazardous Materials and Their Characteristics.

Ignitables (Flammables/Combustibles)	Corrosives	
	Acids	Caustics
Carburetor Cleaners Engine Cleaners Epoxy, Resins, Adhesives, and Rubber Cements Finishes Fuels Lacquers Paints Paint Thinners Paint Wastes Pesticides that contain Solvents (such as Methyl Alcohol, Ethyl Alcohol, Isopropyl Alcohol, Toluene, Xylene). Petroleum Solvents (Dry-cleaning Fluid) Solvents: Acetone Benzene Carbon Tetrachloride (Carbon Tet) Ethanol (Ethyl Alcohol) Ethyl Benzene Isopropanol (Isopropyl Alcohol) Kerosene (Fuel Oil #1) Methanol (Wood Alcohol) Methyl Ethyl Ketone (MEK) Petroleum Distillates Tetrahydrofuran (THF) Toluene (Methacide, Methylbenzene, Methylbenzol, Phenylmethane, Toluol, Antisal 1A) White Spirits (White Spirits, Mineral Spirits, Naptha) Xylene (Xylol) Stains Stripping Agents Varsol Waste Fuels Waste Ink Wax Removers Wood Cleaners	Battery Acids Degreasers and Engine Cleaners Etching Fluids Hydrobromic Acid Hydrochloric Acid (Muriatic Acid) Nitric Acid (<40%) (Aquafortis) Phosphoric Acid Rust Removers Sulfuric Acid (Oil of Vitriol)	Acetylene Sludge Alkaline Battery Acids Alkaline Cleaners Alkaline Degreasers Alkaline Etching Fluids Lime and Water Lime Wastewater Potassium Hydroxide (Caustic Potash) Rust Removers Sodium Hydroxide (Caustic Soda, Soda Lye)
	Reactive Metals	Reactive Organic Compounds and Solutions
	Oxidizers Chlorine Gas Nitric Acid (>40%), aka Red Fuming Nitric Nitrates (Sodium Nitrate, Ammonium Nitrate) Perchlorates Perchloric Acid Peroxides Calcium Hypochlorite (>60%)	Alcohols Aldehydes Chromic Acids (from chrome plating, copper stripping and aluminum anodizing) Cyanides (from electroplating operations) Hypochlorides (from water treatment plants, swimming pools, sanitizing operations) Organic Peroxides (including Hydrogen Peroxide) Perchlorates Permanganates Sulfides

Source: Environmental Compliance Assessment System (ECAS) Users Guide Series, Compliance in the Field, Appendix 4.

APPENDIX B: SPILL NOTIFICATION AND RESPONSE

B-1. DEVENS RESERVE FORCES TRAINING AREA SPILL QUICK REFERENCE

ONLY THE INCIDENT ON SCENE COORDINATOR OR DPW ENVIRONMENTAL DIVISION WILL MAKE EXTERNAL NOTIFICATIONS OF SPILLS/RELEASES.

POINTS OF CONTACT	TELEPHONE NUMBERS
Incident On-Scene Coordinator (IOSC) – DPW Maintenance Branch Chief	978-796-3778 978-580-0061
Range Control	978-796-2723 978-796-2155
DoD Police	978-796-3333 978-796-3221
Ambulance/Fire Department	9-911
DPW Environmental Division	978-796-3078 978-796-2747 978-796-3665
Safety Office	978-796-2159 978-796-2441 978-360-2553 978-796-2534 (Range Control)
DPW Director	978-796-3665 978-857-2698

OILS & HAZARDOUS MATERIALS SPILLS/RELEASES

- If it can be done safely, contain, identify, and quantify the spill/release.
- If it **cannot** be done safely, relocate to a safe area.
- Contact the Incident On-Scene Coordinator (IOSC) ASAP, providing
 - Identity and quantity of what was released,
 - Location of the spill/release, and
 - What was it spilled on (earth, water, or impervious surface)
- The IOSC will verify if responsible party or contractor should cleanup the spill/release.
- Contact the DPW Environmental Division. If no answer, contact Safety Office.
- DPW Director shall be contacted **only** for information purpose or if the DPW Environmental Division or the Safety Office cannot be reached.

OILS & HAZARDOUS MATERIALS SPILLS/RELEASES AT SOUTH POST

- If it can be done safely, contain, identify, and quantify the spill/release.
- If it **cannot** be done safely, relocate to a safe area.
- Contact Range Control ASAP, providing

- Identity and quantity of what was released,
- Location of the spill/release, and
- What was it spilled on (earth, water, or impervious surface)
- Range Control will contact the Incident On-Scene Coordinator (IOSC) to notify of the spill and verify if responsible party or contractor should cleanup the spill/release.
- IOSC will contact the DPW Environmental Division. If no answer, contact Safety Office.
- DPW Director shall be contacted **only** for information purposes or if the DPW Environmental Division or the Safety Office cannot be reached.

OILS & HAZARDOUS MATERIALS SPILLS/RELEASES DURING OFF-DUTY HOURS

- If it can be done safely, contain, identify, and quantify the spill/release.
- If it **cannot** be done safely, relocate to a safe area.
- If spill/release is located at South Post, follow above steps.
- Otherwise, contact the DoD Police ASAP, providing
 - Identity and quantity of what was released,
 - Location of the spill/release, and
 - What was it spilled on (earth, water, or impervious surface)
- The DoD Police will contact the Incident On-Scene Coordinator (IOSC) and DPW Environmental Division.
- The IOSC will verify if responsible party or contractor should cleanup the spill/release.
- DPW Director shall be contacted **only** for information purposes or if the DPW Environmental Division or the Safety Office cannot be reached.

MEDICAL EMERGENCIES

- If there is an injury or medical emergency, call for an ambulance.
- If emergency is located at South Post, contact Range Control ASAP.
- Otherwise, contact the DoD Police ASAP.
- If environmental-related, contact the Incident On-Scene Coordinator and the DPW Environmental Division.
- DPW Director shall be contacted **only** for information purposes or if the DPW Environmental Division or the Safety Office cannot be reached.

