

# Hazardous Waste Management Plan

Virginia  
Army National Guard



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## CHAPTER 1 INTRODUCTION

This Hazardous Waste Management Plan (HWMP) prescribes responsibilities, policies, and procedures for storing and managing hazardous materials and wastes while emphasizing Pollution Prevention within the Virginia Army National Guard (VaARNG).

The plan is formatted like an Army Technical Manual, with straightforward procedures and instructions. To use this plan, use the cover to identify the chapter containing information you need, and flip to the tab for that chapter. The hazardous waste (HW) management sections have been subdivided by hazardous waste generator status.

### 1.1 Purpose and Scope

This HWMP documents the VaARNG hazardous waste management program, and also selected elements of the VaARNG 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 HW generation. This plan applies to:

- All activities and units under the command of the VaARNG.
- Any other activity that generates and/or disposes of waste while using VaARNG training sites.
- Training conducted outside of or on active duty installations within the State, unless the Standard Operating Procedure (SOP) for the host activity dictates otherwise. Combined Services Maintenance Shop (CSMS) located at the Defense Supply Center, Richmond (DSCR) is required by DSCR to follow certain SOPs. Bowling Green Armory, located within Fort A.P. Hill, follows Ft. A.P. Hill SOPs.  
**Maneuver Training Center (MTC) Fort Pickett has specific SOPs that should be followed by all units and activities operating at MTC. The SOPs can be obtained by contacting the Ft. Pickett environmental compliance office at (434) 292-2664 or 292-2144.**
- All contractors working for the VaARNG.

### 1.2 Applicable Regulations

#### 1.2.1 Federal Regulations

The Federal Facilities Compliance Act of 1992 requires the VaARNG to comply with all Federal, State, and local HW management regulations. The VaARNG 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). 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 §170 - §177 (U.S. Department of Transportation [USDOT]), 29 CFR §1910 (Occupational Safety and Health Administration [OSHA]), and Executive Order (EO) 13148 (Greening of the Government through Leadership in Environmental Management), it is not intended to be the primary compliance document for these programs.

### 1.2.2 State Regulations

Hazardous waste in Virginia is regulated by the Virginia Department of Environmental Quality (DEQ) and the Virginia Waste Management Board. Virginia has full authority from the EPA to administer RCRA and CERCLA and also is entirely responsible for solid waste, including Special Wastes discussed later in this plan. The Virginia waste management regulations are codified in Title 9, Part 20 of the Virginia Code (VAC). This plan provides procedures for complying with the Virginia regulations, specifically Title 9, Part 20, Subchapter 60 for HW regulations and Subchapter 80, section 630 et seq. for special waste regulations.

### 1.2.3 Military Regulations

The VaARNG must comply with Army Regulation (AR) 200-1, Environmental Protection and Enhancement, which states Army policy for minimizing and managing HW. This HWMP provides procedures for complying with the policy and major program requirements of AR 200-1 Chapter 5 (Hazardous and Solid Waste Management) and the major program requirements of AR 200-1 Chapter 4 (Hazardous Material Management).

The following table cross-references the major program requirements of AR 200-1 and DA PAM 200-1 with this plan. AR 200-1 and DP PAM 200-1 are not included with this plan.

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| <b>AR 200-1</b> | <b>Major Program Requirement</b> | <b>HWMP Reference</b> |
|-----------------|----------------------------------|-----------------------|
| 4-3.k           | Cradle-to Grave Tracking         | Entire Plan           |
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Note: The VaARNG does not operate permitted HW Treatment, Storage, or Disposal facilities.

Other military regulations directly applicable to VaARNG HM and HW management and this plan include:

- AR 710-2, *Inventory Management Supply Policy Below the National Level (8 July 2005)*;
- DoD 4500.9, *Defense Transportation Regulation*;
- DoD 4140.5-R, *DoD Materiel Management Regulation*; and
- DoD 4160.21-M, *Defense Material Disposition Manual (August 1997)*.

#### 1.2.4 Local Regulations, Ordinances, and Codes

This plan and AR 200-1 require compliance with local environmental regulations. Consult the VaARNG Environmental Program Manager (EPM) regarding local regulations.

### **1.3 Installation Responsibilities**

#### 1.3.1 The Adjutant General (TAG)

The TAG:

- Ensures that VaARNG complies with this Plan; and
- Reviews and approves significant changes to this Plan.

#### 1.3.2 Chief of Staff (CoS)

The CoS:

- Member of the Environmental Quality Control Committee (EQCC); and
- Ensures that each Activity and Unit Commander designates an Environmental Compliance Coordinator (ECC) to implement this plan.

#### 1.3.3 Director of Logistics (DOL)

The DOL:

- Participates as a member of the EQCC;
- Reviews ongoing VaARNG logistical plans, operation activities, and any proposed changes for compliance with this plan;

- Reviews all petroleum, oil and lubricant (POL) storage facilities, transfer operation activities, and any proposed changes for compliance with this plan;
- Coordinates VaARNG logistical regulations and SOPs to ensure that logistical policies and procedures are compatible with this plan; and
- Ensures that all employees who prepare HM for shipment receive required training.

#### 1.3.4 United States Property and Fiscal Officer (USP&FO)

The USP&FO:

- Participates as a member of the EQCC;
- Provides guidance on turning in usable materials and waste to DRMO; and
- Uses the procedures outlined in this plan to prepare excess HM delivered from VaARNG units for transfer to the DRMO.

#### 1.3.5 Director of Surface Maintenance or Surface Maintenance Office (VACL)

The Director, VACL:

- Participates as a member of the EQCC;
- Appoints an ECC for the VACL;
- Appoints Shop Supervisors to serve as on-site ECCs for maintenance facilities;
- Specifies and orders equipment needed in each maintenance facility for HW management and spill response in coordination with the State Safety Officer and Environmental Program Manager;
- Reviews ongoing VaARNG surface maintenance program plans, operations, activities, facilities, and any proposed changes for compliance with this plan;
- Ensures that VaARNG maintenance facilities comply with this plan; and
- Monitors the work environment and management practices in the shops to ensure that personnel safety is safeguarded and waste is properly managed.

#### 1.3.6 State Army Aviation Officer (SAO)

The State Army Aviation Officer:

- Participates as a member of the EQCC;
- Appoints an ECC for the SAO);
- Reviews ongoing VaARNG program plans and operations for aviation to ensure they comply with this plan;
- Ensures that VaARNG aviation maintenance facilities comply with this plan;
- Ensures that adequate protective clothing and equipment is available for use in VaARNG aviation facilities;
- Specifies and orders equipment needed in each maintenance facility for HW management and spill response, in coordination with the State Safety Officer and Environmental Program Manager; and
- Monitors the work environment and management practices in the shops to ensure personnel are safe and waste is properly managed.

### 1.3.7 Plans, Operations, and Training Officer (POTO)

The POTO:

- Participates as a member of the EQCC;
- Appoints an ECC for each training site;
- Reviews VaARNG SOPs and training plans for compliance with this plan;
- Ensures that all VaARNG training sites, ranges, facilities, and schools operate in compliance with this plan;
- Integrates the provisions of this plan into the Organization Inspection Program (OIP); and
- Schedules training sessions outlined in this plan for mobilization day (M-Day) troops.

### 1.3.8 Director of Facilities Management (VAFM)

The Director of VAFM:

- Executes this plan;
- Participates as a member of the EQCC; and
- Prepares a plan and timeline for improving facilities that do not meet the requirements of this plan.

### 1.3.9 Headquarters State Area Command (HQ STARC) Environ. Management Section (VAFM-E)

The Environmental Management Section:

- Augments the requirements established by this plan during Inactive Duty Training (IDT) and Annual Training (AT);
- Provides training to support units; and
- Assists the Director of VAFM to prepare and staff environmental plans and reports.

### 1.3.10 State Environmental Program Manager (EPM)

The EPM:

- 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 VaARNG on this plan;
- Acts as Program Manager for the hazardous chemical and waste management budget and executes funds as required;
- Interprets laws and regulations related to HW management;
- Budgets and plans for all on-site environmental training; and
- Reviews this plan every 2 years and modifies HM and HW management procedures as necessary.

### 1.3.11 Statewide and Fort Pickett HW Managers (HWMGR's)

The HWMGRs responsibilities include the following:

- Statewide HWMGR manages environmental compliance issues statewide, exclusive of MTC Ft. Pickett. The Ft. Pickett HWMGR manages environmental compliance issues within MTC Ft. Pickett.
- Serve as advisors to the EQCC;

- Serve as liaisons to Federal, State, and local regulatory agencies regarding waste management issues;
- Work directly with ECCs and Shop Supervisors at maintenance facilities to provide technical assistance, including HM and HW management;
- Coordinate regular compliance inspections at applicable facilities that store, use, or handle HM or HW;
- Advise the ECC and Shop Supervisors of local regulations or requirements that may be more stringent than the requirements of this plan;
- Periodically review chemical inventories to identify opportunities to substitute less hazardous or non-hazardous chemicals when practical;
- Prepare all waste-related reports required by Federal, State, and local regulations and by VaARNG policies;
- Ensure that HW is transported only to permitted TSDFs;
- Arrange for waste sampling and analysis as needed and establishes an ongoing waste analysis program;
- Classify new wastes in accordance with DEQ HW rules and regulations;
- Identify proper descriptions to be used on labels and HW manifests and proper marking and labeling for each type of waste;
- Obtain identification numbers for VaARNG HW generators;
- Establish and update a waste inventory; and
- Update this plan as needed.

In addition to the above-listed duties, the HWMGR's also serve as the State Hazardous Materials Examiner and Identifiers (HME&I), and in that capacity are responsible for the following:

- Act as a liaison between the Defense Reutilization and Marketing Office (DRMO) and all VaARNG units/activities;
- Generate disposal paperwork required by the DRMO for all units and activities; and
- Maintain paperwork to track waste from generation to final disposal.

#### 1.3.12 State Safety Officer (VACS-S)

The VACS-S:

- Ensures that hazardous materials are safely stored;
- Assists the ECC with the safety aspects of this plan;
- Prescribes personal protective equipment (PPE) to safeguard employees who handle HM and HW;
- Ensures compliance with State and local fire marshal requirements;
- Implements a Fire Extinguisher Program and Occupational Health Training and Refresher Courses;
- Ensures the availability of all required PPE; and
- Serves as a member of the EQCC.

### 1.3.13 Occupational Health Nurse

The Occupational Health Nurse:

- In coordination with VACS-S, identifies PPE needed to safely handle HM and HW;
- Ensures the use of identified PPE during HM and HW handling; and
- Serves as a member of the EQCC.

### 1.3.14 Activity and Unit Commander

- Assigns, in writing, a primary and alternate ECC for at least 12 months;
- Forwards the ECC assignment letter to VAFM-E;
- Ensures that the ECC participates in a HW training course within 6 months of assignment;
- Provides the HWMGR's with written notice of assignment changes within 10 days of the effective date of the assignment;
- Ensures personnel involved in the handling, use, and/or storing of HM/HW receive annual Environmental Awareness Training;
- Ensures adequate availability of PPE as required by the VACS-S;
- Ensures that supplies and equipment are authorized for each maintenance facility for HW management and spill response, in coordination with the VACS-S and EPM; and
- Promotes recycling.

### 1.3.15 ECC for Units and Shop Supervisors at Maintenance Facilities

- 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 HWMGR's;
- Provides briefings when necessary to unit/activity personnel regarding this plan;
- Ensures compliance with local environmental regulations, if any;
- Notifies the HWMGR's 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.
- Before leaving facilities used for IDT and AT drill, ECC conducts inspections to assure compliance with this plan.

## **1.4 Reviews & Revisions**

The EPM will review this plan at least every 2 years and will modify material and waste handling procedures as necessary. The Adjutant General of the VaARNG will review and approve significant changes in the plan.

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## CHAPTER 2 HAZARDOUS MATERIALS MANAGEMENT

### 2.1 Hazardous Materials Program Overview

Distribution and proper management of HM prior to their 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 National Level." However, Chapter 4 of AR 200-1, *Environmental Protection and Enhancement*, describes major program requirements for HM management to reduce or eliminate those materials from entering the environment. Therefore, HM management is an integral part of HW management.

This section addresses the aspects of the VaARNG HM management program that directly affect the VaARNG policy of promoting pollution prevention (P2) and waste minimization. These are:

- Procurement of HM;
- Use and Management of Material Safety Data Sheet (MSDS) information;
- HM Storage Compatibility;
- Inventory Control; and
- Shelf Life management.

In this plan, the turn-in and transportation of HM are addressed collectively with HW in Chapters 5 and 6, respectively.

### 2.2 Procurement

It is the goal of VaARNG to substitute HM with materials that are less hazardous or non-hazardous. Most HM are procured through the USP&FO or through Government Procurement Cards (GPCs) or other means of open purchase. As a rule, stocks should be limited to assure that shelf life can be adequately tracked and will not be exceeded. State funded purchases should also follow these guidelines. The ECC should coordinate with personnel responsible for procurement to assure that excess materials are not purchased.

### 2.3 Material Safety Data Sheets (MSDS)

An MSDS is a fact sheet for a particular hazardous material and is required by Federal law to contain information such as the hazardous components of a mixture; physical hazards associated with the material; the typical ways an individual could be exposed to that material; and first-aid procedures to follow if an individual is overexposed. Before using HM, personnel must become familiar with associated hazards, specific handling procedures, and spill response measures provided in the MSDS, which are available for all HM. For every HM, personnel must have an MSDS readily accessible to workers on all shifts.

MSDSs and any available Hazardous Materials Information System (HMIS) data should be maintained at a central location in the work center or other area on site and made available for viewing and copying.

STEP 1 Obtain an MSDS for each HM on hand from one of the following sources

- **The Hazardous Materials Information System**

The HMIS MSDS must be specific to the product's National Stock Number (NSN) and Commercial and Government Entity (CAGE) code (manufacturer's code) and to the manufacturer, Defense Logistics Agency (DLA) contract number, or System Program Office (SPO) contract number. These numbers are printed on the HMIS MSDS and on the hazardous chemical container.

- **The Manufacturer**

The manufacturer will occasionally list a phone number you can use to obtain the MSDS. If no phone number is listed:

1. Obtain the following information from the product's container:
  - Manufacturer's name,
  - Manufacturer's city and State,
  - Product name, and
  - Part or stock number.
2. Call information to obtain the manufacturer's phone number.
3. Call the company and provide representatives with the product name, stock or part number, and any other information they request.

- **Other Supporting Units**

If these sources do not provide the information you need, call the GSA MSDS Request Line toll free at (866) 588-7659, DSN: 465-5097, or commercially at (816) 926-5097. MSDS information is available on the Internet at many sites including [www.msdssearch.com](http://www.msdssearch.com).

STEP 2 Create an active master MSDS binder

- Place MSDSs for all HM in use or stored by the activity in a binder.
- Create an index of the MSDSs and place it in the front of the binder.
- Establish an archive MSDS binder to contain all MSDSs for HM no longer used.

## 2.4 Hazardous Material Storage Compatibility

To help personnel determine which HM can be stored together, the Department of Defense (DoD) created the Hazardous Chemical Compatibility System (HCCS). This section describes the basics of this sorting system. For more information, see joint publication DLAI4145.11/TM38-410/NAVSUP PUB 573/AFJMAN 23-209/MCO 4450.12A, *Storage and Handling of Hazardous Materials*. The National Guard Bureau point-of-contact (POC) for HCCS is NGB-ARL-L at DSN 286-7740.

A basic illustration of compatibility is provided below.

**Segregation Guideline Requirements for HM (also applicable to HW)**

|                  | <i>Flammable</i> | <i>Corrosive</i> | <i>Irritant</i> | <i>Toxic</i> | <i>Oxidizer</i> |
|------------------|------------------|------------------|-----------------|--------------|-----------------|
| <i>Flammable</i> | Yes              | No               | ⊗               | No           | No              |
| <i>Corrosive</i> | No               | Avoid            | Yes             | No           | No              |
| <i>Irritant</i>  | ⊗                | Yes              | Yes             | ⊗            | ⊗               |
| <i>Toxic</i>     | No               | No               | ⊗               | Yes          | No              |
| <i>Oxidizer</i>  | No               | No               | ⊗               | No           | Yes             |

**Legend**

- Yes** Co-storage allowed under law and good management practice.  
**⊗** Co-storage allowed under law, but not recommended practice.  
**Avoid** Avoid, for some specific materials. Co-storage allowed under law based on hazard characteristics, but chemical incompatibility may occur. (For example, acids and bases, such as hydrochloric acid and sodium hydroxide, which are both corrosive, should never be stored together).  
**No** Not allowed.

**2.5 Hazardous Materials Inventory Control**

*Reference:* Joint Service Manual DLAI4145.11/TM38-410/NAVSUP PUB 573/AFJMAN 23-209/MCO 4450.12A, *Storage and Handling of Hazardous Materials*.

The ECC must properly store HM to minimize hazards to personnel and property and each organization's HM storage program should espouse the principles of DLA's Care of Supplies in Storage (COSIS) Program.

The COSIS Program actions include performing scheduled inspections of materials in storage; properly identifying items; determining the adequacy of the storage environment, preservation, packing and marking; and arresting all forms of deterioration that will adversely affect the end use of the item. Periodic inspections of HM in storage are an important step in quality surveillance of such material. While the material is in storage, until it is shipped to the user, it must be systematically inspected to detect degradation, deterioration, corrosion damage, and other deficiencies caused by improper storage methods, expiring shelf life, or the material's inherent deterioration characteristics. The focus should be on detecting minor deficiencies before they become significant, thus providing time for corrective actions before the material becomes unserviceable or unusable and requires disposal as a HW.

## 2.6 Shelf-Life

Shelf life is the total period of time that an item may be stored 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.
- Approximately 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.
- Some items were created before Shelf Life items were required to be marked; therefore these items must be checked to see if they are Shelf Life items.
- If an item has no Shelf Life markings, you can use FEDLOG Army Master Data File to determine if an item is a Shelf Life or non-shelf life item:

STEP 1 Enter the NSN

STEP 2 Highlight the information in the SLC column and click the right mouse button

There are two types of Shelf Life materials, Type I or Type II:

**Type I Materials:** Type I materials are required to be marked with the expiration date as well as the date manufactured, date cured, date assembled, or date packed (apply one as appropriate). Containers of Type I materials have an alphabetical Shelf Life code. These materials are *not* extendible. DoD policy requires that Type I HM 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 (apply one as appropriate). Containers of Type II materials have a numeric Shelf Life code. These materials can be extended through laboratory testing or visual inspection by the ECC or Shop Supervisor. Engine lubricating oil is an example of a Type II item.

Additional information regarding shelf life and shelf life renewal can be obtained at the following website: [www.shelflife.hq.dla.mil](http://www.shelflife.hq.dla.mil)

## CHAPTER 3 HAZARDOUS WASTE MANAGEMENT

### 3.1 HW Program Overview

This chapter defines HW, describes the regulatory status of all VaARNG HW generators, and sets procedures for managing HW throughout the VaARNG. By properly managing hazardous wastes VaARNG will minimize excessive generation of wastes from cross contamination, spills, and improper storage and will be able to accurately identify/measure waste generation. Proper identification and measurement of waste supports VaARNG's P2 goal of eliminating or continuously reducing the quantity of HW generated each year. More detailed information on individual VaARNG HW streams is included in Appendix D as Waste Fact Sheets. Chapters 3-7, where applicable, have been subdivided based on generator requirements. This division method has been employed in order to simplify accessing information specific to each generator status. The divisions are based on the three classes of generator defined by RCRA and 40 CFR §262:

- Conditionally Exempt Small Quantity Generator (<100 kilograms [kg] per month);
- Small Quantity Generator (100-1,000 kg/month); and
- Large Quantity Generator (Greater Than 1,000 kg/month)

#### 3.1.1 What is a Waste?

The term "solid waste" as it is used by 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 is considered inherently waste-like. Discarded material does not include materials that are turned in for reuse at another facility. Solid wastes are either hazardous or non-hazardous wastes.

#### 3.1.2 What is a HW?

A HW is a solid waste that is not specifically excluded from regulation as a HW in 40 CFR §261.4(b) and meets one of the following criteria.

- It exhibits one or more hazardous characteristics (i.e., it is ignitable, corrosive, reactive, or toxic) as measured by standard test methods or as can be reasonably determined by knowledge of generators (40 CFR §261 Subpart C); or
- It is specifically listed as a HW (40 CFR §261, Subpart D).

A list of typical HW generated at VaARNG facilities is included in Appendix B, and their associated Waste Fact Sheets are included in Appendix D. The list includes the HW codes associated with each waste stream. The most widely used HW codes are those associated with ignitable (D001), corrosive (D002), reactive (D003) or toxic wastes (D004 to D043 - compound-specific). Examples of hazardous waste codes include a very strong acid (pH less than or equal to 2.0) that would be identified as a D002 hazardous waste or a solvent containing trichloroethylene (TCE) that would be a D040 hazardous waste. Additionally, many wastes are coded based on the waste-generating processes. These specifically listed wastes are identified in 40 CFR §261 Subpart D. It is important to remember that often more than one

code can apply to a material, and all waste codes that apply need to be identified. The HWMGR's should be consulted in cases where there is a question as to which waste code(s) to assign to a material.

HW includes universal waste. This is a special category of HW that typically includes certain batteries, pesticides, fluorescent light bulbs, and mercury thermostats. States have the option to create different standards and to regulate additional materials as universal waste. Virginia has adopted the Federal UW regulations without significant changes. The Federal and Virginia UW management requirements for universal waste are less stringent than for other HW and are discussed in detail in Chapter 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 VaARNG, the generator is the activity that produces the HW. VaARNG 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.

Appendix B contains a list of common HW streams and non-hazardous waste streams that are generated at various types of VaARNG installations. Appendix C contains a list of VaARNG facilities including their EPA ID numbers and current hazardous waste generator status (i.e., CESQG, SQG, or LQG). Also included in Appendix C is a sample form that can (not mandatory) be used to demonstrate hazardous waste generation rates. Facilities should be able to demonstrate their hazardous waste generation rates are within the monthly limits allowed by their generator status.

Determination of each facility's monthly maximum generation rate is necessary to determine the facility's generator status. This determination is made by the HWMGRs in conjunction with the unit ECC or facility shop foreman. When determining a generator's status, all HW generated is included *except* HW that is:

- Exempt from regulation under 40 CFR §261.4(c) through (f), 261.6(a)(3), 261.7(a)(1), or 261.8;
- Managed immediately upon generation only in onsite elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities;
- Recycled, without prior storage or accumulation, in an onsite process;
- Used oil managed under 40 CFR §261.6(a)(4) and 279;
- Spent lead-acid batteries managed under 40 CFR §266, Subpart G; or
- Universal waste managed under 40 CFR §273.

In addition, the generator is not required to include:

- HW when it is in satellite accumulation;
- HW produced by on-site treatment of HW as long as the HW was counted once;

- Spent materials that are generated, reclaimed, and subsequently reused onsite, as long as the spent materials are counted once; or
- Universal wastes, as defined in 40 CFR §273 (and discussed in Section 4 of this plan), as long as such wastes are managed in accordance with 40 CFR §273.

Under Virginia waste management regulations 9 VAC 20-60-262, which directly adopts the Federal regulations in 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 following table shows accumulation time and quantity limits for each type of generator.

| <i>Generator Status</i> | <i>Time Limit</i>     | <i>Amount Generated/Month<sup>1</sup></i>  | <i>On-site Accumulation Limit</i> |
|-------------------------|-----------------------|--|-----------------------------------|
| CESQG                   | None                  | $\leq 220$ lbs<br>$(\leq 100$ kg)<br>$\leq 2.2$ lbs acute HW<br>$(\leq 1$ kg acute HW) | 2,200 lbs<br>(1,000 kg)           |
| SQG                     | 180 days <sup>2</sup> | $> 220$ & $< 2,200$ lbs<br>$(> 100$ kg & $< 1,000$ kg)                                 | 13,200 lbs<br>(6,000 kg)          |
| LQG                     | 90 days               | $\geq 2,200$ lbs<br>$(\geq 1,000$ kg)  | None                              |

<sup>1</sup> Symbols are used to represent:  $\leq$  Less than or equal to       $<$  Less than  
 $\geq$  Greater than or equal to       $>$  Greater than

<sup>2</sup> 270 days if the waste must be transported more than 200 miles for recovery, treatment, or disposal. For simplicity, the time limit for SQG waste storage will be referred to in this plan as 180-days throughout.

### 3.3 Using Waste Fact Sheets

Certain waste management practices are specific to an individual waste stream. These procedures are described in the Waste Fact Sheets in Appendix D for the most common waste streams generated by VaARNG. Contact the VaARNG HWMGR if you have questions about a waste that is not included in Appendix D or if you suspect the Waste Fact Sheet may not apply to your particular waste.

MTC Ft. Pickett maintains additional Standard Operating Procedures (SOPs) that describe similar and more detailed waste management requirements. The MTC Ft. Pickett SOPs should be followed at MTC Ft. Pickett in the event of conflicts between the SOPs and the statewide Waste Fact Sheets.

The Waste Fact Sheets outline step-by-step procedures for:

- selecting a container for your waste;
- preparing and labeling the container;
- adding waste to the container; and
- properly accumulating the waste.

### 3.4 How to Add Waste to Containers

Many of the steps below exceed EPA and VA requirements for CESQGs, who are required only to ensure that their HW is properly characterized, that they comply with the accumulation time limits, and that HW is disposed of properly. However, the steps below are being required by VaARNG for all generators (including CESQGs) to maintain compliance with AR 200-1 (Section 5-3.b.: Inventory) and the general regulations that apply directly to SQGs and LQGs.

**CESQG:** Once these container filling procedures are accomplished, properly store the container until disposal.

**SQG:** Once these container filling procedures are accomplished containers being filled will be maintained in either a satellite accumulation point (SAP) or a 90/180-day storage area. A SAP is used for storing waste at or near the location (work station) where it is actually generated. Sections 3.5 and 3.6 discuss SAPs in more detail. A 90 or 180-day storage area is a collection point where full containers from SAPs are stored prior to off-site disposal. Sections 3.7 and 3.8 discuss 90/180-day storage areas in more detail.

**LQG:** Once these container filling procedures are accomplished, the container will be stored in either a SAP or a 90-day storage area. A SAP (or satellite accumulation point) is used for storing a waste at or near the location (work station) where it is actually generated. Sections 3.5 and 3.6 discuss SAPs in more detail. A 90-day storage area is a collection point where HW is stored prior to off-site disposal. Sections 3.9 & 3.10 discuss 90-day storage areas in more detail.

#### 3.4.1 Selecting and Preparing a Container

Only certain types of containers are approved for waste accumulation. Appendix E contains a list of the majority of approved containers for HW storage. The use of approved containers and the instructions in this chapter support AR 200-1, 5-2.e 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...”

To select and prepare your container:

- STEP 1 Refer to the appropriate Waste Fact Sheet (Appendix D) for your waste stream and select the appropriate approved container. Containers must be clean, in good condition, and compatible with the waste.
- STEP 2 Remove or paint-over any previous markings and labels from the container.

#### 3.4.2 Marking the Container

Mark the container as indicated on the Waste Fact Sheet with a contrasting indelible marker or an appropriate label. The container markings or label should be visible without moving or otherwise adjusting the container location.

### 3.4.3 Adding Waste to the Container

These procedures are general instructions that apply to any waste. Some wastes may require special handling. For example, personal protective equipment (PPE) may be required. Check the Fact Sheet and MSDS for your waste before adding the waste to the container.

- STEP 1 For closed-head containers, remove the lid or bung from the container.
- STEP 2 Carefully add the waste to the container. Use a funnel to pour liquids into a drum with an open bung. Only pour liquids into removable head drums if you have permission from the VaARNG HWMGR's.
- STEP 3 Replace the lid or bung on the container. Never leave the lid off of the container.
- STEP 4 STOP adding waste when the container is almost full. Maintain at least as much headspace as noted below:

| <u>Size of Container</u> | <u>Amount of Headspace</u> |
|--------------------------|----------------------------|
| 55 gallons               | 4 inches                   |
| 30 gallons               | 3 inches                   |
| 15 gallons               | 2 inches                   |
| less than 15 gallons     | 1 inch                     |

- STEP 5 Once filled, the drum should be sealed by ensuring the lid is on and the ring is affixed, or the bung has been tightly closed. A drum cover is always needed to protect the drum from weather, spillage, or other exposure.

### 3.5 **SQGs and LQGs: Setting-Up a SAP**

SAPs allow a generator to store unfilled containers of waste on site at a process point indefinitely—without starting the 90-day (LQG) or 180-day (SQG) time clock for transporting waste off site.

- The total amount of HW in a SAP must not exceed 55 gallons or one quart of “acutely” HW, and the containers must be selected and handled as described in Section 3.4. Once the 55-gallon (or one-quart) limit is reached you must mark the date on the filled container and move it to the approved storage area (180-day storage area for SQG; 90-Day storage area for LQG) within 72 hours (including weekends and holidays).
- A 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 placed in the SAP.

- STEP 1 Select and prepare a container IAW Section 3.4.1.
- STEP 2 Select a well-ventilated site near the process that is generating the HW, where the person in charge of the waste has control over the container. (Typically, the SAP will be located in the same room as the activity generating the waste. If this happens to be outside, choose a fenced or otherwise secure site.)

- STEP 3 Plug floor drains within 50 feet if the container is not maintained on a containment pallet or other type of secondary containment that would contain a leak.
- STEP 4 Select fire extinguishers that are compatible with the types of potential fire hazards present, and place them in a prominent location. Use the VACS-S as a resource for information regarding the proper type and location of extinguishers.
- STEP 5 Place adequate supplies of spill response equipment and materials nearby to contain a spill.

### 3.6 SQGs and LQGs: Maintenance of SAPs

- STEP 1 Ensure container labeling remains legible for the duration of the accumulation period at the SAP.
- STEP 2 Keep container closed when not transferring waste into it.
- STEP 3 Ensure other workers in the area are apprised of the contents of the drum for safety purposes.

### 3.7 SQGs: Setting Up a 180-Day Storage Area

The 180-day storage area must meet certain requirements, as follows:

- STEP 1 Establish enough aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any portion of the storage area in an emergency.
- STEP 2 Equip the storage area with the following:
- An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;
  - A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;
  - Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and
  - Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.
- STEP 3 Post the following information next to the telephone or other communication device:
- The name and telephone number of the emergency coordinator;
  - The location of fire extinguishers and spill control material, and, if present, the fire alarm; and

- The telephone number of the fire department, unless the facility has a direct alarm.
- STEP 4 Make arrangements as appropriate for the type of waste handled at the facility and the potential need for the services of these organizations:
- Police, fire departments, and emergency response teams, and
  - Local hospitals.

### 3.8 SQGs: Maintaining a 180-Day Storage Area

Once a 180-day storage area has been properly set up, it must be maintained.

- STEP 1 Position container(s) so the waste stream name is clearly visible and there is enough room between rows of containers (usually 3 feet) to conduct inspections, and to permit movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment.
- STEP 2 Ensure that labels are completed according to Step 2 of the Waste Fact Sheets, the date on which the period of accumulation begins is on each container and visible for inspection, and that each container and tank is labeled or marked clearly with the words "Hazardous Waste."
- STEP 3 Ensure that incompatible wastes are segregated, and maintain and operate the storage area to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of HW or HW constituents.
- STEP 4 Conduct storage area inspections at least weekly, IAW Chapter 7.
- STEP 5 Test and maintain as necessary to ensure proper operation: all required facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.
- STEP 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.
- STEP 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.
- STEP 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.
- STEP 9 Well before a contained approaches its accumulation time limit, or the total waste on site approaches the maximum amount allowed, initiate turn-in procedures IAW Chapter 5.

### 3.9 LQGs: Setting Up a 90-Day Storage Area

The 90-day storage area must meet certain requirements, as follows:

*Follow STEPS 1-4 in Section 3.7.*

- STEP 5 Train facility personnel to perform their duties IAW Chapter 7. Untrained personnel cannot work in the storage area without supervision.
- STEP 6 Locate containers holding ignitable or reactive waste at least 15 meters (50 feet) from the facility's property line.
- STEP 7 Prepare a contingency plan designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of HW or HW constituents.
- STEP 8 Submit the prepared contingency plan to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.
- STEP 9 If using a containment building, ensure that the building has been certified by a professional engineer.

### 3.10 LQGs: Maintaining a 90-Day Storage Area

*Follow STEPS 1-9 in Section 3.8.*

- STEP 10 Verify all employees working in the storage area have been trained or are under supervision while awaiting training.
- STEP 11 Review the contingency plan and amend as necessary whenever:
  - Applicable regulations are revised;
  - The plan fails in an emergency;
  - The facility changes -- in its design, construction, operation, maintenance, or other circumstances -- in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
  - The list of emergency coordinators changes; or
  - The list of emergency equipment changes.
- STEP 12 If using a containment building, prepare and maintain on site written documentation that ensures, verifies, or documents that waste is not stored in the building for longer than 90 days.

## CHAPTER 4 USED OIL, UNIVERSAL WASTES, AND OTHER/SPECIAL WASTES

### 4.1 Overview

This chapter addresses wastes that are common to VaARNG sites and that are regulated (managed and disposed) differently than the HW discussed in the previous chapter. The wastes described in this chapter are included as Waste Fact Sheets in Appendix D. This chapter provides additional information to complement the Waste Fact Sheets.

### 4.2 Used Oil

Used oil is crude oil or any synthetic oil that is used, and as a result of such use, is contaminated by chemical impurities. In general, this includes engine crankcase oil, machine lubricating oil, cutting oil, hydraulic oil, heat treating oil, and compressor oil. VaARNG manages used oil as non-hazardous regulated waste IAW Virginia Code 9 VAC 20-60-279, which adopts the Federal used oil regulations of 40 CFR §279. Refer to the Used Oil Fact Sheet in Appendix D for specific storage and handling requirements.

Mixing used oil with any hazardous waste is strongly discouraged because the resulting mixture may be a hazardous waste depending upon its characteristics. 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 some degreasing solvents and refrigerants (examples include tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons).

#### 4.2.1 Used Oil Storage Areas

Regulatory requirements for storage 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.
- Review facility Spill Prevention Control and Countermeasure (SPCC) Plan and/or Stormwater Pollution Prevention Plan (SWPPP), or Integrated Contingency Plan (ICP), if available, for additional details.

Refer to the Used Oil Waste Fact Sheet for specific container and storage instructions.

#### 4.2.2 Used Oil Filters

VaARNG recycles used oil filters as scrap metal after they are properly drained of oil. The proper draining of used oil from the filters eliminates the requirements applicable to used oil and the metals recycling program excludes the filters themselves from potential hazardous waste management requirements in accordance with 40 CFR 261 and the equivalent Virginia code. Even terne-plated oil filters, which have a tin/lead alloy and are commonly characterized as hazardous waste, are excluded from hazardous waste management requirements when the filters are properly drained and recycled as scrap metal.

Used oil filters are excluded from HW regulations provided the following three criteria are met:

- The filters must not be mixed with HW since mixtures of solid waste and HW are regulated as HW.
- The filters must be gravity hot drained. EPA defines gravity hot draining (Volume 57 Federal Register 21524) as 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.
- The drained filters are recycled as scrap metal.

### **4.3 Universal Wastes**

The State of Virginia 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, VaARNG manages UW IAW 40 CFR §273, as described below and in the associated Waste Fact Sheets included in Appendix D. Note that the UW regulations are optional for CESQGs in the same way that CESQGs are exempted from most HW regulations. However, VaARNG has decided that VaARNG CESQGs will manage UW in accordance with this section as a best management practice. 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.

**Batteries:** Batteries are an environmental concern because their electrolyte material is generally corrosive and batteries can leach toxic metals at concentrations that exceed regulatory levels. Therefore special care is taken in handling, storage and disposal or recycling of all batteries at VaARNG facilities. Common batteries to which the UW regulations apply include lead-acid batteries (commonly found in vehicles), dry and wet nickel-cadmium (Ni-Cad) batteries (commonly used as smaller rechargeable batteries), alkaline batteries if they are damaged or in poor condition (AA, C, or D size batteries for example), lithium ion (many cell phones), magnesium, silver oxide, and mercury batteries (specialized batteries), and any other battery that may be used and/or disposed of by a VaARNG facility.

Currently all lead-acid batteries (wet and dry cell) are recycled by contract with VaARNG facilities. Prior to recycling, lead acid batteries are stored in secondary containment and are kept separate from other types of hazardous materials or wastes. Currently, an outside contractor collects and recycles lead acid batteries from VaARNG facilities.

Nickel-Cadmium, lithium, magnesium, silver oxide, and mercury batteries are all recycled. Prior to recycling, these batteries are stored in a hazardous storage area designated for corrosive materials or wastes. VAFM-E can coordinate with DRMO or other private contractors to pick-up and recycle these batteries from VaARNG facilities.

**Pesticides:** Pesticides are managed according to the VaARNG Pesticide Management Plan. Some pesticides can be managed as UW, such as obsolete agricultural pesticides that are recalled under certain conditions and 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, damaged, or no longer needed due to changes in cropping patterns or other factors.

**Mercury Thermostats:** “Thermostat” means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampoules that have been removed from these temperature control devices. Metallic mercury is a toxic substance that is a hazardous waste when land-disposed.

**Hazardous Lamps:** A lamp is 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 hazardous wastes under RCRA because of the presence of mercury or occasionally lead. A used light bulb becomes a waste on the date it is permanently removed from its fixture. An unused light bulb becomes a waste when it is discarded.

VaARNG typically does not crush or intentionally break mercury-containing light bulbs. Mercury-containing light bulbs, however, may be crushed or intentionally broken on-site under certain conditions to reduce their volume. Breaking, crushing, handling, and storage must occur in a safe and controlled manner that reduces the release of mercury to the environment and complies with 29 CFR §1910.100 (OSHA regulations) and 9 VAC 20-60-273(B)(3). The procedure for breaking, crushing, handling, and storing light bulbs must be documented, and a mechanical unit specifically designed for removing mercury-containing vapors and dusts through containment and filtration of process airflows must be used. Contact the HWMGR'S if you are interested in purchasing a bulb-crushing unit.

#### 4.3.1 UW Requirements Applicable to both SQHUW and LQHUW

VaARNG must label or mark UW or containers of UW to identify each UW type. Examples include:

- “Universal Waste – Batteries”
- “Used Lamps”

VaARNG 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.

VaARNG is prohibited from shipping UW to a place other than another UW handler or a destination facility. Currently, VaARNG typically uses DRMO or a vendor to ship its UW. If the UW meets the requirements for classification as a HM under the USDOT regulations (49 CFR §171), transportation requirements described in Chapter 6 must be followed.

#### 4.3.2 SQHUW Requirements

The majority of VaARNG sites are Small Quantity Handlers of Universal Wastes because they accumulate and store less than 5,000 kg (11,023 lbs) of UW at any one given time. If a VaARNG site accumulates more than 5,000 kg of UW at any one given time, then it becomes a LQHUW and is subject to the additional requirements in section 4.3.3.

As a SQHUW, VaARNG facilities are not required to notify EPA of its UW-handling activities, nor are they required to keep records of shipments of UW.

SQHUW are prohibited from:

- disposing of UW (i.e., VaARNG facilities must ship UW to a facility to be either recycled or reclaimed); or

- diluting or treating UW, except when responding to releases or managing specific wastes such as mercury-containing lamps or batteries with broken casings.

SQHUU must:

- Manage UW in a way that prevents releases of any UW or component of a UW to the environment.
- Ensure that all containers are kept closed, are structurally sound, and are compatible with the UW contents. The container must have no signs of leakage, spillage, or damage that could potentially cause leakage under reasonably foreseeable conditions. Any containers that show signs of leakage must be replaced with an undamaged container.
- Provide information to all employees who handle or have responsibility for managing UW regarding proper handling and emergency procedures appropriate to the type(s) of UW handled at the facility.

#### 4.3.3 LQHUU Requirements

If VaARNG has reason to believe that it will pass the storage threshold for classification as a LQHUU, then it must send written notification of its UW management to the EPA Regional Administrator.

Additionally, a LQHUU must keep a record of each shipment of UW sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading or other shipping document. The record for each shipment of universal waste sent must include the following information:

- The name and address of the universal waste handler, destination facility, or foreign destination to whom the universal waste was sent;
- The quantity of each type of universal waste sent (e.g., batteries, pesticides, thermostats);
- The date the shipment of universal waste left the facility.

Shipment records must be retained onsite for 3 years. There is no weight limit to how much UW can accumulate onsite. A LQHUU must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.

#### **4.4 Special Wastes**

“Special Wastes” is a term for State-regulated wastes and TSCA wastes (PCBs and asbestos), medical wastes, radioactive wastes, and other wastes that may have landfill restrictions when disposed with general solid waste. VaARNG has added used antifreeze to this list because used antifreeze is managed as a separate waste and recycled throughout the state. Special wastes can be difficult to handle and/or require special precautions because of hazardous properties. They are regulated in the Virginia Code at 9 VAC 20-80-630 et seq. and include:

- Asbestos-Containing Materials (9 VAC 20-80-640)
- Wastes Containing Polychlorinated Biphenyls (PCBs) (9 VAC 20-80-650)

- Liquids (9 VAC 20-80-660)
- Tires (9 VAC 20-80-670)
- Drums (9 VAC 20-80-680)
- White Goods (9 VAC 20-80-690)
- Soil Contaminated with Petroleum Products (9 VAC 20-80-700)
- Lead Acid Batteries (9 VAC 20-80-710)

#### 4.4.1 Asbestos-Containing Materials

The DEQ normally requires notification prior to demolition or renovation of any buildings, outbuildings, or other structures, to control the release of asbestos to outside air. Contact the HWMGR's before handling or storing asbestos-containing material (ACM) or if you believe ACM will be handled or exposed at any facility.

#### 4.4.2 Wastes Containing Polychlorinated Biphenyls

Polychlorinated biphenyls are commonly present in old transformers, old fluorescent lamp ballasts, and similar electrical equipment. Wastes that are suspected or known to contain polychlorinated biphenyls (PCBs) above certain concentrations have unique storage and disposal requirements under 9 VAC 20-80-650. Contact the HWMGR if you believe a waste may contain any concentration of PCBs.

#### 4.4.3 Liquids

Free flowing liquids of any kind cannot be disposed of in a landfill. Therefore, no free liquids should be disposed of in regular trash. Manage hazardous free flowing liquids as HW. Contact the HWMGR if you have a question about the hazardous characteristics of a liquid.

#### 4.4.4 Tires

Waste tires are regulated in Virginia under certain conditions. VaARNG policy is to recycle tires as new tires are purchased or to dispose of tires properly before they accumulate in quantities that create a pile or piles of waste tires at the facility. Tires should be stored under cover and should be clean prior to being turned in for recycle. Facilities should not accumulate more than 200 tires at any given time.

#### 4.4.5 Drums

Drums and other bulk containers may be disposed through scrap metal processors or by landfills under certain conditions. Landfills may require that drums be drained thoroughly; residues removed by rinsing; certifications signed verifying the drums contain no hazardous waste; have one or both ends removed; and or the drums may need to be crushed.

#### 4.4.6 White Goods

Appliances and other white goods may be accumulated at a facility for not more than 60 days prior to salvage or disposal. An alternate schedule may be approved.

#### 4.4.7 Soil Contaminated with Petroleum Products

Oil-contaminated debris such as oily soil and oil-soaked sorbent materials are stored separately, properly marked with a non-hazardous waste material label, and disposed in accordance with the Waste Fact Sheets. Pick ups are coordinated by the HWMGRs.

#### 4.4.8 Lead Acid Batteries

Refer to Section 4.3 of this plan for lead-acid battery recycling information and other battery disposal operations.

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## CHAPTER 5 HAZARDOUS MATERIALS AND HAZARDOUS WASTES TURN-IN

This section describes how unused HM are turned-in for possible re-use or for potential waste disposal and how HW is turned-in for disposal. VaARNG does not have a permit to treat or dispose of HW on-site. Therefore, the HW generated and/or stored throughout VaARNG is transported off the installations by DRMO or private vendors for treatment, storage, or disposal.

To turn in HM or HW, the activity ECC:

- gathers turn-in documents;
- prepares turn-in documents; and
- follows the appropriate instructions described later in this section.

### 5.1 Turn-In Policy

#### 5.1.1 Turn-In and Disposal Contracting

VaARNG policy is to use the Defense Reutilization Marketing Office (DRMO) for transport and disposition of HM and HW, IAW AR 200-1, Section 5-3e(3) and DoD 4160.21-M, *Defense Materiel Disposition Manual*. A DRMO contractor picks up the HM or HW at each generating activity in the State. HM picked up by DRMO may be reused by another DOD activity, transferred to another Federal agency, donated to the states or authorized nonprofit organizations, sold to environmentally responsible buyers, 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 DRMO or HM that is later determined to be a HW is taken to an approved treatment, storage, and disposal facility (TSDF). DRMO can provide a list of TSDFs authorized to receive VaARNG waste or the list is available on their website at <http://www.drms.dla.mil/environmental/qualfac.pfd>.

Waivers from the use of DRMO for HW disposal must be approved by NGB-ARNG. Applicants for waiver must certify through the Installation Commander that they have the capability to meet the following criteria and HW disposal contract standards (listed in DoD 4160.21-M, Chapter 10, Attachment 2). These criteria and standards apply both to wastes that are normally handled by DRMO and to those waste categories that are normally excluded by DRMO.

- Provide 100 percent manifest tracking to maintain a “cradle to grave” audit trail of documentation for HW disposal (e.g., from original turn-in to final disposal).
- Maintain automated records for all HW disposal transactions (e.g., waste streams, waste codes, locations, quantities, prices, other pertinent information).
- Monitor contractor performance at time of pick up by DoD personnel serving as Contracting Officer’s Representative (COR).
- Conduct extensive past performance and technical evaluation of prime contractor and subcontractors prior to contract award and monitor during contract performance. (The contractor selection process will include the following: verification of permits and compliance status with

the appropriate regulatory agencies; evaluation of technical capabilities, to include on-site pre-award surveys as appropriate; and evaluation of previous performance history.)

- Conduct on-site post-award inspections of selected sub-contractors (e.g., treatment, storage, and/or disposal facility and transporters) to ensure compliance with regulatory requirements. (This surveillance will include “no-notice” inspections of treatment and/or disposal sites used by the contractor.)
- Evaluate contractor performance and document current and past performance history in a performance database.
- Ensure that contract provisions comply with the Federal Acquisition Regulations and applicable Federal, State, and local safety, environmental, and transportation regulations.
- Monitor contract costs to ensure competitive pricing as well as high quality contractor service.
- Reduce start-up, administrative, and re-procurement costs by preparing and awarding long-term contracts, if in the best interest of the DoD.

### 5.1.2 U-BANGS

It is VaARNG policy to use the User-Based Army National Guard System (U-BANGS) for generating and automatically managing the documents associated with turn-in of HM and HW. U-BANGS is a computer software program that allows waste generators to prepare turn-in documents and electronically communicate with the DRMO through the Single Hazardous Input Program (SHIP). U-BANGS meets the C-2 level of trust security requirements set forth in the Defense Logistics Agency (DLA) regulation DLA 5200.1.

Detailed instructions on the use of U-BANGS are described in the U-BANGS manual, which is available from the VaARNG HWMGR’s or directly from the DLA Systems Integration Office-Battle Creek (DSIO-J).

## **5.2 HM Turn-In Procedures**

All HM must be packaged in USDOT-approved containers.

### 5.2.1 HM with a National Stock Number

The activity must perform the following for turn-in of NSN-identified HM:

- Identify the NSN for the HM,
- Identify the name as cataloged in the supply system,
- Identify the MSDS serial number from HMIS, or if unavailable in HMIS, then supply a hardcopy of the MSDS with the HM.
- Identify the chemical name of any hazardous contaminants and the noun name of non-hazardous contaminants in the HM, if contaminants are present.
- Identify the amounts of hazardous and non-hazardous contaminants (if applicable) based on either user’s knowledge or testing of the item. Express contaminant quantities as percentage by weight or parts per million (ppm).

- Affix an OSHA-compliant chemical hazard label to each individual package or container. If the container does not already have such a label, then use a DoD Hazardous Chemical Warning Label (DD Form 2521 or DD Form 2522).
- Keep USDOT shipment placards, markings and labels on all HM packages. DRMO or a private vendor should provide the appropriate label prior to shipment.

5.2.2 HM with a Local Stock Number or Federal Supply Code

The activity must provide the following for turn-in of LSN- or FSC-identified HM:

- Identify the chemical name of hazardous components of the HM.
- Attach an MSDS to the disposal turn-in document.
- Provide the chemical name of hazardous contaminants and the noun name of non-hazardous contaminants, if applicable.
- Affix an OSHA-compliant chemical hazard label to each individual package or container. If the container does not already have such a label, then use DoD Hazardous Chemical Warning Label (DD Form 2521 or DD Form 2522).

DRMO will assign the proper USDOT shipping description to the HM and can help the activity determine the proper identification if needed.

**5.3 Preparing HW Container(s) for Turn-In**

- STEP 1 Close each accumulation container being turned in and ensure that no more waste is added.
- STEP 2 Determine the weight of the accumulation container using one of the following two methods:
- If a scale is available, weigh the containers.
  - If a scale is not available, use the information below to estimate the weight.

| <i>Type of Material</i>               | <i>Estimating Weight</i>  |
|---------------------------------------|---|
| 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 calculate the weight:<br><b>Container Weight = (Net Unit Weight) x (Number of units on hand)</b><br>For example, a lithium battery MSDS lists the Net Unit Weight as 1.25 lbs, and you have 10 lithium batteries (with identical NSNs) in a box:<br>(1.25 lbs per battery) x (10 batteries) = 12.5 lbs of batteries                                |
| 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 listed, use the following formula to calculate the weight:<br><b>Container Weight = (Net Unit Weight) x (Number of units on hand)</b><br>For example, the MSDS for a 5-gallon can of paint lists the Net Unit Weight as 45.5 lbs, and you have four cans of the paint (with identical NSNs):<br>(45.5 lbs. per can) x (4 cans) = 182 lbs of paint |

| <i>Type of Material</i>           | <i>Estimating Weight</i>   |
|-----------------------------------|--|
| Unused or partially used liquids: | Consult the MSDS and obtain the specific gravity. Specific gravity allows you to convert the waste's volume (such as gallons or ft <sup>3</sup> ) to weight (such as lbs). The table below was created to convert gallons into lbs. Find the number of gallons and the specific gravity that best matches your container. Results are in the center blocks in pounds. For example, a 15-gallon container of an item with a specific gravity of 0.75 would weigh 94 pounds. |

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

|                                 |    | SPECIFIC GRAVITY |     |     |      |      |      |      |      |      |      |      |      |
|---------------------------------|----|------------------|-----|-----|------|------|------|------|------|------|------|------|------|
|                                 |    | .25              | .50 | .75 | 1.00 | 1.25 | 1.50 | 1.75 | 2.00 | 2.25 | 2.50 | 2.75 | 3.00 |
| G<br>A<br>L<br>L<br>O<br>N<br>S | 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 |

If you cannot determine the weight of your waste using this information, contact VAFM-E, your activity ECC, or your supervisor for assistance.

- STEP 3 If needed, obtain the Waste Fact Sheet for each waste being turned-in.
- STEP 4 Obtain a copy of the MSDS from the MSDS binder for each waste being turned-in.
- STEP 5 Obtain a Hazardous Waste Profile Sheet (HWPS) from VAFM-E.
- STEP 6 If a HWPS is not available, user knowledge of the waste content is acceptable if all required information provided by a HWPS can be provided from that knowledge. If user knowledge is insufficient, contact the HWMGR to determine if a lab analysis needs to be performed on the waste.

**5.4 HW Turn-In Procedures**

- STEP 1 Gather all turn-in paperwork IAW the procedures listed in the previous section.

- STEP 2 Submit the information to VAFM-E. A HWMGR will generate the required Form DD 1348-1A(s).
- STEP 3 Have the Form DD 1348-1A(s) signed by the individual at the facility who has received signatory authorization from the HWMGR.
- STEP 4 VAFM-E will contact the contracted DRMO and send the disposal paperwork to this DRMO.

The DRMO will then:

- STEP 1 Generate a Delivery Order (DO) and send it to the HWMGR.
- STEP 2 The HWMGR reviews the DO to ensure that all waste to be picked up is listed on the DO. If a waste is not listed on the DO or if the DO is incorrect, the HWMGR notifies the DRMO immediately to correct all deficiencies.
- STEP 3 The DRMO may visit the site to visually inspect the waste and to label it as “Property of DRMO.” If so, the DRMO and contractor return later with a completed manifest and Land Disposal Restriction (LDR) form (which states the maximum allowable disposal concentration value). During this visit, the contractor properly packages and labels the waste for transportation and transports it off site.

During the DRMO pickup, the generator must:

- STEP 1 Review the manifest and LDR with the contractor and correct any mistakes.
- STEP 2 Sign the manifest and LDR. Only someone with signatory authorization from the HWMGR can sign these documents.
- STEP 3 Shipping contractors should provide required placards, but if they do not, VaARNG must provide the proper placards. Placards are required if the transporter is transporting in bulk (e.g., cargo tank, portable tank) or at least 1,001 lbs total of any combination of the following hazard categories (49 CFR §172.101).

| <i>DOT Material Category (49 CFR §172.101)</i>                         | <i>Placard Name</i>                               |
|--|---|
| 1.4 through 1.6  | Explosives 1.4, Explosives 1.5, or Explosives 1.6 |
| 2.1  | Flammable Gas                                     |
| 2.2  | Non-Flammable Gas                                 |
| 3  | Flammable Liquid                                  |
| 4.1  | Flammable Solid                                   |
| 4.2  | Spontaneously Combustible                         |
| 5.1  | Oxidizer  |
| 5.2<br>(other than Type B, liquid or solid,<br>temperature controlled) | Organic Peroxide                                  |
| 6.1<br>(other than inhalation hazard Zone A or B)                      | Poison  |
| 8  | Corrosive   |
| 9  | Class 9   |

If a combination of two or more hazard classes is transported, a DANGEROUS placard can be used instead of placarding all hazard categories (unless more than 2,205 pounds or more of one category of material is being shipped).

Placards are required when transporting any amount of the following Hazard Categories.

| <i>Material Category</i>   | <i>Placard Name</i>  |
|--|--|
| 1.1 through 1.3  | Explosives 1.1, Explosives 1.2, or Explosives 1.3                  |
| 2.3  | Poison Gas   |
| 4.3  | Dangerous When Wet   |
| 5.2 (other than Type B, liquid or solid, temperature controlled) | Organic Peroxide (Type B, liquid or solid, temperature controlled) |
| 6.1 (Inhalation hazard, Zone A or B)                             | Poison Inhalation Hazard   |
| 7 (Radioactive Yellow 3 Only)                                    | Radioactive  |

STEP 4 Retain a copy of all paperwork and assure that an additional copy is forwarded to VAFM-E:

- the manifest
- the LDR form if attached to the DD 1348-1A(s) form
- HW Profile Sheet(s) (and MSDS, if supplied)
- Lab Analysis (if included)

When the TSDF receives the waste, they return a signed copy of the manifest through the DRMO to the HWMGR.

STEP 5 The HWMGR should ensure all the disposal paperwork is filed in the Waste Disposal Records file IAW Chapter 8.

## 5.5 Special Turn-In Requirements

A number of HM and HW have special requirements in place of or in addition to standard procedures that must be fulfilled in order to turn-in to DRMO for disposition. Examples of such hazardous products include:

- Asbestos (including asbestos-containing materials [ACM]),
- Various types of batteries (lead-acid, lithium-sulfur dioxide, magnesium, mercury, nickel-cadmium, silver-bearing, and thermal), fluorescent and other mercury-containing lamps,
- Blast media,
- Carbon composite fiber material,
- Chemical Defense Equipment,
- Partially used HM in opened containers,
- Over packed HM,

- Fluorescent lamp ballasts, and
- Medical wastes.

DoD 4160.21-M, Chapter 10, Attachment 1 should be consulted for the complete list of hazardous products with special handling requirements.

## **5.6 Special Requirements for Turn-In of Universal Waste**

Generators will coordinate with the HWMGR prior to turning in UW. The following turn-in requirements apply to UW:

- When using DRMO, UW must be turned in as waste, marked in block 4 on the disposal turn-in document (form DD-1348).
- UW must be labeled IAW Section 4.3.1 of this plan (as required by 40 CFR §273.14 or 273.34).

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## CHAPTER 6 TRANSPORTATION OF HAZARDOUS MATERIALS AND HAZARDOUS WASTE

VaARNG routinely transports HM to and from the USPFO and all VaARNG facilities. Therefore, VaARNG must comply with all applicable HM regulations. Transportation training is discussed in Chapter 7. Transportation of HM and HW is regulated by:

- USDOT
- DoD
- Virginia Department of Transportation (VDOT)
- EPA when the materials also meet the RCRA definition of HW.

**USDOT Requirements:** USDOT requirements for HM transportation (which include HW) are contained in 49 CFR §171-180. 49 CFR §172 describes special provisions, hazardous material communication requirements, emergency response, and training requirements. Part 172 also includes the Hazardous Materials Table, which has useful information including proper shipping names, hazard categories, labeling requirements, and quantity limitations. Part 177 describes the general requirements for shippers of HM. VaARNG personnel transporting HM shall comply with all HM shipping requirements of 49 CFR §171-180. 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 chapter 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, VaARNG drivers transporting HW will have successfully completed a 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 is discussed later in this section.

### 6.1 VaARNG Transportation Policy for HM

Offering HM to a commercial or contracted organization for transportation on publicly accessible roads requires full compliance with Federal and Virginia Hazardous Materials Regulations (HMR) even if the HM is being transported between or within government locations for government purposes.

49 CFR 171.1 describes the applicability of federal HMR to "each person who ..." Shipments of HM offered and transported by government organizations for government purposes, i.e., moving HM between government locations, are excluded from the Federal HMR via the definition of "person" in 49 CFR §171.8. According to the Federal regulatory definition, "person" does not include the following:

- 1) The United States Postal Service; or
- 2) Any agency or instrumentality of the Federal government, for the purposes of 49 U.S.C. 5123 (civil penalties) and 5124 (criminal penalties).
- 3) Any government or Indian tribe (or an agency or instrumentality of any government or Indian tribe) that transports hazardous material for a governmental purpose.

However, AR 200-1, 4-3.c. requires adherence to HMR whenever HM is transported on public highways and in on-site areas accessible to the public.

## **6.2 VaARNG Transportation Policy for HW**

At the Federal level, both the USDOT and EPA regulate HW transportation. Applicability of the two sets of regulations is based on: 1) whether the transportation takes place on or off-site; 2) generator status; and, 3) whether the transportation is performed by a government or contract/commercial organization.

### 6.2.1 On-Site Transportation

On-site transportation of HW conducted on roads not accessible to the general public is regulated only by AR 200-1 regardless of generator status or transporter type and need only be performed in a manner to preclude spills or releases to the environment and to enhance safety to personnel [AR 200-1, 4-3.c.]. This situation applies within the MTC Ft. Pickett facility. Therefore transportation of HW by VaARNG personnel within MTC Ft. Pickett is authorized and appropriate.

On-site transportation of HW conducted on roads accessible to the general public by government organizations is required by the Army to be performed in accordance with the AR 200-1, 4-3.c.

On-site transportation of HW conducted on roads accessible to the general public by a commercial or contracted organization must be performed in full compliance with USDOT and applicable State regulations.

### 6.2.2 Off-Site Transportation of CESQG Waste

CESQG shipments of HW (excluding certain acute HW) are regulated in the same manner as hazardous materials. Transportation of acute HW (listed in 40 CFR §261.31, 261.32, or 261.33(e)) from a CESQG who generates a total of one kilogram (2.20 lbs) of acute HW or a total of 100 kilograms (220.5 lbs) of any residue or contaminated soil, waste, or other debris resulting from the clean-up of a spill, into or on any land or water, of any acute HW in a calendar month, is subject to the same HW transportation requirement as an LQG (40 CFR §261.5).

ARNG CESQGs of HW have special requirements for moving the HW off-site (40 CFR §261.5), including the 40 CFR §261.5 (g)(3) requirement for CESQGs to “ensure delivery” to an authorized off-site TSDF. VaARNG CESQGs may ensure delivery by individually (each facility) coordinating disposal with VAFM-E. In most cases, off-site shipment of HW will be contracted to EPA-registered transporters.

### 6.2.3 Off-Site Transportation of SQG and LQG Waste

Because the EPA HW regulations (40 CFR §262.30-262.33) specifically incorporate parts of the HMR by reference, off-site shipments of HW from SQGs and LQGs must be performed in accordance with the referenced sections of the HMR even when offered for and/or transported by government organizations for government purposes.

SQGs and LQGs offering HW to a commercial or contracted organization for off-site transportation are required to comply with the HMR and EPA requirements

SQGs and LQGs who offer HW for transportation and transporters of HW from SQGs and LQGs must perform the following steps:

- 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 Package, mark, label, and placard in accordance with referenced sections of the HMR [40 CFR §262.30-262.33]. DRMO or contracted vendor should assist with this step.
- 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 to on-site or off-site treatment, storage, or disposal.

For SQG Only:

- 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 60 days of the date the waste was accepted by the initial transporter, then the SQG (through coordination with VAFM-E) must submit a legible copy of the manifest, with some indication that confirmation of delivery has not been received, to the EPA Regional Administrator for the Region in which the generator is located. (Exception reports are not required for SQGs.)

For LQG Only:

- STEP 1 Submit (through coordination with VAFM-E) a single copy of a Biennial Report to the EPA Regional Administrator by March 1 of each even numbered year.
- 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 35 days of the date the waste was accepted by the initial transporter, then the LQG (through coordination with VAFM-E) must contact the transporter and/or owner operator of the designated facility to determine the status of the HW (§262.42).
- STEP 3 Submit (through coordination with VAFM-E) an Exception Report to the EPA Regional Administrator for the Region in which the LQG is located if a copy of the manifest with the handwritten signature of the owner or operator of the designated

facility has not been received within 45 days of the date the waste was accepted by the initial transporter (§262.42).

- STEP 4 Keep a copy of each Biennial Report and Exception Report for a period of at least 3 years from the due date of the report (§262.40(b)).

### 6.3 HM Transporting Procedures

This section serves as a guide, highlighting the primary steps to take when shipping a package containing HM. These procedures are designed as a reminder for trained and certified Hazardous Materials Handlers and are not intended for anyone who is unfamiliar with USDOT requirements for shipping hazardous materials. Contact the Director of Logistics for assistance if your activity cannot transport serviceable hazardous material to the USP&FO.

Review 49 CFR §172 and 173 (and the *Hazardous Chemical Turn-In Section of the Waste Fact Sheet*, if applicable) prior to packaging or transporting hazardous materials. Perform this review to ensure that each of the following is true.

1. The product is an HM (*refer to Waste Fact Sheet Step 2.*).
2. The HM is properly packaged in a USDOT rated container(s) (*refer to Waste Fact Sheet Step 1*).  
A list of approved containers can be found in Appendix E.
3. The container(s) are marked with: proper shipping name including the general description; hazard class/division; UN/NA identification number; and packing group number.
4. The container(s) are properly labeled with a hazardous class division label and any additional subsidiary or handling labels.
5. Complete Form DD 836 (Dangerous Goods Shipping Paper).

### 6.4 HW Transporting Procedures

VaARNG activities are allowed to self-transport HW on site (within the fence line of VaARNG activities or within the boundaries of supporting facilities).

When HW is offered for transport off-site, the contractor will prepare it for shipment and remove it. The contractor will usually complete the following procedures.

- Re-package, mark, and label the waste for shipment.
- Complete the HW manifest, to be signed by an individual authorized by the HWMGR.
- Complete the LDR form.
- Display the applicable placards on the transport vehicle.

## CHAPTER 7 TRAINING, INSPECTIONS, AND RECORDKEEPING

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

### 7.1 Environmental Training

ECCs must complete the VaARNG Environmental Compliance Officer training course. ECCs must also complete HW training courses provided by the HWMGR'S or receive supervised on-the-job training. The training must describe proper handling and emergency procedures appropriate to the type(s) of HW generated by the activity and must describe how to comply with environmental Federal, State, local and Army regulations. ECCs must:

- Ensure that personnel who handle or manage HW successfully complete a training program within 6 months of the date of their employment/assignment and receive annual refresher training. ECCs who have received the required training can provide on-the-job training to satisfy this requirement.
- Ensure that M-day soldiers receive annual environmental awareness briefings and/or briefings before major training events. This training should be documented using a roster.
- Ensure that HM personnel successfully complete general awareness and familiarization training, function-specific training, and safety training upon assignment and biennially thereafter.
- Arrange in-shop sessions to discuss new waste management issues on an as needed basis. Require all personnel attending these sessions to sign a roster. Training can be combined with other training sessions; however, separate rosters/outlines must be created for each type of training conducted.

Environmental training requirements applicable to HM and HW management are summarized in the following table.

| <i>Required Training</i>                                       | <i>Who Requires the Training?</i>           | <i>Frequency</i>  | <i>Minimum Time to Train</i>                    | <i>Who is Responsible for the Training?</i> | <i>Citation</i>   | <i>How Trained</i>                             |
|--|---|---|---|---|---|--|
| ECC Course   | Environmental Compliance Coordinator (ECC). | Annual (2 hour class initially, brief refresher every year)     | 2 hour initial training, brief annual refresher | State Level                                 | AR 200-1; 40 CFR 112  | Online Training Module                         |
| Pesticide Applicators Certification                            | Pesticide Applicators                       | Once during employment (test needs to be retaken every 2 years) | 40 hour plus State test                         | State Level                                 | Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), DODI 4150.7; AR 200-5 | Various locations throughout Virginia          |
| Quality Assurance Evaluator/Pest Management Coordinator Course | Manager of Pesticide Applicators            | Every 3 years   | 30 hours  | State Level                                 | Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), DODI 4150.7; AR 200-5 | NGB and Army sponsored courses throughout U.S. |
| Environmental Video  | All   | Annual  | 20 minutes                                      | Unit Level                                  | AR 200-1; VaARNG Command Policy TAG-420-01-001                                    | CD or Video Cassette                           |

## 7.2 Transportation Training

VaARNG requires that all units and separate detachments have a person trained and certified to certify transportation of hazardous materials. The focus of unit level training of transportation of hazardous materials training is the HM 126 training program. The HM 126 program is required for anyone who transports, receives, prepares or ships hazardous material, and/or supervises any of these functions. The HM 126 program Training Packets are distributed to Battalion and Separate units. The Correspondence Course of the HM 126 program is Correspondence Course # 908F50. All inquiries in reference to Transportation of HM should be directed to State Joint Movement Operations Center at (434) 292-8563 or 8568.

**VaARNG Transportation Training Requirements**

| <i>Required Training</i> | <i>Who Requires the Training?</i>  | <i>Frequency</i> | <i>Minimum Time to Train</i> | <i>How Trained</i>  |
|--------------------------|--|------------------|------------------------------|---|
| Unit HM Certifier        | Certifiers of the Transportation of HM   | Every 2 years    | 80 hours                     | Formal Instruction  |
| HM 126                   | Personnel who Receive, Prepare, Ship HM, Transport and/or Supervise any of those functions | Every 2 years    | 4 hours or less              | Video Tapes and Exam, Correspondence Course, or Computer Based Training |

## 7.3 Inspections

All VaARNG activities are subject to internal inspections (VaARNG) and external inspections (DoD and 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 HWMGR by telephone and forward copies of all correspondence related to the inspection.

**VaARNG generators of hazardous waste must inspect HW storage areas on a weekly basis.** A sample inspection log is provided in Appendix F. The sample inspection log addresses regulated inspection items for LQGs and SQGs but can also be used by VaARNG CESQGs as a best management practice. This form must only be completed if HW is stored at the facility.

Unit ECCs are required to complete an Environmental Inspection/Walkthrough before leaving facilities used for IDT drill. Unit ECCs will brief the Activity ECC ensuring the Activity is left in the same or better condition after IDT drill.

## 7.4 Recordkeeping

All VaARNG activities must establish a file that contains items listed below IAW the VaARNG Environmental Recordkeeping System. The list includes HM and HW recordkeeping requirements. Retain all files for the duration required by law. MSDSs should be maintained for 30 years. Remaining items listed below should be maintained for 3 years. Consult with the HWMGR and/or VACS-S if unsure as to the retention time frame requirements for an individual document. Recordkeeping requirements apply to the following documents.

- Hazardous Materials Turnover File, which includes:
  - this Plan;
  - assignment letters;
  - job descriptions, including job title for each activity position related to HM/HW management; names of employees filling each position and their requisite skill, education, duties, and other qualifications; and a written description of the type and amount of introductory and continuing training; and
  - HM chain of command and points-of-contact
- Hazardous Material Inventory Report(s)
- Hazardous Material Transportation Records (DD 836)
- MSDS or MSDS serial numbers (along with where the HM was used, and when it was used)
- Waste Disposal Record(s), including:
  - DA 2765-1
  - Manifest(s)
  - LDR(s), if applicable
  - DD 1348-1A(s), if applicable
  - HW Profile Sheet(s), if applicable
  - Laboratory Analyses, if applicable
- Used Oil Shipping Documents
- Completed SAP, 180-Day, and 90-Day Storage Area Inspection Checklists
- Spill Incident Reports
- Hazardous Material/Waste Training Records (including training rosters)

## CHAPTER 8 SPILL RESPONSE PROCEDURES

This section provides general guidance for all VaARNG facilities. For facilities subject to applicable regulations, facility-specific spill response procedures are provided in Spill Prevention Control and Countermeasure (SPCC) Plans, or, if applicable, Integrated Contingency Plans (ICP). A VaARNG spill response procedure flowchart is included as Appendix G.

### 8.1 Spill Reporting

Spill reporting procedures vary depending on the material spilled, quantity spilled, and if the spill reaches water. Listings of Federal reportable quantities for oil and hazardous substances are cited in 40 CFR §61, 40 CFR §110, 40 CFR §280, 40 CFR §300, 40 CFR §302, 40 CFR §355, and 49 CFR §171.15. Written procedures for reporting are maintained by the HWMGR'S at the VAFM-E office.

For example, if fluid containing more than 5,000 lbs of ethylene glycol (automotive-type antifreeze) is spilled to the soil (or 10,000 lbs. of a 50-50 mixture of water and ethylene glycol), the spill would be reportable under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as described in 40 CFR §302. The HWMGRs will determine if the spill is reportable and call the National Response Center if necessary.

The HWMGR'S (or the VaARNG duty office after hours) will immediately report, by telephone or facsimile, a spill of a reportable quantity through command channels to required Federal, state, or local agencies and, within 48 hours, to the MACOM environmental office and support installation.

#### 8.1.1 Reporting Oil Spills

Spills of petroleum products such as lubricating oils, fuel oils, MOGAS, and used oil are not included on the CERCLA list in 40 CFR §302. This is due to the unique reporting requirements for oils. Federal reporting procedures may apply to any quantity of oils discharged to a water body. Regardless of the quantity of oil discharged, any discharge may meet the definition of a "spill event" if the oil reaches a body of water, stream, or ditch. A spill event occurs when the oil discharges into or upon navigable waters of the United States or adjoining shorelines in harmful quantities. "Harmful quantities" are defined in 40 CFR §110 as quantities that:

- violate applicable water quality standards; or
- cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

The term "Navigable waters" is broadly defined under the Clean Water Act (CWA) and the Oil Pollution Act (OPA) to include all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all water subject to the ebb and flow of the tide; interstate

waters including wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction or which could affect interstate or foreign commerce; tributaries of these waters; and wetlands adjacent to waters. VaARNG has determined that the “navigable waters” refers to any surface water in the United States.

### 8.1.2 Virginia Reporting Requirements

Virginia regulations have the potential to create additional reporting requirements beyond Federal requirements because they include oil discharges to soils, in addition to surface waters. The reporting requirements for oils and other petroleum products can be found in the Commonwealth of Virginia State Law, Chapter 3.1, Article 11, § 62.1-44.34:19. The DEQ web site at

<http://www.deq.state.va.us/tanks/rptpr.html> provides an overview of the reporting requirements.

In summary, if the petroleum discharged, released or spilled is 25 gallons or more *or* causes a sheen on nearby surface water *or* may impact a receptor (water resource/user); then the person owning or having control over the oil must immediately take measures to collect and remove the discharge, *and* immediately report the discharge to VADEQ, the local emergency agency, and the National Response Center.

Note that a spill of less than 25 gallons must be immediately reported if surface waters are impacted.

## **8.2 Spill Response Procedures for HM Spills and for HW Spills at CESQG and SQG Sites**

In general, spills must be cleaned up as soon as practical, without risk of injury or significant exposure to personnel. ECCs must maintain enough spill response equipment to respond to types and quantities of hazardous chemicals and waste on site. The ECC should review potential spill sites and determine if existing spill equipment exists and/or is adequate. The following is a representative list of spill response equipment that may be required for sites where the potential exists for spills of HM or HW.

**VaARNG personnel may only clean up spills of material that they handle on a routine basis.**

**Appropriately trained (OSHA) individuals are required for clean up of spills involving non-routine materials.**

- Absorbent-clay, one bag (NSN 7930-00-269-1272)
- Nonskid absorbent, 40 bag skid(NSN 1939-01-154-7001)
- Insulation, thermal, vermiculite, one bag (NSN 5640-00-801-4176)
- 30 each 18 x 18-inch pillows (NSN 4235-01-423-1463)
- 20 each 2-inch x 10-foot sock (NSN 4235-01-423-1467)
- 10 each 4-inch x 8-foot booms (NSN 4235-01-423-1465)
- 10-inch x 10-foot booms (NSN 4235-01-423-2787)
- Removable-head drum (NSN 8110-00-082-2626 or 8110-00-292-8121)
- Bag, polyolefin, 5-millimeters, 35-inch x 54-inch (NSN 8105-00-848-9631)
- Bottle, plastic, one-gallon (polyethylene) (NSN 8125-00-174-0852)

- Spill Kit (NSN 4235-01-423-7221)

Each potential spill site should have written spill response procedures at the site. The following information is located in the Army Corps of Engineers document, *You Spill, You Dig! An Environmental Handbook for Deployment*, and provides the basic procedures to follow in the event of a spill.

When faced with the hazards of a spill, always:

- Use Personal Protective Equipment (PPE), including gloves, goggles, and suits (if applicable); and
- Do the “Spill Drill” - **REACT!**

Remove the source

Envelop the spill

Absorb/accumulate

Containerize the HW

Transmit a report

STEP 1 Remove the Source

- Turn off all sources of ignition (pumps, motors, etc.)
- Approach the spill from up wind and attempt to stop the source:
  - Upright leaking 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 USDOT-approved overpack drums.
  - Transfer the material in a leaking container to another container.
  - Patch holes.
  - Move container to a location where it poses less of a threat.
- If spill is a major spill (cannot be easily or safely contained with local spill response equipment or personnel), activate internal activity alarms or give a verbal alarm.
- Evacuate all personnel to a safe distance upwind from the spill, if necessary.
- Secure the area.

STEP 2 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.
  - Build a dike around the spill using absorbent material. Only use absorbent material marked as compatible with the hazard class of the spilled material (check the material MSDS for guidance).
  - Cover spills of hazardous dusts or powders to protect against winds or strong drafts.

STEP 3 Absorb/Accumulate

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

**STEP 4 Containerize It**

- Clean up spills by draining, absorbing, or scooping free-floating materials into a container. Then scoop or shovel contaminated media (soil, gravel, etc.) into a USDOT-approved container for disposal separating liquids from solids.
- Overpack leaking, corroded, or otherwise deteriorating containers. Overpack leaking containers of liquid into larger containers, placing absorbent material (NSN 7930-00-269-1272) in the overpack container. For 55-gallon drums, use approximately 6 inches of absorbent in the bottom of an 85-gallon overpack drum. You may not need to overpack non-liquid HW. Check with the VaARNG VAFM-E when in doubt.
- Dispose of contaminated media, residue, and cleanup materials as waste.

**STEP 5 Transmit a Report**

- For minor spills that will not be released to the environment, notification should be provided to the onsite supervisor and the notification should include what measures were/will be taken to clean it up. For all other spills, also notify VAFM-E or Duty Officer ((804)298-6413 or (804)674-2400), or MTC Ft. Pickett: (434) 292-2664/2144.
- If the spill presents an immediate danger to personnel or the environment:
  - Notify the Fire Department if they are needed to help control the spill, and provide the following information:
    - ◆ 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 (estimated)
    - ◆ Time of spill
  - Notify VAFM-E and complete a Spill Incident Report form.

VAFM-E will immediately notify the State Staff Duty Officer.

### **8.3 Spill Prevention and Response for LQGs**

LQGs must prepare a RCRA (HW) Contingency Plan in accordance with 40 CFR §262.34(a)(4)). HW Contingency Plans should be incorporated into the activity SPCC Plan, facility SWPPP, and/or the facility ICP, if applicable.

## 8.4 Radioactive Spill Response

The requirements for the management of radiological spills and contingencies are defined in 10 CFR §20, 10 CFR §30, 10 CFR §40, and 10 CFR §70. Spills of radiological material occurring on installations require immediate action. The environmental office does not, however, have lead responsibility in handling such spills. The installation safety office must be immediately notified to respond. The source material in most radioactive commodities is sealed and, therefore, not prone to leakage. The Nuclear Regulatory Commission licenses each commodity or class of commodities. These licenses are held by elements of the Army Materiel Command (USAMC). These licenses contain specific procedures for responding to spills or other accidents or incidents.

Care must be taken with regard to tritium sources. Tritium, in the form of a gas or water vapor, is typically sealed in glass ampoules and used for its luminescent properties. Breakage of the ampoule, especially indoors, can result in contaminated surroundings and extensive cleanup requirements. Most of the other commodity isotopes, while possibly harmful if ingested, would not cause a radiation problem unless involved in a fire or other incident where they could be spread. They include the following:

- Americium 241 (chemical agent detectors)
- Cesium/beryllium (MC1 soil moisture density detectors)
- Nickel 63 (chemical agent monitors)
- Plutonium 239 (RADIAC calibrators)
- Strontium 90 (RADIAC calibrators)
- Cesium 137 (other calibrators)
- Thorium 232 (night vision devices and aircraft components)
- Depleted uranium (munitions and armor)
- Radium (old gauges and dials)

If a spill occurs, double wrapping in plastic bags should immediately contain the source. Personnel in the area must be notified of the situation. Those exposed personnel must remain in the general area, if possible, but away from the immediate incident area to avoid additional exposure to or spread of the contamination. Personnel should remain upwind of a fire or other environmental release. The area must be isolated to avoid increased exposure. Safety personnel must monitor the area and determine what further action is required. Safety personnel must also notify the license holder for the commodity and the USAMC Radiation Safety Office.

Personnel possibly exposed to or contaminated with radioactive material must be monitored for exposure and will require medical evaluation. Since this may require time-critical bioassays, it is imperative that the installation Safety Office be contacted immediately to begin the process as soon as possible.

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**APPENDIX A**  
**DEFINITIONS AND ACRONYMS**



## 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, 90-Day, and 180-Day Storage Areas.

**Accumulation Start Date (ASD)** - The date when a HW first becomes subject to the accumulation time limits. This is the date the waste is first placed into a container within a 90-Day Storage Area or the date the 55-gallon quantity limitation is exceeded at a Satellite Accumulation Point.

**Activity** - For the purposes of this manual, the term Activity includes any installation or facility in the VaARNG (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).

**Bulk Transfer** - Any movement of liquid from one container to another by pumping, pouring, or other means. This term does not include dispensing liquid for its intended use (i.e., dispensing fuel to a vehicle fuel tank).

**Characteristically HW** - Described in 40 CFR §261.20. Characteristically 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 produce no more than 220 pounds/month of HW; accumulate no more than 2,200 pounds of HW on-site; produce no more than 2.2 pounds/month of acute HW; and generate no more than 220 pounds/month 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 Compliance Coordinator (ECC)** - A commissioned officer or a non-commissioned officer (NCO) designated to implement the environmental program.

**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, and 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)** - 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. Hazardous materials include HW and materials exhibiting explosive, flammable, corrosive, and oxidizing properties.

**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:

- Any HW having the characteristics identified under the RCRA;
- Any material regulated as a hazardous material per USDOT;
- Any material that requires an MSDS per OSHA (see “Hazardous Chemical”); and
- Any substance designated according to CERCLA, CWA, Clean Air Act (CAA), 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.

- 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.
- It is specifically listed as such in 40 CFR §261, Subpart D.

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

**Hazardous Materials Employee** - Personnel who load, unload, or handle hazardous materials or prepare them for shipment and/or persons responsible for hazardous materials transportation safety or who operate a vehicle used to transport hazardous materials.

**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 §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), and must be maintained by the generator.

**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 Storage Area** - A central management location where LQG waste is temporarily stored prior to shipment off site.

**Non-Government Appropriated** - Any item *not* purchased through standard military channels, on military charge accounts or credit cards, or by military personnel who are reimbursed by the military

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

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

**Pollution Prevention (P2)** - Pollution Prevention means source reduction and other practices that reduce or eliminate the creation of pollutants through increased efficiency in the use of raw materials and resources. "Source reduction," as defined in the Pollution Prevention Act, includes any practice that reduces the amount of any hazardous substance, or pollutant entering any waste stream prior to recycling, treatment, or disposal.

**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. 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, cement and concrete (containing fly ash), and insulation products. Closing the loop through affirmative procurement helps to reduce reliance on virgin materials.

**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 near where hazardous waste is generated where a generator may accumulate hazardous waste until the container is full (up to 55 gallons of HW or one quart of acutely 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. 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. A discarded material is any material that is abandoned, recycled, or considered inherently waste-like. Solid wastes are further classified as either hazardous or non-hazardous waste.

**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.

**Storage** - The holding of HW for a temporary period, at the end of which the HW is treated, disposed of, or stored elsewhere.

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

**Universal Waste** - Defined in 40 CFR §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.

**ACRONYMS**

|          |  |
|----------|--|
| ACM      | Asbestos-Containing Material   |
| AR       | Army Regulation  |
| AR 200-1 | Army Regulation 200-1  |
| ARNG     | Army National Guard  |
| ASD      | Accumulation Start Date  |
| AT       | Annual Training  |
| CAA      | Clean Air Act  |
| CAGE     | Commercial and Government Entity   |
| CERCLA   | Comprehensive Environmental Response,<br>Compensation, and Liability Act |
| CESQG    | Conditionally Exempt Small Quantity Generator                            |
| CFR      | Code of Federal Regulations  |
| COR      | Contracting Officer's Representative                                     |
| CRT      | Cathode Ray Tube   |
| CoS      | Chief of Staff   |
| CWA      | Clean Water Act  |
| DA       | Department of Army   |
| DA PAM   | Department of the Army Pamphlet  |
| DCL      | Directorate of Command Logistics   |
| DoD      | Department of Defense  |
| DSN      | Defense Switched Network   |
| DOT      | Department of Transportation   |
| DRMO     | Defense Reutilization Marketing Office                                   |
| ECC      | Environmental Compliance Coordinator                                     |
| EO       | Executive Order  |
| EPA      | Environmental Protection Agency  |
| EPCRA    | Emergency Planning and Community Right-to-Know<br>Act                    |
| EPM      | Environmental Program Manager  |
| EQCC     | Environmental Quality Control Committee                                  |
| FEDLOG   | Federal Logistics Record   |
| GPC      | Government Procurement Card  |
| HAZCOM   | Hazard Communication   |
| HCC      | Hazard Characteristic Code   |
| HCCS     | Hazardous Chemical Compatibility System                                  |
| HM       | Hazardous Material(s)  |
| HME&I    | Hazardous Materials Examiner and Identifier                              |
| HMIS     | Hazardous Material Information System                                    |
| HMR      | Hazardous Material Regulation  |
| HWMP     | Hazardous Waste Management Plan  |
| HQ       | Headquarters   |
| HSWA     | Hazardous and Solid Waste Amendments                                     |
| HW       | Hazardous Waste(s)   |
| HWMGR    | Hazardous Waste Manager  |
| HWPS     | Hazardous Waste Profile Sheet  |
| IC       | Installation Commander   |
| ICP      | Integrated Contingency Plan  |
| IDT      | Inactive Duty Training   |
| ISCP     | Installation Spill Contingency Plan                                      |

|         |   |
|---------|---|
| LDR     | Land Disposal Restriction                                     |
| LQG     | Large Quantity Generator                                      |
| LQHUUW  | Large Quantity Handler of Universal Waste                     |
| MACOM   | Major Command   |
| M-day   | Mobilization day  |
| MQCSS   | Military Quality Control Storage Standard                     |
| MSDS    | Material Safety Data Sheet                                    |
| NEPA    | National Environmental Policy Act                             |
| NGB     | National Guard Bureau   |
| Ni-Cd   | Nickel-cadmium  |
| NSN     | National Stock Number   |
| OIP     | Organization Inspection Program                               |
| OJT     | On-the-Job Training   |
| 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   |
| PSN     | Proper Shipping Name  |
| RCRA    | Resource Conservation and Recovery Act                        |
| RO      | Reorder   |
| ROP     | Reorder Point   |
| RPO     | Radiation Protection Officer                                  |
| SAO     | State Army Aviation Office                                    |
| SAP     | Satellite Accumulation Point                                  |
| SHIP    | Single Hazardous Input Program                                |
| SOP     | Standard Operating Procedure                                  |
| SPCC    | Spill Prevention, Control, and Countermeasure                 |
| STARC   | State Area Command  |
| SQG     | Small Quantity Generator                                      |
| SQHUUW  | Small Quantity Handler of Universal Waste                     |
| SWPPP   | Stormwater Pollution Prevention Plan                          |
| TAG     | The Adjutant General  |
| TM      | Technical Manual  |
| TSCA    | Toxic Substances Control Act                                  |
| TSDF    | Treatment, Storage, and Disposal Facility                     |
| U-BANGS | User-based Army National Guard System                         |
| USAMC   | United States Army Material Command                           |
| UHW     | Uniform Hazardous Waste Manifest                              |
| USDOT   | United States Department of Transportation                    |
| USP&FO  | United States Property and Fiscal Office(r)                   |
| UW      | Universal Waste   |
| VACL    | Surface Maintenance Office                                    |
| VACS-S  | State Safety Officer  |
| VAFM    | Directorate of Facility Management                            |
| VAFM-E  | Directorate of Facility Management's Environmental<br>Manager |
| WPS     | Waste Protocol Sheets   |

**APPENDIX B**

**LIST OF TYPICAL WASTE STREAMS AT VAARNG SITES**

| <i>HW</i>                                    | <i>Non-HW</i> | <i>UW</i> | <i>Waste Stream</i>   | <i>Typical HW Codes</i>                                      |
|--|---------------|-----------|---|--|
| <b>AASF – Army Aviation Support Facility</b> |               |           |   |  |
| X  |               |           | Dry Cleaning Solvent  | D039   |
|  | X             |           | Jet Engine Oil  | n/a (include with Used Oil)                                  |
|  | X             |           | Contaminated Diesel Fuel, JP-8 Fuel   | n/a (include with Used Oil)                                  |
|  | X             |           | Old Paint (Latex)   | n/a  |
| X  | X             |           | Absorbent – can be hazardous depending on the nature of the material it is used to absorb | n/a or D001 and/or waste codes of HW cleaned up.             |
| X  |               |           | Paint Solvents from Paint Shop  | D001   |
| X  |               |           | Aerosols drained from Aerosol Cans  | D001   |
| X  |               |           | Rags – Weapons cleaning and rags used to wipe up a hazardous substance                    | D001, D008 (weapons), waste codes of HW wiped up.            |
| X  |               |           | Glass Beads from Blasting   | D005 (barium), D006 (cadmium), D007 (chromium), D008 (lead)  |
|  | X             |           | Used Antifreeze (for recycling or disposal)   | n/a  |
| X  |               |           | Paint related materials – Aerosol drainage, thinners, solvents                            | D001   |
| X  | X             |           | Waste Paint   | Some waste paint can test positive for metals and volatiles. |
|  | X             |           | Used Oil and Used Oil Filters   | n/a  |
|  | X             |           | Contaminated Oily Debris  | n/a  |
|  |               | X         | Batteries   | n/a  |
| X  | X             |           | Absorbent – can be hazardous depending on the nature of the material it is used to absorb | n/a or D001 and/or waste codes of HW cleaned up.             |
| <b>FMS – Field Maintenance Shop</b>          |               |           |   |  |
|  | X             |           | Antifreeze for recycling  | n/a  |
| X  | X             |           | LANDA Parts Washer Fluid  | Can test positive for metals                                 |
| X  |               |           | Paint related materials – Aerosol drainage, thinners, solvents                            | D001   |
|  | X             |           | Rags – when laundered   | n/a  |
|  | X             |           | Used Oil  | n/a  |
|  | X             |           | Oil Filters   | n/a  |
|  | X             |           | Contaminated Diesel   | n/a  |
|  |               | X         | Batteries   | n/a  |
|  | X             |           | OWS Water   | n/a  |
|  | X             |           | Absorbent – can be hazardous depending on the nature of the material it is used to absorb | n/a or D001 and/or waste codes of HW cleaned up.             |
| <b>Armory</b>                                |               |           |   |  |
| X  | X             |           | Unused MRE Heaters  | D003   |
| X  |               |           | Paint related materials – Aerosol drainage, thinners, solvents                            | D001   |
|  | X             |           | Rags – when laundered   | n/a  |
|  | X             |           | Used Oil  | n/a  |
|  |               | X         | Fluorescent Light Bulbs   | n/a  |

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**APPENDIX C**

**LIST OF VAARNG EPA ID NUMBERS AND  
SAMPLE GENERATION RATE FORM**



| <b>VaARNG EPA ID Numbers</b> |                      |                          |
|------------------------------|----------------------|--------------------------|
| <i>Name</i>                  | <i>EPA ID NUMBER</i> | <i>Generator Status</i>  |
| Allegheny                    | VAD988204012         | GESQG                    |
| Bedford                      | VAD982678013         | SQG                      |
| Big Stone Gap                | VAD982678070         | SQG                      |
| Blackstone                   | VAD982677429         | CESQG                    |
| Charlottesville              | VAD982677684         | CESQG                    |
| Chatham                      | VAD982677569         | CESQG                    |
| Christiansburg               | VAD982677502         | SQG                      |
| Danville                     | VAD988186631         | CESQG                    |
| Emporia                      | VA988224200          | CESQG                    |
| Farmville                    | VAD982677809         | CESQG                    |
| Franklin                     | VAD982677866         | CESQG                    |
| Fredericksburg = FMS #7      | VAD981111883         | See FMS #7, CESQG        |
| Gate City                    | VAD982677981         | CESQG                    |
| Hampton                      | VAD982677395         | SQG                      |
| Harrisonburg                 | VAD982677510         | CESQG                    |
| Hill, A.P.                   | VA0210000923         | CESQG                    |
| Leesburg                     | VAD982677635         | CESQG                    |
| Lexington                    | VAD982677759         | CESQG                    |
| Lynchburg = FMS #11          | VAD981112121         | See FMS #11, CESQG       |
| Manassas                     | VAD982677460         | CESQG                    |
| Martinsville                 | VAD982677403         | CESQG                    |
| Norfolk                      | VAD982677999         | CESQG                    |
| Onancock                     | VAD982677874         | CESQG                    |
| Pennington Gap               | VAD982677932         | CESQG                    |
| Petersburg                   | VAD982677582         | CESQG                    |
| Portsmouth                   | VAD982677585         | CESQG                    |
| Powhatan                     | VAR000505362         | CESQG                    |
| Pulaski                      | VAD982677700         | CESQG                    |
| Radford                      | VAD982677767         | CESQG                    |
| Richlands = FMS #14          | VAD981111438         | See FMS #14, CESQG       |
| Richmond (Dove St)           | VAD982677882         | SQG                      |
| Roanoke (Deactivated)        | Use FMS# 10's #      |                          |
| Rocky Mount                  | VAD982678005         | CESQG                    |
| Sandston (AASF)              | VAD981732662         | See AASF, SQG            |
| Sandston                     | VAD988204020         | CESQG                    |
| South Boston                 | VAD982677411         | CESQG                    |
| Staunton                     | VAD982677478         | CESQG                    |
| Suffolk                      | VAD982677536         | CESQG                    |
| VA Beach                     | VAD982677650         | CESQG                    |
| Warrenton                    | VAD982677718         | CESQG                    |
| West Point                   | VAD982677775         | CESQG                    |
| Winchester = FMS#3           | VAD981111701         | See OMS FMS #3,<br>CESQG |
| <b>NON-ARMORY</b>            |                      |                          |
| AASF                         | VAD981732662         | SQG                      |
| FMS #1/#2 (one only)         | VAD981112295         | SQG                      |

| <b>VaARNG EPA ID Numbers</b>      |                      |                         |
|-----------------------------------|----------------------|-------------------------|
| <i>Name</i>                       | <i>EPA ID NUMBER</i> | <i>Generator Status</i> |
| FMS #3                            | VAD981111701         | CESQG                   |
| FMS #5                            | VAD981111768         | CESQG                   |
| FMS #6                            | VAD981111826         | CESQG                   |
| FMS #7                            | VAD981111883         | CESQG                   |
| FMS #8                            | VAD981111941         | SQG                     |
| FMS #9                            | VAD981112006         | SQG                     |
| FMS #10                           | VAD981112063         | CESQG                   |
| FMS #11                           | VAD981112121         | CESQG                   |
| FMS #12                           | VAD981112188         | CESQG                   |
| FMS # 13 =Fort Belvoir's #        | VA7213720082         | LQG                     |
| FMS #14                           | VAD981111438         | CESQG                   |
| CSMS/FMS #4 =DSCR's#              | VA3971520751         | LQG                     |
| SMR                               | VAD982677452         | SQG                     |
| Maneuver Training Center<br>(MTC) | VAD988228359         | LQG                     |
| WALLER DEPOT                      | VAD988200374         | CESQG                   |



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## **APPENDIX D**

### **WASTE FACT SHEETS**

Absorbent – Hazardous

Absorbent – Non-hazardous

Antifreeze for Recycling

Aqueous Parts Cleaner – Used Fluids and Filters

Batteries

Diesel Fuel

Drained Aerosol Cans & Fluid

Fluorescent & Other Lamps

Hazardous Rags – Being Disposed

MRE Heaters

Paint Booth Filters

Paint Booth Slop Paint

Protective Mask Air Filter Cartridges

Used Oil

Used Oil Filters

Wash Rack Sludge

Weapons Cleaning Patches

# ABSORBENT – HAZARDOUS

Absorbent used for cleanup of hazardous waste and hazardous materials

## NOTES



This Fact Sheet applies to any absorbent that has been used for any material labeled in Step 2 of another Waste Fact Sheet as a Hazardous Waste (HW). If another Waste Fact Sheet does not exist for the material absorbed contact the **VAFM-E HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for Ft. Pickett at (434) 292-2664.**

- Typical HW that could be soaked up with absorbent includes used paint materials (solvents, thinners, etc.), gasoline, toxic substances.
- DO NOT mix non-hazardous absorbents with hazardous absorbents—such mixtures needlessly increase the volume (and cost) of hazardous waste disposed. Separate absorbents by NSN of material absorbed. For example, separate absorbents contaminated with gasoline from absorbents contaminated with battery acid.
- DO NOT handle waste unless you have been trained IAW Chapter 7 of the HWMP.
- DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.

### Step 1 Approved Container

Clean, 30-gallon or larger removable head DOT-rated drum.

Inspect container for dents, bulges, or excessive corrosion. Check compatibility of container with the waste stream. If you are not sure about container compatibility, contact **VAFM-E** (number above).

### Step 2 Prepare, Mark, and Label the Container

Attach a “Hazardous Waste” label to the side of the container and enter the information listed below

#### Satellite Accumulation Point

Generator: Location Name, Ph. & Address

EPA ID No: Enter EPA ID No. (skip Manifest No.)

Acc. Start Date: Leave Blank Until FULL

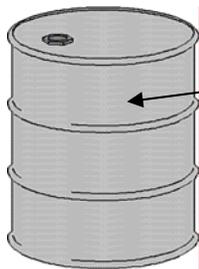
#### 90-day (or 180-day) Storage Area

Generator: Location Name, Ph. & Address

EPA ID No: Complete When Shipping

Acc. Start Date: **Date when Full**  
**or date when moved to this storage area**

Contents/Blank Lines: ( Ex: **Used Absorbent MOGAS** )



**HAZARDOUS WASTE**

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.  
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

GENERATOR INFORMATION  
NAME \_\_\_\_\_ PHONE \_\_\_\_\_  
ADDRESS \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_  
CITY \_\_\_\_\_  
EPA ID NO. / MANIFEST NO. \_\_\_\_\_  
ACCUMULATION START DATE \_\_\_\_\_ EPA WASTE NO. \_\_\_\_\_

**HANDLE WITH CARE!**

### Step 3 Put Waste in the Container & Store in an Approved Location

1. Wear the proper Personal Protective Equipment listed on the absorbed product's MSDS. Absorbed chemicals may cause eye and skin irritation.
2. Open the drum slowly, keeping your head/face clear of the opening. Add Used Absorbent to the drum, leaving ample head space in the drum: 55-gal./4 in. and 30-gal./3 in.
3. Store waste as described in Chapter 3 of the HWMP.
4. Close drum.

### Step 4 Turn-in Procedures

- Turn-in following procedures in HWMP Chapter 5.

# ABSORBENT – NON-HAZARDOUS

Absorbent used for any type of non-hazardous material

## NOTES



This Fact Sheet applies to absorbent used to absorb non-hazardous material such as POL spills (check other Fact Sheets for hazardous classification).

- If another Fact Sheet does not exist for the material absorbed, contact **VAFM-E HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for Ft. Pickett at (434) 292-2664.**
- Refer to separate Fact Sheets for shop rags and weapons cleaning patches/rags.
- Absorbent is a concern because of the chemicals absorbed when performing a cleanup—the absorbent can take on the characteristics of the fluid that it comes in contact with. If the fluid is hazardous, then the absorbent can become hazardous. This Fact Sheet assumes your used absorbent is non-hazardous.
- Typical non-hazardous absorbent wastes include pads or kitty-litter used to soak up POL spills in a maintenance shop or collected from an outside POL spill.
- DO NOT mix hazardous absorbents with non-hazardous absorbents—the resulting mixture must be handled as hazardous waste.
- DO NOT handle waste unless you have been trained IAW Chapter 7 of the HWMP.
- DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.

### Step 1 Approved Container

5-gallon container up to 55-gallon steel removable head drums.

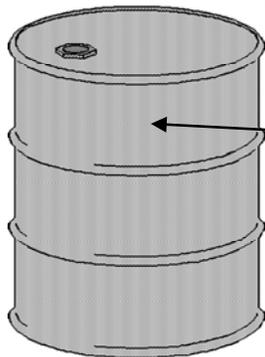
### Step 2 Prepare, Mark, and Label the Container

Mark the words “Non-Hazardous Waste” on the side of the container or use a label as shown.

Shipper Information: Your Unit Name and Location, street address, city, state, zip code

Contents: (Name of Material Cleaned-up) Contaminated Debris

**Example: Used Oil Contaminated Debris**



### Step 3 Put Waste in the Container & Store in an Approved Location

1. Wear the proper Personal Protective Equipment listed on the absorbed product's MSDS. Absorbed chemicals may cause eye and skin irritation.
2. Open container slowly, keeping your head/face clear of the opening.
3. Add used absorbent to the drum, leaving ample head space in the drum: 55-gal./4 in., 30-gal./3 in., 15-gal./2 in., 5-gal./1 in.
4. Store waste as described in Chapter 4 of the HMWMP.
5. Close drum.

### Step 4 Turn-in Procedures

- Turn-in following procedures in HWMP Chapter 5.

# ANTIFREEZE

Used Antifreeze

## NOTES



This Fact Sheet applies to used antifreeze. Based on recent data (CY 2007), VaARNG has determined that used antifreeze exhibits a HW characteristic and therefore is a hazardous waste.

- **Ft. Pickett MTC should follow the Ft. Pickett SOPs for Antifreeze Recycling that describes a central collection and antifreeze recycling unit.**
- DO NOT drain onto ground or into storm sewers, sanitary sewers, or septic tanks.
- DO NOT pour antifreeze down floor drains.
- DO NOT dispose of antifreeze with regular solid waste.
- DO NOT handle waste unless you have been trained or are supervised by trained personnel.
- DO NOT eat, drink, or smoke while handling waste - wash skin with soap & water after handling.
- **IF THIS WASTE SPILLS/LEAKS:** Refer to Spill Response Procedures in Chapter 8 of the HWMP. Antifreeze can be highly toxic at low doses if ingested orally. It can also be toxic to aquatic species.

### Step 1 Approved Container

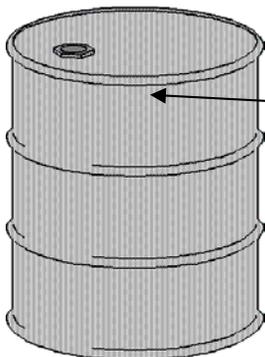
Clean, 55-gallon non-removable head drum. Inspect container for dents, bulges, or excessive corrosion. Remove prior labels

### Step 2 Prepare, Mark, and Label the Container

Generator Information: Your Unit Name and Location, street address, city, state, zip code, and EPA ID number

Accumulation Start Date: Record date when drum is full or when drum is moved to hazardous waste storage area.

D.O.T. Proper Shipping Name: Hazardous Waste Liquid (Antifreeze)



### Step 3 Put Waste in the Container & Store in an Approved Location

1. Wear the proper Personal Protective Equipment listed on the antifreeze MSDS.
2. Open container slowly, keeping your head/face clear of the opening.
3. Add used antifreeze to the drum, leaving ample head space in the drum: 55-gal./4 in.
4. Store waste as described in Chapter 4 of the HMWMP.
5. Close drum.
6. To document the facility's generator status, it is recommended that you record how much antifreeze you add to the drum.

### Step 4 Turn-in Procedures

Turn in waste IAW Chapter 5 of the HWMP.

# AQUEOUS PARTS CLEANER - USED FLUIDS AND FILTERS

## NOTES



This Fact Sheet applies to used parts cleaner fluids and filters from aqueous parts cleaners.

- Aqueous parts washers use heat, detergents, and turbulent water to clean mechanical equipment. To increase efficiency, parts washers are periodically (once or twice per year) emptied. When cleaned, the waste liquid should be segregated into a separate drum, suitable for transportation of liquids, and tested prior to disposal. When filters are removed for replacement, the used filters should also be segregated in a separate drum for testing.
- During operation, the parts wash and filters may become contaminated with other chemicals or metals that cause it to become a hazardous waste. Analytical data on the waste for each facility must be available prior to making a waste determination as either non-hazardous or hazardous waste. If this waste is determined to be hazardous, contact the **HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for Ft. Pickett at (434) 292-2664**. The remainder of this Fact Sheet assumes that used parts cleaner and filters are non-hazardous.
- 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.

### Step 1 Approved Container

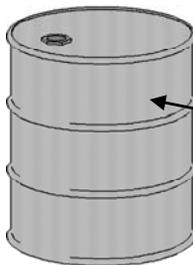
Clean, 30-gallon or larger non-removable-head drum for used parts cleaner fluids. Clean, 30-gallon or larger removable-head drum for filters. Inspect containers for dents, bulges, or excessive corrosion. Remove prior labels.

### Step 2 Prepare, Mark, and Label the Container

Mark the words "Non-Hazardous Waste" on the side of the container or use a label as shown.

Shipper Information: Your Unit Name and Location, street address, city, state, zip code

Contents: **Waste Fluids from Aqueous Parts Cleaner (or Waste Filters from Aqueous Parts Cleaner as appropriate)**



### Step 3 Put Waste in the Container & Store in an Approved Location

1. Wear the proper Personal Protective Equipment listed on the MSDS for the parts cleaner fluid.
2. Open the drum slowly, keeping your head/face clear of the opening.
3. Add used parts cleaner fluid to the drum, leaving ample head space: 4 in. for a 55-gal drum, 3 in. for a 30-gal drum. (Add filters to a separate drum.)
4. Store waste as described in Chapter 4 of the HWMP.
5. Close drum.

### Step 4 Turn-in Procedures

Turn in waste IAW Chapter 5 of the HWMP.

# BATTERIES

Alkaline, Lead-acid, Lithium, Magnesium, Mercury,  
Nickel-Cadmium (dry), Nickel-Cadmium (wet), Silver Oxide

## NOTES



This Fact Sheet applies to used batteries. Examples of hazardous batteries include lead-acid, lithium, magnesium, mercury, nickel-cadmium (Ni-Cad) dry, nickel cadmium (Ni-Cad) wet, and silver oxide.

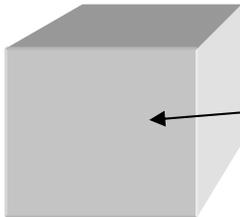
- Separate batteries by type and, if applicable, by NSN.
- **ATTENTION:** All VaARNG **lead-acid** batteries are under contract to be recycled, complete only Step 4 for lead-acid batteries.
- Any electrolyte (battery fluid) removed from batteries must be evaluated, by testing or process knowledge, for its hazardous waste characteristics, and managed accordingly. If this determination has not been made and/or you do not have documentation of this determination, contact **VAFM-E HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for Ft. Pickett at (434) 292-2664.**
- Keep batteries dry.
- Although not a regulatory requirement, consider storing batteries containing liquid within secondary containment to prevent releases into the environment.
- Battery vapors may be corrosive and/or flammable.
- DO NOT store batteries near flammables or other corrosive or reactive materials.
- 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.

### Step 1 Approved Container

Any container or package that is structurally sound, compatible with the contents of the battery, and shows no evidence of leakage, spillage, or damage that could cause leakage. Spent batteries can also be palletized in accordance with DOT regulations, for example: a cardboard box for dry batteries or plastic-lined pail (separate container for each NSN). Lead-acid batteries may be accumulated on a plastic-lined pallet. (DO NOT store lead-acid batteries on aluminum shelving.)

### Step 2 Prepare, Mark, and Label the Container

Label the container with the following phrase: "UNIVERSAL WASTE – BATTERIES"



UNIVERSAL  
WASTE - BATTERIES

## BATTERIES – P.2

|               |   |
|---------------|---|
| <b>Step 3</b> | <b>Put Waste in the Container &amp; Store in an Approved Location</b>   |
|               | <ol style="list-style-type: none"><li>1. Wear the proper Personal Protective Equipment listed on the MSDS.</li><li>2. Cover lead-acid battery terminals with tape.</li><li>3. Open box/container slowly, keeping your head/face clear of the opening.</li><li>4. Add batteries and close the box.</li><li>5. Store waste as described in Chapter 4 of the HWMP.</li><li>6. Close container.</li></ol> |
| <b>Step 4</b> | <b>Turn-in Procedures</b>   |
|               | Turn in waste IAW Chapter 5 of the HWMP.  |

# DIESEL FUEL

## Contaminated Diesel Fuel

### NOTES



This Fact Sheet applies to contaminated diesel fuel (typically contaminated by water or other vehicle fluids).

- DO NOT mix with MOGAS.
- Store in well ventilated area.
- Most contaminated diesel can be mixed with “USED OIL” and will be collected by a contractor along with your “USED OIL.”
- Diesel that is contaminated with solvents or hazardous wastes will require special storage and disposal. Contact the **VAFM-E HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for Ft. Pickett at (434) 292-2664.**
- 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.

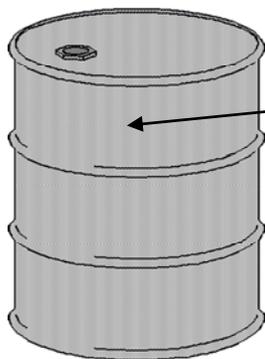
#### Step 1 Approved Container

Clean, 30-gallon or larger non-removable head DOT-rated drum.  
Inspect container for dents, bulges, or excessive corrosion. Remove prior labels.

#### Step 2 Prepare, Mark, and Label the Container

Mark the words “Non-Hazardous Waste” on the side of the container or use a label as shown.

Shipper Information: Your Unit Name and Location, street address, city, state, zip code  
Contents: **Contaminated Diesel Fuel**



#### Step 3 Put Waste in the Container & Store in an Approved Location

1. Wear the proper Personal Protective Equipment listed on the MSDS.
2. Ground the drum to prevent static electricity from accumulating.
3. Open the drum slowly, keeping your head/face clear of the opening.
4. Add fluid to the drum, leaving ample head space in the drum: 55-gal/4 in., 30-gal/3 in.
5. Store waste as described in Chapter 4 of the HWMP.
6. Close drum.

#### Step 4 Turn-in Procedures

- Turn-in following procedures in HWMP Chapter 5.

# DRAINED AEROSOL CANS & FLUID

## NOTES



This Fact Sheet applies to waste aerosol cans of any type. Empty only liquids that are compatible with the drum material and with other liquids collected in the same drum. If necessary, maintain a list of the types of aerosol cans emptied into the drum.

- NGB and VAFM-E recommend using an Aerosolv® Unit or equivalent to puncture and drain aerosol cans.
- Aerosol cans that have been punctured and drained can be disposed of as a non-hazardous waste; either as recyclable metal or as regular solid waste if metal recycling is not available.
- The substances drained from aerosol cans are assumed to be HW and will be managed as HW for the appropriate hazardous characteristics (ignitability, corrosivity, reactivity, toxicity) or HW Listing (40 CFR §261 Subpart D).
- Aerosol cans that are not punctured and drained are considered ignitable hazardous waste (D001), and possibly other appropriate hazardous waste codes, see “Notes”, page 2, and must be managed as hazardous waste.
- 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.

### Step 1 Approved Container

Aerosolv® Units are fitted in the 2” bung in the lid of 55-gallon or 30-gallon closed-top drums (with bung holes). Therefore, the drum under the Aerosolv Unit serves as the HW container for the drained aerosol can substances. Drained and punctured aerosol cans are placed in separate (non-HW) recyclable metal containers or directly in the dumpster if metal recycling is not available.

If an aerosol can-draining container is not already prepared, use a clean, 55-gallon or 30-gallon removable head drum with 2-inch bung in lid. Inspect container for dents, bulges, or excessive corrosion. Remove prior labels.

### Step 2 Prepare, Mark, and Label the Container

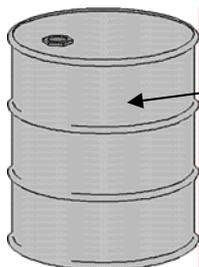
Attach a “Hazardous Waste” label to the side of the can-draining container and enter the information listed below

#### Satellite Accumulation Point

Generator: Location Name, Ph. & Address  
EPA ID No: Enter EPA ID No. (Skip Manifest No.)  
Acc. Start Date: **Leave Blank Until FULL**  
Contents/Blank Lines:  
**Drained aerosol can substance**

#### 90/180-day Storage Area

Generator & EPA ID No: Complete  
 Acc. Start Date: **Date when Full**  
**or date when moved to this storage area,**  
 EPA Waste No: **(See Notes on P.2)**



## DRAINED AEROSOL CANS & FLUID – P.2

| <b>Step 3</b> | <b>Put Waste in the Container &amp; Store in an Approved Location</b>   |
|---------------|---|
|               | <ol style="list-style-type: none"><li>1. Wear the proper Personal Protective Equipment listed on the MSDS.</li><li>2. Open the aerosol can chamber by lifting the can holder.</li><li>3. Insert the aerosol can into the chamber upside down (or with the spray nozzle down).</li><li>4. Secure the aerosol can by securely fitting the can holder down on top of the can.</li><li>5. Press down on the handle of the puncture mechanism slowly and completely ensuring the can is fully punctured.</li><li>6. Slowly release the handle of the puncture mechanism (in order to slowly release the pressure inside the can and avoid any back-spray from the can).</li><li>7. Allow the aerosol can to drain for a few seconds.</li><li>8. Remove the aerosol can from the can holder and place it in a “recyclable steel” container. (It is recommended that you keep a large container nearby to collect punctured and drained aerosol cans.)</li><li>9. Store waste as described in Chapter 3 of the HWMP.</li><li>10. Close drum.</li></ol> |
| <b>Step 4</b> | <b>Turn-in Procedures</b>   |
|               | <ul style="list-style-type: none"><li>• Turn in waste IAW Chapter 5 of the HWMP..</li></ul>   |

### Notes:

Wastes from aerosol cans may have a variety of EPA Waste Codes, depending upon the product. Typical waste codes include: D001 (ignitable), D008 (lead), D035 (methyl ethyl ketone – MEK), D039 (tetrachloroethylene - perchloroethylene – PCE), D040 (trichloroethylene – TCE).

Check the MSDS for the aerosol cans emptied into the container for specific waste codes or contact the HWM.

# FLOURESCENT & OTHER LAMPS

Fluorescent Lamps, HID/High Intensity Discharge Lamps (Neon, Mercury Vapor, High Pressure Sodium, Metal Halide)

## NOTES



This Fact Sheet applies to mercury-containing and lead-containing light bulbs. Examples of common mercury-containing light bulbs include fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Some larger incandescent bulbs may be hazardous based on lead content – always check the MSDS for your bulbs.

- MTC Ft. Pickett should follow the MTC SOP for disposal of fluorescent lamps.
- This fact sheet does not apply to traditional incandescent light bulbs (Ex: Desk lamp/75 watt)
- If manufacturing data is available that demonstrates bulbs to be non-hazardous, they can be disposed of as regular, non-hazardous solid waste.
- Use hand and eye protection when handling and disposing of lamps.
- DO NOT handle waste unless you have been trained.
- DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.

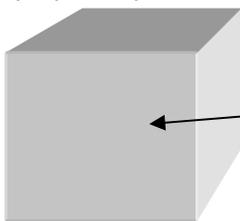


### Step 1 Approved Container

The original lamp container or any container or package that is structurally sound, adequate to prevent breakage, compatible with the contents of the bulbs, and showing no evidence of leakage, spillage, or damage that could cause leakage

### Step 2 Prepare, Mark, and Label the Container

Label the container with the following phrase: "UNIVERSAL WASTE – LAMPS" and date the container when the first lamp is stored. Effort should be made to dispose of bulbs 1 year from date container is established, but can be stored for more than 1 year for Small Quantity Generators to facilitate proper disposal.



**UNIVERSAL  
WASTE – Lamps**

**Date:** \_\_\_\_\_  
(Write in the date first lamp went in box.)

# LAMPS – P.2

|               |   |
|---------------|---|
| <b>Step 3</b> | <b>Put Waste in the Container &amp; Store in an Approved Location</b>   |
|               | <ol style="list-style-type: none"><li>1. Wear the proper PPE listed on the lamp/bulb MSDS (e.g., gloves and eye protection).</li><li>2. Do not purposefully break lamps. If lamps break store in a separate container and label as above with the term "Universal Waste – Broken Lamps.</li><li>3. Store waste in an approved location IAW Chapter 4 of the HWMP.</li><li>4. Close container.</li></ol> |
| <b>Step 4</b> | <b>Turn-in Procedures</b>   |
|               | Turn in waste IAW Chapter 5 of the HWMP.  |

# HAZARDOUS RAGS - BEING DISPOSED

## NOTES



This Fact Sheet applies to rags/wipers used with any material labeled in Step 2 (on any other Fact Sheet) as a Hazardous Waste—unless the absorbent has been characterized and determined to be non-hazardous. This fact sheet may also apply to rags/wipers used with certain hazardous materials.

**This Fact Sheet does not apply to rags being laundered through a laundry service. Rags in a laundry service are not wastes and need not adhere to this fact sheet. Store laundry rags in leak-proof bags or containers and label as “USED RAGS FOR LAUNDERING SERVICE” (to distinguish them from clean rags). Rags being laundered must have no free liquids.**

- Rags/wipers become hazardous from the use or cleanup of solvents with listed hazardous wastes such as MEK (hazardous waste codes D035, F005), methylene chloride (F002), trichloroethane (F002), toluene (F005), and xylene (F003). **Anything contaminated with a listed HW must be disposed of as a HW.** Hazardous waste rags/wipers may also result from the use or cleanup of certain paints and their residues because they may contain metals such as cadmium (D006), chromium (D007), silver (D011), or lead (D008).
- If another Waste Fact Sheet does not exist for the absorbed material or solvent to clarify the hazardous/non-hazardous determination, contact the **VAFM-E HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for Ft. Pickett at (434) 292-2664.**
- DO NOT mix rags/wipers soaked with different hazardous products and DO NOT mix non-hazardous rags/wipers with hazardous rags/wipers—such mixtures needlessly increase the volume (and cost) of hazardous waste disposed. Separate rags/wipers by type of material absorbed. For example, separate rags/wipers contaminated with gasoline from rags/wipers contaminated with solvent.
- DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.

### Step 1 | Approved Container

Clean, 30-gallon or larger removable head DOT-rated drum.

### Step 2 | Prepare, Mark, and Label the Container

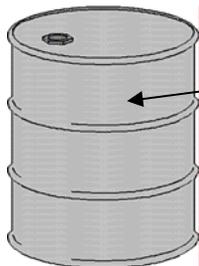
Attach a “Hazardous Waste” label to the side of the container and enter the information listed below

#### Satellite Accumulation Point

Generator: Location Name, Ph. & Address  
EPA ID No: Enter EPA ID No. (Skip Manifest No.)  
Acc. Start Date: Leave Blank Until FULL  
Contents/Blank Lines:  
**Drained Aerosol Can Substance**

#### 90/180-day Storage Area

Generator & EPA ID No: Complete  
 Acc. Start Date: **Date when Full**  
**or date when moved to this storage area**  
 EPA Waste No: **Varies by material spilled**



|  |                        |
|--|------------------------|
| <b>HAZARDOUS WASTE</b>   |                        |
| FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.<br>IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY. |                        |
| GENERATOR INFORMATION:   |                        |
| NAME _____   | PHONE _____            |
| ADDRESS _____  | STATE _____ ZIP _____  |
| CITY _____   |                        |
| EPA / BARRETT'S<br>ID No. / DOCUMENT NO. _____ / _____   |                        |
| ACCUMULATION<br>START DATE _____   | EPA<br>WASTE NO. _____ |
| <b>HANDLE WITH CARE!</b>   |                        |

## HAZARDOUS RAGS – P.2

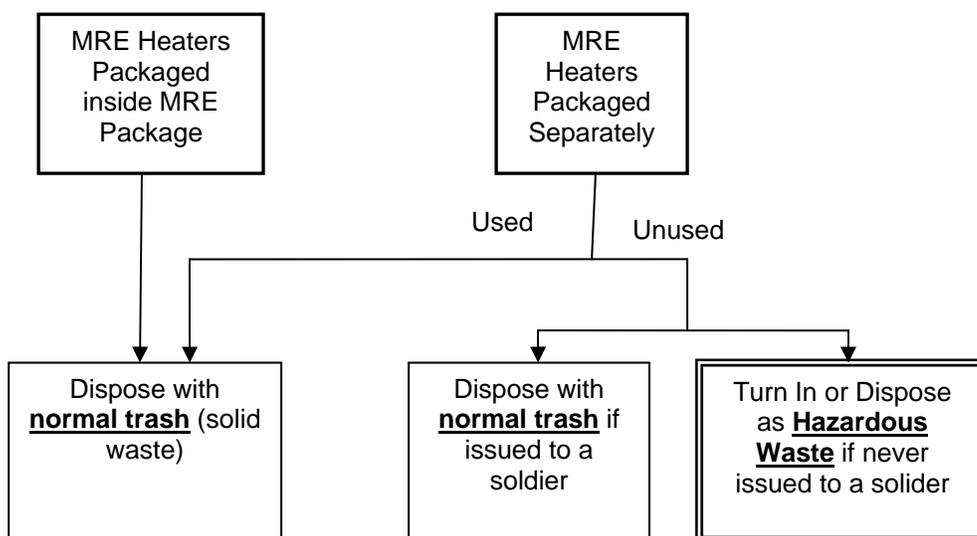
| <b>Step 3</b> | <b>Put Waste in the Container &amp; Store in an Approved Location</b>  |
|---------------|--|
|               | <ol style="list-style-type: none"><li>5. Wear the proper Personal Protective Equipment listed on the absorbed product's MSDS. Absorbed chemicals may cause eye and skin irritation.</li><li>6. Open the drum slowly, keeping your head/face clear of the opening.</li><li>7. Add used rag/wiper to the drum.</li><li>8. Keep the drum closed when no rags are being actively added. DO NOT air-dry rags.</li><li>9. Store waste as described in Chapter 3 of the HWMP.</li><li>10. Close drum.</li></ol> |
| <b>Step 4</b> | <b>Turn-in Procedures</b>  |
|               | <ul style="list-style-type: none"><li>• Turn-in following procedures in HWMP Chapter 5.</li></ul>  |

# MRE HEATERS

## NOTES

This waste fact sheet applies to MRE heaters including the four scenarios below:

- Used MRE heaters that are or were inside MRE packages;
  - Unused MRE heaters that are or were inside MRE packages;
  - Used MRE heaters that are or were packaged separately; and
  - Unused MRE heaters that are or were packaged separately.
- Used MRE heaters no longer pose an environmental hazard because the potential for chemical reactions and fire no longer exists. Therefore used MRE heaters may be disposed of with regular trash (non-hazardous solid waste).
  - Unused MRE heaters present a safety and potential environmental hazard due to the chemical reaction and heat generated when exposed to water. However, the EPA has determined that, once issued to a soldier in a “temporary or permanent residential setting”, the heaters qualify for the hazardous waste exclusion afforded to household generators of hazardous waste. VaARNG considers “temporary or permanent residential setting” to mean when the MRE heater has been issued to a soldier. Therefore, once the MRE heater (whether packaged separately or inside the MRE) has been issued to a soldier it may be disposed with regular trash (non-hazardous waste). (See page 2 for a summary of the EPA’s rationale for the household generator exclusion.) However, VaARNG strongly recommends that personnel turn-in unused MRE heaters for future use or, if disposal is truly required, personnel should activate the heaters to remove the safety and environmental hazard.
  - **Whenever possible, MRE heaters should be turned-in as useable materials. If the heaters cannot be used, then the only scenario that requires hazardous waste management and disposal is when the MRE heater is: 1) unused, 2) packaged separately from the MRE, and 3) the heaters have not been issued to a soldier (they are still in supply or stock). All three conditions must apply for the heater to be a hazardous waste, as shown below.**



- If you have questions about your unused MRE Heaters contact **VAFM-E HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for Ft. Pickett at (434) 292-2664.**
- DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.

### Turn-in Procedures for Hazardous Waste MRE Heaters

Unused MRE heaters are not a waste if they can still be utilized for their original purpose, instead of being disposed. To return unused MRE heaters to the DRMO, follow the hazardous material turn-in procedures provided in Chapter 5 of the HWMP.

## MRE Heaters – P.2

### EPA Guidance

#### New (2005) EPA Guidance Makes Disposal of Flameless Ration Heaters Easier

A new EPA guidance letter allows Flameless Ration Heaters (FRH) to be disposed of as non-hazardous solid waste in most cases. As always, states may impose more stringent requirements, and installations should check with state regulators before changing FRH disposal procedures.

Flameless Ration Heaters generate heat through a chemical reaction activated by water and are commonly issued with Meals, Ready to Eat (MRE). In 1999, EPA found that unactivated FRH were a reactive hazardous waste and must be managed and disposed of [as HW,] in accordance with the requirements of the Resource Conservation and Recovery Act (RCRA). Several installations received enforcement actions after unactivated FRH were found in municipal solid waste dumpsters or trucks, and the Quartermaster issued guidance (Food Flasher Message 01-10) for proper management and disposal of unactivated waste FRH. In 2001, SBCCOM sent a memo to EPA requesting a reconsideration based on new data.

HQDA has received EPA's reply, dated 29 Oct 2004. Under EPA's new guidance, FRH issued to soldiers for use in a temporary or permanent residential setting are exempt from RCRA regulation as household hazardous waste. In these circumstances, soldiers may dispose of waste FRH, either activated or unactivated, as non-hazardous solid waste. Soldiers may activate FRH prior to disposal. Units may collect issued FRH from soldiers for disposal as non-hazardous solid waste. This exemption only applies to FRH that have been issued to soldiers for use, not to FRH while in stock.

EPA also found that FRH packaged with MRE are not reactive hazardous waste and may be disposed as non-hazardous solid waste. This finding applies to all FRH packaged with MRE, issued or in stock.

However—EPA found that multiple FRH packaged separately from MRE are hazardous waste when disposed, and must be managed under RCRA. The Army no longer ships FRH separate from MREs, but did so in the past. Cases of FRH separate from MRE may still be in stock in cold regions and overseas, and, once discarded, must be managed as hazardous waste.

Installations are encouraged to collect unused FRH for return to manufacturer in accordance with local DRMS programs.

Individual states may issue more stringent regulations for FRH. Units and installations are strongly encouraged to check with state regulators before changing FRH disposal practices. SBCCOM is working with the Quartermaster to issue new management guidance.

# PAINT BOOTH FILTERS

## NOTES



Paint booth filters must be characterized in coordination with the **VAFM-E HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for MTC Fort Picket at (434) 298-2664**. This Fact Sheet applies to any paint booth filter that is characterized as hazardous waste.

- Paint booth filters are typically dry. Any captured solvents completely evaporate from the dry filters. Potentially hazardous constituents may be present in paint booth filters from the original product manufacturer or from paint overspray captured in the filter. Certain paints, in particular Chemical Agent Resistant Coating (CARC) paints, contain metals such as cadmium (hazardous waste code D006), chromium (D007), silver (D011), or lead (D008). Filters characterized as hazardous waste must be disposed of as hazardous waste.
- DO NOT mix hazardous paint booth filters with non-hazardous paint-related wastes or non-hazardous paints—such mixtures needlessly increase the volume (and cost) of hazardous waste disposed.
- DO NOT handle waste unless you have been trained IAW Chapter 7 of the HWMP.
- DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.

### Step 1 Approved Container

Clean, 30-gallon or larger removable head DOT-rated drum, depending on the size of the filters.

Inspect container for dents, bulges, or excessive corrosion. Check compatibility of container with the waste stream. If you are not sure about container compatibility, contact **VAFM-E** (number above).

### Step 2 Prepare, Mark, and Label the Container

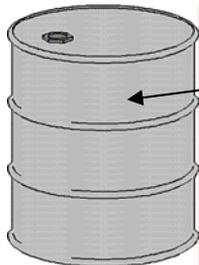
Attach a “Hazardous Waste” label to the side of the container and enter the information listed below

#### Satellite Accumulation Point

Generator: Location Name, Ph. & Address  
EPA ID No: Enter EPA ID No. (Skip Manifest No.)  
Acc. Start Date: **Leave Blank Until FULL**  
Contents/Blank Lines:  
**Waste Paint Booth Filters**

#### 90-day (or 180-day) Storage Area

Generator & EPA ID No: Complete  
Acc. Start Date: **Date when Full**  
**or date when moved to this storage area**  
EPA Waste No: **(See Notes on P.2)**



|  |                                  |
|--|----------------------------------|
| <b>HAZARDOUS WASTE</b>   |                                  |
| FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.   |                                  |
| IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY. |                                  |
| GENERATOR INFORMATION:   |                                  |
| NAME _____   | PHONE _____                      |
| ADDRESS _____  | CITY _____ STATE _____ ZIP _____ |
| GEN. / MANIFEST ID No. / DOCUMENT NO. _____  |                                  |
| ACCUMULATION START DATE _____  | EPA WASTE NO. _____              |
| <b>HANDLE WITH CARE!</b>   |                                  |

|  |   |
|--|---|
| <b>Step 3</b>  | <b>Put Waste in the Container &amp; Store in an Approved Location</b> |
| <p>11. Wear the proper Personal Protective Equipment listed on the MSDS(s) for the paints used. Depending on the product, paint chemicals may cause eye, skin, and/or respiratory irritation. Avoid actions that release dust from the filter.</p> <p>12. Open the drum slowly, keeping your head/face clear of the opening. Add waste paint booth filters to the drum, leaving ample head space in the drum: 55-gal./4 in. and 30-gal./3 in.</p> <p>13. Store waste as described in Chapter 3 of the HWMP.</p> <p>14. Close drum.</p> |   |
| <b>Step 4</b>  | <b>Turn-in Procedures</b>   |
| <ul style="list-style-type: none"><li>• Turn-in following procedures in HWMP Chapter 5.</li></ul>  |   |

Notes

EPA Waste Codes must be determined through testing or generator knowledge. Waste paint booth filters may vary in EPA Waste Codes, depending on the paint products used at the paint booth. Typical waste codes include: D006 (cadmium), D007 (chromium), D011 (silver), D008 (lead).

Check the MSDS for specific waste codes or contact **VAFM-E** (number above).

# PAINT BOOTH SLOP PAINT

## NOTES



- This Fact Sheet applies to waste paint booth slop paints that are considered hazardous waste, including chemical agent resistant coatings (CARC) and paint contaminated with or containing solvents.
- Paints may become hazardous when mixed with solvents or thinners, including listed hazardous wastes such as MEK (hazardous waste codes D035, F005), methylene chloride (F002), trichloroethane (F002), toluene (F005), and xylene (F003). **Anything contaminated with a listed HW must be disposed of as a HW.** Certain paints, in particular CARC paints, contain metals such as cadmium (D006), chromium (D007), silver (D011), or lead (D008). These paints must also be disposed of as hazardous wastes.
- Waste slop paint must be evaluated, by testing or process knowledge, for its hazardous waste characteristics and managed accordingly. If this determination has not been made, contact **VAFM-E HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for Ft. Pickett at (434) 292-2664.**
- Store in well ventilated areas.
- DO NOT dispose of waste paints with regular solid wastes.
- DO NOT pour waste paints down the drain or dump them on the ground.
- DO NOT mix hazardous slop paints with non-hazardous paints—the resulting mixture must be handled as hazardous waste.
- DO NOT handle waste unless you have been trained IAW Chapter 7 of the HWMP.
- DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.

### Step 1 | Approved Container

Clean, 30-gallon or larger non-removable head DOT-rated drum.

Inspect container for dents, bulges, or excessive corrosion. Check compatibility of container with the waste stream. If you are not sure about container compatibility, contact **VAFM-E** (number above).

### Step 2 | Prepare, Mark, and Label the Container

Attach a "Hazardous Waste" label to the side of the container and enter the information listed below

#### Satellite Accumulation Point

Generator: Location Name, Ph. & Address  
EPA ID No: Enter EPA ID No. (Skip Manifest No.)

Acc. Start Date: **Leave Blank Until FULL**

Contents/Blank Lines:

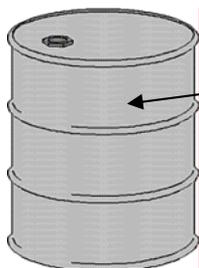
**Waste Paint Booth Slop Paint**

#### 90-day (or 180-day) Storage Area

Generator & EPA ID No: Complete  
Acc. Start Date: **Date when Full**

**or date when moved to this storage area**

EPA Waste No: **(See Notes on P.2)**



|  |                       |
|--|-----------------------|
| <b>HAZARDOUS WASTE</b>   |                       |
| FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.<br>IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY. |                       |
| GENERATOR INFORMATION  |                       |
| NAME _____   | PHONE _____           |
| ADDRESS _____  | STATE _____ ZIP _____ |
| CITY _____   |                       |
| EPA MANIFEST NO. _____   | DOCUMENT NO. _____    |
| ACCUMULATION START DATE _____  | EPA WASTE NO. _____   |
| <b>HANDLE WITH CARE!</b>   |                       |

|  |   |
|--|---|
| <b>Step 3</b>  | <b>Put Waste in the Container &amp; Store in an Approved Location</b> |
| <p>15. Wear the proper Personal Protective Equipment listed on the MSDS(s) for the paints used. Depending on the product, paint chemicals may cause eye, skin, and/or respiratory irritation.</p> <p>16. Open the drum slowly, keeping your head/face clear of the opening. Add waste slop paint to the drum, leaving ample head space in the drum: 55-gal./4 in. and 30-gal./3 in.</p> <p>17. Store waste as described in Chapter 3 of the HWMP.</p> <p>18. Close drum.</p> |   |
| <b>Step 4</b>  | <b>Turn-in Procedures</b>   |
| <ul style="list-style-type: none"> <li>• Turn-in following procedures in HWMP Chapter 5.</li> </ul>  |   |

Notes

EPA Waste Codes must be determined through testing or generator knowledge. Waste slop paint may vary in EPA Waste Codes, depending on the paint products used at the paint booth. Typical waste codes include: D035, F005 (methyl ethyl ketone (MEK)), D018, F005 (benzene), F002 (methylene chloride), F002 (trichloroethane), F005 (toluene), F003 (xylene), F003 (acetone), D005 (Barium), D006 (cadmium), D007 (chromium), D011 (silver), D008 (lead).

Check the MSDS for specific waste codes or contact **VAFM-E** (number above).

# PROTECTIVE MASK AIR FILTER CARTRIDGES

Including M-17, M-24, and M-25 Series Protective Mask Air Filter Cartridges

## NOTES



This Fact Sheet applies to protective mask air filter cartridges. Examples of hazardous (chromium-containing) protective mask air filter cartridges include M-17, M-24, and M-25 series cartridges.

- Separate cartridges by NSN.
- Cartridges must be evaluated, by testing or process knowledge, for their hazardous waste characteristics and managed accordingly. If this determination has not been made (i.e. the cartridge type does not appear in the title of this factsheet) and/or you do not have documentation of this determination, contact **VAFM-E HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for Ft. Pickett at (434) 292-2664.**
- 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.

### Step 1 Approved Container

Any container or package that is structurally sound, compatible with the contents of the cartridge, and shows no evidence of leakage, spillage, or damage that could cause leakage. For example, pack in a plastic bag within a DOT-rated cardboard box, or for larger amounts a clean, 30-gallon removable head DOT-rated drum.

### Step 2 Prepare, Mark, and Label the Container

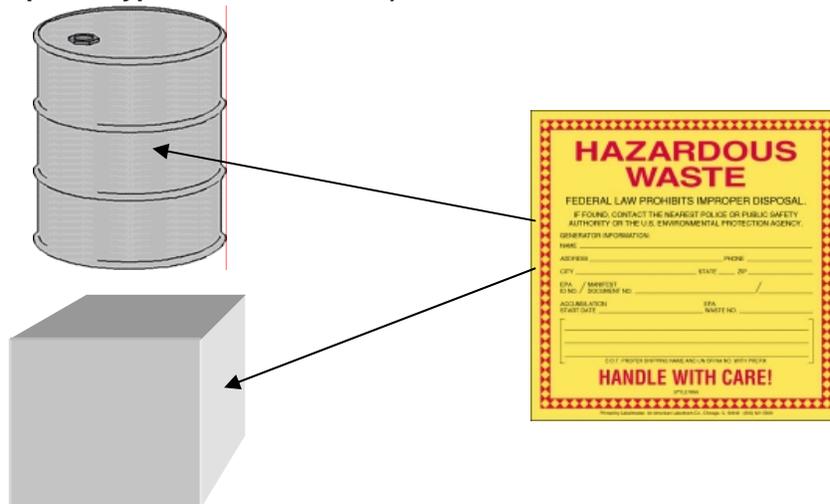
Attach a "Hazardous Waste" label to the side of the container and enter the information listed below

#### Satellite Accumulation Point

Generator: Location Name, Ph. & Address  
EPA ID No: Enter EPA ID No. (Skip Manifest No.)  
Acc. Start Date: **Leave Blank Until FULL**  
Contents/Blank Lines:  
**[Type] Mask Filters NSN [Number]**  
**(Fill in appropriate Type and NSN number)**

#### 90/180-day Storage Area

Generator & EPA ID No: Complete  
 Acc. Start Date: **Date when Full**  
**or date when moved to this storage area**  
 EPA Waste No: **(See Notes on P.2)**



## PROTECTIVE MASK AIR FILTER CARTRIDGES – P.2

|               |  |
|---------------|--|
| <b>Step 3</b> | <b>Put Waste in the Container &amp; Store in an Approved Location</b>  |
|               | <ol style="list-style-type: none"><li>7. Wear the proper Personal Protective Equipment listed on the MSDS.</li><li>8. Open box/container slowly, keeping your head/face clear of the opening.</li><li>9. Add cartridges and close the box/container.</li><li>10. Store waste as described in Chapter 3 of the HWMP.</li><li>11. Close container.</li></ol> |
| <b>Step 4</b> | <b>Turn-in Procedures</b>  |
|               | Turn in waste IAW Chapter 5 of the HWMP.   |

### Notes

Waste protective mask air filter cartridges may vary in EPA Waste Codes, depending on the product. Typical waste codes include: D007 (chromium), D011 (silver).

Check the MSDS for specific waste codes or contact the HWMGR.

# USED OIL

Including Petroleum-Based & Synthetic Lubricants, Hydraulic/Brake Fluids, and Heat Transfer Fluids

## NOTES



This Fact Sheet applies to used oil, which includes any petroleum-based or synthetic oil that has been used (e.g., used engine oil, lubricants, hydraulic fluids, and heat transfer fluids).

- Used oil does NOT include MOGAS, grease, products such as antifreeze, petroleum distillates used as solvents, or vegetable and animal oil - even when used as a lubricant.
- DO NOT self-transport more than 55 gallons of used oil per vehicle.
- DO NOT use used oil for dust suppression or pour used oil onto the ground.
- DO NOT store near oxidizers, corrosives, or heat sources.
- DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.

### Step 1 Approved Container

Clean 30-gallon or larger non-removable-head drum or a designated and approved AST (Aboveground Storage Tank). Inspect container for dents, bulges, or excessive corrosion. Remove prior labels.

**At Fort Pickett**, new and used containers can be obtained from the Recycling Center, Building T-2361.

### Step 2 Prepare, Mark, and Label the Container

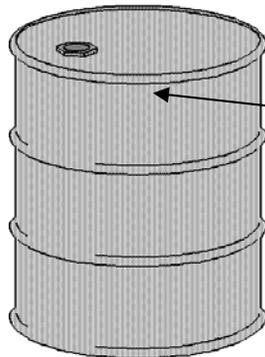
Mark the words "USED OIL" on the side of the container or use a label as shown.

Shipper Information: Your Unit Name and Location, street address, city, state, zip code

Contents: **Used Oil**

**Allowable Oils**  
(Regular or Synthetic Oil)

- Used Motor Oil
- Used Hydraulic Oil
- Used Transmission Oil
- Used Brake Fluid
- Fire Resist. Hydraulic (FRH) Oil
- Diesel Fuel Oil
- JP-8 Fuel Oil
- Heating Oil



**MATERIAL**

**FOR**

**RECYCLE**

**Used Oil**

### Step 3 Put Waste in the Container & Store in an Approved Location

11. Wear the proper Personal Protective Equipment listed on the MSDS.
12. Open the drum slowly, keeping your head/face clear of the opening.
13. Add used oil to the drum, leaving ample head space in the drum: 55-gal./4in., 30-gal./3in.
14. Store waste as described in Chapter 4 of the HWMP.
15. Close drum.

### Step 4 Turn-in Procedures

Turn in waste IAW Chapter 4 of the HWMP.

**At Fort Pickett**, once the container is full, the generator of the waste must transport the container to the MTC Waste Accumulation Facility, Building T-2361, within the day's working hours. Do not accumulate more than 55 gallons of any used oil.

# USED OIL FILTERS

## NOTES



This Fact Sheet applies to used oil filters, diesel/JP-8 fuel filters, transmission/hydraulic filters, and heating oil furnace filters. It does NOT apply to gasoline filters, which can be characterized as hazardous waste due to flammability.

- Drain all used oil filters to remove the used oil.
- Drained oil filters can be recycled for their metal content as non-hazardous material for recycling.
- For oil filters not being recycled (being disposed as waste) proper draining of oil is still required and the drained filters must be properly characterized. Contact a HWMGR for guidance on proper procedures for draining of used oil filters that will be disposed. For disposal/characterization purposes, review the MSDS for terne plating (tin/lead alloy), contact the manufacturer, or call 800 99-FILTER.

**NOTE:** If the used oil filters are to be picked up by a recycler (e.g., a contractor such as Metal Pro), the filters only need to be drained at room temperature and placed in a separate drum marked “Used Oil Filters – for Recycling.” The oil drained from the filters should be collected and added to the used oil container. Contact the VAFM-E HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for Ft. Pickett at (434) 292-2664.

See the Used Oil Fact Sheet for management of the drained oil.

- DO NOT store near oxidizers, corrosives, or heat/flame/ignition sources.
- DO NOT handle waste unless you have been trained or are supervised by trained personnel. Training requirements are listed in Chapter 7 of the HWMP.
- DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.

### Step 1 Approved Container

Clean, 30-gallon or larger removable head DOT-rated drum. Inspect container for dents, bulges, or excessive corrosion. Remove prior labels.

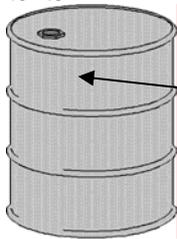
### Step 2 Prepare, Mark, and Label the Container

#### Used Oil Filter being DISPOSED

Shipper Information: Your Unit Name and Location, street address, city, state, zip code

Contents:

**Used Non-Terne Plated Oil Filters**



(Non Terne-Plated Filters)

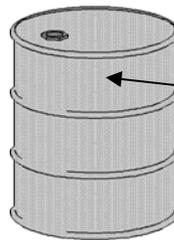
*If Terne-plated filters are being disposed – label and store as hazardous waste.*

#### Used Oil Filter being RECYCLED

Mark the words “Material for Recycle” on the side of the container or use a label as shown.

Contents:

**Used Oil Filters for Recycling**



**MATERIAL FOR RECYCLE**

*Used Oil Filters for Recycling*

## Used Oil Filters - P.2

|               |   |
|---------------|---|
| <b>Step 3</b> | <b>Put Waste in the Container &amp; Store in an Approved Location</b>   |
|               | <p>19. Wear the proper Personal Protective Equipment.</p> <p>20. Store waste as described in Chapter 4 of the HMWMP.</p> <p>21. Close drum.</p> |
| <b>Step 4</b> | <b>Turn-in Procedures</b>   |
|               | <p>Turn-in following procedures in HWMP Chapter 5.</p>  |

# WASH RACK SLUDGE

Including Wash Rack Oil Water Separator Skimming

## NOTES



This Fact Sheet applies to the sludge and liquids collected in wash racks and wash rack oil-water separators.

- Wash rack sludge and oils must be tested (each batch) to determine if the waste is a hazardous or non-hazardous waste.
- Before the collection tank is completely full, contact the **VAFM-E HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for Ft. Pickett at (434) 292-2664.** to schedule sampling and testing of your wash rack material.
- DO NOT remove liquids or sludge from the wash rack or oil-water separator until you have received direction from VAFM-E for that particular batch.
- DO NOT dispose of sludge or liquids to sanitary or stormwater sewers.
- DO NOT handle waste unless you have been trained IAW Chapter 7 of the HWMP.
- DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.

### Step 1 | Approved Container – Not Applicable

Wash rack sludge and oil-water separator fluids should be left in place (in the holding tanks).

### Step 2 | Turn-in Procedures

- Contact the **VAFM-E HWMGR for statewide facilities at (434) 298-6413 or the HWMGR for Ft. Pickett at (434) 292-2664.** at least one month prior to disposal of sludge to schedule sampling and testing of your wash rack material.
- Once the test results are interpreted by VAFM-E, an appropriate contractor and vacuum truck will be scheduled to remove the material directly from the Wash Rack holding tank.

# WEAPONS CLEANING PATCHES

## NOTES



This Fact Sheet applies to all used weapons cleaning patches/rags that are not being laundered. VaARNG has determined that all weapons cleaning patches that are not being laundered will be managed as hazardous waste due to metals and/or chemicals that are often collected on the cleaning patch.

- At MTC Ft. Pickett, follow SOP for disposal of Weapons Cleaning Patches.
- DO NOT mix weapons cleaning patches/rags with other rags because of the unique characteristics of used weapons cleaning patches.
- DO NOT handle waste unless you have been trained IAW Chapter 7 of the HWMP.
- DO NOT eat, drink, or smoke while handling waste. Always wash skin with soap and water after handling waste.

### Step 1 Approved Container

Clean 30-gallon or larger removable head steel DOT-rated drum. Inspect container for dents, bulges, or excessive corrosion. Remove prior labels.

### Step 2 Prepare, Mark, and Label the Container

Attach a "Hazardous Waste" label to the side of the container and enter the information listed below

#### Satellite Accumulation Point

Generator: Location Name, Ph. & Address

EPA ID No: Enter EPA ID No.

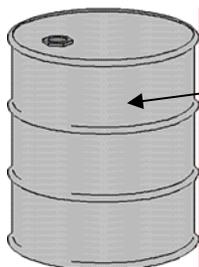
Acc. Start Date: Leave Blank Until FULL Contents/Blank Lines:

**Used Weapons Cleaning Patches/ rags**

#### 90/180-day Storage Area

Generator & EPA ID No: Complete  
Acc. Start Date: **Date when Full or date when moved to this storage area**

EPA Waste No: **F002, F005**



### Step 3 Put Waste in the Container & Store in an Approved Location

1. Wear the proper Personal Protective Equipment listed on the cleaning product's MSDS.
2. Open the drum slowly, keeping your head/face clear of the opening.
3. Add used weapons cleaning patch/rag to the drum.
4. Keep the drum closed when no patches/rags are being actively added. DO NOT air-dry rags.
5. Store waste as described in Chapter 4 of the HWMP.
6. Close drum.

### Step 4 Turn-in Procedures

- Turn-in following procedures in HWMP Chapter 5.

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**APPENDIX E**

**APPROVED CONTAINERS FOR HW STORAGE**



| <i>Container Type</i>                                 | <i>National Stock Number<br/>(NSN)*</i> |
|---|---|
| Drum, 55-Gallon, Non-Removable Lid, Steel, 1A1        | 8110-00-292-9783                        |
| Drum, 30-Gallon, Removable Lid, Steel, 1A2            | 8110-00-366-6809                        |
| Drum, 85-Gallon, Removable Lid, Steel, 1A2            | 8110-01-101-4055                        |
| Drum, 85-Gallon, Removable Lid, Steel, 1A2            | 8110-01-101-4056                        |
| Drum, 55-Gallon, Removable Lid, Steel, 1A2            | 8110-00-030-7780                        |
| Drum, 30-Gallon, Removable Lid, Steel, 1A2            | 8110-00-866-1728                        |
| Drum, 20-Gallon, Removable Lid, Steel, 1A2            | 8110-00-146-1588                        |
| Drum, 16-Gallon, Removable Lid, Steel, 1A2            | 8110-00-254-5717                        |
| Drum, 12-Gallon, Removable Lid, Steel, 1A2            | 8110-00-254-5716                        |
| Drum, 9-Gallon, Removable Lid, Steel, 1A2             | 8110-00-254-5715                        |
| Drum, 7-Gallon, Removable Lid, Steel, 1A2             | 8110-00-254-5714                        |
| Drum, 6-Gallon, Removable Lid, Steel, 1A2             | 8110-00-254-5713                        |
| Drum, 4-Gallon, Removable Lid, Steel, 1A2             | 8110-00-254-5722                        |
| Drum, 3-Gallon, Removable Lid, Steel, 1A2             | 8110-00-431-8670                        |
| Drum, 55-Gallon, Non-Removable Lid, Polyethylene, 1H1 | 8110-01-150-0677                        |
| Box, Shipping, Fiber, 4G<br>20" x 20" x 20"           | 8115-00-179-0578                        |
| Box, Shipping, Fiber, 4G<br>18" x 12" x 10"           | 8115-00-179-0579                        |
| Box, Shipping, Fiber, 4G<br>16" x 10" x 8"            | 8115-00-179-0578                        |

\*NSNs are for ordering purposes only. The supplier may substitute comparable containers with different stock numbers only if the substitute meets DoD supply standards

NOTE: All containers must be in good condition in order to store waste.

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**APPENDIX F**

**VAARNG WASTE CONTAINER AND  
STORAGE AREA INSPECTION FORM**



## WASTE CONTAINER AND STORAGE AREA INSPECTION LOG

|               |                         |
|---------------|-------------------------|
| Inspected by: | Signature of Inspector: |
|---------------|-------------------------|

### Hazardous, Regulated and Universal Waste Containers

| <b>Container Condition</b>   | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 |
|--|--------|--------|--------|--------|--------|
| Are all containers closed?   |        |        |        |        |        |
| Are all containers free of severe rust?                                      |        |        |        |        |        |
| Are all container heads free of bulges?                                      |        |        |        |        |        |
| Are all containers free of leaks?  |        |        |        |        |        |
| <b>Container Markings</b>  | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 |
| Are the contents marked on the container?                                    |        |        |        |        |        |
| Are correct waste / labels on the container?                                 |        |        |        |        |        |
| Is the label accurately filled out?  |        |        |        |        |        |
| <b>Container Storage Area</b>  | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 |
| Is the storage area secured?   |        |        |        |        |        |
| Is the storage area In a low traffic area?                                   |        |        |        |        |        |
| If aisle space is necessary, is it adequate to allow movement between drums? |        |        |        |        |        |

### Emergency Response Equipment

| <b>Telephone</b>                                   | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 |
|--|--------|--------|--------|--------|--------|
| Is a phone easily accessible in case of emergency? |        |        |        |        |        |
| Is it in working order?                            |        |        |        |        |        |
| Is the fire department number posted by the phone? |        |        |        |        |        |
| <b>Spill Control</b>                               | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 |
| Are spill control materials nearby?                |        |        |        |        |        |
| Is all personal protective equipment nearby?       |        |        |        |        |        |
| Are spill control procedures readily accessible?   |        |        |        |        |        |
| <b>Fire Protection</b>                             | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 |
| Is a fire extinguisher readily accessible?         |        |        |        |        |        |
| Is the fire extinguisher charged?                  |        |        |        |        |        |
| Is the fire extinguisher seal intact?              |        |        |        |        |        |

|                              |                                      |
|------------------------------|--------------------------------------|
| Corrective Action Taken? Y/N | Comments on any question marked "No" |
|------------------------------|--------------------------------------|

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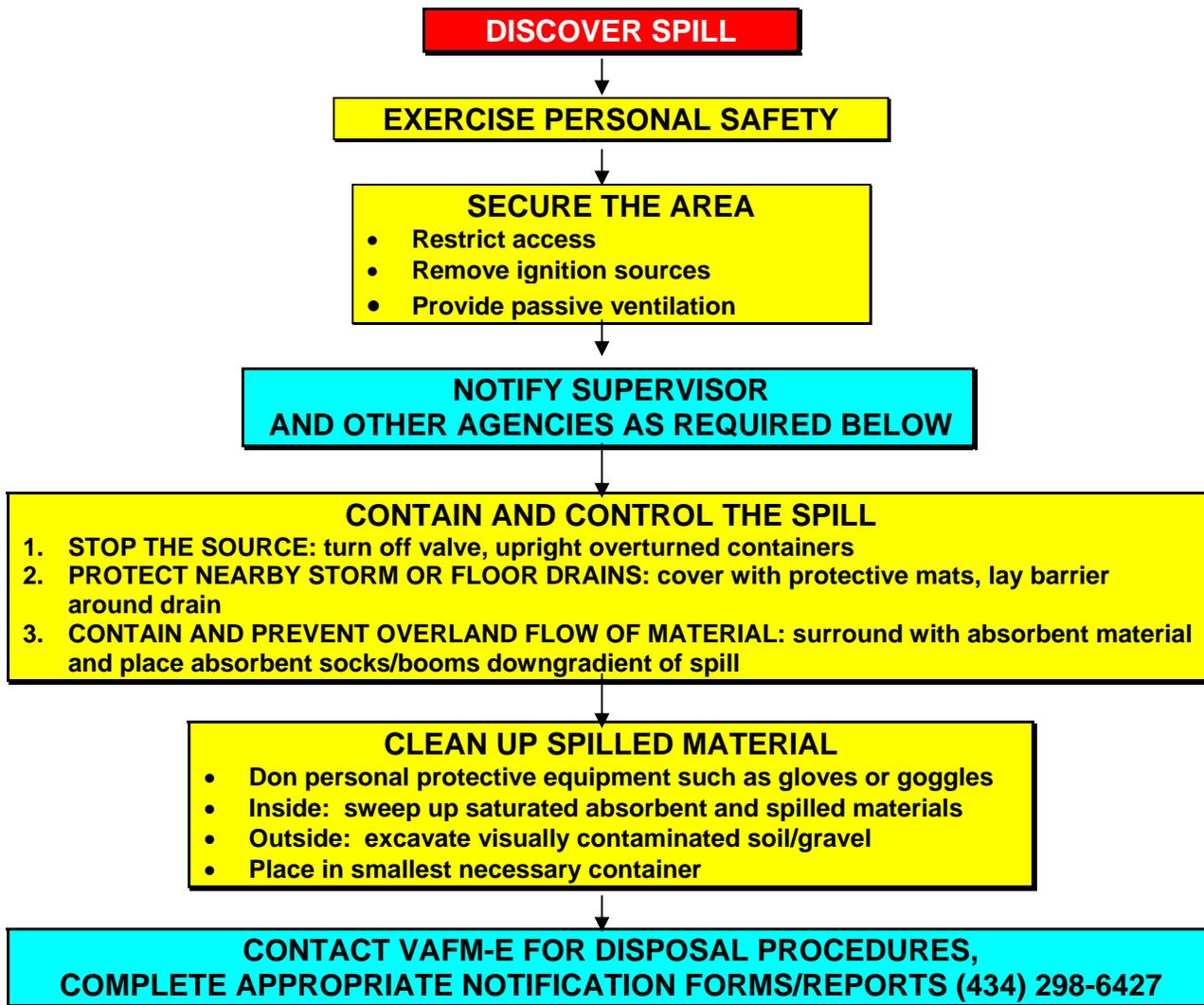
**APPENDIX G**

**VAARNG SPILL RESPONSE PROCEDURE FLOWCHART**



# INCIDENTAL SPILL RESPONSE PROCEDURE

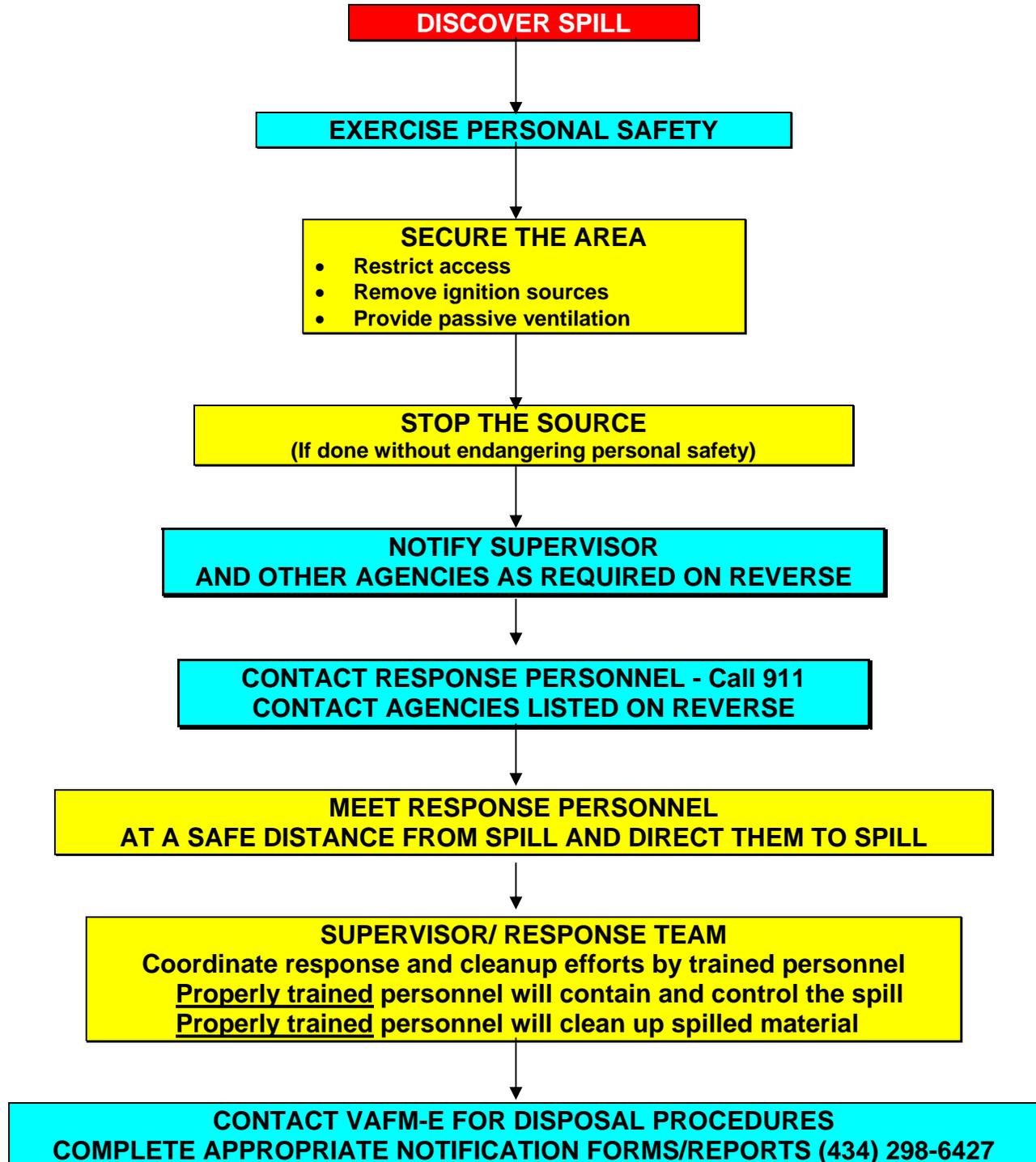
Material released is routine job exposure and there is no immediate threat to life, human health or property  
(Refer to MSDS)



| REQUIRED NOTIFICATIONS  |   |
|---|---|
| <p><u>1. Emergency Support</u><br/> <b>Fire, Medical, Police and Emergency</b> ..... 911<br/>                     Regional Response Team..... Fire Dept will contact<br/>                     National Poison Control Center ..... 800-332-3073</p>   | <p><u>2. Facility Contact</u><br/>                     Armory, Maintenance Facility ..... Facility Manager<br/>                     Fort Pickett ..... 434/292-2664<br/>                     Military Installation ..... DPW<br/>                     State Park ..... Park Ranger<br/>                     Public Road ..... State Police<br/>                     Private Land ..... Landowner</p>  |
| <p><u>Quantity Released</u><br/> <b>Greater than 5 gallons:</b> Notify Facility Contact and VAFM-E.<br/> <b>Greater than 25 gallons or entering water:</b> Facility Contact or VAFM-E will notify DEQ.<br/> <b>Reportable quantity:</b> VAFM-E will immediately notify the NRC. The NRC will notify the US Coast Guard and the USEPA. VAFM-E will contact USEPA Region III only if it is impractical to immediately notify the NRC.</p> | <p><u>3. Agency Notifications</u><br/>                     VAFM-E (Duty Hours) ..... 434-298-6401<br/>                     VAOT (Emergency, Non-Duty hours. Ask for VaARNG Duty Officer ..... 804-674-2400<br/>                     Virginia Emergency Operations Center ..... 800-468-8892<br/>                     Virginia Dept. of Environmental Quality (Central Office) ..... 804-698-4000<br/>                     National Response Center (NRC) ..... 800-424-8802<br/>                     US Region III (Main Office) ..... 215-814-5000</p> |

# MAJOR SPILL RESPONSE PROCEDURE

Material released is NOT routine job exposure and/ or there IS immediate threat to life, human health or property  
(Refer to MSDS)



REVERSE CARD FOR INCIDENTAL SPILL RESPONSE PROCEDURE