Nevada
Army National Guard

Hazardous Waste Management Plan 2011

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1.0 INTRODUCTION

This Hazardous Waste Management Plan (HWMP) prescribes responsibilities, policies, and procedures for accumulating and managing hazardous materials and hazardous wastes while emphasizing Pollution Prevention within the Nevada Army National Guard (NVARNG). Required by Army Regulation 200-1, *Environmental Protection and Enhancement,* this Plan is written to ensure NVARNG compliance with applicable federal, state, and local laws and regulations. This HWMP is a general plan encompassing all NVARNG Facilities managing, handling, and storing hazardous materials/waste in the State of Nevada. It is to be used in combination with the appropriate training mandated by Federal and State law.

1.1 Purpose and Scope

This HWMP documents the NVARNG hazardous waste management program, and also selected elements of the NVARNG hazardous material management program that relate to minimizing waste generation (hazardous material inventory control, procurement, and storage). The procedures included in this plan are designed to comply with applicable requirements, as well as to minimize hazardous material (HM) usage and the associated hazardous waste (HW) generation. This plan applies to:

- All activities and units under the command of the NVARNG**.**
- Any other activity that disposes of waste while using NVARNG training sites.
- Training conducted outside of Nevada or on active duty installations within the State, unless the Standard Operating Procedure (SOP) for the host activity dictates otherwise.
- All contractors working for the NVARNG**.**

1.2 Applicable Regulations

1.2.1 Federal Regulations

The Federal Facilities Compliance Act of 1992 requires the NVARNG to comply with all Federal, State, and local HW management regulations. The NVARNG must, therefore, manage its waste in accordance with (IAW) the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments (HSWA). The Federal waste management regulations are codified in Title 40 of the Code of Federal Regulations (40 CFR). These regulations are enforced by the United States Environmental Protection Agency (USEPA). The Nevada Division of Environmental Protection (NDEP) however, is authorized to enforce Federal hazardous waste regulations in Nevada in lieu of the USEPA. This plan provides procedures for complying with the following parts of 40 CFR:

- Part 260 through Part 272 for the regulation of HW;
- Part 273 for the regulation of universal waste; and
- Part 279 for the regulation of used oil.

While this plan indirectly supports compliance with 49 CFR Parts 170 through 177 (U.S. Department of Transportation [USDOT]), 29 CFR Part 1910 (Occupational Safety and Health Administration [OSHA]), 40 CFR 700 through 766 (Toxic Substance Control Act or TSCA), and Executive Order (EO) 13423

(Greening of the Government through Leadership in Environmental Management), it is not intended to be the primary compliance document for these program components.

1.2.2 State Regulations

The Nevada Division of Environmental Protection (NDEP) enforces Nevada-Specific regulations for generating and managing HW. State HW regulations are codified in Nevada Revised Statutes (NRS) Chapter 459 and Nevada Administrative Code Chapter 444.

1.2.3 Military Regulations

This HWMP provides procedures for complying with the policy and major program requirements of Army Regulation (AR) 200-1 Chapter 10 (Waste Management) and some of the major program requirements of AR 200-1 Chapter 11 (Storage Tank Systems/Oil and Hazardous Substance Spills) and Chapter 9 (Materials Management).

1.2.4 Local Regulations, Ordinances, and Codes

AR 200-1 (Army Environmental Protection and Enhancement Regulation) requires compliance with local environmental regulations. Consult the Environmental Management Office (EMO) regarding local regulations. In the absence of specific regulations, use Best Management Practices (BMPs) to prevent hazardous chemical releases to the environment.

1.3 Responsibilities

1.3.1 Construction and Facilities Management Officer (CFMO)

The CFMO:

- Prepares a phased and orderly plan and schedule for improving facilities that presently do not meet the requirements of this Plan, including estimating program costs for improving facilities;
- Provides broad-based guidance and supervision to the EMO;
- Assures that proposed facility and real estate actions are reviewed for environmental consequences and that appropriate National Environmental Policy Act (NEPA) documentation is prepared;
- Coordinates all construction projects to provide the facilities necessary to maintain compliance with the Hazardous Waste Management Program;
- Coordinates with Joint Force Headquarters (JFHQ), the Major Commands, and Training Site/Facility Managers on matters related to protection and preservation of the environment;
- Assures that complaints concerning the possible degradation of the environment by NVARNG are fully investigated and cooperation is given to regulatory agencies; and
- Serves as a member of the Environmental Quality Control Committee (EQCC).

1.3.2 State Environmental Program Manager (EPM)

The EPM:

- Serves as an advisor to the Adjutant General (TAG), Headquarters Staff, the Commands, Training Site/Facility Managers in matters concerning the NVARNG Environmental Program, as well as federal, state, and local regulatory requirements;
- Participates as a primary member of the EQCC;
- Directs and monitors implementation of this plan;
- Serves as advisor to the Adjutant General, the Chief of Staff, and the NVARNG on this plan;
- Reviews this plan and modifies HW handling procedures as requirements or regulations warrant;
- Budgets and plans for environmental training; and
- Ensures that all required environmental reports are prepared and submitted in a timely manner.

1.3.3 State Compliance Program Manager (CPM)

The CPM:

- Serves as an advisor to the EQCC;
- Interprets laws and regulations related to HW management;
- Serves as liaison to federal, state, and local regulatory agencies regarding waste management issues;
- Works directly with the Environmental Officer (EO) to provide technical assistance, including HM and HW management;
- Conducts annual internal assessments of facilities that store, use, or handle HM or accumulate HW;
- Advises the EO of local regulations or contractor requirements that may be more stringent than the requirements of this plan;
- Periodically reviews chemical inventories to identify opportunities to substitute less hazardous or non-hazardous chemicals when practical;
- Arranges for waste sampling and analysis as needed and establishes an ongoing waste analysis program;
- Classifies waste in accordance with federal and/or NDEP HW rules and regulations;
- Identifies proper descriptions to be used on labels and HW manifests and proper container marking and labeling for each type of waste;
- Obtains and manages EPA identification numbers for NVARNG HW generators;

- Prepares all waste-related reports required by federal, state, DoD and local regulations and by NVARNG policies; and
- Acts as Program Manager for the hazardous waste management budget and executes funds as required.

1.3.4 Facility Managers (Armory, FMS, CSMS, AASF, Training Sites)

Facility Managers:

- Ensure that all oil and hazardous materials are correctly used, stored, and otherwise handled to avoid or minimize the possibility of spills;
- Appoint on orders and as an additional duty a primary and alternate EO.

1.3.5 Activity and Unit Commander

The Activity and Unit Commander:

- Assigns a primary and (if possible) an alternate EO;
- Forwards the EO assignment letter to the Environmental Management Office;
- Ensures that the EO is familiar with the requirements of his/her job;
- Provides the EMO with updated EO assignments;
- Ensures that supplies and equipment are authorized for each maintenance facility for HW management and spill response.
- Promotes recycling and Pollution Prevention.

1.3.6 State Maintenance Worker

The State Maintenance Worker:

- Complies with the requirements of this regulation and the responsibilities as listed below for the Environmental Officer as they apply to State Maintenance functions.

1.3.7 Environmental Officer (EO) for the Activity

The EO for the Activity:

- Implements the procedures established by this plan;
- Screens HM procurement and requisitions;
- Functions as a liaison on all environmental issues between the unit and the EMO;
- Provides briefings as necessary to unit/activity personnel regarding this plan;

- Ensures requirements of the Spill Prevention, Control, and Countermeasures Plan (SPCC) are fulfilled;
- Ensures compliance with local environmental regulations;
- Files and maintains waste management documents;
- Notifies the EMO of changes to operations, including process changes, new waste streams, chemicals used, and chemicals stored; and
- Promotes recycling and pollution prevention in managing HM and HW.

1.3.8 Environmental Officer (EO)

The EO:

- Contacts activity EOs to discuss and coordinate environmental requirements for using facilities away from the home station;
- Ensures requirements of the Spill Prevention, Control, and Countermeasures Plan (SPCC) are fulfilled;
- Provides briefings as necessary to unit personnel regarding this plan; and
- Implements the requirements and procedures established by the CPM and this Plan at the unit level.

1.4 Reviews & Revisions

The EMO will review this plan and will update material and waste handling procedures as requirements or regulations warrant.

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2.0 HAZARDOUS MATERIALS MANAGEMENT

Distribution and proper management of HM prior to its use is the responsibility of the Defense Logistics Agency and Army National Guard Logistics Division; and the process is described in AR 710-2, *Inventory Management Supply Policy below the Wholesale Level*. However, Chapter 9 of AR 200-1, describes major program requirements for HM management to reduce or eliminate those materials from entering the environment. HM management is an integral part of HW management. Additionally, the DOD Green Procurement Program (GPP) requires that each DOD organization that initiates contracting and/or procurement actions or credit card purchases is responsible for complying with GPP purchasing mandates. The DOD goal is to achieve 100% compliance with mandatory Federal GPP programs in all acquisition transactions.

2.1 Hazardous Materials Program Overview

This section addresses the aspects of NVARNG HM management program that directly affect the NVARNG's goal of pollution prevention (P2) and waste minimization. These are:

- Compliance with GPP purchasing mandates;
- Procurement of HM;
- Storage of HM;
- Use and Management of Material Safety Data Sheet (MSDS) Information;
- HM Accumulation Compatibility;
- Inventory Control; and
- Shelf Life management.

2.2 What is HM?

The term "hazardous material" (HM) often refers to a broadly defined group of chemicals or products. HM can be loosely defined as any chemical or product that is delivered with an MSDS. When in doubt, check with the SSO for specific guidance on the use and handling of individual chemicals or materials. The EMO can also provide specific turn-in guidance for chemicals or materials not specifically covered in this plan.

HM is in the glossary of AR 200-1 as:

a) any item or chemical which is a health hazard or physical hazard as defined by OSHA in 29 CFR 1910.1200;
b) any item or chemical which is reportable or potentially reportable or notifiable as inventory under the Toxic Chemical Release Reporting: Community Right-to-Know Act (40 CFR 372); or
c) any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard and is regulated as such by USDOT, International Maritime Dangerous Goods Code of the International Maritime Organization, Dangerous Goods Regulations of the International Air Transport Association, Technical Instructions of the International Civil Aviation

Organization, or U.S. Air Force Joint Manual, Preparing Hazardous Materials for Military Air Shipments.

***Table 2-1*: Typical Hazardous Materials Characteristics**

1. The item is a health or physical hazard. Health hazards include carcinogens, corrosive materials, irritants, sensitizers, toxic materials, and materials which damage the skin, eyes, or internal organs. Physical hazards include combustible liquids, compressed gasses, explosives, flammable materials, organic peroxides, oxidizers, pyrophoric materials, unstable (reactive) materials, and water-reactive materials.

2. The item and/or its disposal is regulated by the host nation because of its hazardous nature.

3. The item contains asbestos, mercury, or polychlorinated biphenyls (PCBs).

4. The item has a flashpoint below 93°C (200°F) closed cup, or is subject to spontaneous heating or is subject to polymerization with release of large amounts of energy when handled, stored, and shipped without adequate control.

5. The item is a flammable solid or is an oxidizer or is a strong oxidizing or reducing agent with a standard reduction potential of greater than 1.0 volt or less than -1.0 volt.

6. In the course of normal operations, accidents, leaks, or spills, the item may produce dusts, gases, fumes, vapors, mists, or smokes with one or more of the above characteristics.

7. The item has special characteristics which in the opinion of the manufacturer or the DoD Components could cause harm to personnel if used or stored improperly.

Reference: OSHA 29 CFR 1910.1200

2.3 Hazardous Materials Storage

Reference: **TM 38-410, Joint Services Manual (JSM) for Storage and Material Handling**

To minimize hazards to personnel and property, unit personnel must properly check in new products and maintain current stocks of HM. This Section provides guidance for storing HM in storage lockers, rooms, and buildings, as well as on storage racks. In addition, it provides special guidelines for storing compressed gases.

- ✓ Do **not** store tools or personal items in any HM storage location.
- ✓ Do **not** store combustible materials, such as cardboard, paper, or rags with flammable HM.
- ✓ Do **not** store flammable or reactive HM within 50 feet of the property boundary.
- ✓ Do **not** store HM in trailers, vehicles, personal wall lockers, near floor drains, or in areas with high foot or vehicle traffic.
- ✓ Do **not** store pesticides in any HM storage locker.
- ✓ Do **not** use wood to construct additional or replacement shelving.
- ✓ Do **not** place or accumulate HW in any HM storage location.

2.3.1 Selecting HM Storage Units

Select the appropriate type of storage unit for your HM:

- For small quantities of commonly used HM, use storage lockers.
- For large quantities of HM, use HM boxes with built-in secondary containment or use storage rooms, buildings, or racks.

As a general rule, store up to one-gallon containers (e.g., jugs of Break-Free, cans of paint) in lockers. Store larger containers, (five-gallon diesel cans, 55-gallon drums) in rooms or buildings or on racks.

NOTE A wooden building without secondary containment or a MILVAN (CONNEX) is not an appropriate storage unit.

2.3.2 Storage Lockers

When setting up storage lockers, also refer to ***Table 2-5***, **Storage Segregation Matrix**.

Use storage lockers in the work area to store daily amounts of commonly used HM, such as grease tubes, quart oil cans, aerosol cans, etc. Only National Fire Protection Association (NFPA) Code 30, approved storage lockers should be used. NFPA does not require that a cabinet be grounded, but many manufacturers provide a grounding screw as a convenience.

The locker color depends on the HM being stored:

***Table 2-2*: Locker Types and Colors**

HM Type	LOCKER COLOR
	YELLOW
	BLUE
	RED
	GREEN

Be sure to keep lockers clean and orderly and to maintain all structural integrity and hardware, including doors, hinges, and shelves. Do not remove the door or ventilation bungs, penetrate the wall, modify ventilation, or otherwise modify the locker. Keep locker doors closed when materials are not being transferred.

To set up a locker, use the following steps:

1. **Select a location for the locker:**

   - Locate the locker indoors in a well-ventilated space near where the HM will be used, or outdoors under cover.
   - Maintain easy access to the locker.
   - Do not block doors.
   - Do not place a locker near break rooms, bathrooms, offices, or other occupied non-shop areas.
   - Do not place lockers near floor drains or areas with high foot or vehicle traffic.
   - Properly ground lockers that will hold flammable materials if it can be done, as a best management practice

2. **Assign a four-character identifier to the locker and mark it on the front top right corner. This identifier will consist of two parts:**

   - An abbreviation indicating the type of locker, as noted below:

     FL – Flammable Locker

     CL – Corrosive Locker

     OL – Oxidizer Locker

     PL – Pesticide Locker

   - A two digit sequential number **(see note on Page 2-6)**

3. **Organize the locker:**

   - Determine how much space you will need for each HM.
   - Ensure that materials within the locker are orderly and that no containers are open.
   - Place a piece of duct tape along the entire front edge of each shelf and mark the shelf ID number on the duct tape in the center of the shelf space allotted for each item.

NOTE	Each locker must have a unique number identifier. Do not use identifiers more than once in any building. If you share an area with another unit, coordinate numbers so as not to use the same identifier.

4. Moving from top to bottom and left to right in each storage unit, assign a two-digit sequential shelf number for each type of HM. For example, assign each container of Product X as 01, Product Y as 02, etc.
5. Use the four-character storage locker number and the two-digit shelf number to assign a Storage Location Number (SLN) to each container. For example, FL01 (locker number) and 01 (shelf location number).
6. Mark each Material Safety Data Sheet (MSDS) with the complete SLN.
7. Post a sign on the locker door to indicate where MSDSs are located.
8. Complete a ***Hazardous Material Inventory Form*** (Section 12.0 – Forms) and place it in a plastic sleeve taped to the inside of the locker door.
9. Post any warning signs required by the EMO and SSO. Do not place unauthorized signs, labels, stickers, or markings on the locker.
10. Ensure that an appropriately rated fire extinguisher and spill response equipment is located nearby. If a corrosive liquid is stored in a locker, ensure that an emergency eye wash/shower station is located nearby.

2.3.3 Storage Rooms and Buildings

You must receive written approval from the SSO and EMO to establish a HM storage room or building or to modify an existing location.

Keep rooms and buildings clean and orderly, and maintain their structural integrity and hardware, including doors, hinges, and shelves. Do not remove doors, penetrate walls, modify ventilation, or otherwise modify the room or building.

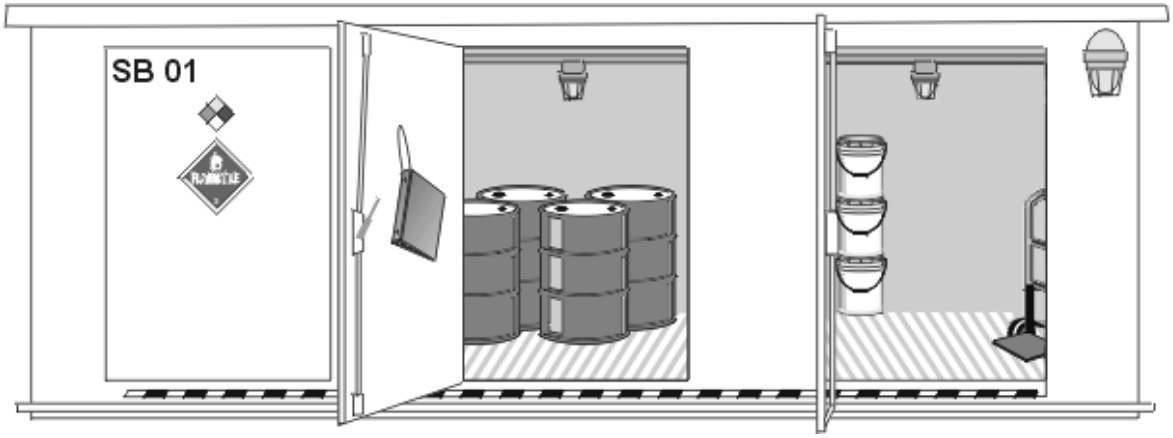
To set up a storage room or building, complete the steps below:

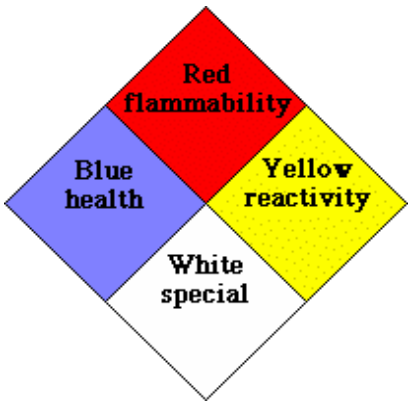
1. Have the SSO and EMO inspect and approve the location before use.
2. Provide primary and secondary containment. Secondary containment must equal the capacity of the largest container stored within the area plus 10 percent.
3. Ensure that an appropriately rated fire extinguishers and spill response equipment are located nearby. If a corrosive liquid is stored in a locker, ensure that an emergency eye wash/shower station is located nearby.
4. Assign a four-character identifier to the room or building and mark it on all the doors. This identifier will consist of one of the abbreviations below and a two-digit sequential number (for example, SB01):

SR – Storage Room **SB – Storage Building**

NOTE	Each room or building must have a unique number identifier. Do **not** use identifiers more than once. If you share your room or building with another activity, coordinate numbers so as not to use the same identifier.

5. Use the four-character storage locker number and the two-digit shelf number to assign a Storage Location Number (SLN) to each container. For example, SB01 (building number) and 01 (shelf location number).
6. For non-shelved HM in rooms or buildings, assign the numbers in the order the HM appears on the rack or floor.
7. Mark each Material Safety Data Sheet (MSDS) with the complete SLN.
8. Post a sign on the room or building door to indicate where MSDSs are located.
9. Complete a ***Hazardous Material Inventory Form*** and place it in a plastic sleeve taped to the door.
10. Post any warning signs required by the SSO and EMO. Do not place unauthorized signs, labels, stickers, or markings on the room or building.





a. NFPA 704 Hazard Diamond Classification System:

This color-coded system is characterized by the "diamond shape" that is actually a "square-on-point" shape. It identifies the hazards of a material and the degree of severity of the health, flammability, and instability hazards. This diamond should be placed on the outside of a storage locker or building to identify hazards. Hazard severity is indicated by a numerical rating that ranges from zero (0) indicating a minimal hazard, to four (4) indicating a severe hazard. The higher the number, the higher the hazard. The hazards are arranged spatially as follows: health at nine o'clock position, flammability at twelve o'clock position, and instability at three o'clock position. In addition to the spatial orientation that can be used to distinguish the hazards, they are also color-coded as follows: blue for health, red for flammability, and yellow for instability. See **Table 2-3** below for more in depth information on NFPA 704 and how to rate each hazard**.**

***Table 2-3*: NFPA 704 Hazard Classification Rating System**

Health Hazard	
4	Can cause death or major injury despite medical treatment.
3	Can cause serious injury despite medical treatment.
2	Can cause injury. Requires prompt treatment.
1	Can cause irritation if not treated.
0	No hazard.

Flammability	
4	Very flammable gasses or very volatile flammable liquids.
3	Can be ignited at normal temperatures.
2	Ignites if moderately heated.
1	Ignites after considerable preheating.
0	Will not burn.
Instability	
4	Readily detonates or explodes
3	Can detonate or explode but requires strong initiating force or heating under confinement.
2	Normally unstable but will not detonate.
1	Normally stable. Unstable at high temperature and pressure. Reacts with water**.**
0	Normally stable. Not reactive with water.
Special Hazard	
~~W~~ **OX**	denotes the material is water reactive OX denotes an oxidizing agent

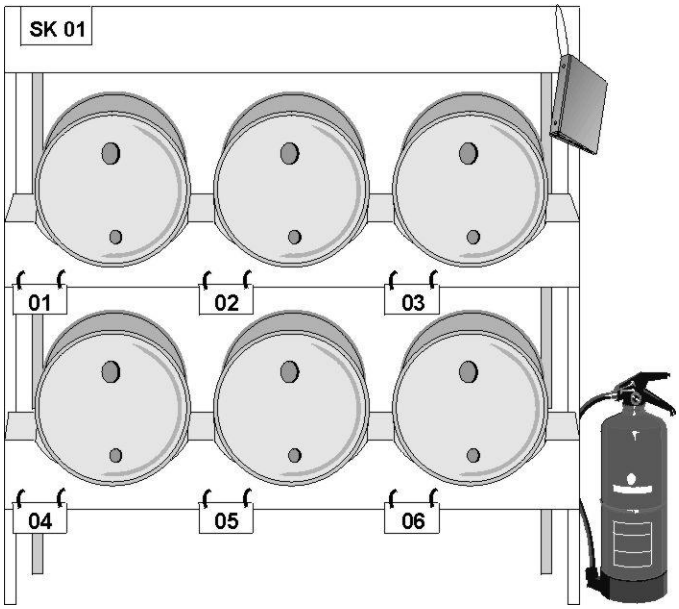
2.3.4 Storage Racks

You must receive written approval from the EMO and SSO to establish a storage rack or to modify an existing location.

To set up a storage rack, follow this procedure:

1. Have the SSO and EMO inspect and approve the location before use.
2. Provide primary and secondary containment. Secondary containment must equal the capacity of the largest container stored within the area plus **10%**. Place drip pans under dispensing faucets or valves.
3. Ensure that appropriately rated fire extinguishers and spill response equipment are located nearby. If a corrosive liquid is stored, ensure that an emergency eye wash/shower station is located nearby.
4. Assign a four-character identifier and mark it on the rack or on a sign posted at the rack. This identifier will consist of the abbreviation **SK** and a two-digit sequential number (for example, SK01).
5. Use the four-character storage locker number and the two-digit shelf number to assign a Storage Location Number (SLN) to each container. For example, SK01 (rack number) and 01 (rack location number).
6. Post any warning signs required by the SSO and EMO. Do not place unauthorized signs, labels, stickers, or markings on the rack.

NOTE Each rack must have a unique number identifier. Do **not** use identifiers more than once. If you share a rack with another activity, coordinate numbers so as not to use the same identifier.



2.3.5 Storage for Compressed Gases

NOTE	This section does **not** apply to fire extinguishers or spray cans.

If you are storing compressed gases, you must follow these additional guidelines. A compressed gas is packaged under charged pressure and must be handled with extreme care, particularly the flammable and explosive gases.

CAUTION	Do **not** accept, issue, or use a cylinder unless the contents are identified.

To set up storage for compressed gases, follow this procedure:

1. Select or construct a safe area.

- Use noncombustible or limited-combustible materials to construct shelves, racks, and floors in storage areas, designing them so they support the weight of the cylinders.
- Ensure a complete change of air at least six times each hour**.**
- Use chains or other devices to anchor the cylinders to a stable structure so they do not fall over.

NOTE	Contact the SSO for specific guidance when selecting a compressed gas storage area.

If you are storing gas cylinders outdoors, follow these construction guidelines:

- Store gas cylinders in a covered, open-sided shed on an above-grade concrete slab, if the climate is favorable and security is adequate.
- Construct sheds of light, non-combustible materials.
- Do not heat sheds.
- Separate storage facilities from other buildings by at **least 50 feet**.
- Store gases that support combustion in segregated sheds separated from other gases by **50 feet**.
- Ensure a complete change of air at least six times each hour, if the shed has one or more walls.
- Keep storage areas clear of dry vegetation and combustible materials for at least **15 feet.**
- Keep cylinders out of the sun, off the ground, and away from surfaces where water can accumulate.
- Protect storage areas from vehicle traffic.

2. Lock storage areas to prevent unauthorized entry.
3. Post the following signs for safety:
    - "NO SMOKING" signs
    - Hazard identification signs at all entrances
4. Do not allow open flames within 50 feet.
5. Label cylinders IAW MIL STD-101. Tag or label filled cylinders with the proper name and two stock numbers – one for the gas and one for the cylinder.

NOTE	Do not alter or remove labels applied by the gas manufacturer or mark on cylinders.

6. Store cylinders carefully using these guidelines:
    - Store cylinders securely so they do not fall over.
    - Store liquefied flammable gas cylinders upright so the pressure relief valve directly communicates with the vapor space of the cylinder.
    - Store cylinders containing oxygen at least 20 feet from fuel cylinders.
    - Do **not** place chains or other items around the valve or the neck of the cylinder.
    - Do **not** place cylinders where they could become part of an electrical circuit.
    - Do **not** drop cylinders or permit them to strike against each other violently.
    - Organize all cylinders by compatibility. Separate combustible materials from other materials by at least 20 feet or isolate them with a minimum five-foot high barrier made of non-combustible material having a minimum 30-minute fire resistance rating. See the "Determining Hazardous Material Compatibility" section in Section 3 for more information.
7. **Include compressed gas cylinders in the hazardous material inspection program. When you inspect cylinders, check the following items:**
    - Ensure that the valve outlet connectors of both full and empty cylinders have an authorized dust cap.
    - Ensure that oxygen cylinders are free from grease and oil.
    - Tag empty cylinders as "empty" and store them with the valves closed and away from full cylinders.

    If you must move cylinders, note the following precautions:

    - Close valves before moving cylinders.
    - Do **not** lift cylinders by the valve protection cap.

- Do **not** lift cylinders by cranes or mechanical lifts unless fastened in proper containers, racks, and cradles.
- Do **not** use rope and chain slings or electromagnets to lift cylinders.
- Only handle, ship, or store cylinders if they have valve protection caps, except for the following cylinder types:

  –small cylinders of less than 40-pound capacity

  –"ram-bottom" type cylinders

  –cylinders with less than 625 cubic inches of volumetric capacity, such as medical gases

2.4 Managing Hazardous Materials

2.4.1 Removing Unwanted and Unserviceable Hazardous Materials

Unless a facility is new or is starting to manage HM for the first time, the HM storage units will probably already contain items. You need to check storage areas and remove the following items:

- Old rusty containers
- Unwanted or unserviceable HM
- Unlabeled or unidentifiable material that might be hazardous

NOTE	Clean house – don't waste time re-labeling and storing HM that will never be used.

Follow the procedures below to identify and remove unwanted or unserviceable HM:

1. Walk through your facility and identify HM no longer needed or wanted. In addition to existing HM storage units, check any other areas where HM may have been used. If an existing HM inventory is available, take it to help identify unwanted or unused items.
2. Based on the quantity of HM identified during the walk-through, designate a HM unit (or units) to temporarily store the turn-in items.
3. Tag the HM containers to identify them as turn-in items.
4. Follow the turn-in procedures described in Section 5.

NOTE	Turning in HM is an ongoing process. When you set up the HM management system, consider leaving shelf or floor space in one or more of your existing HM storage units as a permanent place for accumulating turn-in items.

2.4.2 Replenishing Hazardous Material Stock (Procurement Process)

It is the goal of NVARNG to substitute HM with less hazardous or non-hazardous materials, in accordance with the GPP purchasing mandates and **(**NVARNG**)** Pollution Prevention goals. All HM are procured through the USP&FO or other means of open purchase.

The Supply Sergeant screens requisitions of HM as much as practical using the following procedures:

1. After performing the inventory, check on-hand quantities of HM against HIGH and LOW quantities to determine excess or shortages.

2. If there is an excess or shortage, call the USP&FO Warehouse Manager. Another activity may need excess or have excess to be given. If not, the USP&FO will direct the turn in of excess or order new HM.

3. If no other activity can use the excess, turn in the HM in accordance with Section 5.

4. If no other activity can replenish the shortage, follow procurement procedures to make the purchase.

5. When restocking HM storage units, arrange the containers so the oldest items are in the front. Remember: FIRST in, FIRST out.

2.4.3 Using Material Safety Data Sheets (MSDSs)

MSDSs are fact sheets for a particular material and are required by Federal law to contain the following information:

- Name of the hazardous chemical or mixture and its ingredients;
- Physical hazards of the hazardous chemical (e.g., vapor pressure, flashpoint, etc.);
- Health hazards of the hazardous chemical (e.g., symptoms of exposure, medical conditions that are aggravated by exposure);
- Precautions for safe handling; and
- Emergency and first aid procedures.

An MSDS must be available for every HM in use at a location. Activity and Unit Commanders must ensure that MSDSs and any Hazardous Materials Information Resource System (HMIRS) data are maintained and are available for viewing and copying by all appropriate personnel.

MSDSs provide the compatibility information for specific HMs. In addition, they include information about associated hazards, specific handling procedures, and spill response measures. This section explains how to assign numbers in order to match a HM with its MSDS.

Each HM locker, room, building, or rack must have a binder containing MSDSs for all HM stored in that unit. This binder must be located at or near the storage unit and must be organized so you can locate a needed MSDS quickly.

Follow the steps below to create MSDS binders for HM storage units. When you finish, each storage unit will have an MSDS binder with numbered MSDSs for each HM stored in the unit.

1. Gather MSDSs for each HM stocked in the storage unit.

2. Moving from top to bottom and left to right in each storage unit, assign a two-digit sequential number for each type of HM. For example, assign each container of Product X as 01, Product Y as 02, etc. (See Section 2 for details in setting up storage units.)

For storage racks and non-shelved HM in rooms or buildings, assign the numbers in the order the HM appears on the rack or floor.

NOTE	Assign numbers to the MATERIAL, not the container. For example, there may be10 eight-ounce bottles and 10 one-gallon buckets of Product X. Assign all 20 containers the same number.

3. On each container of HM, write the four-character storage unit designator (as explained in Section 2) followed by the two-digit sequential number assigned in step 2 above. For example, the seventh HM item in Flammable Locker 03 (rifle bore cleaner) will be FL03-07.

NOTE	This number becomes the unique six-digit HM designation number for this material.

4. Write this number on the MSDS.

5. In sequential order, place all MSDSs in a binder. Locate the binder at or near the storage unit.

6. Optionally, create a master binder that contains MSDSs for all HM in every work area. Keep this master MSDS binder readily available to the employees.

2.4.4 Determining HM Compatibility

Once the size of the container is determined and what can go in what types of storage units, determine what types of chemicals can be stored together and what types must be segregated. To help you determine this, the DOD created the Hazardous Chemical Compatibility System.

For more information on HM compatibility, see **TM 38-410, Storage and Handling of Hazardous Materials.** You can also find guidelines for storing incompatible HM at the Storage and Handling of Hazardous Materials document from the SSO.

HMIRS MSDSs

1. For each HM on-hand, use **http://www.dlis.dla.mil/hmirs/** to obtain an MSDS from the HMIRS. The MSDS must be specific to the product's National Stock Number (NSN) and CAGE number (manufacturer's code). These numbers are printed on the MSDS and on the HM container.

If the MSDS is not available through HMIRS, obtain a copy from the manufacturer or USP&FO or from one of the alternative ways listed below:

- **GSA MSDS Request Line toll-free at (866) 588-7659, fax (816) 823-5136, or e-mail msds@gsa.gov.**

- **www.msdsonline.com**
- **http://hazard.com/msds/www.msdssearch.com**
- **www.dlis.dla.mil/hmirs/default.asp**
- **http://www.sfm.state.or.us/CR2K_SubDB/msds.asp**

2. For MSDSs obtained through HMIRS, find the Hazard Characteristic Code (HCC) on the first page of the MSDS. If the MSDS was not obtained from HMIRS, go to the Non-HMIRS section on page 2-18.
3. Using the Storage Segregation Matrix (Table 2-5), find the HCC of your HM.
4. Follow the row across the table until you come to the * marking.
5. Follow the column up from the * marking to the Primary Segregation letter. These letters stand for the following:

Table 2-4: Primary Segregation

A	**Radioactive**	**C**	**Corrosive**
D	**Oxidizer**	**E**	**Explosive**
F	**Flammable**	**G**	**Gas, Compressed**
L	**Low Hazard (General Purpose)**	**P**	**Peroxide, Organic**
R	**Reactive**	**T**	**Poison**

You may only store HM with items that have the same Primary Segregation letter. For example, store Fs with other Fs (flammables with other flammables) and Cs with other Cs (corrosives with other corrosives). **Do not** store acids and bases together.

6. Return to your HM's HCC row and find the "Note" under the Secondary Segregation column.
7. Go to the end of the table and read the definition of the note for any additional segregation requirements.

Example: You have an HM with an HCC of F6 (a corrosive acid that is flammable). You also have a HM with an HCC of F7 (a corrosive alkali that is flammable). Because they are both Fs, it first appears that they could be stored together. However, they both have a secondary segregation Note L, which states "Separate from other flammables and flammables with secondary hazards by at least one four-foot aisle width."

Table 2-5: Storage Segregation Matrix

HCC	HAZARD CHARACTERISTICS GROUP	PRIMARY SEGREGATION										SECONDARY SEGREGATION
		A	C	D	E	F	G	L	P	R	T	
A1	Radioactive, Licensed	*										Note A
A2	Radioactive, License Exempt	*										Note A
A3	Radioactive, License Exempt, Authorized	*										Note A
B1	Alkali, Corrosive Inorganic		*									Note B
B2	Alkali, Corrosive Organic		*									Note C
B3	Alkali, Low Risk							*				Note F
C1	Acid, Corrosive Inorganic		*									Note D
C2	Acid, Corrosive Organic		*									Note E
C3	Acid, Low Risk							*				Note F
C4	Acid, Corrosive and Oxidizer, Inorganic		*									Note D
C5	Acid, Corrosive and Oxidizer, Organic		*									Note E
D1	Oxidizer			*								None
D2	Oxidizer and Poison			*								Note G
D3	Oxidizer and Corrosive Acidic			*								Note G
D4	Oxidizer and Corrosive Alkali			*								Note G
E1	Explosive, Military				*							Note H
E2	Explosive, Low Risk							*				Note A
F1	Flammable Liquid DOT PG I, OSHA IA					*						Note J
F2	Flammable Liquid DOT PG II, OSHA IB					*						Note J
F3	Flammable Liquid DOT PG III, OSHA IC					*						Note J
F4	Flammable Liquid DOT PG III, OSHA II					*						Note J
F5	Flammable Liquid and Poison					*						Note L
F6	Flammable Liquid &					*						Note L

HCC	HAZARD CHARACTERISTICS GROUP	PRIMARY SEGREGATION										SECONDARY SEGREGATION
		A	C	D	E	F	G	L	P	R	T	
	Corrosive, Acidic											
F7	Flammable Liquid & Corrosive, Alkali					*						Note L
F8	Flammable Solid					*						Note K
G1	Gas, Poison (Nonflammable)						*					Note M
G2	Gas, Flammable						*					Note N
G3	Gas, Nonflammable						*					Note P
G4	Gas, Nonflammable, Oxidizer						*					Note R
G5	Gas, Nonflammable, Corrosive						*					Note S
G6	Gas, Poison, Corrosive (Nonflammable)						*					Note T
G7	Gas, poison, Oxidizer (Nonflammable)						*					Note U
G8	Gas, Poison, Flammable						*					Note V
G9	Gas, poison, Corrosive, Oxidizer (Nonflammable)						*					Note W
K1	Infectious Substance										*	Note X
K2	Cytotoxic Drugs										*	Note Y
M1	Magnetized Material							*				None
N1	Not Regulated as Hazardous							*				None
P1	Peroxide, Organic, DOT Regulated								*			None
P2	Peroxide, Organic (Low Risk)								*			None
R1	Reactive Chemical, Flammable									*		Note Z
R2	Water Reactive Chemical									*		Note AA
T1	DOT Poison - Inhalation Hazard										*	None
T2	UN Poison, Packing Group I										*	None
T3	UN Poison, Packing Group II										*	None

HCC	HAZARD CHARACTERISTICS GROUP	PRIMARY SEGREGATION										SECONDARY SEGREGATION
		A	C	D	E	F	G	L	P	R	T	
T4	UN Poison, Packing Group III							*				Note BB
T5	Pesticide, Low Risk							*				None
T6	Health Hazard							*				None
T7	Carcinogen (OSHA, NTP, IARC)										*	Note CC
V1	Miscellaneous Hazardous Materials - Class 9							*				None
V2	Aerosol, Nonflammable					*						Note EE
V3	Aerosol, Flammable					*						Note EE
V4	DOT Combustible Liquid, OSHA IIIA					*						None
V5	Hi-Flash Point Liquids, OSHA IIIB							*				None
V6	Petroleum Products							*				None
V7	Environmental Hazard							*				None
Z1	Article Containing Asbestos							*				None
Z2	Article Containing Mercury							*				None
Z3	Article Containing Polychlorinated Biphenyls (PCB)							*				None
Z4	Article, Battery, Lead Acid, Non-spillable							*				None
Z5	Article, Battery, Nickel Cadmium, Non-spillable							*				None
Z6	Article, Battery, Lithium									*		Note DD
Z7	Article, Battery, Dry Cell							*				None

Table 2-6: Secondary Segregation Table

NOTE A	**Security Storage - must be well ventilated with limited access.**
NOTE B	**Inorganic Alkali Storage - store away from acids by at least one 4 ft aisle width and away from organic alkalis by at least one 4 ft aisle width.**
NOTE C	**Organic Alkali Storage - store away from acids by at least one 4 ft aisle width and away from inorganic alkalis by at least one 4 ft aisle width.**

NOTE D	**Inorganic Acid Storage - store away from alkalis (caustics) by at least one 4 ft aisle width and away from organic acids by at least one 4 ft aisle width. Separate from other acids with subsidiary risk labels by at least one 4 ft aisle width.**
NOTE E	**Organic Acid Storage - store away from alkalis (caustics) by at least one 4 ft aisle width and away from inorganic acids by at least one four ft aisle width. Separate from other acids with subsidiary risk labels by at least one 4 ft aisle width.**
NOTE F	**Further separate into Acid and Alkali Storage within the low hazard storage area to keep potentially incompatible products from mixing.**
NOTE G	**Separate from other oxidizers and oxidizers with secondary hazards by at least one four ft aisle width.**
NOTE H	**Magazine Storage.**
NOTE J	**Segregate into flammable liquid storage separate from flammable solids by at least one four ft aisle width.**
NOTE K	**Segregate into flammable solid storage separate from flammable liquids by at least one four ft aisle width.**
NOTE L	**Separate from other flammables and flammables with secondary hazards by at least one four ft aisle width.**
NOTE M	**Further segregate into Poison Gas storage within compressed gas area.**
NOTE N	**Further segregate into Flammable Gas storage within compressed gas area.**
NOTE P	**Further segregate into Nonflammable Gas storage within compressed gas area.**
NOTE R	**Further segregate into Oxidizer Gas within the Nonflammable Gas storage that is within the compressed gas area.**
NOTE S	**Further segregate into Corrosive Gas within the Nonflammable Gas storage that is within the compressed gas area.**
NOTE T	**Further segregate into Corrosive Gas within the Poison Gas storage that is within the compressed gas area.**
NOTE U	**Further segregate into Oxidizer Gas within the Poison Gas storage that is within the compressed gas area.**
NOTE V	**Further segregate into Flammable Gas within the Poison Gas storage that is within the compressed gas area.**
NOTE W	**Further segregate into Corrosive and Oxidizer Gas within the Poison Gas storage that is within the compressed gas area.**

NOTE X	**Further segregate into Biomedical storage within the Poison Storage area.**
NOTE Y	**Further segregate into Medical Security storage within the Poison Storage area.**
NOTE Z	**Further segregate into a Spontaneously Combustible storage within the reactive Storage area.**
NOTE AA	**Should not store in areas protected with water sprinkler system. Fire protection should be non-water based.**
NOTE BB	**Store away from food.**
NOTE CC	**Further segregation within Poison Storage area may be necessary if secondary hazards exist (i.e. flammable, corrosive, etc.)**
NOTE DD	**Separate from other products within the Reactive Storage area.**
NOTE EE	**Store aerosols from flammables by placing in separate room or barrier such as floor to ceiling wire mesh, chain link fence, etc. to protect personnel from aerosols that can become self-propelled projectiles**

Non-HMIRS MSDSs

For non-HMIRS MSDSs, you will probably not fine HCCs. For these items, look on the container for either a DOT Label or a Precautionary Label.

If You Find a DOT Label:

1. **Go to the DOT Transportation Labels Table 2-7 on page 2-20**
2. **Find your label.**
3. **Follow the recommended storage requirements.**

Sample DOT Label

If you find a Precautionary Label:

1. **Go to the Precautionary Labels Table beginning on page 2-21 (Table 2-8).**
2. **Match the label with the Signal Word and Statement of Hazard in the first two columns.**
3. **Follow the recommended storage requirements.**

Sample Precautionary Labels

Table 2-7: DOT Transportation Labels

DOT Label	Interim HCC	Recommended Storage Area	
		Primary	**Secondary**
Explosive 1.1	E1	Explosive	Magazine
Explosive 1.2	E1	Explosive	Magazine
Explosive 1.3	E1	Explosive	Magazine
Explosive 1.4	E2	Explosive	Security
Explosive 1.5	E2	Explosive	Security
Explosive 1.6	E2	Explosive	Security
Poison Gas	G1	Compressed Gas	Poison Gas Cylinder
Flammable Gas (Cylinder)	G2	Compressed Gas	Flammable Gas Cylinder
Flammable Gas (Aerosol Non-refillable Tank or Canister)	V3	Flammable	Aerosol Containers
Non-Flammable Gas	G3	Compressed Gas	Non-Flammable Cylinder
Flammable Liquid	F1-F4	Flammable	Flammable Liquid
Flammable Solid	F8	Flammable	Flammable Solid
Spontaneously Combustible	R1	Reactive	Spontaneously Combustible
Dangerous When Wet	R2	Reactive	Dangerous When Wet, No Water Sprinklers
Oxidizer	D1	Oxidizer	None
Organic Peroxide	P1	Peroxide, Organic	None
Poison	T2	Poison	None
Harmful Keep Away From Food	T4	Low Hazard	Away From Food
Infectious Substance	K1	Poison	Biomedical
Radioactive I	A1	Radioactive	Security
Radioactive II	A1	Radioactive	Security
Radioactive III	A1	Radioactive	Security
Corrosive	C1, C2, C4, C5 (Acid)*	Corrosive	Acid
Corrosive	B1, B2 (Alkali)*	Corrosive	Alkali
Class 9	V1	Low Hazard	None
Magnetized Material	M1	General Purpose	None

*If you don't know whether a corrosive is an acid or an alkali (base), find the pH on the MSDS. If the pH is below 7, it is an acid; if the pH is above 7, it is an alkali (base).

Table 2-8: Precautionary Labels

Signal Word	Examples of Statement of Hazard	Suggested Temporary HCC	Recommended Primary Storage Area	Recommended Secondary Storage Area
DANGER!	MAY BE HARMFUL IF SWALLOWED	T2	Poison	None
WARNING!	HARMFUL IF SWALLOWED	T3	Poison	None
WARNING!	HARMFUL IF SWALLOWED	T4	Low Hazard	Away from Food
DANGER!	MAY BE FATAL IF ABSORBED THROUGH THE SKIN	T2	Poison	None
WARNING!	HARMFUL IF ABSORBED THROUGH THE SKIN	T6	Low Hazard*	None
DANGER!	CAUSES (SEVERE)** BURNS	C1, C2, C4, C5	Corrosive	Acid
DANGER!	CAUSES (SEVERE)** BURNS	B1, B2	Corrosive	Alkali
DANGER!	EXTREMELY FLAMMABLE	F1	Flammable	Flammable Liquid
WARNING!	FLAMMABLE	F2, F3	Flammable	Flammable Liquid
WARNING!	FLAMMABLE	F8	Flammable	Flammable Solid
CAUTION!	COMBUSTIBLE	F4	Flammable	Flammable Liquid
CAUTION!	COMBUSTIBLE	V4	Flammable	None
DANGER!	EXTREMELY FLAMMABLE, CATCHES FIRE IF EXPOSED TO AIR	R1	Reactive	Spontaneously Combustible
DANGER!	STRONG OXIDIZER, CONTACT WITH OTHER MATERIALS MAY CAUSE FIRE	D1	Oxidizer	None
DANGER!	MAY BE HARMFUL IF INHALED	T1	Poison	None
WARNING!	HARMFUL IF INHALED	T6	Low Hazard*	None

Signal Word	Examples of Statement of Hazard	Suggested Temporary HCC	Recommended Primary Storage Area	Recommended Secondary Storage Area
WARNING!	MAY CAUSE ALLERGIC RESPIRATORY REACTION	T6	Low Hazard*	None
CAUTION!	(VAPOR GAS)** REDUCES OXYGEN AVAILABLE FOR BREATHING	T6	Low Hazard*	None
WARNING!	CAUSES EYE IRRITATION	T6, C3, C4	Low Hazard*	None
WARNING!	CAUSES IRRITATION	T6, C3, C4	Low Hazard*	None
WARNING!	MAY CAUSE ALLERGIC SKIN REACTION	T6, C3, C4	Low Hazard*	None

*Material bearing precautionary label text will not be assigned a Low Hazard (General Purpose) location without notification of and approval by the Safety Office.

**Enter proper term as appropriate.

If you cannot find any labels or your product is not listed in the tables, you can

- Check TM 38-410 for additional compatibility tables
- Call the EMO or SSO.

2.4.5 Conducting a Hazardous Material Inventory

Once your storage units have been stocked and all the HMs and MSDSs numbered, take an initial inventory of all HM.

To conduct an inventory, follow this procedure:

1. Check that every container, bottle, can, box, etc., is labeled with the following information:

- The product name
- Any warning of physical or health hazards listed on the MSDS
- The six-digit HM designator

2. Replace any labels that are missing or unreadable.

3. Obtain and complete a **Hazardous Material Inventory (Page 12-5)** form for each HM location. A copy of the form is located in Section 12.

a. On the top of the form, write the four-digit HM unit designator, as described in Section 2.

b. In the first column, write the two-digit shelf location number.

c. Locate an MSDS for all HM.

4. Check the expiration, inspection, or test dates on all HM and manage as explained in the Shelf-Life section.

6. Maintain a copy of the Inventory Form in a plastic sleeve:

- On the door of storage rooms or lockers
- In the EO's office for items stored in racks or warehouses

7. Submit copies of the inventory forms for all HM storage units to the CPM annually by 31 January.

2.4.6 Maintaining Shelf-Life and Tracking Inventory

Shelf life can be extended! Prior to turning-in any HM because it has expired, the HM user should check With USPFO to determine the proper procedures for doing so.

Shelf-Life is the total period of time that an item may be in the accumulation system and still remain suitable for issue. It begins with the date of manufacture, packing, or inspect/test/restorative action. A few key points to remember about the Shelf-Life program are listed below:

- HM purchased locally that does not have an expiration date is not a Shelf-Life item and can be used indefinitely or until the item becomes unserviceable.
- Half of the HM purchased through the military supply system are non-shelf life items and can be used indefinitely or until they become unserviceable.
- There are two types of shelf-life materials, Type I and Type II. These are defined below.

Some items were created before Shelf-Life items were required to be marked, and NVARNG personnel must therefore determine whether these items are Shelf Life items. If an item has no shelf-life markings, you can use the DoD 4140.27-M Shelf-Life Management Manual available at https://www.shelflife.hq.dla.mil/policy_DoD4140_27.aspx, as authorized by DoD Directive 4140.1, Materiel Management Policy.

Type I Materials: Type I materials have a shelf life that cannot be extended. Type I materials have an alphabetical Shelf Life Code and are required to be marked with the expiration date as well as the date manufactured, date cured, date assembled, or date packed (whichever one is appropriate). DoD policy requires that Type I HMs be used or disposed of within 30 days of the expiration date. One exception is Type I medical items, which may be extended if they have been accepted as candidates for the DoD/Department of Army (DA) Shelf Life Extension Program. M9 Chemical Detection Paper is an example of a Type I item.

Type II Materials: Type II materials are required to be marked with the inspection/test date as well as the date manufactured, date cured, date assembled, or date packed (whichever one is appropriate). Containers of Type II materials have a numeric Shelf Life code. Every effort must be made to extend the life of material until is gets used. These materials can be extended through laboratory testing or visual inspection. Engine lubricating oil is an example of a Type II item.

2.4.7 Hazardous Material Storage Best Management Practices

- ✓ Store HM and HW within secondary containment. (Primary *and* Secondary is Preferred)
- ✓ Do not store tools or personal items in HM storage units.
- ✓ Do not store paper and rags with flammables.
- ✓ Do not store HM in trailers, vehicles, private lockers, near floor drains, or in high traffic areas
- ✓ Participate, where possible, in recycling and exchange programs.
- ✓ Do not use wood to construct additional HM shelving.
- ✓ Always store materials and wastes indoors or under cover whenever possible. Covers and up-gradient perimeter berms that prevent contact with storm water will minimize contaminants that leave the site. These berms also make clean up of any spills or leaks easier.
- ✓ Minimize storage needs by purchasing smaller amounts of material more frequently and as needed for specific jobs. Stockpiling materials, which often must be stored outside and exposed to storm water, increases the possibility of pollutants flowing offsite.
- ✓ Store chemicals away from doors and out of traffic pathways. Simple storage sheds with a roof, liquid-tight floor and perimeter berm will usually prevent storm water from becoming contaminated.
- ✓ Use drip pans (or other containment device) under taps, nozzles, and spouts to catch drips.
- ✓ Transfer the contents of a leaking container promptly to another container; make sure the new container is appropriately labeled.
- ✓ Always store used parts (i.e., vehicle, electronic, mechanical) under cover to prevent the leaching of any materials into storm water runoff.
- ✓ Conduct regular inspections of HM/HW storage areas to ensure containers are free from leaks and are in good condition.
- ✓ Cabinets and containers exposed to the weather must be made for exterior use; interior grade cabinets and containers will rust or deteriorate contributing contaminants to storm water runoff.
- ✓ Use containers that meet the National Fire Prevention Association (NFPA) or Department of Transportation (DOT) standards for holding hazardous substances.
- ✓ Containers must be kept closed except when substances are being added or removed.
- ✓ Ensure HM spills are contained and cleaned up immediately.
- ✓ Completely label all containers holding hazardous materials and wastes.

- ✓ Ensure MSDS's are available and up to date for all HM stored.
- ✓ Keep an ample supply of spill cleanup materials near the storage area
- ✓ Keep storage areas clean, well organized.

3.0 HAZARDOUS WASTE MANAGEMENT

3.1 HW Program Overview

This Section defines HW, describes the regulatory status of all NVARNG HW generators, and sets procedures for managing HW throughout the NVARNG. By properly managing HW, NVARNG will minimize excessive generation of wastes from cross contamination, spills, and improper accumulation and will be able to accurately identify/measure waste generation in order to support NVARNG's P2 goal of eliminating or continuously reducing the quantity of HW generated each year. More detailed information on individual NVARNG HW streams is included in Section 11 in the Waste Protocol Sheets (WPS).

3.1.1 What is a Waste?

The term "solid waste" as it is used by the Resource, Conservation and Recovery Act (RCRA) is a generic term to describe all waste. Solid waste is defined by 40 CFR 261.2 as all discarded materials, including solids, semi-solids, sludges, liquids, and compressed gases, unless excluded by regulation. A discarded material is any material that is abandoned or recycled, or is considered inherently waste-like. Discarded material does not include materials that are turned in for re-use at another facility. Solid wastes are either hazardous or non-hazardous wastes.

3.1.2 What is a HW?

Hazardous Wastes are defined and regulated by the Resource Conservation and Recovery Act (RCRA) and Hazardous and Solid Waste Amendments (HSWA). By RCRA, a waste is considered hazardous if it:

1. Is **Listed** as a hazardous waste in **40 CFR 261** or
2. Exhibits the characteristics of **Ignitability, Corrosivity, Reactivity** or **Toxicity**

- ***Ignitability*** - Liquid having a "Flash Point" of less than 60 degrees C (140 degrees F); Non-liquid substance which will cause fire through friction, absorption of moisture, or which is liable to ignite or burn vigorously and persistently.
- ***Corrosivity*** - Aqueous (water soluble) waste showing a pH value of equal to or less than 2.0; or equal to or greater than 12.5.
- ***Reactivity*** - Substances which can readily undergo violent chemical changes, react violently, form potentially explosive mixtures with water, or explode at normal room temperature and pressure.
- ***Toxicity*** - When extracts of a solid waste sample, using the TCLP method, contain any of the contaminants listed in 40 CFR 261.24 at or above the regulatory level.

HW also includes universal waste (UW). This is a special category of HW that typically includes certain batteries, suspended or recalled pesticides, mercury containing lamps (fluorescent light tubes, bulbs or compact fluorescent lights), and mercury-containing equipment (thermostats, barometers, switches).

States have the option to create different standards and to regulate additional materials as universal waste. The management requirements for universal waste are less stringent than for other HW and are discussed in detail in Section 4, along with used oil, which is another waste with unique RCRA requirements.

3.2 HW Generation

The EPA defines a generator as "any person, by site, whose act or process produces a hazardous waste that is identified or listed in 40 CFR 261 or whose act first causes a hazardous waste to become subject to regulation." For NVARNG, the generator is the activity that produces the HW. NVARNG further clarifies this definition for the common situation in which a material (not yet a waste) is turned-in for use at another facility. When turning-in HM for re-use, the central material manager may later decide to reclassify the HM to a HW if it cannot be re-used. At that time, the generator is the central material management facility.

3.2.1 HW Generation Rate Determination and Generator Status

Because federal and state regulations require that hazardous waste be shipped off-site within specific time limits, these wastes can be accumulated on-site for only a limited amount of time. How much waste an activity can accumulate before shipping it off-site depends on the activity's generator status, under 40 CFR Part 262 and 40 CFR 273.

Under **NRS 459.485** and 40 CFR 262, there are three categories of HW generators:

- Conditionally exempt small quantity generator (CESQG)
- Small quantity generator (SQG)
- Large quantity generator (LQG)

The amount (weight) of HW generated by a facility each month determines the facility's generator status and, therefore, the level of HW management required. ***Table 3-1*** shows accumulation time limits and quantity limits for each type of generator.

***Table 3-1*: Generator Status**

Generator Status	Time Limit	Amount Generated/Month	On-site Accumulation Limit
CESQG	None	≤ 220 lbs (≤ 100 kg) ≤ 2.2 lbs acute HW (≤ 1 kg acute HW)	2,200 lbs (1,000 kg)
SQG	180 days	> 220 & < 2,200 lbs (> 100 kg & < 1,000 kg)	13,200 lbs (6,000 kg)
LQG	90 days	≥ 2,200 lbs (≥ 1,000 kg)	None

Generator status is determined by geographic location, fence line-to-fence line, not by activity or unit assignment. For example: The Floyd Edsall Complex is the generator of HW not the CSMS, FMS or State Maintenance Shop. Complexes with multiple facilities managing waste must communicate with each other to ensure the complex properly identifies their generator status. Table 3-2 assists each facility in identifying their generator status and their associated EPA ID number. Please note: all of the NV

ARNG Facilities are considered CESQG because they do not generate more than 220 lbs of hazardous waste per month.

***Table 3-2*: Identifying the NVARNG HW Generators, Generator Status, and their EPA ID Numbers**

Harry Reid Complex (Includes AASF, FMS2, OSA, Armory, and State Maint.) **Generator Status: CESQG**	**EPA ID #: NVD981575913**	**20,000 Army Aviation Drive Reno, NV 89506**
Fairview Complex (Includes CSMS1, OTAG, USPFO, and State Maint.) **Generator Status: CESQG**	**EPA ID #: NVD986773489**	**2444 Fairview Drive Carson City, NV 89701**
Floyd Edsall Complex (Includes CSMS2/FMS 1, Armory and State Maint.) **Generator Status: CESQG**	**EPA ID #: NVR000003194**	**6402 North Range Road Las Vegas, NV 89115**
Fallon Armory **Generator Status: CESQG**	**EPA ID #: NVD986768323**	**895 East Richards Fallon, NV 89406**
Yerington Complex (Includes Yerington Armory and FMS4) **Generator Status: CESQG**	**EPA ID #: NVD982402893**	**16 Joe Parr Way Yerington, NV 89447**
Winnemucca Armory **Generator Status: CESQG**	**EPA ID #: NVD986768372**	**735 West 4th Street Winnemucca, NV 89445**
Elko Armory **Generator Status: CESQG**	**EPA ID #: NVD986770824**	**1375 13th Street Elko, NV 89801**
Henderson Complex (Includes Henderson Armory, FMS3, and State Maint.) **Generator Status: CESQG**	**EPA ID #: NVD981628795**	**151 East Horizon Ridge Parkway Henderson, NV 89015**
Plumb Lane Armory **Generator Status: CESQG**	**EPA ID #: NV4210490021**	**685 East Plumb Lane Reno, NV 89502**

3.3 HW Management On-Site

Certain HW management practices are often specific to individual types of HW (HW streams). Specific procedures are identified on the Waste Protocol Sheets provided in Section 11. If the HW does not have a Protocol Sheet, contact the EMO. The Protocol Sheets outline step-by-step procedures for:

- Selecting and preparing an approved container for your waste;
- Preparing and labeling the container;
- Adding waste to the container; and
- Properly accumulating the waste and turn in procedures.

3.3.1 Selecting and Preparing Containers

Containers are the preferred accumulation method for NVARNG, but only certain types of containers are authorized for accumulating waste. Underground storage tanks are prohibited for accumulating HW. The type of container selected depends on the waste type:

- Open-head drums are commonly used for non-liquid wastes such as aerosol cans, filters, and petroleum-contaminated debris.
- Closed-head drums with bung holes are used for liquids
- Boxes are sometimes the best containers for certain items like batteries and fluorescent lamps

The WPS's located in Section 11 list the container required for each waste stream.

To select and prepare the container, use the following procedure:

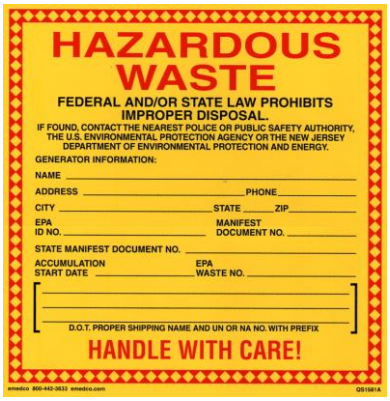
1. Using the WPS (Section 11) for your waste stream, select the appropriate approved container. Drums must be DOT-Rated, clean and in good condition without signs of dents, cracks, or corrosion.
2. Remove any previous markings and labels from the container or mask over them with paint.
3. Obtain a blank ***Waste Accumulation Inventory Log***, available in the Forms section in Section 12 or from the EMO.
4. Use tape or adhesive to attach a clear plastic bag (such as a one-gallon Ziploc® resealable bag) to the container.
5. Insert the ***Waste Accumulation Inventory Log*** into the clear plastic bag.
6. If the container will be used to accumulate flammable materials, attach a grounding rod to the container by way of a grounding cable.

The use of approved containers and the instructions in this Section support AR 200-1, policy requirement for HW management, which states, "Ensure that waste accumulation, storage, or transfer facilities are designed and constructed to prevent releases to the environment…"

3.3.2 Labeling the Container

Label the container as indicated on the Waste Protocol Sheet with a contrasting, indelible ink marker, paint, or a waste label The container markings must always be visible without moving or otherwise adjusting the container location.

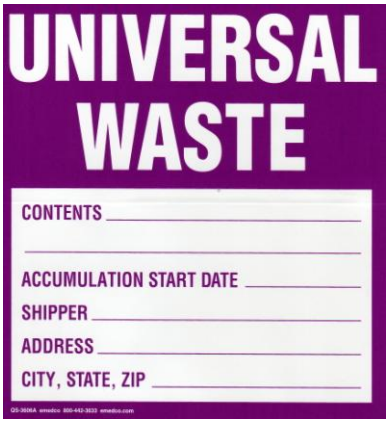
Standard Hazardous Waste Label



- Hazardous waste containers must be clearly marked with the words "**HAZARDOUS WASTE**," words that describe the contents of the container, and the EPA Waste # for the waste and, when at Hazardous Waste Buildings, the accumulation start date.

- Universal waste containers must be clearly marked with the appropriate words "**UNIVERSAL WASTE**", description of the contents and the accumulation start date.

Standard Universal Waste Label



3.3.3 Adding Waste to the Container

These procedures are general instructions that apply to any waste. Some wastes may require special handling. Check the WPS for the waste before adding the waste to the container.

1. Put liquids in closed-top containers and solids in removable-head drums.
2. For drums, remove the lid or bungs from the container.
3. Add the waste carefully. Use a funnel to pour liquids into a drum with an open bung.

NOTE	Do not place liquids in open-head drums unless you have permission from the EMO.

4. At HW Buildings, if you are adding waste to an empty container for the first time, use a permanent black pen to write the Accumulation Start Date on the HW label.

5. At Satellite Accumulation Points (SAPs), use the Workplace Accumulation Container Label and mark the containers with the Workplace Accumulation Start Date and ***SAP***.
6. Replace the lid or bung on the container. Never leave the lid or bung off of the container. A container is not considered closed if the lid or bungs are simply resting on the container. If other containers are used, (boxes, bags) make sure the container is sealed after waste is added.
7. Record the amount and type of waste being added on the container's ***Waste Accumulation Inventory Log***.
8. UW must have a Universal Waste Label with Accumulation Start Date on the container and words that identify the waste.
9. When the container is almost full, **STOP** adding waste. Maintain at least as much headspace as indicated below:

Size of Container	**Amount of Headspace**
55 gallon……	**4 inches**
30 gallon……	**3 inches**
15 gallon……	**2 inches**
15 gallon or smaller……..	**1 inch**

3.3.4 Satellite Accumulation Points (SAPs)

A SAP is a location at or near a process that generates HW. You can accumulate up to 55 gallons of HW at an SAP. Once you reach this limit, you must mark the accumulation start date on the container and move it to the HW Building within 72 hours (including weekends and holidays).

An SAP must be under the control of the operator of the process that generates the waste. "Under control" means that the person generating the waste controls what waste is put into the SAP.

Setting up SAPs

1. Select a well-ventilated site indoors or a site outdoors that is under cover and fenced or otherwise secured to prevent unauthorized access.

NOTE	Examples of SAP sites include a flammable storage cabinet or flammable storage building. If it is an outside storage building, the operator must keep the building locked.

2. Plug floor drains within 50 feet of the building.
3. Select fire extinguishers that are compatible with the types of potential fire hazards present, and place them in a prominent location. Coordinate with the SSO for the proper type and location of extinguishers.

4. Post warning signs in visible locations at the site. The signs must be readable from 50 feet away and contain the following information:
    - Contact information for SAP Manager
    - Emergency contact information
5. Place enough spill response equipment nearby to contain a spill.

WARNING	Keep containers with liquid wastes within secondary containment such as dikes, curbs, or spill pallets.

Maintaining a Satellite Accumulation Point

1. Position container(s) so the waste stream name is clearly visible and there is enough room between containers (usually 3 feet) to conduct inspections.
2. Place a Workplace Accumulation Container Label (WACL) and a Hazardous Waste Label on the container.
3. Complete the labels according to step 2 of the Waste Protocol Sheet (WPS) (Section 11.0). Do not mark accumulation start date on Hazardous Waste Label Yet.
4. Record the amount and type of waste being added on the container's ***Waste Accumulation Inventory Log*** (Section 12.0-Forms).
5. Add the Workplace Accumulation Start Date (WASD) on the label. It is the day accumulation begins at the SAP.

WARNING	Do **not** use an SAP to accumulate waste from multiple operating areas. Do **not** mix multiple wastes in the same container. Do **not** mark Accumulation Start Dates on Hazardous Waste labels yet.

6. Conduct weekly inspections IAW Section 7; ensuring containers are closed and in good condition when waste is not being added.
7. Once 55 gallons of HW is accumulated, remove the WACL and use a permanent black pen to now mark the Accumulation Start Date (ASD) on the Hazardous Waste label.
8. Transfer the container to a Hazardous Waste Building (HWB) within 72 hours (including weekends and holidays).

NOTE	There is no accumulation time limit at SAPs for less than 55 gallons of HW. However, once 55 gallons is reached, transfer the waste to the HWB within 72 hours.

3.3.5 Hazardous Waste Buildings

HW Buildings (HWB) are designed to temporarily accumulate larger quantities of HW before shipping it off site. Each complex should have only one HWB to avoid counting errors and confusion. Facilities within the complex should communicate to ensure proper management of the HWB.

Setting up Hazardous Waste Buildings

To set up a HW building, use the following steps:

1. Select a well-ventilated site indoors or a site outdoors that is under cover and fenced or otherwise secured to prevent unauthorized access.
2. Provide a means (secondary containment) to contain unplanned releases to the environment.
3. Plug floor drains within 50 feet.
4. Provide a means of internal communication, such as a telephone, two-way radio, or internal communications equipment (alarm or buddy system).
5. Select fire extinguishers that are compatible with the types of potential fire hazards present and place them so they are visible from the front entrance. Coordinate with the Safety Office for proper type and location of extinguishers.
6. Post warning signs in visible locations at the site. The signs must be readable from 50 feet away and contain the following information:
    - "Hazardous Waste Building, Unauthorized Personnel Keep Out"
    - "No Smoking or Open Flame Within 50 Feet"
    - For a copy of these signs, contact the EMO.
7. Place enough spill response equipment nearby to contain a spill.

WARNING Keep containers with liquid wastes within secondary containment such as dikes, curbs, or spill pallets.

8. Segregate incompatible wastes using berms, curbs, walls, spill pallets, or other physical barriers. See Section 2-4 for compatibility guidance.
9. Complete an emergency information form and post it next to the telephone.

Maintaining Hazardous Waste Buildings

Once a Hazardous Waste Building has been properly set up, it must be maintained. In addition to basic facility maintenance activities, including keeping the area free of trash and debris, specific Federal regulatory requirements apply.

1. Position container(s) so the label is clearly visible and there is enough room between rows (usually 3 feet) to inspect containers and to permit movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment.

2. Ensure that labels are completed according to Step 2 of the Waste Protocol Sheet (pg. 11-1). Include the date when accumulation begins and the EPA Waste Number if Hazardous Waste.

3. Ensure that wastes are compatible with adjacent containers (see Section 2.4) and not accumulated in secondary containment structures (if used) with incompatible wastes. Maintain and operate the area to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of HW or HW constituents.

4. Conduct accumulation area inspections at least weekly, IAW Section 7.0 and use the ***Inspection Log*** in Section 12.0.

5. Test and maintain as necessary to ensure proper operation of all required facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.

6. Verify that at all times there is at least one employee either on the premises or on call with the responsibility for coordinating emergency response measures. This employee is the emergency coordinator.

7. Ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

8. Take measures to safeguard against or mitigate container leaks: If a container holding HW is not in good condition, or if it begins to leak, transfer the HW from this container to a compatible container that is in good condition.

9. When a container approaches its accumulation time limit, or the total waste on site approaches the maximum amount allowed, initiate turn-in procedures IAW Section 5.0.

3.4 Waste Minimization

The NVARNG is dedicated to reducing the amount of waste that goes to a landfill. Pollution prevention is any mechanism that successfully and cost-effectively avoids, prevents or reduces the sources of pollutant discharges or emissions other than the traditional method of treating pollution at the discharge end of a pipe or stack. A pollution prevention project is one which applies source reduction, recycling, or waste minimization in order to reduce pollution from facility's current business practices, industrial processes, base operations, or other routine activities. The NVARNG will always choose pollution prevention alternatives first as a way to reduce or eliminate their waste producing activities.

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4.0 USED OIL, UNIVERSAL WASTES, AND OTHER/SPECIAL WASTES

4.1 Overview

This Section deals with wastes that are common to NVARNG sites and that are regulated, but are managed and disposed of differently than the HW discussed in the previous Section. Note that these wastes, although not technically HW according to Federal regulations, cannot be managed or disposed of as regular solid waste. The wastes described in this Section are included in the Waste Protocol Sheets in Section 11. This Section provides additional information to complement the Waste Protocol Sheets.

4.2 Used Oil

What is Used Oil?

In 40 CFR 279 EPA defines "Used Oil" as "any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities."

Common NVARNG substance that, when used, are managed as used oil include, but are not limited to:

- **Compressor Oils**
- **Engine Oils and Gear Oils**
- **Hydraulic Oils**
- **Transmission Fluids**
- **Brake Fluids**
- **Mineral Oils**
- **Used Diesel Fuel**
- **Metal-Working Fluids and Cutting Oils**

NVARNG manages used oil IAW the Federal used oil regulations (40 CFR 279). Refer to the Used Oil Fact Sheet for specific accumulation and handling requirements. **Mixing used oil with any other materials is prohibited** because the characterization of the resulting mixture may be unclear. For example:

- Mixtures of used oil and "listed" HW (i.e., listed in 40 CFR 261, Subpart D) become HW regardless of the relative quantities mixed together.
- Mixtures of used oil and "characteristic" HW may be managed as used oil if the resultant mixture no longer exhibits a hazardous characteristic. The burden is on the generator, however, to verify (e.g., through laboratory analysis) the mixture no longer exhibits a hazardous characteristic.

Used oil containing less than 50 parts per million (ppm) polychlorinated biphenyls (PCBs) is regulated by RCRA under 40 CFR 279 and may also be regulated under the Toxic Substances Control Act (TSCA), depending on specific PCB concentration and the intended use or disposition. Used oil containing 50 ppm or more of PCBs is regulated under TSCA.

Additionally, with few exceptions, used oil containing greater than 1,000 ppm total halogens is presumed to be a HW and thus must be managed as HW and not as used oil unless the presumption is rebutted (typically through analysis). A halogen is any of a group of five chemically related nonmetallic elements

including fluorine, chlorine, bromine, iodine, and astatine. Halogens can commonly be found in degreasing solvents (examples include tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons). However, halogenated chemicals are no longer used by the National Guard.

4.2.1 Used Oil Accumulation Areas

Regulatory requirements for accumulation of used oil are relatively simple:

- Used oil must be stored in non-leaking tanks or containers that are in good condition.
- Containers, tanks, and fill pipes must be labeled or clearly marked with the words ***"Used Oil."***
- Tanks and containers should not be allowed to deteriorate and any leaks or defects should be corrected immediately.

Refer to the Waste Protocol Sheet (Section 11.0) for specific container and accumulation instructions.

4.2.2 Used Oil and Fuel Filters

NVARNG recycles used oil and fuel filters as scrap metal after they are properly drained of used oil. Currently, used oil is recycled by Thermo Fluids, Inc. Thermo fluids reprocesses the oil into an alternative fuel product. Used oil and fuel filters are picked up free of charge by Western Metal Recyclers.

The proper draining of used oil from the filters eliminates the regulatory requirements applicable to the used oil remaining in the filters. The metals recycling process excludes the filters themselves from potential HW management requirements in accordance with 40 CFR 261. Even terne-plated oil filters, which have a tin/lead alloy and are commonly characterized as HW, are excluded from HW management requirements when the filters are recycled as scrap metal. Used oil filters are excluded from HW regulations provided the following three criteria are met.

1. The filters must not be mixed with HW, as mixtures of solid waste and HW are regulated as HW.
2. The filters must be gravity hot drained. EPA defines gravity hot draining the oil filter near the engine operating temperature and above room temperature for a minimum hot drain time of 12 hours. If an oil filter is picked up by hand or lifted by machinery and used oil immediately drips or runs from the filter, the filter should not be considered drained.
   In addition, 40 CFR 261.4(b) (13) further specifies that used oil filters must be drained using one of the following methods:
   - puncturing the anti-drainback valve or dome end and hot draining;
   - hot draining and crushing;
   - dismantling and hot draining; or

- using any other equivalent method that will remove oil from the filter.

3. The drained oil and fuel filters are consolidated in a container and recycled as scrap metal.

4.3 Universal Wastes

The State of Nevada has adopted the Federal UW regulations that exempt universal wastes (UW) from the majority of HW regulations (40 CFR 262 through 270) if the UW is managed under 40 CFR 273. Therefore, NVARNG manages UW IAW 40 CFR 273, as described below and in the associated Waste Protocol Sheets included in Section 11. The UW regulations are alternative waste management and disposal procedures for specific, common hazardous wastes and are available to all HW generators, including CESQGs. Note that generators (including CESQGs) must either follow the UW regulations or the HW regulations.

There are two types of regulated UW handlers: Small Quantity Handlers of Universal Waste (SQHUW) that accumulate less than 5,000 kg (11,023 lbs) of UW at any one time and Large Quantity Handlers of Universal Waste (LQHUW) that accumulate 5,000 kg (11,023 lbs) or more of universal waste at any one time. NVARNG manages the UW in accordance with the **SQHUW** requirements. The UW requirements are described below and in the associated Waste Protocol Sheets.

- UW accumulation time is limited to one year unless a longer period is required to accumulate an adequate quantity for disposal. NVARNG must be able to demonstrate the length of time that a UW has accumulated from the date it becomes a waste. This is demonstrated by completing a Universal Waste Label and by maintaining a Waste Accumulation Inventory Log. NVARNG facilities will coordinate with the EMO for transportation and disposal of UW.
- NVARNG must label or mark UW or containers of UW to identify each UW. Example labels/markings include "Universal Waste – Batteries" or "Universal Waste – Lamps."
- NVARNG must immediately contain spills or releases and handle residues appropriately and make a HW determination on material resulting from a spill or release. If the residues are determined to be a HW, they must be managed in compliance with this plan.
- NVARNG is prohibited from shipping UW to a place other than another UW handler or a destination facility.

Batteries: Common batteries to which the UW regulations apply include nickel-cadmium (Ni-Cd) and lead-acid batteries, which are found in many common items in the business and home setting, including electronic equipment, mobile telephones, portable computers, vehicles, and emergency backup lighting. Common waste batteries generated at NVARNG facilities include alkaline, lithium, magnesium, mercury, lead-acid, and Ni-Cd.
Batteries are an environmental concern because

their electrolyte material is generally corrosive and can leach toxic metals at concentrations that exceed regulatory levels. Currently all of the batteries (wet and dry cell) are managed through Napa. However, if a battery is broken i.e., the casing is broken then the EPA states they cannot be managed as a universal waste. Batteries must be stored in a way that prevents releases to the environment. Currently, the NVARNG is integrating a recycling service called "Call-2-Recycle", which accepts rechargeable batteries, including small sealed lead acid batteries free of charge. The company ships out boxes with instructions on packaging the batteries and provides a label for shipping. Fed Ex is then called by the facility and delivered to the recycling center.

In general, waste batteries that are not hazardous are not regulated as a UW and can be managed as a solid waste. In most cases, alkaline batteries can be managed in this fashion. However, some alkaline batteries have shown the characteristic of toxicity for mercury and may also exhibit other hazardous characteristics, such as corrosivity. If a review of the MSDS cannot establish whether a discarded alkaline battery exhibits a hazardous characteristic, it should be managed as a UW.

Pesticides:
Pesticides are managed according to the NVARNG Pesticide Management Plan. Some pesticides can be managed as UW, such as obsolete agricultural pesticides that are recalled under certain conditions, as well as unused pesticides that are collected and managed as part of a waste pesticide collection program. Pesticides may be unwanted for a number of reasons, such as being banned, obsolete, deteriorated, or no longer needed due to changes in cropping patterns or other factors.

Mercury Thermostats:
A thermostat is defined as a temperature control device that contains metallic mercury in an ampoule attached to a bimetal sensing element, as well as mercury-containing ampoules that have been removed from these temperature control devices.
Metallic mercury is a toxic substance that is land disposal-restricted.

Hazardous Lamps:
A lamp is defined as the bulb or tube portion of a lighting device specifically designed to produce radiant energy. Examples of common UW electric lamps include, but are not limited to, fluorescent lights, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Many used lamps are considered HW under RCRA because of the presence of mercury or occasionally lead. Federal regulations (40 CFR 273.5(c)) state that a used lamp becomes a waste on the date it is discarded and an unused lamp becomes a waste on the date the handler decides to discard it.

Fluorescent light bulbs (lamps) commonly generated from NVARNG buildings meet this definition. Note that fluorescent bulbs with green labels or green tips are marketed as low-level mercury bulbs. However, most manufacturers will not state that their bulbs are low enough (below the D009 hazardous waste threshold of 0.2 mg/L using TCLP - Toxic Characteristic Leaching Procedure) to be non-hazardous, and therefore not UW. Manage all discarded fluorescent bulbs as UW unless they are **known** to be non-hazardous (below 0.2 mg/L TCLP). Currently the NVARNG fluorescent light tubes are picked up by Clean Harbors and are shipped to Utah where they are processed. In turn the processed tubes are shipped to a facility in Nebraska where the glass is recycled. The EMO is currently phasing out Clean Harbors for this waste stream and using Veolia which is a fluorescent light tube recycling service. The fluorescent light tubes are stored and packed in a box for shipping to their Arizona recycling facility. They strip the tube, separate the components and burn the mercury. The glass and metal is then remade into another product. A recycling certificate is issued annually. Please note, the tubes cannot be broken, so be careful when placing them into the Veolia box.

WARNING DO NOT crush or intentionally break mercury-containing light bulbs!

5.0 TURN-IN: HAZARDOUS MATERIALS AND WASTE

This section describes how unused HM are turned-in for possible reuse or disposal and how HW is turned-in for disposal. NVARNG does not have a permit to treat or dispose of HW on site. Therefore, the HW generated and/or stored throughout NVARNG is transported off site for disposal by an approved hazardous waste hauler.

To turn in HM or HW, the activity EO:

- Gathers turn-in documents;
- Prepares turn-in documents; and
- Follows the appropriate instructions described later in this section.

5.1 Turn-In Policy

Turn-In and Disposal Contracting

NVARNG policy is to use a private contractor for transport and disposition of HM and HW. The contractor picks up the HM or HW at each generating activity in the State. HM picked up by the contractor may be reused by another DOD activity, transferred to another federal agency, listed on the Nevada Materials Exchange, or returned to the manufacturer. HM that cannot be handled through any of these avenues will be handled as a HW. HW picked up by the contractor or HM that is determined to be a HW is taken to an approved treatment, storage, and disposal facility (TSDF). A list of TSDFs authorized to receive NVARNG waste is available on the web at https://www.drms.dla.mil/newenv/hwdisposal.shtml

5.2 HM Turn-In Process

NVARNG facilities must turn-in HM and HW routinely to ensure compliance with federal and state regulations.

NOTE Turn-in unwanted or unusable HM as material and not waste.

NVARNG facilities will not prepare, package, and label the wastes for turn-in to a contractor. The facility should use the following steps:

1. The generator completes ***Waste Turn-in Request Form*** (Section 12.0) and forwards to EMO at marne.m.sherman@us.army.mil.
2. The EMO contacts a hazardous waste transporter to schedule a pick up of the waste.
3. The transporter prepares a hazardous waste manifest, packages and labels waste for turn-in.
4. The EMO reviews the manifest for accuracy. When the manifest is accurate, the EMO or an authorized representative from the facility signs it.
5. The TSDF returns the manifest to the Generator within 35 days.

NOTIFY THE EMO IF A SIGNED MANIFEST IS NOT RETURNED WITHIN 35 DAYS!

6. The Generator forwards a copy of the original signed manifest to the EMO.

5.3 Gathering Waste Turn-In Documents

NOTE	This section only applies to turning in hazardous waste.

To gather turn-in documents,

1. Ensure each container is closed before being turned in and ensure that no more waste is added.

2. Calculate the container's weight and mark it on the container and on the ***Waste Accumulation Inventory Log*** (Section 12.0)***:***

- **Solid Objects** -- check the General Information Section of the MSDS to obtain the Net Unit Weight. If this information is listed, use the following formula to estimate the weight:

Formula 1. (Net Unit Weight) X (Number of Units on Hand)

Example: An MSDS for Lithium Batteries lists the Net Unit Weight as 1.25 lbs. You have 10 Lithium batteries (with identical NSNs) in a box.

1.25 lbs. per battery X 10 batteries = 12.5 lbs. of batteries

Example: The MSDS for a 5-gallon can of paint lists the Net Unit Weight as 45.5 lbs. You have 4 cans of paint (with identical NSNs)

45.5 lbs. per can X 4 cans = 182 lbs. Of paint)

- **Unused Liquids in Original Containers** – check the outside of the container and/or the General Information Section of the MSDS for the Net Unit Weight marking. If this information is not listed, use the formula on the following page (Formula 2):
- **Unused or partially used liquids not in the original container** -- check the MSDS and obtain the specific gravity. Then use the following formula or chart:

Table 5-1

Weight of a Liquid (Pounds) With Known Specific Gravity and Volume

GALLONS	SPECIFIC GRAVITY											
	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
5	10	21	31	42	52	62	73	83	94	104	114	125
10	21	42	62	83	104	125	146	166	187	208	229	250
15	31	62	94	125	156	187	218	250	281	312	343	374
20	42	83	125	166	208	250	291	333	374	416	458	499
25	52	104	156	208	260	312	364	416	468	520	572	624
30	62	125	187	250	312	374	437	499	562	624	686	749
35	73	146	218	291	364	437	510	582	655	728	801	874
40	83	166	250	333	416	499	582	666	749	832	915	998
45	94	187	281	374	468	562	655	749	842	936	1030	1123
50	104	208	312	416	520	625	728	832	936	1040	1144	1248
55	114	229	343	458	572	686	801	915	1030	1144	1258	1379

Formula 2. 8.35 lbs. X the specific gravity of the waste X the number of gallons being disposed of

NOTE	Water weighs 8.35 lbs. per gallon (lbs./gal.). By multiplying this standard number by the specific gravity of your waste, you can determine how many pounds one gallon of the waste weighs.

Example: You have 55 gallons of Denatured Alcohol to dispose of. The MSDS for Denatured Alcohol lists the specific gravity as 0.8150. The following calculations will tell you the weight per gallon of the Denatured Alcohol:

8.35 lbs. X 0.8150 = 6.81 lbs./gallons

You have 55 gallons of Denatured Alcohol. The following calculation will tell the total weight:

6.81 lbs./gal. X 55 gal. = 374.6 lbs. of Denatured Alcohol

NOTE	If you cannot determine the weight of your waste using this information, contact your EO or your supervisor for help.

3. Remove the ***Waste Accumulation Inventory Log***(s) (Section 12.0) from the plastic bag attached to the accumulation container(s) and insert a "Container Closed" card.
4. Combine ***Waste Accumulation Inventory Log***(s) (Section 12.0) that have identical contents with the same NSN or stock number.
5. Complete ***Waste Turn-in Request Form*** using ***Waste Accumulation Inventory Log***(s) (Section 12.0)
6. File ***Waste Accumulation Inventory Log***(s) in HW Shipping Notebook.
7. Forward completed ***Waste Turn-in Request Form*** to EMO at marne.m.sherman@us.army.mil.
8. For reference, obtain the WPS for each waste being turned in.
9. For each waste being turned in, obtain the MSDS from the MSDS binder.
10. Obtain any lab analysis performed on the waste. Most waste will not have lab analysis paperwork.

6.0 TRANSPORTATION OF HAZARDOUS MATERIALS AND HAZARDOUS WASTE

This Section serves as a guide, highlighting the primary steps to take when shipping HM and HW. These procedures are designed as a reminder for the trained and certified Hazardous Materials/Waste Handler and are not intended for anyone unfamiliar with DOT requirements for shipping HM and HW.

NVARNG must comply with all applicable HM and HW transportation regulations. Transportation of HM and HW is regulated by:

- USDOT
- DoD
- Nevada Department of Transportation **(**NDOT**)**
- EPA when the materials also meet the RCRA definition of HW.

USDOT Requirements: NVARNG personnel transporting HM shall comply with all HM shipping requirements of 49 CFR 171 through 180 and 49 CFR 397. Part 397 describes the regulations associated with driving and parking a vehicle that is transporting HM.

DoD Requirements: DoD requirements for HM transportation are contained in DoD 4500.9-R, *Defense Transportation Regulation*, Chapter 204. This Section includes transportation responsibilities, regulatory requirements, and training requirements. In summary, DoD 4500.9-R requires the HM transporter to have a current military driver's license annotated with authorized vehicle type and HM training endorsement (and a valid civilian driver's license). Therefore, NVARNG drivers transporting HM will have successfully completed an HM certification course from one of the DoD schools and will comply with all applicable regulations of DoD 4500.9-R

EPA/RCRA Requirements: EPA/RCRA requirements apply only to HW. Transportation of HW from NVARNG facilities is carried out by a licensed contractor with a valid EPA ID number. NVARNG units are not authorized to self-transport HW.

6.1 Transportation of HW from a CESQG or SQG

CESQGs and SQGs offering HW to a commercial or contracted organization for off-site transportation are required to comply with HM regulations and EPA requirements.

CESQGs and SQGs who offer HW for transportation and transporters of HW from CESQGs and SQGs must perform the following steps for all shipments.

STEP 1 Obtain and maintain an EPA identification number [40 CFR 262.12 and 263.11].

STEP 2 Utilize a uniform HW manifest (UHWM) to document the shipment [40 CFR 262.20-262.23 and 263.20-263.22].

STEP 3 Contact the EMO for specific guidance, if required, to package, mark, label, and placard the shipment in accordance with HW and USDOT requirements.

STEP 4 Keep a copy of each completed manifest for 3 years.

STEP 5 Keep records of any test results, waste analyses, or other determinations for at least 3 years from the date that the waste was last sent for disposal.

Individual shipments require that the generator receive handwritten signature of the owner or operator of the faciliity designated to receive the shipment within a certain time frame. The following steps should be taken if manifests are not returned in time.

For CESQGs and SQGs

STEP 1 If a copy of the manifest with the handwritten signature of the owner or operator of the designated facility is not received within 45 days of the date the waste was accepted by the initial transporter, then the CESQG must contact the transporter and/or owner operator of the designated facility to determine the status of the HW.

STEP 2 If a copy of the manifest with the handwritten signature of the owner or operator of the designated facility is not received within 60 days of the date the waste was accepted by the initial transporter, then the CESQG must submit a legible copy of the manifest, with some indication that confirmation of delivery has not been received, to the Nevada Division of Environmental Protection (NDEP).

7.0 TRAINING, INSPECTIONS, AND RECORDKEEPING

This Section provides information, instructions, and forms for required training, periodic internal inspections, and recordkeeping.

7.1 Required Training

7.1.1 Environmental Officers (EOs)

EOs and their alternates are appointed by their Activity or Unit Commander to ensure that the unit is adhering to all environmental requirements, including HW and HM management regulations. EOs must successfully complete a training course within six months of assignment. This course should be conducted or arranged by the EMO. The training must describe proper handling and emergency procedures appropriate to the type(s) of HW and HM generated by the activity, as well as information on how to comply with Federal, State, Local, and Army environmental regulations.

7.1.2 HW Management Personnel

EOs must ensure that personnel who handle or manage HW are trained to perform their responsibilities in a safe and environmentally acceptable manner. Training should include HW management procedures identified within this plan and also emergency response procedures. This training may be accomplished in the classroom (e.g., by holding monthly shop meetings) or on-the-job. Regardless of where it is performed, it should be recorded and documented in the Environmental Compliance Binder.

7.1.3 Oil and Hazardous Substance Spill Response Training

Personnel that handle POL or hazardous substances, those that operate or maintain fixed or mobile equipment that has the potential to release POL or hazardous substances, and those assigned to the Installation Emergency Response, Spill Response, or HM/HW teams are required to have annual training. ECOs must ensure that personnel meeting these criteria receive training as stated in the **Spill Prevention Control and Countermeasure Plan (SPCCP) or Installation Contingency Plan (ICP).** This training may be accomplished in the classroom (e.g., by holding monthly shop meetings) and/or on-the-job. Regardless of where it is performed, it should be recorded and documented in the facility's training records. Table 7-1 identifies environmental training requirements for the Army National Guard.

Note	**Training requirements vary depending on assigned duties or levels of response and are detailed in 40 CFR 1910.120(q) and in the Spill Prevention Control and Countermeasure Plan (SPCCP). Requirements include annual training exercises (Spill Drills).**

Table 7-1: ENVIRONMENTAL COMPLIANCE TRAINING REQUIREMENTS
Army National Guard Soldiers

	RCRA Conditionally Exempt HW Generator (CESQG)	RCRA Small-Quantity HW Generator (SQG)	RCRA Large-Quantity HW Generator (LQG)	USDOT HM/HW Transportation	OSHA Hazard Communication Program	OSHA Hazardous Waste Operations	EPA SPCCP Spill Response	EPA CFC/HCFC Operations
Who Must be Trained	Employees handling HM/HW at any facility generating less than 100 Kg (220 pounds of HW per month)	Employees at facilities generating more than 100 Kg (220 pounds), but less than 1,000 Kg (2,200 pounds) of HW per month	Employees at facilities generating more than 1,000 Kg (2,200 pounds) of HW per month	Employees involved with transporting, shipping, or preparing HM/HW for shipment	Employees who use or may be exposed to HM under normal operating conditions, or who must respond to HM emergencies	Employees involved in, or expected to be involved in, off-site emergency response operations (Ref: All States Letter I92-0020)	Employees who operate and/or maintain fixed or mobile equipment that may release oil	Employees who service motor vehicle AC's, facility AC's, or refrigeration units. Soldiers: 52C MOS
Regulatory Citation	ARNG 200-1	40 CFR 262.34(d)(5)(iii)	40 CFR 262.34(a)(4) 264.16 265.16	40 CFR 172.700-704 173.1(b) 177.800(b)&(c) 177.816 (drivers)	29 CFR 1910.38(a)(5) 1910.1200(b)(4)(iii) 1910.1200(h) 1910.1450(f)(4)	29 CFR 1910.120(p)(7) 1910.120(p)(8)(iii) 1910.120(q)(5)&(6)	40 CFR 112.7(e)(10)	40 CFR 82.40 82.161(a)(1-5)
Time Requirements	Not Defined	Not Defined	Within 6 months of starting new job; must be supervised before training; yearly training required	Within 90 days of hire or new work assignment, see 49 CFR 172.704©	At time of new job assignment, or when a new HM is introduced to the work area	Initial training prior to doing emergency response duties; annual refresher required	Training required as necessary to assure SPCCP requirements are understood	Prior to performing work (currently no refresher training requirement)
Record-Keeping Requirements	Not Required	Not Required	Written job title and job description; description of required training; must document actual training provided	Written description of information provided to employee; proof of certification LAW 49 CFR 172.704(d)	Document written description of employee information and training provided in HazCom Program	Training/competency must be certified; support competency statement with document showing method used to verify competence	Not Required	Must be certified. Certification levels for appliance of facility air condition found in 40 CFR 82.161(a)
Applicability of Requirement	Facilities generating less than 100 Kg (220 pounds) of HW per month	Facilities generating more than 100 Kg (220 pounds), but less than 1,000 Kg (2200 pounds) of HW per month	Facilities generating more than 1,000 Kg (2,200 pounds) of HW per month	Facilities involved with transporting, shipping, or packaging HM/HW	Employers who require employees to use HM in performing their jobs	Facilities with potential for on-site release of HM and a resulting emergency response operation	Facilities required to prepare an SPCCP LAW 40 CFR 112.3	Facilities where personnel service MVAC of facility equipment with CFC's and HCFC's
Proponent	NGB: NGB-ARE State: FMO/ENV	NGB: NGB-ARE State: FMO/ENV	NGB: NGB-ARE State: FMO/ENV	NGB: NGB-ARL State: DOL	NGB: NGB-AVN State: SAFETY/OH	NGB: NGB-AVN State: SAFETY/OH	NGB: NGB-ARE State: FMO/ENV	NGB: NGB-ARL State: DOL

7.2 Training Records

Training of personnel must be documented. Make copies of these documents to keep in the Environmental Compliance Binder and to send a copy to the EMO. All training records must be kept for a minimum of 3 years.

7.3 Inspections

All NVARNG activities are subject to internal and external inspections by the DoD and by State and Federal regulatory agencies. Local governments may also inspect for compliance with permits, local codes, or other regulations. If an external inspection takes place, immediately notify the NVARNG EMO by telephone at (775) 887-7298 and forward copies of all correspondence related to the inspection. Inspection records must be kept for a minimum of 3 years.

7.3.1 Internal Inspections

Hazardous Waste Weekly Inspections

EOs are required to perform and document a weekly Environmental Inspection/Walkthrough for their HW accumulation areas using the ***Hazardous Waste Accumulation Area Weekly Inspection Log*** (Section 12.0). This must be done to properly track hazardous waste and to properly fill out the ***Hazardous Waste Turn In Request***.

7.3.2 Regulatory Inspections

PROCEDURES FOR PARTICIPATING IN A REGULATORY AGENCY INSPECTION:

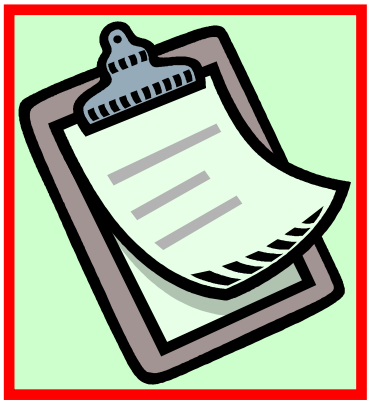
Follow the procedures outlined below during an inspection by any regulatory agency:

1. Always keep records orderly and current in order to be prepared for any inspection. This plan will help you do that.
2. When an inspector arrives, treat the person with respect. However, request appropriate identification, since they will be civilians and not in uniform.
3. Introduce yourself, and then introduce the inspector to the unit or facility commander, your supervisor, and the Environmental POC.
4. Accommodate the inspector immediately, despite your schedule.
5. Record the inspector's name and the regulatory agency which they

   Represent, (obtain a business card, if possible). Ask about the exact nature of the inspection.
6. Explain that you are in charge of your operations, but environmental subject matter experts are at EMO. If you so desire, suggest that the inspector delay the inspection until EMO personnel can be present, or continue with the inspection.

7. Immediately call your higher headquarters and EMO. EMO personnel will notify the Chief of Staff, concerned Directorates, and other affected personnel.
8. Accompany the inspector during the inspection.
9. Provide any requested documents or records, and discuss how your facility manages environmental responsibilities in the areas the inspector reviews.
10. If you do not know the answer to a question, do not guess. If the question can be answered by EMO, provide the inspector with the name, address, and phone number of the appropriate contact person.
11. To the best of your ability, demonstrate knowledge of environmental requirements. This knowledge should be supported with the Environmental Compliance Binder, associated training documents, and required management plans.
12. Discuss preliminary findings with the inspector to ensure you understand why current practices are not adequate. Differentiate between things that are "required" from those that are suggested as "better practices".
13. Make notes during the visit to ensure that the inspection can be discussed in detail with EMO personnel, if they are not present.
14. Assure the inspector that the facility will immediately correct any management deficiencies, and will request assistance from the appropriate personnel if funding or other issues beyond the capability of the unit are involved.

7.4 Recordkeeping



EOs must ensure that all necessary HW and HM records, plans, and files for their unit or facility are prepared, maintained, and updated. These records include an Environmental Compliance Binder(s) and/or a HW Shipping Notebook. **When not otherwise specified, records must be retained for three years.**

7.4.1 Environmental Compliance Binder

All NVARNG units or facilities that are HW and/or HM handlers must establish and maintain an Environmental Compliance Binder(s) that must include at least the following items:

- Hazardous Waste Generator EPA ID # and Generator Status
- Additional Duty Orders: ECO and Hazardous Waste Handler
- Training Records: ECO; Hazardous Waste Handler; Spill Response
- Hazardous Waste Weekly Inspection Logs
- Spill Prevention Control and Countermeasures Plan or Installation Spill Contingency Plan
  - ✓ Aboveground Storage Tank (AST) Inspection Records

- ✓ Underground Storage Tank (UST) Registrations and Inspection Records
- ✓ Spill Drill Documentation

- Permits and Record Keeping to Support Permits (Air, Wastewater, Fire Marshal)
- Internal Assessment and EPAS Findings and Measures Taken to Correct these findings (ICAP)
- Regulatory Agency Inspections (Letters, Warnings, Notices of Violation)
- NVARNG Hazardous Waste Management Plan (Keep in Same Location as Environmental Compliance Binder)
- AR 200-1, DA PAM 200-1, NVMD PAM 200-1, TM 38-410 (Keep in Same Location as Environmental Compliance Binder)

7.4.2 HW Shipping Notebook

All NVARNG units or facilities that are HW and/or HM handlers must establish and maintain a HW Shipping Notebook that must include at least the following items:

- Hazardous Waste Disposal Records (Manifests, Return to Generator Manifest, Land Disposal Restrictions (LDRs)
- Non-Hazardous Waste Disposal Records (Filters, Used Oil, Antifreeze, Absorbent etc.)
- Universal Waste Disposal Records (Batteries, Lamps)
- Waste Accumulation Inventory Logs
- Waste Determinations (Laboratory Results or Process Knowledge)

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8.0 SPILL RESPONSE PROCEDURES

8.1 Spill Response Equipment

Know the spill response equipment kept on-site. The following are examples of spill response equipment to be kept on-site:

- Absorbent-clay, ground unit of issue (UI-bag) (NSN 7930-00-269-1272)
- Insulation, thermal, vermiculite (UI-bag) (NSN 5640-00-801-4176)
- Sorbent for hazardous materials (peat moss) - 4 each 1 cubic foot bag (NSN 4235-01-423-1466)
- Sorbent for hazardous materials (peat moss) - 1 each 1 cubic foot bag (NSN 4235-01-423-0711)
- 30 each 18x18 inch pillows (NSN 4235-01-423-1463)
- 20 each 2 in x 10 ft. sock (NSN 4235-01-423-1467)
- 10 each 4 in x 8 ft. sock (NSN 4235-01-423-1465)
- 10 in x 10 ft. water booms (NSN 4235-01-423-2787) – absorbs up to 12-gallons of oil
- Removable head drum, metal
- Bag, polyolefin, 5 millimeters, 35 x 54 inch (NSN 8105-00-848-9631)
- Screw cap bottle, plastic, 1 gallon (polyethylene) (NSN 8125-00-174-0852)
- Spill Kit (NSN 4235-01-423-7221) for hazardous materials

EOs should ensure that spill response equipment is accessible to Traditional Guardsmen personnel during weekend activity. Additionally ensure that Traditional Guardsmen/Unit personnel are familiar with the location and how to use the spill response equipment.

8.2 Spill Response

Spills must be cleaned up as soon as practical, without risk of injury or significant exposure to personnel. The EO must maintain enough spill response equipment to respond to types and quantities of hazardous chemicals and waste onsite. The EO must also use the Pollutant or Hazardous Substance Spill Report in the forms section of this plan to immediately report all spills. Only EMO personnel will notify the National Response Center (NRC) or regulatory agencies.

The EO should also refer to the facility's Spill Prevention, Control, and Countermeasures Plan (SPCCP) / Installation Contingency Plan (ICP).

Incidental or Minor Spills

- Spills or releases of less than 25 gallons.
- Spills or releases that do not pose a significant safety or health hazard such as fire, explosion, or hazardous material exposure.
- Incidental spills ***can*** be absorbed, neutralized, or otherwise controlled at the time of release by personnel in the immediate spill area.

Major Spills

- Spills or releases of 25 gallons or more.
- Any spill into waters of the U.S (including storm drains).
- Any spill that poses significant safety or health hazards such as fire, explosion, or hazardous material exposure.
- Major spills ***cannot*** be absorbed, neutralized, or otherwise controlled at the time of release by personnel in the immediate release area.

The following information is located in the Army Corps of Engineers document, "You Spill, You Dig!, An Environmental Handbook for Deployment."

When faced with the hazards of a spill, always:

- Use PPE, including gloves, goggles, and suits
- Do the "Spill Drill" -- **REACT!**

REMOVE THE SOURCE

ENVELOP THE SPILL

ABSORB/ACCUMULATE

CONTAINERIZE

TRANSMIT A REPORT

Remove the Source

Use the following steps to remove the source:

- Turn off all sources of ignition (pumps, motors, etc.).
- Approach the spill from up wind and attempt to stop the source by doing one of the following:
    - Upright containers or roll them over so the hole is facing up

- Close valves and turn off power to pumps
- Transfer material to another container
- Place leaking drums in compatible DOT-approved over pack drums
- Transfer the material in a leaking container to another container
- Patch holes if practical to do so
- Move container to a location where it poses less of a threat

Note	Use a drip pan for all valves and similar dispensing equipment. Drips and leaks collected in a drip pan are not reportable spills.

- If spill is a major spill, activate internal activity alarms or give a verbal alarm, evacuate all personnel to a safe distance up-wind from the spill and secure the area. Personnel responding to major spill must have received specific training. Most NVARNG employees are not adequately trained to respond to major spills

Envelop the Spill

Use the steps below to envelop the spill.

Stop or slow the spread of the spill using one or more of the following methods:

- Use the nearest Spill Response Kit.
- Use compatible absorbent material to build a dike around the spill (check the material's MSDS for guidance).

Absorb/Accumulate

Use the one of the following ways to absorb or accumulate the spill.

- On a hard surface, put down dry sweep.
- On a gravel or dirt surface, lay an absorbent sock or pad on the spill.

Containerize It

Use the following procedure to containerize the spill.

- Clean up spills by draining, absorbing, or scooping free-floating materials into a container.
- Scoop or shovel contaminated media (soil, gravel, etc.) into a DOT-approved container for disposal.
- Overpack leaking, corroded, or otherwise deteriorating containers. Overpack leaking containers of liquid into larger containers.
- Place absorbent material in overpack container with leaking containers. For 55-gallon drums, use approximately six inches of absorbent in the bottom of an 85-gallon overpack drum. You may not

need to overpack non-liquid hazardous waste. Check with the Installation On-Scene Commander (IOSC) when in doubt.

- Dispose of contaminated media, residue, and cleanup materials IAW Section 5.

Transmit a Report

Use the following steps to transmit a spill report.

- For minor or incidental spills, notify your supervisor of the spill and measures taken to clean it up.

Note	Each state has different reporting requirements. Report all spills to the Environmental Management Office (EMO) in which state the spill occurs. The EMO will determine the NGB, Federal and State agencies to be notified.

- If the spill results in a fire or poses a human health threat (Major Spill):
  a. Notify the Fire Department and provide--
     - Your name
     - Location of spill
     - Substance spilled
     - Number of injured personnel and nature of injuries
     - Amount spilled and extent it has traveled
     - Amount stored and rate at which material is spilling (est.)
     - Time spill started (occurred)
  b. Complete a Pollution Incident Report form (Section 12.0).
  c. Immediately notify the EMO at (775) 887-7298. Do not attempt to clean up the spill unless directed by the EMO!

8.3 Duties

Personnel must receive the First Responder Operations Level training to respond to a major spill. Personnel should adhere to OSHA 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response regulations. If the personnel are not trained, then they should call 911 and report it their chain of command and/or regulatory agencies, and not participate in the spill response efforts.

Installation On-Scene Coordinator (IOSC)

- Collects all spill and material information
- Determines if facility Installation Response Team (IRT) can handle the spill or if a contractor is needed

- Notifies IRT and dispatches them to the spill location.
- If the spill is reportable, immediately notify the EMO. Call the EMO contact numbers until someone is reached:
- Contacts emergency services (fire, ambulance, etc.) as needed.
- Completes the Spill Report located in the back of this Section and faxes it to the EMO.
- Continues correspondence and communication with the EMO until the spill is closed.
- Maintains all spill documentation.

Installation Response Team (IRT)

- Identifies the material spilled.
- Checks out all information about the substance, including labels, markings, and MSDSs.
- If they have training, PPE, and equipment to adequately respond to the spill, responds to the spill; otherwise, calls appropriate authorities and EMO.
- Before responding to a spill, puts on appropriate PPE as necessary.
- Gathers equipment and stops or contains the spill or leak.
- Uses absorbents, such as socks, booms, or pads, to contain the spill.
- Places material in appropriate containers for disposal.
- Labels and marks the container.
- Coordinates with the EO and places the container in the waste storage building for the contractor to arrange for disposal.
- Ensures the IOSC is aware of spill material used so it can be re-stocked.

BE SAFE!

When handling any spill - BE SAFE! Below is a helpful reminder of safety procedures to follow:

- **B**efore a spill happens, have a Spill Response Kit on hand.
- **E**ducate and practice spill response procedures.
- **S**hut off all sources of ignition as soon as a spill occurs.
- **A**pproach spills from upwind/uphill.
- **F**igure out if outside emergency responder assistance is needed.
- **E**vacuate any unnecessary personnel.

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9.0 DEFINITIONS

The following definitions are specific to this Plan. In some cases, these definitions may vary from those found in the regulations because they are a summary or composite of definitions from different regulations.

Accumulation - The process of collecting waste in containers or tanks on-site before shipping to a Treatment, Storage, and Disposal Facility (TSDF). Waste can be accumulated at Satellite Accumulation Points and 90-Day Accumulation Areas.

Accumulation Start Date (ASD) - The date when a HW first becomes subject to the accumulation time limits. The ASD is the date that

1. A full container of waste is first placed into a 90-Day or 180-Day Storage Area, or
2. A container at a 90-Day or 180-Day Storage Area becomes full, or
3. The 55-gallon quantity limit is exceeded at a Satellite Accumulation Point.

Activity - For the purposes of this manual, the term Activity includes any installation or facility in the NVARNG (e.g., an FMS, CSMS, AASF, or training site).

Acute HW - The commercial hazardous chemical products, manufacturing hazardous chemical intermediates, and off-specification commercial hazardous chemical products or manufacturing hazardous chemical intermediates listed in 40 CFR 261.33(e).

Affirmative Procurement – Affirmative procurement is the process through which Federal agencies purchase goods with a high recycled content. Affirmative procurement is part of a national Federal strategy to encourage recycling by creating a demand for recycled products. Products that should be purchased as recycled products include lubricating oils, retread tires, paper, cement and concrete (containing fly ash), and insulation products. Closing the loop through affirmative procurement helps to reduce reliance on virgin materials.

Characteristic HW - Described in 40 CFR 261.20. Characteristic HWs are solid wastes that meet or exceed the thresholds established for any of the characteristics identified in 40 CFR Subpart C. These characteristics are ignitability, corrosivity, reactivity, and toxicity.

Conditionally Exempt Small Quantity Generator (CESQG) - Activities that:

4. Generate no more than 220 pounds/month (100 kg) of HW;
5. Accumulate no more than 2,200 pounds (1,000 kg) of HW on-site;
6. Generate no more than 2.2 pounds/month (1 kg) of acute HW; and
7. Generate no more than 220 pounds/month (100 kg) of any residue or contaminated soil, waste, or other debris resulting from the cleanup of any acute waste release.

Disposal - Generally refers to land disposal at permitted facilities, but it may also include wastewater effluent discharged to surface waters. Disposal is considered the least favorable waste management alternative because of the harmful effects these wastes can have on the environment. The Environmental Quality Control Committee must take into account the hazard and liability concerns associated with transporting and disposing of wastes when evaluating pollution prevention and waste management options.

Environmental Officer (EO) - An individual assigned to a table of organization and equipment (TO&E) or table of distributions and allowances (TDA) organization or unit to accomplish environmental compliance requirements on behalf of his or her responsible commander, director, or supervisor. Designated person also coordinates with supporting permanent installation environmental staff for requirements clarification and assistance. In the Army National Guard (ARNG), coordination is with NGB–ARNG State environmental staff; in the Reserves, with Regional Support Command environmental staff. Organizational levels, and required grade or rank, suitable for assignment of compliance officer duties will be determined by the commander. Commanders should consider mandatory Federal training requirements as well as mission workloads in determining assignment of environmental officers at Battalion and unit (Company, Battery, Troop) level.

Hazardous Chemical - Any element, chemical compound, or mixture of elements and compounds that is a physical hazard or a health hazard. Chemicals with physical hazards include combustible liquids, compressed gases, explosives, flammables, organic peroxides, oxidizers, pyrophoric chemicals that will ignite spontaneously in air, unstable chemicals, and water-reactive chemicals. Chemicals with health hazards are those for which there is significant evidence that the chemical has an acute or chronic effect on the health of exposed people. See 29 CFR 1910.1200, Appendix A and Appendix B for further definitions, explanations, and criteria for identifying hazardous chemicals.

Hazardous Material (HM) – For transportation purposes, HM is defined by the U.S. Department of Transportation (USDOT) as anything that, due to its chemical, physical, or biological nature, causes safety, public health, or environmental concerns. Under this definition, HM includes HW and materials exhibiting explosive, flammable, corrosive, and oxidizing properties. For storage, handling, and disposal purposes, HM is defined as a hazardous substance (see below) that is unopened and unused.

Hazardous Materials Employee – A person who

8. Loads, unloads, or handles HM,
9. Prepares HM for shipment,
10. Is responsible for HM transportation safety, or
11. Operates a vehicle used to transport HM.

Hazardous Substance - In general, any material that may pose a substantial hazard to human health or the environment. For the purposes of this Plan, a hazardous substance is any of the following:

12. Any HW having the characteristics identified under the RCRA;
13. Any material regulated as a hazardous material per USDOT;
14. Any material that requires an MSDS per OSHA (see "Hazardous Chemical"); and
15. Any substance designated according to Comprehensive Environmental Response, Compensation, and Liability Act, Clean Water Act, Clean Air Act, or TSCA.

Hazardous Waste (HW) - A solid waste is a HW if it meets either of the following criteria and it is not specifically excluded from regulation as a HW:

1. It is ignitable, corrosive, reactive, or toxic as measured by standard test methods or as can be reasonably determined by generators through knowledge of the waste generating process.
2. It is specifically listed as such in 40 CFR 261, Subpart D.

HW Mixtures - A mixture of a solid waste with a characteristic or listed HW. Mixtures containing listed HWs are listed HWs (except for certain mixtures containing F003 listed wastes). Mixtures of solid waste with characteristic HW (or F003 listed waste) are HW only if the final mixture exhibits a hazardous characteristic.

Large Quantity Generator (LQG) - An activity that generates 2,200 pounds or more of HW in a calendar month, or accumulates more than 13,200 pounds of HW at any one time. A LQG may accumulate HW for no more than 90 days after the Accumulation Start Date.

Listed HW - A solid waste is a listed HW if it is listed in 40 CFR Part 261, Subpart D. Each HW listed in Subpart D is assigned an EPA HW Number that precedes the name of the waste. Listed HWs are hazardous by definition and do not require laboratory analysis to make a determination as hazardous.

Manifest - A shipping document that must accompany HW to the Treatment, Storage, and Disposal Facility (TSDF).

Material Safety Data Sheet (MSDS) - A collection of information required by the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard. An MSDS includes the identity of hazardous chemicals, health and physical hazards, exposure limits, and safety precautions.

Ninety (90)-Day Accumulation Area - A central management location where LQG hazardous waste is temporarily stored prior to shipment off site. Small Quantity Generators (SQGs) have an equivalent term of "180-Day Accumulation Area" to describe their central management location.

Non-Government Appropriated - Any item *not* purchased:

16. Through standard military channels
17. On military charge accounts or credit cards
18. By military personnel who are reimbursed by the military

One Hundred and Eighty (180)-Day Accumulation Area - A central management location where SQG hazardous waste is temporarily stored prior to shipment off site.

Personal Protective Equipment (PPE) - Any protective clothing or device worn by personnel to prevent contact with, or exposure to, hazardous materials in the work area. Examples include protective aprons, goggles, face splash shields, eye protection, gloves, and various types of respiratory protection.

Pollution Prevention (P2) - Pollution Prevention is the use of practices that reduce or eliminate the creation of pollutants through increased efficiency in the use of raw materials and resources. Such practices include source reduction, reuse, and recycling.

Resource Conservation and Recovery Act (RCRA) – RCRA is a set of revisions to the 1965 Solid Waste Management Act. Passed by Congress in 1976 (and amended several times since then), RCRA contains the provisions for management of HW under Federal law. RCRA has three primary goals: 1) protection of human health and the environment, 2) reduction of waste and conservation of energy and natural resources, and 3) reduction or elimination of the generation of HW as expeditiously as possible.

Recycling - Recycling is the reuse or regeneration of materials and wastes into usable products and by-products. Recycling includes practices such as material exchange, recovery of materials, and composting of organic waste matter.

Release - Under the Emergency Planning and Community Right-to-Know Act (EPCRA), release includes emitting, discharging, dumping or disposing any hazardous chemical or substance into the environment. A release does not include chemical shipments off-site to other facilities for disposal, recycling, energy recovery, or treatment.

Satellite Accumulation Point (SAP) - A designated point where a generator may accumulate up to 55 gallons of HW or one quart of acute HW. Each SAP must be at or near the point of generation, and must be under the control of the operator of the process generating the waste.

Small Quantity Generator (SQG) - An activity that generates more than 220 pounds but less than 2,200 pounds of HW per month, and does not accumulate more than 13,200 pounds of HW at any one time. A SQG may accumulate HW for no more than 180 days from the Accumulation Start Date, with one exception. SQGs located more than 200 miles from a HW Treatment, Storage, and Disposal Facility (TSDF) may accumulate HW for no more than 270 days from the Accumulation Start Date.

Solid Waste - All discarded materials including solids, semisolids, sludges, liquids, and compressed gases are solid wastes unless excluded by regulation (see definitions of hazardous waste and universal waste). A discarded material is any material that is abandoned, recycled, or considered inherently waste-like.

Source Reduction - Source reduction is the use of the materials, processes, or practices that reduce or eliminate the quantity and toxicity of wastes at the start of a process. It can be achieved by material substitution, preventative maintenance of equipment, improved operational processes, or better housekeeping.

Spill - The accidental leaking, pumping, emitting, discharging, emptying, or dumping of waste or materials.

Transfer - The physical movement of waste from one activity or point to another, such as from a SAP to a 90-Day Accumulation Area or off-site to a Treatment, Accumulation, and Disposal Facility.

Treatment - Any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character of any HW. Examples of treatment are incineration, biological treatment, thermal oxidation, or compaction. Many treatment technologies reduce the volume of waste or create a less concentrated or toxic waste. Treatment often results in the transfer of hazardous materials from one medium to another (e.g., from solid to gas during incineration).

Treatment, Storage, and Disposal Facility (TSDF) – A TSDF is a facility that meets the requirements of 40 CFR 270.14 through 270.28 under RCRA and has obtained the permit required under the Federal regulations. A TSDF can store HW for up to one year before shipping the waste off site to another TSDF, can treat HW through a number of approved processes such as incineration, and/or can dispose of HW in

a legally approved manner. Each TSDF is permitted to handle a specific set of HW and cannot accept or dispose of any HW not included in its permit.

Universal Waste - Defined in 40 CFR Part 273, universal wastes include certain batteries, pesticides, mercury thermostats, and mercury lamps.

Used Oil - Any oil that has been refined from crude oil or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities. This includes, but is not limited to, fuel oils, motor oils, gear oils, cutting oils, transmission fluids, and hydraulic fluids.

Waste Stream - A waste stream is the collective wastes that may be accumulated, consolidated, or bulked into the same container for disposal or recycling

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10.0 ACRONYMS

ACM	**Asbestos-Containing Material**
AR	**Army Regulation**
ARNG	**Army National Guard**
ASD	**Accumulation Start Date**
AST	**Aboveground Storage Tank**
AT	**Annual Training**
AUL	**Authorized Use List**
BMP	**Best Management Practice**
CESQG	**Conditionally Exempt Small Quantity Generator**
CFR	**Code of Federal Regulations**
CPM	**Compliance Program Manager**
DA	**Department of Army**
DCL	**Directorate of Command Logistics**
DFE	**Directorate of Facility Engineering**
DO	**Delivery Order**
DoD	**Department of Defense**
DOT	**Department of Transportation**
EO	**Environmental Officer**
EO	**Executive Order**
EMO	**Environmental Management Office**
EPA	**Environmental Protection Agency**
EPCRA	**Emergency Planning and Community Right-to-Know Act**
EPM	**Environmental Program Manager**
EQCC	**Environmental Quality Control Committee**
FEDLOG	**Federal Logistics Record**
FMS	**Field Maintenance Shop**
FSC	**Federal Supply Code**
GPP	**Green Procurement Program**
HCCS	**Hazardous Chemical Compatibility System**
HM	**Hazardous Material(s)**
HMIRS	**Hazardous Material Information Resource System**
HQ	**headquarters**
HSWA	**Hazardous and Solid Waste Amendments**
HW	**Hazardous Waste(s)**
HWMP	**Hazardous Waste Management Plan**
HWPS	**Hazardous Waste Profile Sheet**
IAW	**In accordance with**
IDT	**Inactive Duty Training**
IMPAC	**International Merchant Purchase Authorization Card**
ICP	**Installation Contingency Plan**
JSM	**Joint Services Manual**
LDR	**Land Disposal Restriction**

LQG	**Large Quantity Generator**
LQHUW	**Large Quantity Handler of Universal Waste**
LSN	**Local Stock Number**
MSDS	**Material Safety Data Sheet**
NAC	**Nevada Administrative Code**
NCO	**Non-Commissioned Officer**
NDEP	**Nevada Division of Environmental Protection**
NEPA	**National Environmental Policy Act**
NFPA	**National Fire Protection Association**
NGB	**National Guard Bureau**
Ni-Cd	**Nickel-Cadmium**
NRS	**Nevada Revised Statutes**
NSN	**National Stock Number**
OSHA	**Occupational Safety and Health Administration**
P2	**Pollution Prevention**
PCB	**Polychlorinated Biphenyl**
POC	**Point-of-Contact**
POL	**Petroleum, Oil, and Lubricant**
POTO	**Plans, Operations, and Training Office(r)**
PPE	**Personal Protective Equipment**
ppm	**parts per million**
QSL	**Quality Status Listing**
RCRA	**Resource Conservation and Recovery Act**
SAO	**State Army Aviation Office**
SAP	**Satellite Accumulation Point**
SLN	**Storage Location Number**
SOP	**Standard Operating Procedure**
SPCC	**Spill Prevention, Control, and Countermeasure**
SSO	**State Safety Officer**
STARC	**State Area Command**
SQG	**Small Quantity Generator**
SQHUW	**Small Quantity Handler of Universal Waste**
TAG	**The Adjutant General**
TSCA	**Toxic Substances Control Act**
TSDF	**Treatment, Accumulation and Disposal Facility**
UHWM	**Uniform Hazardous Waste Manifest**
UN	**United Nations**
USDOT	**United States Department of Transportation**
USP&FO	**United States Property and Fiscal Office(r)**
UST	**Underground Storage Tank**
UW	**Universal Waste**
WPS	**Waste Protocol Sheets**

11.0 WASTE PROTOCOL SHEETS

Using Waste Protocol Sheets

A) Certain waste management practices are specific to an individual waste stream. These procedures are identified on easy-to-follow; one-page guides called Waste Protocol Sheets (WPS), which are located on Pages 11-3 through 11-15. The WPS outlines step-by- step procedures that explain how to:

- Select a container for your waste
- Prepare and label the container
- Add waste
- Properly accumulate waste

B) This section includes a WPS for each type of waste commonly generated by the NVARNG. To use the WPSs:

1. Find your waste in the index on the following page

2. Turn to the applicable WPS.

3. Make sure your waste is covered by that WPS. If your waste does not have a WPS, contact the EMO for waste handling instructions.

For example, if you have a lithium battery, check the following list for the title word "Battery" to see if lithium batteries are covered. Follow the instructions on the WPS for proper handling and storage instructions of lithium batteries.

Waste Protocol Sheet Index

AEROSOL CANS

ATTENTION!
• **DO NOT handle waste unless you have been trained or are supervised by trained personnel.** • **Collect empty Aerosol Cans in a Satellite Accumulation Point.** • **DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.** • **Don appropriate PPE prior to handling waste.**

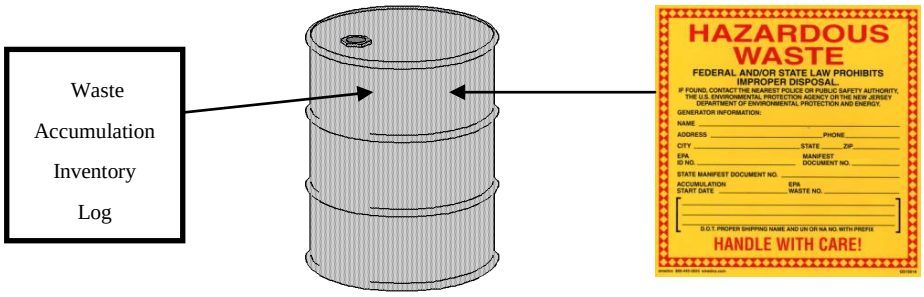
Step 1 Select an Approved Container

1. **Approved Container for cans: DOT rated cardboard box, or if generating large amounts, use a 30-gallon or larger removable head DOT rated drum. Use separate containers for each aerosol type, (e.g. flammables, corrosives, toxics.)**
2. **Inspect container for dents, bulges, cracks, or excessive corrosion.**

Check the SAP or HW Building - Has an approved container already been established for your waste? If NO, continue to Step 2. If YES, go to Step 3.

Step 2 Prepare and Label the Container

1. **Use tape or adhesive to attach a clear plastic bag (such as a one-gallon "Ziploc™" bag) to the container. Insert the Waste Accumulation Inventory Log into the bag.**
2. **Complete and attach a HW Label (peel-off sticker) IAW Section 3 of the HWMP.**



Step 3 Put Waste in the Container

1. **Wear the proper Personal Protective Equipment listed on the MSDS.**
2. **Drum may be pressurized, so open it slowly, keeping your head/face clear of the opening.**
3. **Add aerosol cans and close the drum.**
4. **Document the number of aerosol cans added on the Waste Accumulation Inventory Log.**

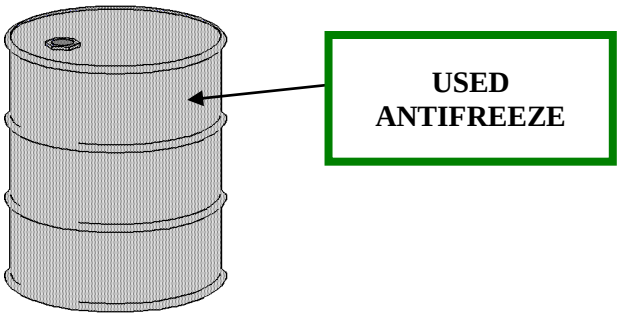
Step 4 Turn-in Procedures

Turn in procedures are available in Section 5.0 on Pages 5-1 and 5-2.

ANTIFREEZE

ATTENTION!
• **DO NOT handle waste unless you have been trained or are supervised by trained personnel.** • **DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.** • **CAUTION: Used antifreeze is considered a hazardous material and not a HW. Do not dispose in the sanitary sewer, even with permission from the local wastewater treatment plant.** • **Don appropriate PPE prior to handling waste.**

Step 1	Select an Approved Container
	1. Approved Container: Closed -Top DOT rated drum. **2. Inspect container for dents, bulges, or excessive corrosion.**  **Check the HW Building or POL Storage Area – Has an approved container already been established for your waste? If NO, continue to Step 2. If YES, go to Step 3.**

Step 2	Prepare and Label the Container
	1. Remove any previous markings and labels from the container or mask them with paint. **2. Using 3-inch letters and contrasting color stencil the words "USED ANTIFREEZE" on the side of the drum. Labels may be used if available.** 

Step 3	Put Waste in the Container
	1. Wear the proper PPE listed on the product MSDS. **2. Open drum slowly, keeping your head/face clear of the opening.** **3. Add Used Antifreeze to drum.** **4. Leave the proper headspace IAW Section 3 of the HWMP.**

Step 4	Store Waste in an Approved Location
	Antifreeze is approved for storage in a POL Storage Area or HW Building.

Step 5	Turn-in Procedures*
	Turn in procedures are available in Section 5.0 on Pages 5-1 and 5-2. Used antifreeze Is recycled by Thermo Fluids, Inc., so do not turn in as a waste.

***Note: Thermo Fluids, Inc. collects the used antifreeze, reprocesses it and sells it as "remanufactured" antifreeze.**

ASBESTOS

ATTENTION!
• **DO NOT handle waste unless you have been trained or are supervised by trained personnel.** • **This WPS does not deal with asbestos abatement, or construction.** • **Separate items by NSN.** • **DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.**

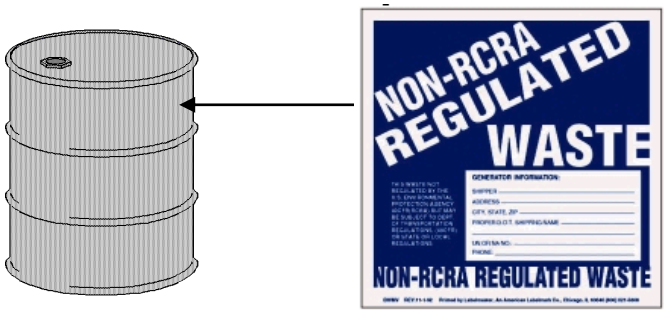
Step 1 Select an Approved Container

1. **Approved Container: Open-head DOT rated drum.**
2. **Inspect container for dents, bulges, or excessive corrosion**

Check the SAP or HW Building – Has an approved container already been established for your waste? If NO, continue to Step 2. If YES, go to Step 3.

Step 2 Prepare and Label the Container

1. **Remove any previous markings or labels from the container or mask over them with paint.**
2. **Use tape or adhesive to attach a clear plastic bag (such as a one-gallon "Zip- Loc™ bag) to the container. Insert the Waste Accumulation Inventory Log into the bag.**
3. **Complete and attach a "Non-RCRA Regulated Waste" label to the side of the container and enter the required information. On the content line, enter ASBESTOS CONTAINING MATERIAL.**



Step 3 Put Waste in the Container

1. **Wear the proper PPE listed on the product MSDS.**
2. **Open drum slowly, keeping your head/face clear of the opening.**
3. **Bag the ACM and then add to drum.**
4. **Leave the proper headspace IAW Section 3 of the HWMP.**
5. **Document the amount of asbestos added on the Waste Accumulation Inventory Log IAW procedures in the *Adding Waste to the Container* Section in Section 5.**

Step 4 Store Waste in an Approved Location

Asbestos containing material is approved for storage in a HW Building. Ensure HW Building is set up IAW the procedures outlined in Section 3.

Step 5	Turn-in Procedures
	Turn in waste IAW Section 5 of the HWMP.

BATTERIES

ATTENTION!
• **DO NOT handle waste unless you have been trained or are supervised by trained personnel.** • **Separate batteries by type. (Lead-acid, NiCad, Lithium, etc.)** • **Store in well-ventilated areas. Vapors may be corrosive.** • **DO NOT store batteries on aluminum shelving or near flammable, corrosive, or reactive materials.** • **Keep batteries dry. If batteries contain liquid, store within secondary containment.** • **DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.** • **Don appropriate PPE prior to handling hazardous waste.**

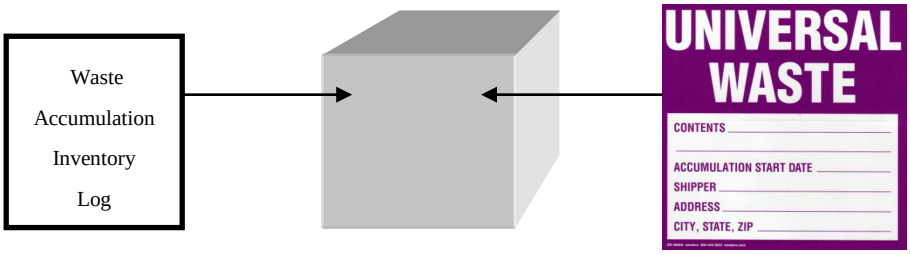
Step 1 Select an Approved Container

1. **Approved Container: Cardboard box, open top drum or pallet.**
2. **Inspect container for dents, bulges, cracks, or excessive corrosion.**

Check the HW Building or Designated Battery Storage Area – Has an approved container already been established for your waste? If NO, continue to Step 2. If YES, go to Step 3.

Step 2 Prepare and Label the Container

1. **Use tape or adhesive to attach a clear plastic bag (such as a one-gallon "Ziploc™" bag) to the container. Insert the Waste Accumulation Inventory Log into the bag.**
2. **Complete and attach a Universal Waste label IAW Section 3 of the HWMP. Write the NSN, and leave on the box.**



Step 3 Put Waste in the Container

1. **Tape battery terminals with masking tape and add to box, placing a cardboard liner between each battery and packaging different stock numbers in different containers. Do not seal in gas-tight plastic bags, drums, or non-vented containers.**
2. **Close the box or container.**
3. **Document the number of lithium batteries added on the Waste Accumulation Inventory Log.**

Step 4 Turn-in Procedures

Turn in procedures are available in Section 5.0 on Pages 5-1 and 5-2. Vehicle batteries are taken to Napa where they recycle them at no charge. Rechargeable batteries are recycled through Call-2-Recycle at not cost. Please contact EMO for further instructions.

METAL FILTERS (FUEL AND OIL)

ATTENTION!
• **DO NOT handle waste unless you have been trained or are supervised by trained personnel.** • **DO NOT: eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.** • **See Section 4 for filter draining procedures. Filters must be properly drained prior to recycling.** • **Don appropriate PPE prior to handling hazardous waste.**

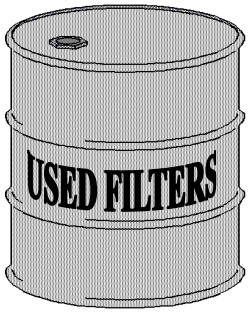
Step 1 Select an Approved Container

1. **Approved Container: 30-gallon or larger open-top drum.**
2. **Inspect container for dents, bulges, or excessive corrosion.**

Check SAP or HW Building – Has a container already been established for your waste? If NO continue to Step 2. If YES, go to Step 3.

Step 2 Prepare and Label the Container

1. **Remove any previous markings and labels from the container or mask over them.**
2. **Using 3-inch letters and contrasting color stencil the words "USED FILTERS" on the side of the drum if not previously marked. Labels may be used if available.**



Step 3 Put Waste in the Container

1. **Wear the proper PPE, as listed on the MSDS.**
2. **Open drum slowly, keeping your head and face clear of the opening.**
3. **Add filters to the drum.**

Step 4 Turn-in Procedures

Turn in procedures are available in Section 5.0 on Pages 5-1 and 5-2. Used oil/fuel filters are recycled & picked up by Western Metals Recyclers at no cost, please contact the EMO for further instructions.

FILTERS, PROTECTIVE MASK (D007)

(M-17, M-24, M-25, and M-40 Series)

ATTENTION!
• **DO NOT handle waste unless you have been trained or are supervised by trained personnel.** • **Protective Mask Filters (M-17, M-24, M-25, and M40) contain trace amounts of chromium.** • **Separate Mask Filters by type.** • **DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.** • **Don appropriate PPE prior to handling hazardous waste.**

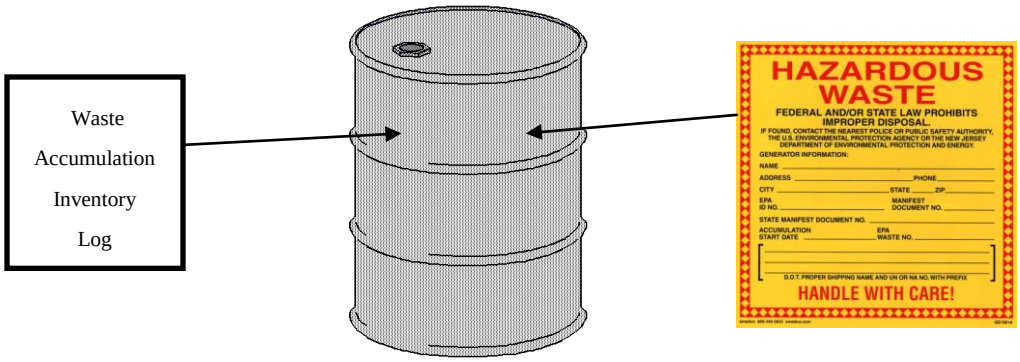
Step 1 Select an Approved Container

1. **Approved Container: DOT rated cardboard box or a DOT rated 55-gallon open-head or other appropriately sized container.**
2. **Inspect drum for dents, bulges, cracks, or excessive corrosion.**

Check the SAP or HW Building– Has a container already been established for your waste? If NO, continue to Step 2. If YES, go to Step 3.

Step 2 Prepare and Label the Container

1. **Use tape or adhesive to attach a clear plastic bag (such as a one-gallon "Ziploc™" bag) to the container. Insert the Waste Accumulation Inventory Log into the bag.**
2. **Complete and attach a HW label (peel-off sticker) IAW Section 3 of the HWMP.**



Step 3 Put Waste in the Container

1. **Wear the proper PPE listed on the MSDS.**
2. **Open the drum slowly keeping your head/face clear of the opening.**
3. **Add Mask Filters to box or drum.**
4. **Document the number of Mask Filters added on the Waste Accumulation Inventory Log.**

Step 4 Turn-in Procedures

Turn in procedures are available in Section 5.0 on Pages 5-1 and 5-2.

LAMPS

Halogen, Fluorescent, Metal Halide, Sodium, Mercury Vapor

ATTENTION!
• **Follow this WPS for all used lamps.** • **Do Not intentionally break lamps** • **Always wear gloves when handling unbroken or broken light bulbs.** • **DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.** • **Don appropriate PPE prior to handling hazardous waste.**

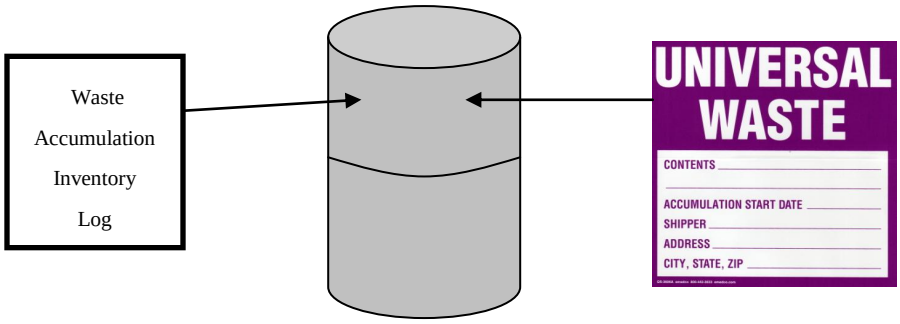
Step 1	Select an Approved Container

1. **Approved Container: Original shipping box, recycling box or similar container.**
2. **Inspect container for dents, bulges, cracks, or excessive corrosion.**

Check the HW Building – Has an approved container already been established for your waste? If NO, continue to Step 2. If YES, go to Step 3.

Step 2	Prepare and Label the Container

1. **Use tape or adhesive to attach a clear plastic bag (such as a one-gallon "Ziploc™" bag) to the container. Insert the Waste Accumulation Inventory Log into the bag.**
2. **Complete and attach a Universal Waste label IAW Section 3 of the HWMP.**



Step 3	Put Waste in the Container

1. **Wear the proper Personal Protective Equipment listed on the MSDS.**
2. **Open container slowly, keeping head/face clear of the opening.**
3. **Add Lamps to container.**
4. **Close Container.**
5. **Document the number of Lamps added on the Waste Accumulation Inventory Log.**

Step 4	Turn-in Procedures

Turn in procedures are available in Section 5.0 on Pages 5-1 and 5-2. Fluorescent tubes are currently recycled through a company called Veolia, please call EMO for further instructions.

PAINT (NON LATEX) AND PAINT-RELATED WASTE

(D001)

ATTENTION!

- **DO NOT handle waste unless you have been trained or are supervised by trained personnel.**
- **Flammable – DO NOT store near oxidizers (bleach), corrosives, or heat sources.**
- **Store in well-ventilated areas.**
- **DO NOT mix with latex paint and paint-related waste.**
- **DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.**

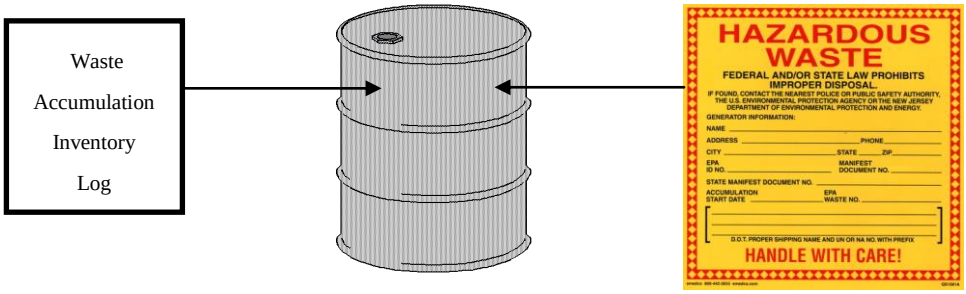
Step 1 Select an Approved Container

1. **Approved Container: Non-removable head DOT rated drum.**
2. **Inspect container for dents, bulges, or excessive corrosion.**

Check the SAP or HW Building– Has an approved container already been established for your waste? If NO, continue to Step 2. If YES, go to Step 3.

Step 2 Prepare and Label the Container

1. **Use tape or adhesive to attach a clear plastic bag (such as a one-gallon "Ziploc™" bag) to the container. Insert the Waste Accumulation Inventory Log into the bag.**
2. **Complete and attach a HW label (peel-off sticker) IAW Section 3 of the HWMP.**
3. **Ground drum to prevent static electricity from building up.**



Step 3 Put Waste in the Container

1. **Wear the proper PPE listed on the MSDS.**
2. **Open drum slowly, keeping your head/face clear of the opening.**
3. **Add paint waste to drum.**
4. **Leave the proper headspace IAW Section 3 of the HWMP.**
5. **Document the amount of non-latex paint and paint-related waste added on the Waste Accumulation Inventory Log.**

Step 4 Turn-in Procedures

Turn in procedures are available in Section 5.0 on Pages 5-1 and 5-2.

PAINT & PRIMER - LATEX

Any Latex or other Non-Flammable Non-Metal Bearing Coating

ATTENTION!
• **DO NOT handle waste unless you have been trained or are supervised by trained personnel.** • **Separate paints by NSN.** • **This WPS is for the above listed paints only.** • **Dispose of latex paint that has dried in the can as general debris.** • **DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.**

Step 1 Select an Approved Container

1. **Approved Container: Cardboard box or, if generating large amounts use a 30-gallon or larger drum; non-removable head for free liquids and removable head for containerized liquids.**
2. **Inspect container for dents, bulges, or excessive corrosion.**

Check the SAP or HW Building– Has a container already been established for your waste? If NO, continue to Step 2. If YES, go to Step 3.

Step 2 Prepare and Label the Container

1. **Use tape or adhesive to attach a clear plastic bag (such as a one-gallon "Ziploc™" bag) to the container. Insert the Waste Accumulation Inventory Log into the bag.**
2. **Complete and attach a Non-Hazardous Waste label to the side of the container IAW Section 3 of the HWMP. On the contents line write "LATEX PAINT, NSN"**

Step 3 Put Waste in the Container

1. **Wear the proper Personal Protective Equipment listed on the MSDS.**
2. **Open the drum slowly, keeping your head/face clear of the opening.**
3. **Add Paint to the box or drum.**
4. **Leave proper headspace IAW Section 3 of the HWMP.**
5. **Document the amount of Paint added on the Waste Accumulation Inventory Log IAW procedures in the *Adding Waste to the Container* section in Section 3 of the HWMP.**

Step 4 Turn-in Procedures

Turn in procedures are available in Section 5.0 on Pages 5-1 and 5-2.

PETROLEUM-CONTAMINATED DEBRIS

ATTENTION!

- **DO NOT handle waste unless you have been trained or are supervised by trained personnel.**
- **Debris could be rags, pigs, berms, pads or any fibrous material used to absorb liquids. Wring excess oil before disposal.**
- **DO NOT mix debris that is contaminated with non-hazardous materials with debris that is contaminated with hazardous materials.**
- **DO NOT mix fibrous debris with petroleum-contaminated soil or absorbent (kitty litter).**
- **DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.**

Step 1 Select an Approved Container

1. **Approved Container: Small Amounts- Clear Plastic Trash Bag(s). Large Amounts DOT-rated 55-gallon open-head or other appropriately sized container.**
2. **Inspect container for dents, bulges, or excessive corrosion.**

Check the SAP or HW Building– Has a container already been established for your waste? If NO, continue to Step 2. If YES, go to Step 3.

Step 2 Prepare and Label the Container

1. **Complete and attach a Non-Hazardous Waste sticker to the side of the container.**

Step 3 Put Waste in the Container

1. **Wear the proper Personal Protective Equipment listed on the absorbed product's MSDS.**
2. **Open the container slowly, keeping your head/face clear of the opening.**
3. **Add debris to the drum.**
4. **Add Waste IAW procedures in the *Adding Waste to the Container* section in Section 3 of the HWMP.**

Step 4 Turn-in Procedures

Turn in procedures are available in Section 5.0 on Pages 5-1 and 5-2.

PETROLEUM-CONTAMINATED SOIL AND ABSORBENT

ATTENTION!

- **DO NOT handle waste unless you have been trained or are supervised by trained personnel.**
- **This WPS applies only to petroleum-contaminated soil and absorbent (kitty litter).**
- **DO NOT mix absorbents that are contaminated with non-hazardous materials with absorbents contaminated with hazardous materials.**
- **DO NOT mix fibrous petroleum-contaminated debris (rags, socks, pillows) with soil and absorbent.**
- **DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.**

Step 1 Select an Approved Container

1. **Approved Container: Small Amounts- Clear Plastic Trash Bag(s). Large Amounts DOT-rated 55-gallon open-head or other appropriately sized container.**
2. **Inspect container for dents, bulges, or excessive corrosion.**

Check the SAP or HW Building– Has a container already been established for your waste? If NO, continue to Step 2. If YES, go to Step 3.

Step 2 Prepare and Label the Container

1. **Complete and attach a Non-Hazardous Waste sticker to the side of the container.**

Step 3 Put Waste in the Container

1. **Wear the proper Personal Protective Equipment listed on the absorbed product's MSDS.**
2. **Open the container slowly, keeping your head/face clear of the opening.**
3. **Add the soil and/or absorbent to the drum.**
4. **Add waste IAW procedures in the *Adding Waste to the Container* section in Section 3 of the HWMP.**

Step 4 Turn-in Procedures

Turn in procedures are available in Section 5.0 on Pages 5-1 and 5-2.

USED OIL

ATTENTION!
• **DO NOT handle waste unless you have been trained or are supervised by trained personnel.** • **DO NOT add solvents to used oil. Allowable contaminants are minor amounts of water and dirt. Used oil can be mixed with used diesel fuel, hydraulic fluid, synthetic brake fluid and transmission fluid.** • **DO NOT mix used oil with antifreeze.** • **Used oil may not be used for dust suppression or to kill vegetation.** • **Combustible - Do not store near oxidizers (bleach), corrosives, or heat sources.** • **Store in well-ventilated areas.** • **DO NOT eat, drink, or smoke while handling waste. Always wash skin after handling waste.**

Step 1	Select an Approved Container
	1. Approved Container: Above ground storage tank (AST) with secondary containment, or Non-Removable head DOT rated drum. **2. Inspect container for dents, bulges, or excessive corrosion.**  **Check the HW Building or POL Storage Area – Has an approved container already been established for your waste? If NO, continue to Step 2. If YES, go to Step 3.**
Step 2	**Prepare and Label the Container**
	3. Remove any previous markings and labels from the container or mask over them. **4. Using 3-inch letters and contrasting color stencil the words "USED OIL" on the side of the drum or tank if not previously marked. Labels may be used if available.** **5. Use tape or adhesive to attach a clear plastic bag (such as a one-gallon "Ziploc™" bag) to the container. Insert the Waste Accumulation Inventory Log into the bag.** 
Step 3	**Put Waste in the Container**
	1. Wear the proper PPE listed on the MSDS. **2. Open container slowly keeping your head/face clear of the opening.** **3. Add used oil to container (drum or tank).** **4. Leave the proper headspace IAW Section 3 of the HWMP.** **5. Document the amount of Used Oil added on the Waste Accumulation Inventory Log.**
Step 5	**Turn-in Procedures**
	Turn in procedures are available in Section 5.0 on Pages 5-1 and 5-2. Used oil is currently recycled by Thermo Fluids, Inc., do not turn in as a waste.

*

GENERAL DEBRIS

Other than recyclables

WARNING! Special Handling Precautions
See the bottom of this page for a list of materials that are not to be put into dumpsters.

Step 1	**Select an Approved Container**
	Approved Container: Single plastic trash bag.
Step 2	**Prepare and Label the Container**
	No labels or markings required.
Step 3	**Put Waste in the Container**
	1. Separate out all recyclable materials before putting general debris into plastic bag. **2. Put waste in plastic trash bag.** **3. Tie bag closed.**
Step 4	**Store Waste in an Approved Location**
	Dumpsters may be placed in practical locations. Lids must be closed when waste is not being added.

WASTE EXCLUDED FROM THE DUMPSTERS (NOT CONSIDERED GENERAL DEBRIS)

The following types of solid waste are not acceptable in landfills. These wastes should not be placed in any of the commercial dumpsters on post. From an installation perspective, all solid wastes are "commercial waste" and not "household" waste.

- **HW and Special Materials**
- **Polychlorinated Biphenyl's (PCBs), Electrical Transformers, Capacitors, and Dielectric Fluids**
- **Liquids**
- **Paint/Glue with free flowing characteristics (paint cans should be dry w/lids off).**
- **Dry Cell Batteries containing Lithium, Cadmium, or Mercury**
- **Wet Cell Batteries**
- **Medical or Infectious Waste (before or after incineration)**
- **Flammable or Volatile Substances**
- **Automobile Gas Tanks**
- **Dead Animals**
- **Fluorescent Bulbs**
- **Industrial Waste**
- **Explosives**
- **Appliances Containing Refrigerant (i.e. Freon or other CFC compounds)**
- **All Appliance Compressors (regardless of condition)**
- **Radioactive Materials**
- **Incinerator Ash or Residue**
- **Burn Barrels**
- **Compressed Gas Cylinders**
- **Petroleum Contaminated Soils**

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12.0 FORMS

NVARNG Hazardous Waste Accumulation Area

Weekly Inspection Log

Inspector's Name	Inspection Date, Time	Area Inspected	Containers Closed and Labeled? (✓)	Leaks Yes/No	Corrosion Yes/No	Description of problem(s) and Corrective Actions Taken

NVARNG Waste Accumulation Inventory Log

Waste Stream Name: _____ Page _____ of _____

Facility: _____Contact:_____ Phone: _____

Date Container Placed in Service: _____

Date Container Closed: _____ Estimated Container Weight*: _____

DATE	AMOUNT ADDED*	RUNNING TOTAL	NAME OF PERSON ADDING WASTE

*** Report in pounds (P) for solids, gallons (G) for liquids, or (ea.) for aerosols, cylinders, etc.**

NOTE: COMPLETED WASTE LABELS MUST BE PLACED ON ALL CONTAINERS THAT HOLD HAZARDOUS OR UNIVERSAL WASTE!

NVARNG Waste Turn-In Request

Facility:_____ **Date:**_____ **Page**_____**of** _____

Contact:_____ **Phone:**_____

DESCRIPTION OF WASTE: INCLUDE CHEMICAL NAMES AND STATE WHETHER PRODUCT IS NEW OR SPENT	STOCK # OR NSN	# OF UNITS	CONTAINER TYPE	CONTAINER SIZE	TOTAL QUANTIY	UNITS OF MEASURE

NVARNG Hazardous Material Inventory

Facility or Unit Name:_____ **HM Unit [(1)]:**_____

Inventory Performed by:_____ **Date:**_____ **Page**____**of**____

Shelf Location	Product Name	NSN	MSDS # [(2)]	Container Size	Quantity on Hand [(3)]	HIGH Quantity Limit	LOW Quantity Limit

(1) Four digit HM unit designator (FL-01, etc.)

(2) MSDS serial # from first page of MSDS

(3) **Amount of HM Present (keep running total in pencil)**

NVARNG Hazardous Material Inspection Log

Inspector's Name	**Inspection Date, Time**	**HM Area Inspected (HM Unit #)**	**Leaks Yes/No**	**Corrosion Yes/No**	**HM and Storage Unit Labeled (✓)**	**Containers Closed (✓)**	**Inventory Posted (✓)**

NEVADA ARMY NATIONAL GUARD

POLLUTANT OR HAZARDOUS SUBSTANCE SPILL REPORT

1) General Information.

A Spill Report must be submitted to the Nevada Army National Guard Environmental Management Office if any amount of a pollutant or a hazardous substance is released (spilled) to the air, soil or water.

2) Reportable Amounts.

In summary, any amounts of a pollutant that is released (spilled) to the air, soil, or water could require the submission of this report to the NVARNG EMO. The EMO will determine if notification is required to the Nevada Division of Environmental Protection and the Nevada Division of Emergency Management.

3) Who to Notify.

A) The first notification is to local emergency response personnel (fire, police, ambulance) taking care of immediate life and property concerns.

B) Second notification will depend on the time of day. During business hours, contact the NVARNG Environmental Management Office (EMO) as soon as possible at the numbers listed below.

EMO Contact Numbers

EMO Contact	During Business Hours	After Hours or Weekends
Forrest Fox (EPM)	775-887-7291	775-527-3977
Marne Sherman (CPM)	775-887-7298	775-230-9590
Chad Stephens (EMS Manager)	775-887-7292	775-720-5014

4) News Media Contacts. Direct news media to contact NVARNG Environmental Program Manager at (775) 887-7291 before making any statements to the press. Environmental Management Office will coordinate all press releases with State Public Affairs Office.

5) Material Name, Amount, Reportable Quantity, Cause, Source, and Type of Release.

A) Name of Material:_____

B) Amount Released (approx.):_____

C) Reportable Quantity (RQ) (pounds/kilograms/gallons) (Reference 40 CFR 302.4):

_____

D) Cause (human error, chemical reaction as corrosion, ignition, etc.):_____

_____

E) Source (Tanker, 55-gallon drum, etc.)_____

F) Type of Release (spill, explosion, vapor release, etc.):_____

G) Released to: Air_____**Water**_____**Soil**_____

H) Present Condition: Solid_____**Liquid**_____**Gas**_____

I) Are there other Hazardous Materials nearby? Yes_____ **No**_____

J) If yes, describe: _____

6) Location, Waterway, and Weather Conditions.

A) City:_____**County:** _____**State:** _____

B) Exact Location (street address, highway mile marker, township/ range/ section, etc.):

_____

_____

C) Waterway or Drainage: _____**Distance to Water:**_____

7) Date/Time of Incident or Time of Discovery

A) Date of Release: _____ Day: _____ Time: _____

B) Date This Report Submitted: _____ Time: _____

C) Name of Person Receiving Report: _____

8) Name of the Emergency Coordinator (EC) and How to Contact

A) Name: _____

B) How to Contact (Phone number, Radio, etc.): _____

C) Name of Person Making Report if Other than EC: _____

D) How to Contact: _____

9) Assessment of Damage/Potential Threat and Weather Conditions

A) Injury/Damage/Threat to NVARNG Personnel Life or Property (describe):

_____

_____

B) Injury/Damage/Threat to Civilian Life and Property (describe):

_____

_____

C) Injury/Damage/Threat to Air/Soil/Water (describe):

_____

_____

D) Significant Weather Conditions (at time of spill):

_____

_____

10) Notification (Federal/State Requirements)

The Environmental Office will determine if Federal or State regulators need to be notified.

11) Corrective Actions Taken to Contain/Remove Material

12) Additional Assistance Required

13) Notes

NVARNG Environmental Compliance Binder Index

(Sample)

A	**Hazardous Waste Generator EPA ID # and Generator Status**
B	**Additional Duty Orders: EO and Hazardous Waste**
C	**Training Records: UECO; Hazardous Waste; Spill Response; Spill Drills**
D	**Hazardous Waste Weekly Inspection Logs**
E	**Waste Accumulation Inventory Logs**
F	**Aboveground Storage Tank (AST) Inspection Records (per SPCC)**
G	**Underground Storage Tank (UST) Registrations and Inspection Records (per SPCC)**
H	**Hazardous Waste Disposal Records (Manifests, Return to Generator Manifest, LDRs)**
I	**Non-Hazardous Waste Disposal Records (Filters, Used Oil, Antifreeze, Absorbent etc.)**
J	**Universal Waste Disposal Records (Batteries, Lamps, Certain Pesticides, Thermostats)**
K	**Permits and Record Keeping to Support Permits (Air, Wastewater, Fire Marshal)**
M	**Waste Determinations (Laboratory Results or Process Knowledge)**
N	**EPAS Findings and Measures Taken to Correct these findings (ICAP)**
O	**Regulatory Agency Inspections (Letters, Warnings, Notices of Violation)**
P	**SPCC/ISC Plan and Hazardous Waste Management Plan (Keep in Same Location as Environmental Compliance Binder)**
Q	**AR 200-1, TM 38-410 (Keep in Same Location as Environmental Compliance Binder)**

DOCUMENT CHANGE HISTORY		
Revision Date	**Nature of Revision**	**Document Review Participants**
11 May 2009	Plan Update	Mr. Chad Stephens, Mr. Forrest Fox, MSG Kevin Pearson
17 April 2011	Plan Update	Mrs. Marne Sherman, Mr. Chad Stephens

- **Document Owner** – Mrs. Marne Sherman
- **Document Approver** – Mr. Chad Stephens