UNITED STATES ARMY GARRISON
FORT HUNTER LIGGETT

INTEGRATED HAZARDOUS MATERIAL AND WASTE MANAGEMENT PLAN

FINAL

Prepared for:
United States Army Garrison, Fort Hunter Liggett
Directorate of Public Works – Environmental Division
Jolon, California 93928

Prepared by:
HDR
2365 Iron Point Road, Suite 300
Folsom, California 95630

October 2011

This page is intentionally left blank.

CERTIFICATION
I certify that I have personally examined and am familiar with the information submitted in this document, and based on my inquiry of those individuals responsible for obtaining information, I believe the submitted information is true, accurate, and complete.

Approved by:

Signature: _____ Date:_____

James Suriano, COL, USAG Fort Hunter Liggett, Commanding

Authorized to be Implemented by:

Signature: _____ Date:_____

Wesley Blacketer, Directorate of Public Works, USAG Fort Hunter Liggett

Prepared Under the Direction of:

Signature: _____ Date:_____

Gary A. Houston, Chief, Environmental Division, Directorate of Public Works, USAG Fort Hunter Liggett

This page is intentionally left blank.

Record of Changes

Date	Nature of Change	Change Made By

This page is intentionally left blank.

Executive Summary

This Integrated Hazardous Material and Waste Management Plan (IHMWMP or Plan) was expressly designed to support and enhance the hazardous materials and hazardous waste management efforts at United States Army Garrison Fort Hunter Liggett (FHL), California. The Plan was prepared to provide assistance in complying with the Resource Conservation and Recovery Act (RCRA) codified in Title 40 of the Code of Federal Regulations (CFR) and the State of California Code of Regulations (CCR), Title 22.

The IHMWMP was developed based on a series of installation interviews with facility operators. It focuses on establishing procedures for the handling, storage, and disposal of hazardous materials and hazardous waste, with detailed instructions on the proper turn in process for waste streams frequently generated at FHL.

This document was designed to support the FHL mission, and specifically, personnel training. As such, the roles, responsibilities, and specific training requirements for Directorates and hazardous materials and waste handlers have been specified.

The IHMWMP will be reviewed at least annually, and updated to reflect the latest requirements.

This page is intentionally left blank.

Table of Contents

List of Appendices:

List of Tables

List of Figures

Chapter 1. Introduction

The Integrated Hazardous Material and Waste Management Plan (IHMWMP) describes responsibilities, policies, and procedures for storing and managing hazardous material (HM) and hazardous waste (HW) at United States Army Garrison (USAG) Fort Hunter Liggett (FHL). Required by Army Regulation (AR) 200-1, dated 13 December 2007, *Environmental Protection and Enhancement*, this IHMWMP is written to ensure FHL complies with applicable federal, state, and local laws and regulations. This IHMWMP supersedes previous versions of the FHL 200-1: Procedures for Managing HW in Compliance with Federal and State Laws/Regulations.

This chapter addresses the following topics:

1.1 Purpose and Requirement

The FHL Directorate of Public Works Environmental Division (DPW-ENV) manages the environmental program and oversees the environmental program for the tenant organizations located on FHL. The IHMWMP is a document developed for FHL and provides guidance to all personnel who work with HM and HW. The IHMWMP is intended to provide a basic understanding of the hazards and techniques associated with the handling of HM and HW so that personnel will be better able to protect their personal health, prevent damage to the environment, and comply with applicable laws, regulations and policies. This plan integrates with other FHL plans, including the Integrated Solid Waste Management Plan, Pollution Prevention Plan, and Qualified Recycling Plan, by supporting the reduction of waste and encouraging environmental stewardship. The IHMWMP incorporates regulatory HW requirements by the United States Environmental Protection Agency (U.S. EPA), Department of Transportation (DOT), California Environmental Management Agency (Cal EMA), Department of Defense (DoD), Army and local regulations. The Defense Reutilization and Marketing Office (DRMO) will be used as the HW disposal agent; therefore, the plan incorporates the HW turn-in requirements of DoD 4160.21-M, Defense Material Disposition Manual.

This IHMWMP will be made available to all installation personnel, including tenants that generate, transport, treat, store, or dispose of HW.

1.2 Applicability

This IHMWMP documents the FHL HM and waste management program and applies to:

- All units, activities, and tenants located on FHL, including any unit that generates and disposes of HW while using FHL training sites
- All military, civilian, and contract personnel working at FHL

1.3 Reviews and Revisions

At a minimum, this Plan will be reviewed annually by DPW-ENV and the Hazardous Materials and Waste Coordinator (HMWC). This IHMWMP will be kept current to reflect changes in regulatory requirements or waste generating activities at FHL. All HW Handlers and any other FHL personnel directly involved in HM or HW management are encouraged to provide comments and input to this IHMWMP. To do so, complete the *Department of the Army (DA) Form 2028* and forward to DPW-ENV. A copy of the form is located in Appendix B.

1.4 Fort Hunter Liggett Environmental Policy

The Fort Hunter Liggett Environmental Policy[1] supports the Commander's commitment to prevent pollution, conserve natural resources, comply with federal, state and local laws and regulations, and strive to continually improve environmental stewardship.

Units/activities are responsible for ensuring environmental accountability is integrated into day-to-day decision-making and long-term planning processes, across all missions, activities, and functions.

1.5 Environmental Management System (EMS)

In accordance with Executive Order 13423 (January 2007), FHL has implemented an EMS to ensure personnel are aware of their responsibilities to protect the environment. The EMS stresses the reduction of solid and HW, and the minimization of HMs purchased and used, as methods to minimize the impact installation activities have on the environment. This plan integrates with the EMS by providing guidance on how to properly handle, manage, store and dispose of HM and waste.

1.6 Waste Minimization

Under the Pollution Prevention Act of 1990, Executive Orders 13423 (January 2007) and 13514 (October 2010), AR 200-1, and a variety of DoD memorandums, pamphlets and guidelines, FHL advocates a clean environment through the implementation of the Pollution Prevention Plan and the Qualified Recycling Plan. Through the EMS process,

[1] The Environmental Policy Statement is available online at *http://www.liggett.army.mil/sites/fhlpolicy.asp* or by contacting the FHL Public Affairs Office at (831) 386-2690.

FHL, as a net zero waste pilot installation, has identified the reduction of solid waste as a key priority. The primary goal is to minimize the generation of HW and non-hazardous solid wastes and, in so far as possible, eliminate pollution at the front end of the waste stream. FHL works to accomplish its mission within legal requirements and also strives to achieve compliance above the standards by proactively working to protect, and when possible, enhance the quality of the environment.

1.7 Fines and Violations

The Installation Commander is considered to be the "owner/operator" of FHL and is responsible for all violations that occur on FHL. Violations may be punishable by fines, injunctions, and in some cases imprisonment. Activities that generate waste are held accountable for proper handling and management of HW in accordance with (IAW) applicable Federal, California (CA), U.S. Army Regulations.

1.8 Regulations, Directives and References

1.8.1 Federal Regulations

In order to comply with the Federal Facilities Compliance Act, FHL must manage its waste IAW the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments (HSWA). Federal waste management regulations are codified in Title 40 of the Code of Federal Regulations (CFR). This IHMWMP 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 (UW)
- Part 279 for the regulation of used oil

FHL also must comply with the following regulations:

- 49 CFR Parts 170 through 177 regarding Department of Transportation (DOT) regulations pertaining to HM transportation
- 29 CFR Part 1910 regarding Occupational Safety and Health Administration (OSHA) requirements

1.8.2 State Regulations

The California Environmental Protection Agency's (Cal EPA) Department of Toxic Substances Control (DTSC) has obtained primacy from the U.S. EPA to enforce solid waste and HW management standards. FHL must comply with the California Code of Regulations (CCR) Title 22, Social Security Division 4.5 as promulgated by the DTSC. These regulations implement the statute set forth in Chapter 6.5, Section 25100 et seq. of

the California Health and Safety (H&S) Code. This plan establishes policy and procedures for complying with these regulations.[2]

1.8.3 Local Regulations, Ordinances, and Codes

Consult with DPW-ENV staff regarding local regulations. In the absence of a specific local regulation or ordinance, FHL must always follow the guidelines established for the management of hazardous chemicals in the CCR and the CFR. The Monterey County Health Department, Division of Environmental Health, is the Certified Unified Program Agency (CUPA) and has authority to administer multiple permitting/regulatory programs. Programs under CUPA authority include, but are not limited to, aboveground and underground storage tank permitting, and HMs and HW inventory reporting.

1.8.4 Military Regulations

FHL must comply with AR 200-1, *Environmental Protection and Enhancement*, which contains Army policy for HM and HW management. Specifically, this IHMWMP provides procedures for complying with two chapters of AR 200-1, December 2007:

- Chapter 9, Materials Management
- Chapter 10, Waste Management

In addition, FHL must comply with Department of Defense (DoD) Regulation 4500.9-R, known as the Defense Transportation Regulations (DTR) when transporting HM across public roadways.

1.9 Description of FHL Operations

FHL is the largest United States Army Reserve installation, and is comprised of approximately 162,000 acres of land. FHL's primary mission is to provide world class training for combat support and combat support service units, and to become the best training center in the Western United States for the Army Reserves.

FHL provides ranges, training areas and facilities to support year-round training to prepare soldiers to fight. Resources include four Tactical Training Bases, four MOUT sites, a five-mile Convoy Live Fire Course, Weapons Qualifications Ranges, a Live-Fire Shoot House, an Urban Assault Course, a C-17 capable dirt airstrip, 33 Drop Zones, a 36 pad Heliport, an Ammunition Supply Point, three Engagement Skills Trainers, Equipment Concentration Site, restricted airspace up to 24,000 feet Mean Sea Level, a 10 station Improvised Explosive Device Defeat Lane, Home Station Training Lanes gaming classroom, a Distance Learning Center equipped with 25 computers, 28 classrooms and bed space to house more than 1,758 Soldiers.

[2] Additional hazardous waste regulatory guidance is available online at *http://www.dtsc.ca.gov/hazardouswaste*

1.10 Responsibilities

In order to meet Federal, State, and Army requirements, supervisors and commanders at FHL must provide emphasis and guidance to all persons working with HM and working with or generating HW. To help prevent personal injury, or harm to public health and the environment, concerted efforts must be made by all personnel to ensure the safe handling, control, storage and disposal of HW. Below is a detailed list of specific responsibilities related to HM and HW management.

Installation Commander

a. Approves and signs the IHMWMP.
b. Provides command emphasis regarding environmental compliance.
c. Chairs or appoints an individual to chair the Environmental Quality Control Committee (EQCC).
d. Assigns an Environmental Officer (EO).
e. Ensures DPW-ENV has sufficient personnel and resources to carry out the mission.
f. Ensures storage, treatment, and disposal of DoD toxic or HMs or waste on the installation comply with regulations as listed in Sections 1.8 of this Plan.
g. Ensures storage, treatment, and disposal of non-DoD toxic or HMs on the installation comply with 10 U.S. Code (USC) 2692.

Environmental Quality Control Committee (EQCC)

The EQCC is comprised of members representing the Command, all Directorates of the Command, and tenant organizations.

a. Meets at least quarterly to discuss HW issues, policies, regulations, and any other issues.
b. Reviews or revises overall HW management policies including, but not limited to, HW accumulation, on-site inspections, on-site storage, and turn-in procedures.
c. Provides input to reduce costs, streamline efficiency, reduce the quantity, volume, and toxicity of HW, and presents viable Pollution Prevention (P2) opportunities.
d. Reviews internal/external audit results.
e. Provides input on compliance findings and their corrective actions and closure.

Unit Commanders

In accordance with AR 200-1, Section 1-28, and this IHMWMP, Unit Commanders are required to:

a. Instill an environmental ethic in soldiers and civilians under their control.
b. Ensure personnel receive required environmental training.
c. Comply with installation policies, applicable federal, state, and local environmental laws, regulations, Executive Orders, and overseas Final Governing Standards (FGS).

d. Report noncompliance and significant spills through appropriate channels to the Installation Commander.
e. Incorporate environmental responsibilities and environmental risk management into unit standard operating procedures (SOPs) and operation orders (OPORDs), and fragmentary orders (FRAG ORDs) as appropriate; integrate environmental considerations into the planning and execution processes in accordance with FM 3-100-4.
f. Appoint in writing and train Environmental Compliance Officers (ECOs) and Environmental Compliance Non-Commissioned Officers (ECNCOs) at appropriate organizational levels to to implement all environmental management plans.
g. Support the installation-wide EMS.
h. Ensures that each Commander designates an EO to implement all environmental management plans.
i. At the request of DPW-ENV designates person(s) to provide facility access to regulatory agency personnel, except to limit access for reasons of national security or personal safety.

All Directors

a. Serve as a member of the EQCC.
b. Instill an environmental ethic in soldiers and civilians under their control.
c. Ensure personnel receive required environmental training.
d. Comply with installation policies, applicable federal, state, and local environmental laws, regulations, Executive Orders, and overseas FGS.
e. Report non-compliance and spills through appropriate channels.
f. Incorporate environmental responsibilities and environmental risk management into unit SOPs and OPORDs, and FRAG ORDs as appropriate; integrate environmental considerations into the planning and execution processes in accordance with FM 3-100.4, Environmental Considerations in Military Operations.
g. Appoint in writing and train ECOs and ECNCOs at appropriate organizational levels to implement all environmental management plans.
h. Support the installation-wide EMS.
i. At the request of DPW-ENV designates person(s) to provide facility access to regulatory agency personnel, except to limit access for reasons of national security or personal safety.

Directorate of Emergency Services, FHL Fire Department

a. Ensure training is provided for firefighter personnel to maintain proficiency in responding to HM/HW incidents.
b. Respond to HM/HW incidents.
c. Serve as the Incident On-Scene Commander (IOSC) for all responses to HM/HW incidents.
d. Manage the Installation Response Team (IRT).
e. Assist in training activity/ unit personnel as requested by the EO.
f. Maintain technical library of MSDSs, chemical hazards, etc.

Directorate of Logistics (DOL)

a. Establish SOPs and responsibilities for the management, transportation, storage, and handling, quality surveillance, shelf life and turn-in of packaged petroleum, oils, and lubricants (POL) at the user level.
b. Provide customers with an SOP for packaged POL requisitioning.

Installation Legal Office, Command Judge Advocate (CJA)

a. Serve as a member of the EQCC.
b. Provide legal review of the IHMWMP and all updates.
c. Provide legal review of all other matters pertaining to HM and HW compliance.

Chief, Installation Contracting Office

a. Serve as a member of the EQCC.
b. Ensures language requiring compliance with HM and HW storage, handling and disposal laws, regulations and procedures is included in all contracts and lease agreements.

Installation Safety Officer

a. Serve as a member of the EQCC.
b. Provide recommendations regarding the safe handling, storage, and transportation of HM and HW.
c. Ensure OSHA requirements are implemented.
d. Assist the EO with the implementation of this plan.
e. Incorporate the IHMWMP into Command Safety Program.
f. Provide the EO with any findings or deficiencies found during safety inspections.
g. Ensure material safety data sheets (MSDS) are available for personnel managing and handling HM and HW.
h. Ensure personal protective equipment (PPE) is available for soldiers and civilians.
i. Make recommendations for HM product substitutions that are safer and less hazardous.
j. Coordinate the disposition of radioactive wastes.
k. Participate in emergency response/incident evaluations.
l. Maintain installation-wide HM/HW inventory, as provided by the EO.

Director of Public Works

a. Serve as a member of the EQCC.
b. Ensure the collection and completion of HM and HW inventories, and provide data to other Directorates as needed.
c. Responsible for the overall management of HM and HW, including guidance for safe handling, storage and disposal.
d. Provide appropriate funding for HM and HW management.

EO, Chief, DPW Environmental Division

e. Provide HW management guidance and instructions to Unit Commanders and Directors.
f. Advise the Commander of issues that could place FHL in non-compliance with HW regulatory requirements.
g. Serve as a member of the EQCC.
h. Processes environmental funding requests.

Compliance Branch Program Manager (CBPM), DPW, Environmental Division

a. Maintain, implement update and distribute the IHMWMP.
b. Inspect HW operations and initiates corrective measures including recommending equipment for the handling and storage of HW.
c. Maintain an audit trail of HW from point of generation to disposal.
d. Submit biennial reports.
e. Coordinate replacement of HM with less hazardous or non-HMs.
f. Act as liaison with the EPA, DRMO, and other Federal and state agencies in matters relating to HW.
g. Ensure information pertaining to new HW policies and procedures is communicated to all HW generators.
h. Coordinate periodic assessment of waste management activities for consideration of significant aspects.
i. Identify environmental funding requirements.
j. Ensures disposal contractors comply with the EPA land disposal restrictions based on information supplied on the Hazardous Waste Profile Sheet and manifest.

Hazardous Materials & Waste Coordinator (HMWC)

a. Maintain and operate the 90-day Central Hazardous Waste Facility (CHWF).
b. Sign HW manifests.
c. Inspect HW operations and initiates corrective measures including recommending equipment for the handling and storage of HW.
d. Maintain an activity-wide HM/HW inventory and prepare biennial reports.
e. Coordinate availability of spill response and prevention material, and emergency supplies.
f. Initiate processes to replace HM with less hazardous or non-HMs.
g. Coordinate HW removal by the waste contractor.
h. Maintain HW manifests.
i. Perform periodic assessment of waste management activities for consideration of significant aspects.
j. Ensure all oil/water separators are clean and serviceable.

Environmental Compliance Officers/NCO (ECO/ECNCO)/Civilian Equivalents

a. Advise chain of command/supervisory chain on environmental issues/imperatives, assist in unit/activity environmental compliance efforts.
b. Act as liaison between unit/activity and Environmental Division, Compliance Branch Program Manager.
c. Conduct weekly internal compliance inspections, implements correct actions, and records results.
d. Conduct daily storm water checks, implements corrective actions, and records results.
e. Attend required training courses provided by the Environmental Division, Compliance Branch or other entity.
f. Coordinate with the HMWC Coordinator for turn-in of HW.
g. Provide appropriate environmental training to unit/activity personnel.
h. Maintain unit/activity environmental records and reference library.
i. Supervise spill response in unit/activity.
j. Monitor/assist chain of command/supervisory chain in maintaining adequate supply of spill response material in unit/activity.
k. Compose spill reports when necessary.
l. Supervise collection and storage of HW in unit/activity satellite accumulation points (SAPs).
m. Organize/supervise HW turn-in to applicable CHWF.
n. Monitor HM operations in unit/activity.
o. Write and/or update unit/activity's environmental SOP.

Satellite Accumulation Point Coordinators/HW Managers

NOTE: The ECO/ECNCO may perform these duties or provide oversight to someone else who does perform HW Manager duties.

a. Ensure that HW is managed in accordance with this Plan.
b. Designate an Alternate SAP Coordinator as needed.
c. Coordinate HW turn-in to the CHWF.
d. Attend all mandatory training required by the EO.
e. Ensure all personnel involved with handling and storage of HW are provided with proper training.
f. Ensure MSDSs are available for all HM.
g. Recycle or reuse materials when feasible.
h. Identify segregate, accumulate, and label HW in accordance with EO instruction.
i. Respond to and reports all HM and HW spills/incidents.
j. Obtain required emergency equipment, cleanup equipment, and proper HW accumulation containers.

Defense Reutilization and Marketing Office

a. Operate under guidelines promulgated by the Defense Logistics Agency (DLA) and DoD.

b. Dispose and/or arrange to dispose of government property, including HW.
c. Provide unit disposal costs for each HW stream.
d. Oversee and initiate contracts for HW disposal in accordance with DoD 4160.21-M and DLAM 6050.1. Ensure compliance with all Federal and State regulations.
e. Issues instructions regarding HW turn-in for generating activities.
f. Ensures disposal contractors comply with the EPA land disposal restrictions based on information supplied on the Hazardous Waste Profile Sheet and manifest.

Hazardous Materials User/Hazardous Waste Generating Activities/Units

a. Appoint an ECO and an ECNCO in writing. The ECO must be the rank of 2LT or WO1 or above. The ECNCO must be the rank of SGT (E5) or above. The ECO/ECNCO should have a minimum of 15 months retention within the unit.
b. Appoint and train personnel, as needed, to serve as SAP Coordinators/HW Managers to ensure operational compliance.
c. Ensure all HM and HW is managed and disposed of in accordance with (IAW) this IHMWMP.
d. Report instances of non-compliance to the EO within 24-hours.
e. Pay for HW disposal costs, permits, fees and any other costs associated with the environmental aspects of their operations.
f. Pay all fines and penalties resulting from violations that are the fault of the unit/activity.
g. Ensure spill response and prevention materials are available.
h. Coordinate with the HMWC to establish alternate disposal/storage contingency plans.
i. Ensure empty containers are drained and collected for recycling.
j. Contain, manage, and report spill incidents to the FHL Fire Department and the HMWC.
k. Minimize the generation of HW.
l. Substitute HM with less hazardous products where feasible.
m. Ensure all HW storage areas and HW generation points are operated IAW this plan.
n. Maintain HW records as required by unit or activity.
o. Inform Compliance Branch Program Manager of new waste generating processes.
p. Contact HMWC when waste containers are three-quarters full to schedule a turn-in.
q. Ensure waste containers remain closed except when adding or removing waste.
r. Attend all mandatory training.
s. Ensure all HW containers are properly labeled and ensure turn-in to the 90-Day CHWF.

Chapter 2. Managing Hazardous Materials

Unit/facility personnel must properly manage HM to minimize safety hazards and prevent spills. This chapter provides detailed guidance for managing HM. This chapter addresses the following topics:

Follow the procedures outlined in this chapter as a minimum recommendation for HM management. While each of the steps may not be required by regulation, they comprise a system that allows the user to prevent and/or reduce waste generation (i.e., pollution prevention), and ensure the safety of facility personnel working with HM. The concepts presented in this chapter can be used to manage items not typically stored in one of the discussed storage areas, such as janitorial supplies.

2.1 Procuring Hazardous Materials

Some HMs are purchased through the Directorate of Logistics (DOL) by using a Requisition Form; however, these purchases account for only a portion of the FHL HM inventory. HMs are primarily purchased by International Merchant Purchase Authorization Card (IMPAC) holders.

Personnel who request the purchase of HM should consult the appropriate Technical Manual for the maintenance action being performed to see if it requires the use of a potentially HM and evaluate whether there is an environmentally preferred alternative. When ordering HM, order only the amount that can be completely utilized prior to expiration of the shelf life.

2.2 Identifying and Conducting an Inventory of Unwanted and Unserviceable Hazardous Materials

Before implementing these procedures, clean out all existing storage units first. Do not waste time and storage space numbering, labeling, and storing HM that may not be used. Check storage areas and containers for the following items and remove them for proper disposal if they exhibit any of the following characteristics:

- Rust, caking, and powdering
- Bulging containers
- Liquid evaporation/condensation
- Unlabeled or unidentifiable material
- Leakage, broken glass
- Rodent/insect infestation
- Hardening/liquefying
- Expired shelf life

Walk through the facility and identify any unused, unneeded, unwanted, or unserviceable HM for turn-in. In addition to existing HM storage units, also check all other work areas where HM may be used. Use any existing inventories to help determine unused, unneeded, unwanted, or unserviceable items. Follow the applicable steps in Table 2-1 below for processing unused, unneeded, unwanted, or unserviceable HMs. The turn-in of HM is an ongoing process. While setting up the HM management system, leave shelf or floor space in one or more existing HM storage units as a temporary place for accumulating these turn-in items.

Table 2-1. Handling Unused, Unneeded, Unwanted, or Unserviceable HMs

If you find	Follow these procedures
HMs that are serviceable but no longer needed:	• Turn the HMs into the Directorate of Public Works Operations and Maintenance Division (DPW O&M). They will redistribute the materials to units that need them, or • DPW O&M will turn in the HM as waste.
HMs that are unserviceable or whose containers are damaged, leaking, or subject to leaking: * For serviceable material in leaking or damaged containers, transfer the remaining material into a compatible container and label the new containers with the required information	• Move HMs to a central location such as the waste storage area. • Find the MSDS for each item. • Determine compatibility (see section on compatibility on page 2-4) and segregate accordingly. • Turn in the HMs IAW the procedures specified in Chapter 4.
HMs missing labels:	• If it is known what the material is, re-label the container and check serviceability and shelf life as described in Section 2.5. • If it is not known what the material is, contact the HMWC for guidance.

2.3 Obtaining and Cataloging Material Safety Data Sheets

MSDSs provide compatibility information for specific HMs. In addition, they include information about associated hazards, specific handling procedures, and spill response measures. Each facility should maintain a binder that contains MSDSs for all HMs being stored at the facility. This section explains how to obtain and catalog required MSDSs.

Step 1. Obtain an MSDS for each HM at the facility from the Hazardous Materials Information Resource System (HMIRS). The MSDS should be current and should not be older than 5 years. If the MSDS is not available through HMIRS, try locating the MSDS by accessing www.msdssearch.com. If the MSDS is not available through HMIRS or www.msdssearch.com, then contact the manufacturer or product distributor (vendor) for the MSDS. If the MSDS is still not available, contact the HMWC.

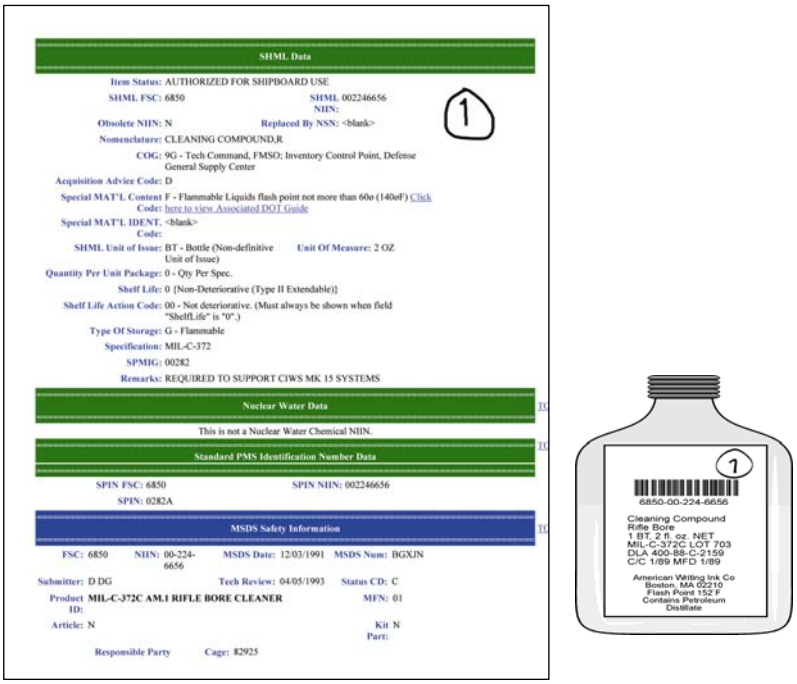
Step 2. Assign a unique number to each MSDS and write the number on every container of that particular HM. While not required, FHL prefers and recommends facilities to follow this step to manage MSDSs. This step allows you to place the MSDSs in a binder in sequential order, making them easier to find and easier to insert new MSDSs should new HMs be introduced to the facility. The numbering system used is up to the facility personnel, but should reflect the size of the facility. If the facility only has one HM cabinet or storage area, use a numbering system as simple as the one shown in the example and Figure 2-1. Larger facilities should use the numbering system described in Section 2.7. The most important factor in determining which system to use is the ease of use during an emergency.

Example You use five HMs at your facility, and you have ten containers of each. Starting with any one of the HMs, write a 1 on the MSDS and on all containers of that HM. For the next HM, write a 2 on the MSDS and on all containers of that HM. For the next HM, assign the number 3, and so on.

Step 3. This step describes an alternate method of MSDS cataloging to Step 2, listed above. At a minimum, place all MSDSs in a binder in alphabetical order by product name. Create an index in the front of the binder(s) listing the MSDSs. Any method or order is acceptable as long as the MSDSs are organized and easily accessible. This binder must be centrally located and must be organized so an MSDS can be located quickly in case of a spill or exposure. The binder must be accessible at all times for review by employees or emergency personnel.

Note OSHA regulations require that lists of hazardous chemicals/materials used by each employee be maintained for at least 30 years, from the time the employee retired or stopped working at the facility. One of the ways to meet this requirement is to maintain an archive MSDS binder as described in Step 4.

Figure 2-1. Example MSDS and HM Cataloging



Step 4. Establish an archive MSDS binder to contain all MSDSs for HM no longer used at the facility.

2.4 Determining Hazardous Material Compatibility

Using the MSDSs, determine what types of materials can be stored together and what types must be segregated. The easiest way to determine compatibility is to use MSDSs generated from the HMIRS. To help determine what HM can be stored together, the DoD has created the Hazardous Chemical Compatibility System. This section describes the basics of this system. Three methods for determining compatibility are discussed in this section.

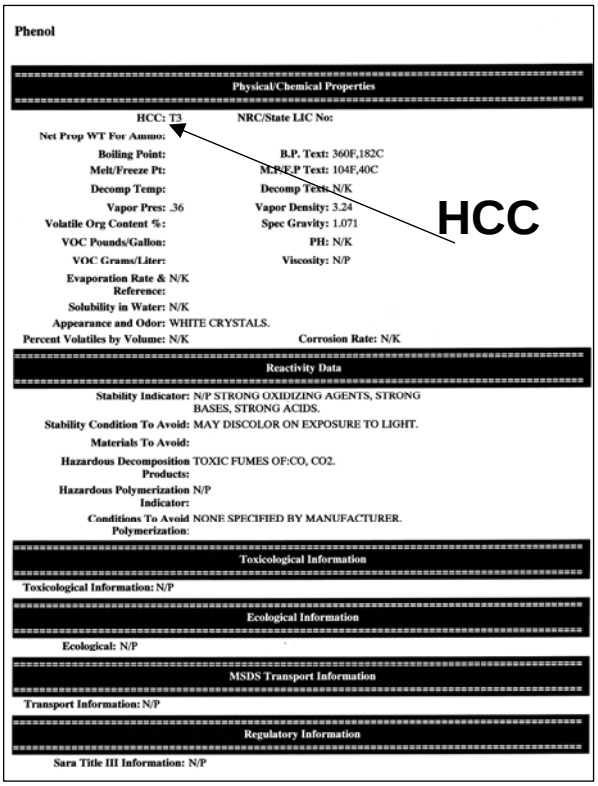
2.4.1 Method 1: Determining Compatibility Using HMIRS MSDSs

When using the HMIRS MSDSs method for determining compatibility, complete the following steps:

Step 1. From the MSDSs obtained through HMIRS, find the Hazard Characteristic Code (HCC) under Physical Chemical Properties. Figure 2-2 shows the location of the HCC on the MSDS.

Note	MSDSs for materials purchased directly from commercial vendors will not have HCCs; see Method 2 to determine material compatibility.

Figure 2-2. MSDS Showing HCC



Step 2. Using the Storage Segregation Matrix (Table 2-2), find the HCC in the far left column.

Step 3. Follow the row across the table and locate the * marking.

Step 4. Follow the column up from the * marking to the Primary Segregation Letter. These letters stand for the following:

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

Step 5. HM may only be stored with items that have the same Primary Segregation Letter. For example, store Fs with other Fs (flammables with other flammables) and Cs with other Cs (corrosives with other corrosives).

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

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

Step 7. Stock HM lockers, rooms, buildings, and racks based on the container size and compatibility criteria.

Table 2-2. Storage Segregation Matrix

HCC	Hazard Characteristics Group Name	Primary Segregation									Secondary
		A	C	D	E	F	G	L	P	R	T	Segregation
A1	Radioactive, Licensed	*										Note A
A2	Radioactive, License Exempt	*										Note A
A3	Radioactive, License Exempt, Authorized	*										Note A
B1	Alkali, Corrosive Inorganic		*									Note B
B2	Alkali, Corrosive Organic		*									Note C
B3	Alkali, Low Risk							*				Note F
C1	Acid, Corrosive Organic		*									Note D
C2	Acid, Corrosive & Oxidizer, Inorganic		*									Note E
C3	Acid, Low Risk							*				Note F
C4	Acid, Corrosive & Oxidizer, Organic		*									Note D
C5	Acid, Corrosive & Oxidizer, Organic		*									Note E
D1	Oxidizer			*								None
D2	Oxidizer & Poison			*								Note G
D3	Oxidizer & Corrosive Acidic			*								Note G
D4	Oxidizer & Corrosive Alkali			*								Note G
E1	Explosive, Military				*							
E2	Explosive, Low Risk							*				Note A
F1	Flammable Liquid DOT PG I, OSHA IA					*						Note J
F2	Flammable Liquid DOT PG II, OSHA IA					*						Note J
F3	Flammable Liquid DOT PG III, OSHA II					*						Note J
F4	Flammable Liquid DOT PG III, OSHA II					*						Note J
F5	Flammable Liquid & Poison					*						Note L
F6	Flammable Liquid & Corrosive, Alkali					*						Note L
F7	Flammable Liquid & Corrosive, Acidic					*						Note L
F8	Flammable Solid					*						Note K

HCC	Hazard Characteristics Group Name	Primary Segregation									Secondary
		A	C	D	E	F	G	L	P	R	T	Segregation
G1	Gas, Poison (Nonflammable)						*					Note M
G2	Gas, Flammable						*					Note N
G3	Gas, Nonflammable						*					Note P
G4	Gas, Nonflammable, Oxidizer						*					Note R
G5	Gas, Nonflammable, Corrosive						*					Note S
G6	Gas, Poison, Corrosive (Nonflammable)						*					Note T
G7	Gas, Poison, Oxidizer (Nonflammable)						*					Note U
G8	Gas, Poison, Corrosive (Nonflammable)						*					Note V
G9	Gas, Poison, Flammable						*					Note W
K1	Infectious Substance										*	Note X
K2	Cytotoxic Drugs										*	Note Y
M1	Magnetized Material							*				None
N1	Not Regulated as Hazardous							*				None
P1	Peroxide, Organic, DOT Regulated								*			None
P2	Peroxide, Organic (Low Risk)								*			None
R1	Reactive Chemical, Flammable									*		Note Z
R2	Water Reactive Chemical									*		Note AA
T1	DOT Poison – Inhalation Hazard										*	None
T2	UN Poison, Packing Group I										*	None
T3	UN Poison, Packing Group II										*	None
T4	UN Poison, Packing Group III							*				Note BB
T5	Pesticide, Low Risk							*				None
T6	Health Hazard							*				None
T7	Carcinogen (OSHA, NTP, IARC)										*	Note CC
V1	Miscellaneous Hazardous Materials – Class 9							*				None
V2	Aerosol, Nonflammable					*						Note EE
V3	Aerosol, Flammable					*						Note EE
V4	DOT Combustible Liquid, OSHA IIIA					*						None
V5	Hi-Flash Point Liquids, OSHA IIIB							*				None
V6	Petroleum Products							*				None
V7	Environmental Hazard							*				None
Z1	Article Containing Asbestos							*				None
Z2	Article Containing Mercury							*				None
Z3	Article Containing Polychlorinated Biphenyls (PCB)							*				None
Z4	Article, Battery, Lead Acid, Nonspillable							*				None

HCC	Hazard Characteristics Group Name	Primary Segregation										Secondary
		A	C	D	E	F	G	L	P	R	T	Segregation
Z5	Article, Battery, Nickel Cadmium, Nonspillable							*				None
Z6	Article, Battery, Lithium									*		Note DD
Z7	Article, Battery, Dry Cell							*				None

Definition of Notes

NOTE A Security Storage – must be well ventilated with limited access.

NOTE B Inorganic Alkali Storage – store away from acids by at least one 4-foot aisle width and away from organic alkalis by at least one 4-foot aisle width.

NOTE C Organic Alkali Storage – store away from acids by at least one 4-foot aisle width and away from inorganic alkalis by at least one 4-foot aisle width.

NOTE D Inorganic Acid Storage – store away from alkalis (caustics) by at least one 4-foot aisle width and away from organic acids by at least one 4-foot aisle width. Separate from other acids with subsidiary risk labels by at least one 4-foot aisle width.

NOTE E Organic Acid Storage – store away from alkalis (caustics) by at least one 4-foot aisle width and away from inorganic acids by at least one 4-foot aisle width. Separate from other acids with subsidiary risk labels by at least one 4-foot aisle width.

NOTE F Further separate into Acid and Alkali storage within the low hazard storage area to keep potentially incompatible products from mixing.

NOTE G Separate from other oxidizers and oxidizers with secondary hazards by at least one 4-foot aisle width.

NOTE H Magazine Storage.

NOTE J Segregate into Flammable Liquid storage separate from flammable solids by at least one 4-foot aisle width.

NOTE K Segregate into Flammable Solid storage separate from flammable liquids by at least one 4-foot aisle width.

NOTE L Separate from other flammables and flammables with secondary hazards by at least one 4-foot aisle width.

NOTE M Further segregate into Poison Gas storage within compressed gas area.

NOTE N Further segregate into Flammable Gas storage within compressed gas area.

NOTE P Further segregate into Non-flammable Gas storage within compressed gas area.

NOTE R Further segregate into Oxidizer Gas within the Non-flammable Gas storage that is within the compressed gas area.

NOTE S Further segregate into Corrosive Gas within the Non-flammable Gas storage that is within the compressed gas area.

NOTE T Further segregate into Corrosive Gas within the Poison Gas storage that is within the compressed gas area.

NOTE U Further segregate into Oxidizer Gas within the Poison Gas storage that is within the compressed gas area.

NOTE V Further segregate into Flammable Gas within the Poison Gas storage that is within the compressed gas area.

NOTE W Further segregate into Corrosive and Oxidizer Gas within the Poison Gas storage that is within the compressed gas area.

NOTE X Further segregate into Biomedical storage within the Poison storage area.

NOTE Y Further segregate into Medical Security storage within the Poison storage area.

NOTE Z Further segregate into Spontaneously Combustible storage within the Reactive storage area.

Definition of Notes

NOTE AA Should not store in areas protected with water sprinkler system. Fire protection should be non-water based.

NOTE BB Store away from food.

NOTE CC Further segregate within Poison storage area may be necessary if secondary hazards exist (i.e. flammable, corrosive, etc.).

NOTE DD Separate from other products within the Reactive storage area.

NOTE EE Store aerosols from flammables by placing in separate room or barrier such as floor to ceiling wire mesh, chain link fence, etc. to protect personnel from aerosols that can become self-propelled projectiles.

2.4.2 Method 2: Determining HCC and Compatibility Using DOT Hazard Labels

Step 1. If a HMIRS generated MSDS is not available, look on the container or the box it was shipped in for a DOT Hazard Label.

Figure 2-3. Sample DOT Labels

Step 2. If a DOT label is present, use Table 2-3 below to obtain an Interim HCC.

Step 3. Once you have the Interim HCC, go back to Table 2-2 and follow Steps 2 through 7 under Method 1 to determine compatibility.

Step 4. Figure 2-4 can also be used as an aid to determine storage compatibilities using DOT labels and Interim HCCs. The table shows those items that CAN be stored compatibly with the Interim HCC as determined by using the label.

Table 2-3. DOT Labels

DOT Label	DOT Label Name	Interim HCC	
		Primary	Secondary
	Explosive 1.1	E1	Magazine

DOT Label	DOT Label Name	Interim HCC	
		Primary	Secondary
	Explosive 1.2	E1	Magazine
	Explosive 1.3	E1	Magazine
	Explosive 1.4	E2	Security
	Explosive 1.5	E2	Security
	Explosive 1.6	E2	Security
	Poison Gas	G1	Poison Gas Cylinder
	Flammable Gas (Cylinder)	G2	Flammable Gas Cylinder
	Flammable Gas (Aerosol Non-refillable tank or Canister)	V3	Aerosol Containers

DOT Label	DOT Label Name	Interim HCC	
		Primary	Secondary
	Non-Flammable Gas	G3	Nonflammable Gas Cylinder
	Flammable Liquid	F1-F4	Flammable Liquid
	Flammable Solid	F8	Flammable Solid
	Spontaneously Combustible	R1	Spontaneously Combustible
	Dangerous When Wet	R2	Dangerous When Wet, No Water Sprinklers
	Oxidizer	D1	None Required
	Organic Peroxide	P1	None Required

DOT Label	DOT Label Name	Interim HCC	
		Primary	Secondary
	Poison	T2	None Required
	Harmful Keep Away From Food	T4	Away From Food
	Infectious Substance	K1	Biomedical
	Radioactive I	A1	Security
	Radioactive II	A1	Security
	Radioactive III	A1	Security
	Corrosive	C1, C2, C4, C5 (Acid)	Acid
	Corrosive	B1, B2 (Alkali)	Alkali

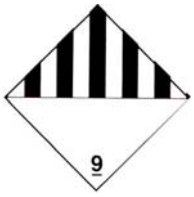
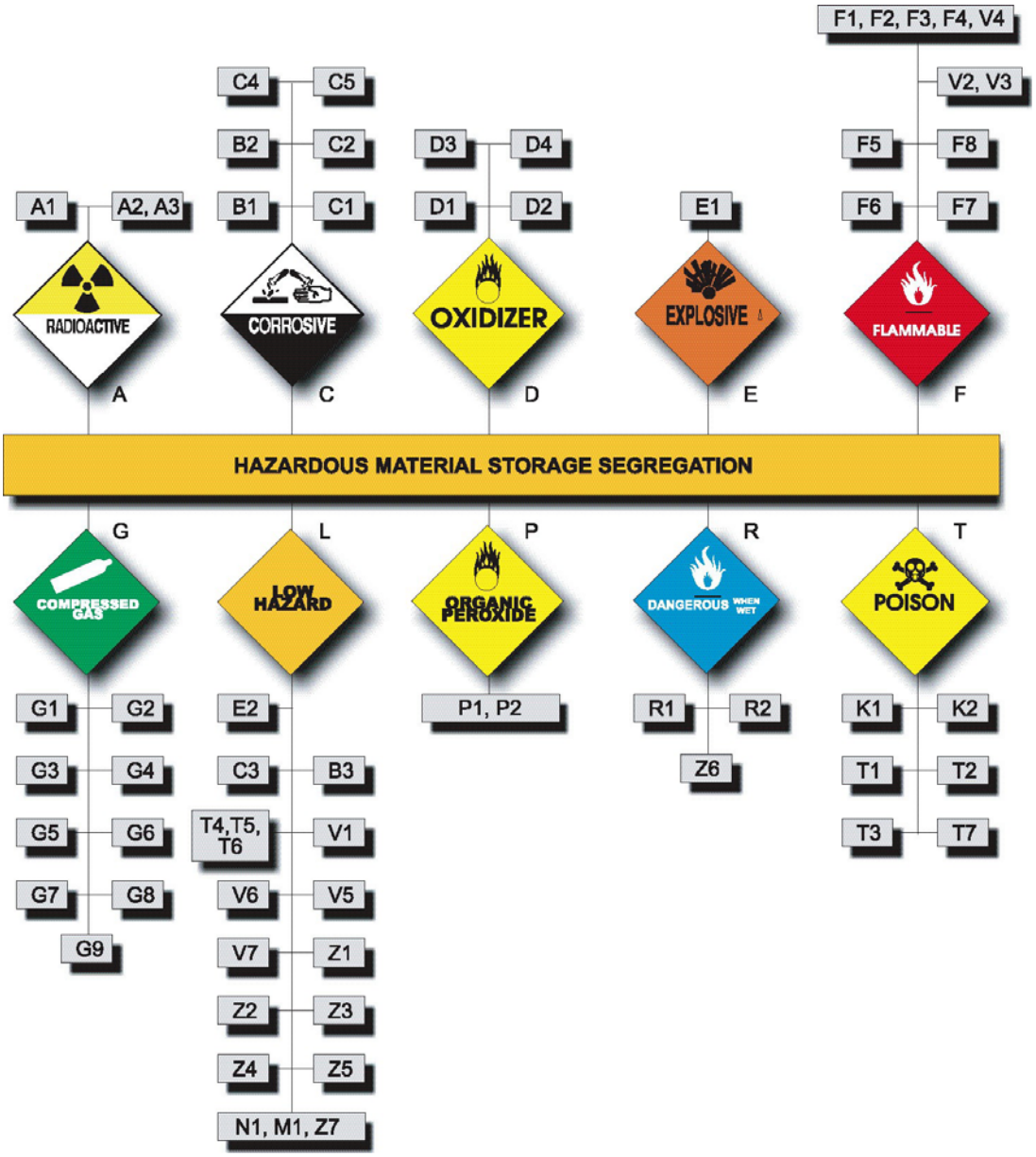
DOT Label	DOT Label Name	Interim HCC	
		Primary	Secondary
	Class 9	V1	None Required
Not Available	Magnetized Material	M1	None Required

Figure 2-4. Storage Segregation Using DOT Labels



2.4.3 Method 3: Determining HCC and Compatibility Using OSHA Precautionary Labels

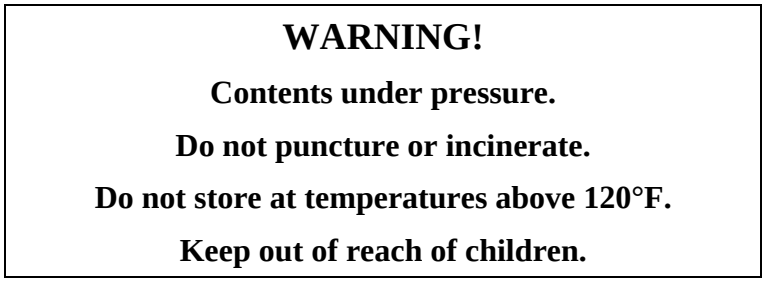
Step 1. If a HMIRS generated MSDS is not available, look on the HM container for an OSHA precautionary label. Precautionary labels start with signal words followed by specific handling precautions. The three "signal words" used are Danger, Warning, and Caution. These signal words have the following meanings.

CAUTION! Material may burn but is not extremely flammable and/or material is an irritant. There is no immediate threat of injury.

WARNING! Material is flammable and will burn given the right circumstances and/or the material is toxic enough to cause sickness or severe irritation.

DANGER! Material is either extremely flammable and will ignite easily and/or material is toxic enough to cause immediate threat of serious injury or death.

Figure 2-5. Example Precautionary Label



Step 2. If a precautionary label is present, use Table 2-4 on the following page to obtain a Suggested Temporary HCC. Match the label with the "Signal Word" and "Examples of Statements of Hazard" in the first two columns of the table. If the label doesn't exactly match exactly the words in Table 2-4, select the closest match. Always choose the greatest threat when attempting to match.

Step 3. Once you have the Suggested Temporary HCC from column 3, go back to Table 2-2 and follow Steps 2 through 7 under Method 1 to determine compatibility.

Table 2-4. Precautionary Labels

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

Signal Word	Examples of Statements of Hazard	Suggested Temporary HCC	Recommended Primary Storage Area	Recommended Secondary Storage Area
	AVAILABLE FOR BREATHING			
WARNING!	CAUSES EYE IRRITATION	T6, C3, C4	Low Hazard *	None Required
WARNING!	CAUSE IRRITATION	T6, C3, C4	Low Hazard *	None Required
WARNING!	MAY CAUSE ALLERGIC SKIN REACTION	T6, C3, C4	Low Hazard *	None Required
Please note that "None Required" means no additional storage requirements.				
* Material bearing precautionary label text will not be assigned a Low Hazard (General Purpose) location without notification and approval by DPW-ENV.				
** Enter proper term as appropriate.				

2.5 Shelf Life

An effective waste-minimization program includes active life-cycle management of HMs before they turn into solid waste and potentially hazardous waste. Shelf life is the total period of time that an item may remain in the storage system and still remain suitable for issue. It begins with the date of manufacture, cure, assemble, pack, or inspect/test/restorative action.

A shelf life item is an item of supply having deteriorative or unstable characteristics to the degree that a storage-time period must be assigned to ensure that it will perform satisfactorily while in service. Typically, only items with an NSN and ordered through the government purchasing system will be a shelf life item. Every effort should be made to use shelf life items before their expiration.

To extend shelf life items, research the extension timeframes and requirements in FEDLOG or an alternate government supply system tracker. When applicable fill out Shelf Life Extension Notice, DD 2477-3 and relabel HMs accordingly, with the new shelf life expiration date.

For more information on extending shelf life, consult DoD 4140.27M-Shelf Life Management Manual, available on the web at https://www.shelflife.hq.dla.mil/.

Note	Typically HMs purchased locally that do not have an expiration date are not shelf life items and can be used indefinitely or until the item becomes unserviceable.

2.6 Selecting HM Storage Units

Select the appropriate type of storage unit for the HM.

- For small quantities of commonly used HM, use approved storage lockers. (See WARNING below)

- For large quantities of HM, use HM structures such as storage rooms, buildings, or storage racks with built-in secondary containment.

As a best management practice (BMP), store *daily* quantities of HMs not to exceed one-gallon containers in lockers and larger containers (e.g., 5-gallon diesel cans and 55-gallon drums) in rooms, buildings, or racks.

Warning!	Do not store tools or personal items in any HM storage location. Do not store organic combustible materials, such as cardboard, paper, or rags with flammable HM. Do not store ignitable or reactive HM within 15 meters (50 feet) of the property boundary. Do not store HM in trailers, vehicles, personal wall lockers, near floor drains, or in areas with high foot or vehicle traffic. Do not use wood to construct additional or replacement shelving.

2.7 Setting Up Storage Areas

This section describes how to set up a HM storage area using storage lockers, storage rooms or buildings, and storage racks. For additional guidance, review the *Hazardous Material Storage Set-up Checklist* in Appendix B.

Note	Determine the amount of required space needed for the storage of HM, and order only what is needed.

2.7.1 Storage Lockers

Maintain daily use amounts of commonly used HMs, such as brake cleaner, adhesives, aerosol cans, etc. in storage lockers in the work area. All lockers should be National Fire Protection Association (NFPA) approved storage lockers.

CAUTION!	Only store propane or ether starter cylinders in NFPA approved flammable storage lockers. Store all compressed gasses separate from other flammable and combustible materials.

The locker color depends on the material being stored. If you have an older version of a locker, you are not required to repaint it.

HM Type	Locker Color
Flammables	Yellow
Corrosives	Blue
Oxidizers	Red

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

To set up a locker, complete the following steps:

Step 1. Use the following guidelines to select a location for the locker:

- Locate the locker indoors in a well-ventilated area near the location that HM will be used, or outdoors under cover on a non-impervious surface.
- Maintain easy access to the locker.
- Do not block doors.
- Do not place the locker near doors, break rooms, bathrooms, offices, or other occupied non-shop areas.
- Do not place the locker near floor drains, drainage channels, or areas with high foot or vehicle traffic.

Step 2. As a BMP, assign an identifier to the storage locker and mark it on the front of each locker and the respective inventory and inspection forms, *Hazardous Materials Storage Inventory*, and *Hazardous Material Storage Weekly Inspection Checklist* found in Appendix B. See Figure 2-6.

For example, use one of the three abbreviations listed below to differentiate locker contents and a two-digit sequential number (e.g., FL 01, FL 02, etc).

- FL – Flammable lockers
- CL – Corrosive lockers
- OL – Oxidizer lockers

Note	Do not use the same number identifiers more than once in a facility. If sharing an area with another activity, coordinate numbers to avoid using the same identifiers.

Figure 2-6. Flammable Storage Locker

Step 3. Post only applicable warning signs on the locker. An applicable warning sign will include the nature of the HMs and a warning that there is to be no smoking or open flame within 50 feet of the locker.

Cabinets used for the storage of flammable liquids shall be provided with a conspicuous label in red letters on contrasting background which read "FLAMMABLE – KEEP FIRE AWAY."

Cabinets used for HMs other than flammable liquids shall be provided with a conspicuous label in red letters on contrasting backgrounds which reads "HAZARDOUS – KEEP FIRE AWAY."

Step 4. Ensure that an appropriately rated fire extinguisher and spill response equipment are located nearby.

2.7.2 Storage Rooms and Buildings

Keep rooms and buildings clean and orderly, and maintain all structural integrity and hardware including doors, hinges, and shelves. Do not remove doors, puncture holes in walls, modify ventilation, or otherwise modify the room or building without the approval of the Safety Officer (or designated representative). To set up a storage room or building, complete the following steps:

Step 1. Request that a Safety Officer (or designated representative) approve the location prior to use.

Step 2. Provide adequate secondary containment.

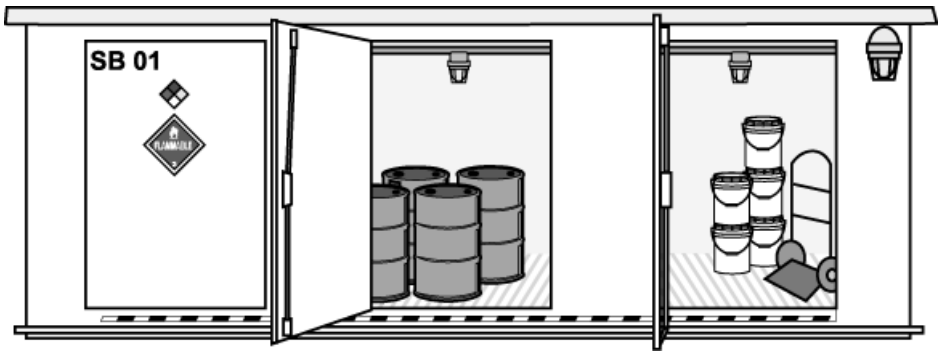
Note The room floor space itself usually provides enough secondary containment; however, you need to ensure the spill cannot escape the room. You can store HM in pans or tubs on the shelf, making sure the HM is compatible with the container (for example, store acids in plastic tubs).

Step 3. Ensure that an appropriately rated fire extinguisher and spill response equipment are located nearby.

Step 4. As a BMP, assign an identifier to the room or building and mark it on all doors to the room or building, and the respective inventory and inspection forms in Appendix B. See Figure 2-7.

Note For example, use one of the two abbreviations listed below to identify a storage room or storage building and a two-digit sequential number (e.g., SB 01).
- SR – Storage Room
- SB – Storage Building

Figure 2-7. Storage Building



Step 5. Ensure the HM storage is clean and organized and that all materials are compatible.

Step 6. Post only applicable warning signs on the room or building. An example of an applicable warning sign may include a NFPA 704 Placard. See Appendix E for NFPA 704 Warning Placard Requirements.

2.7.3 Storage for Compressed Gases

When storing compressed gases, excluding fire extinguishers and aerosol cans, additional guidelines must be followed[3]. A compressed gas is a gas that is packaged under charged pressure. Because compressed gases are under pressure, handle such gases with extreme care, particularly the flammable and explosive gases.

CAUTION	Do not use cylinders as rollers or supports, or for any other unintended purpose. Do not accept, issue, or use a cylinder unless the contents are identified. Do not store propane or ether starter cylinders in flammable materials storage lockers with other flammable or combustible materials.

The Safety Officer (or a designated representative) is responsible for designing and approving compressed gas storage areas. The guidelines listed below will help you maintain those areas properly to protect human health and the environment.

a. Ensure only non-combustible or limited-combustible materials are used for shelves, racks, and floors.
b. Ensure the area is well-ventilated (complete change of air at least six times each hour).
c. Separate storage facilities from other buildings by at least 50 feet.
d. Store gases that support combustion in different sheds separated by 50 feet.
e. Keep dry vegetation and combustible materials at least 15 feet away from storage areas.
f. Keep cylinders out of the sun and off the earthen ground.

[3] For additional guidance concerning compressed gas storage, management, and disposal requirements reference AR-700-68 or the DLA Instruction 4145.25, dated 16 June 2000, titled “Storage and Handling of Liquefied and Gaseous Compressed Gasses and their Full and Empty Cylinders”. The instruction can be found at http://www.dla.mil/dlaps/dlai/i4145.25.htm

g. Protect storage areas from vehicular traffic.
h. Lock storage areas to prevent unauthorized entry.
i. Post NO SMOKING signs.
j. Do not allow open flames within 50 feet.
k. Place hazard identification signs such as FLAMMABLE at all entrances or directions of approach.
l. Ensure all cylinders are properly labeled (do not alter or remove the manufacturer's label from cylinders).
m. Store cylinders with the valve protection cap secured.
n. Store cylinders you are using or storing so they do not fall over.
o. Store liquefied flammable gas cylinders upright or so the pressure-relief valve directly communicates with the vapor space of the cylinder.
p. Ensure cylinders are not located where they could become part of an electrical circuit.
q. Segregate incompatible or combustible materials by at least 20 feet (see "Determining Hazardous Material Compatibility" in this chapter for more information).
r. Isolate incompatible or combustible materials with a barrier of non-combustible material at least five feet high and with a minimum fire resistance rating of 30 minutes.
s. Do not store compressed gasses with non-gas flammable and combustible materials.

2.7.4 Moving Cylinders

If you must move cylinders, note the following precautions:

a. Close cylinder valves before moving cylinders.
b. Do not lift cylinders by the valve protection cap.
c. Do not lift cylinders by cranes or mechanical lifts unless fastened in proper containers, racks, and/or cradles.
d. Do not use rope and chain slings or electromagnets to lift cylinders.
e. Only handle, ship, or store cylinders if they have valve protection caps.

The following items do not require valve protection caps:

a. Small cylinders with a capacity of less than 40 pounds.
b. "Ram-bottom" type cylinders.
c. Cylinders with less than 625 cubic inches of volumetric capacity, such as medical gases.

2.8 Stocking a HM Storage Location

As discussed in the beginning of this chapter, the procedures outlined below, while not required by regulation, are suggested as a system that allows the user to prevent and/or reduce waste generation (i.e., pollution prevention), and ensure the safety of facility personnel working with HM. FHL personnel are encouraged to follow the procedures listed below:

Step 1. Check the storage segregation matrix to determine the hazardous compatibility of HM items before placing them in the storage location.

Step 2. Organize the HM in the storage location. For storage of daily use quantities such as in a flammable materials storage locker, if you have more than one storage locker, on each container of HM write the storage unit identifier on the storage unit. This is not required for bulk storage in a storage room.

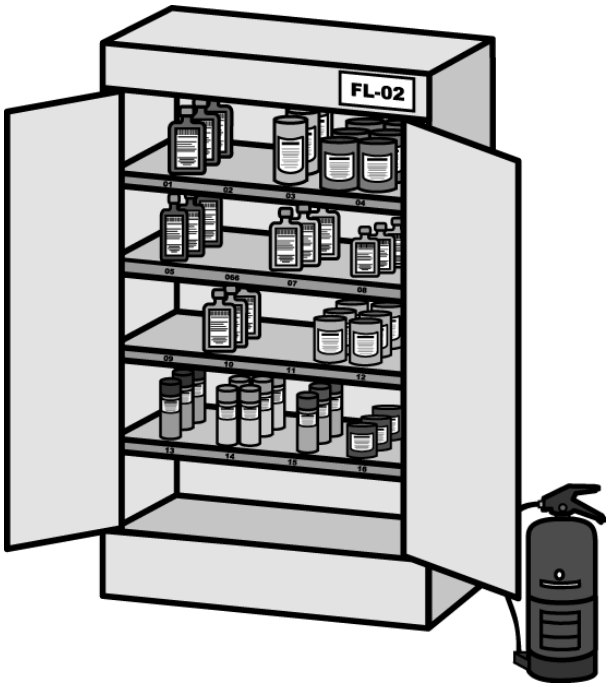
For example, the seventh HM item in Flammable Locker 03 (Denatured Alcohol) will be FL03-07. Assign each container of Product X as 01, Product Y as 02, Product Z as 03, etc. Also, assign separate numbers for different sizes of containers.

Step 3. Moving from top to bottom and left to right in each storage locker, place all the containers having the same number on the shelf in sequential order. Label the shelf position with the last two digits of the HM.

Step 4. Ensure MSDSs for HMs are included in the binder used to catalog MSDSs for the facility.

Note	Do not bring HMs from home or take government purchased HMs home for private use.

Figure 2-8. Locker Set and Numbering



2.9 Maintaining and Tracking Inventory

Once storage units are stocked, perform an initial and monthly inventory of all HM in the storage location and document the inventory on the *Hazardous Materials Storage Inventory* form, located in Appendix B. Submit *Hazardous Materials Storage Inventory* forms to DPW-ENV on a calendar year quarterly basis. When conducting an inventory, be sure to include the following: mobile fuel trucks, welding gases, and janitorial

supplies. Additionally, identify other sources of HM dependent upon the specific operation or location.

Use of the *Hazardous Materials Storage Inventory* form is not mandatory if the facility is using an alternate form that contains similar information. Additionally, HM storage units should be inspected on a weekly basis and records maintained for three years, as described in Chapter 6.

2.9.1 Conducting a HM Inventory

To conduct an inventory, complete the following steps:

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

- Product name
- Any warning of physical or health hazards listed on the MSDS
- Six-digit HM identifier (if stored in a locker), if applicable

Step 2. Replace any labels that are missing or unreadable.

Step 3. Obtain a *Hazardous Materials Storage Inventory* form located in Appendix B of this IHMWMP. An alternate form may be used as long as the same information, at a minimum, is recorded on the alternate form.

Step 4. Complete the *Hazardous Materials Storage Inventory* form for each HM storage location.

Note	Inventory any bulk fuel stored in aboveground storage tanks and fuel regularly stored in mobile refuelers. Record this inventory on a separate *Hazardous Materials Storage Inventory* form.

Step 5. Write the six-digit HM unit identifier in the "Storage Location" area and the "Facility Name" at the top of the form. Follow the notes in the key at the bottom of the *Hazardous Materials Storage Inventory* form to complete the remaining entries.

Step 6. Maintain a copy of the *Hazardous Materials Storage Inventory* form in a readily available location, such as in the front of the associated storage location's MSDS binder, or in the supervisor's office.

Step 7. Submit copies of the *Hazardous Materials Storage Inventory* form for all HM storage units on a calendar year quarterly basis to the HMWC. Retain copies on file for at least **three** years.

Refer to Chapter 6 for additional recordkeeping and reporting requirements.

2.9.2 Replenishing HM Stock

Step 1. After performing the periodic inspection IAW Chapter 6, replace shortages by ordering new items through the military supply system. Purchase only the quantity needed for the specific mission or task.

Note Use of government international merchant purchase authorization cards (IMPAC) to purchase HM is generally prohibited, and may only be allowed on a case-by-case basis[4].

Step 2. If there is excess, call the HMWC for proper management of the excess HM. If no other activity can use the excess, turn in the HM IAW Chapter 4.

Step 3. When restocking HM storage units remember to rotate the containers so that items that expire first are in the front. Remember, FIRST in, FIRST out.

[4] Army Regulation 200-1, Section 9-1(a)(3), dated 13 December 2007.

Chapter 3. Overview of Hazardous Waste at Fort Hunter Liggett

This section provides an overview of the FHL HW management program and describes how to manage the following waste streams at FHL: RCRA HW; non-RCRA HW; extremely HW; UW; reused, recycled, or reclaimed materials/waste; and solid waste. As contracts come up for renewal, FHL must ensure that language is added to guarantee tenant compliance with HM and waste management procedures.

This chapter addresses the following topics:

3.1 Types of Waste

FHL activities generate a wide variety of waste streams ranging from HW (such as paint thinner) to general refuse. Generally, FHL's waste streams fall into one of the categories outlined in Table 3-1.

Table 3-1. Types of Waste

Type of Waste	Definition
RCRA Hazardous Waste	Defined as hazardous under RCRA or Subtitle C, these waste streams must be managed IAW all applicable federal and state hazardous waste management regulations.
Non-RCRA Hazardous Waste (also known as "California-only Hazardous Waste")	This category includes wastes regulated by laws other than RCRA, such as the California Code of Regulations, Toxic Substance Control Act (TSCA) (i.e. asbestos, PCBs), etc.
Extremely Hazardous Waste	This category includes waste containing chemicals listed in 40 CFR 261.33(e), such as sulfuric acid in lead acid batteries.
Universal Waste (UW)	These wastes include mercury-containing devices, lamps, and some batteries that are defined as hazardous under RCRA. Although hazardous, they are subject to a reduced set of hazardous waste management regulations.
Reused, Recycled, or Reclaimed Waste	As long as they are recycled or reused, these materials are either excluded from hazardous waste regulations or subject to reduced management requirements.

Type of Waste	Definition
Solid Waste	These solid waste streams are not regulated as hazardous under RCRA or fall into one of the other categories previously mentioned, nor do they pose an immediate threat. They may be thrown in the dumpster, and/or recycled as applicable.

These waste streams and their associated management methods are briefly discussed in the following pages. For the most common waste streams, the proper management and disposal procedures are presented in Waste Protocol Sheets (WPS), which are located in Appendix A.

3.1.1 Hazardous Waste

HW is broadly defined as a waste or combination of wastes that, because of the quantity, concentration, or physical, or chemical characteristics, may pose a hazard to human health or the environment when improperly treated, stored, transported, or disposed or otherwise managed. A HW is waste that is dangerous or potentially harmful to health or the environment. HWs can be liquids, solids, gases, or sludges.

In California, HW is classified as either RCRA or non-RCRA. "RCRA" is the acronym for the Federal Resource Conservation and Recovery Act, enacted in 1976 to address the growing problem of HW nationwide. It is important to differentiate between RCRA and non-RCRA waste because the appropriate code numbers must be assigned and used when filling out transportation papers (manifests), paying disposal fees, and determining treatment methods. RCRA wastes are federally regulated; non-RCRA wastes are those that the State of California has determined to be hazardous—even though the federal government has not. Used oil is an example of a waste stream that is considered a HW by the State but not by the Federal government.

3.1.2 RCRA Hazardous Waste

RCRA HW is regulated by the federal government, and is clearly defined in the Resource Conservation and Recovery Act (RCRA) as follows.

RCRA HW is a waste that meets any of the following criteria:

- Is not specifically excluded from regulation.
- Is identified as a HW.
- Exhibits characteristics of ignitability, corrosivity, reactivity, or toxicity (Toxic Characteristic Leaching Procedure, or TCLP method) as measured by standard test methods or can be reasonably determined through generator knowledge.[5]

[5] See Title 22 CCR Division 4.5, Chapter 11, Article 4 or Appendix X.

- Specifically listed as an "F", "P", "K" or U" hazardous waste (http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/upload/OEARA_REG_Title22_Ch11_Art4.pdf) and has not been excluded in the federal regulations.

- Has not been deleted or excluded in 40 CFR 261.

Frequently, the MSDS for a material contains enough information to allow the user to determine whether the used HM is a HW and, if so, the kind of HW. The HWMC should be contacted if a unit finds an unknown HW or if a new kind of HW is generated. If an MSDS or other identifying information is not available, FHL will arrange to have the material analyzed by a laboratory.

Appendix A lists common HW streams generated by FHL activities.

3.1.3 Non-RCRA Hazardous Waste

Non-RCRA HWs are wastes that are classified by the State of California as hazardous in addition to what the federal government considers hazardous (RCRA).

Non-RCRA HW as defined by the California DTSC includes, but not limited to, the following characteristics:

- Corrosive solid.

- Toxic for anything except for federal toxicity (TCLP) [Title 22 CCR §66261.24(a)(1)].

- Excluded under 40 CFR 261.4 and exhibit any of the Article 3 criteria.

Non-RCRA HW is waste not specifically regulated under RCRA, but is otherwise regulated by individual states such as California[6]. For example, lead-based paint, asbestos, and polychlorinated-biphenyls (PCBs) are regulated under the Toxic Substance Control Act (TSCA). Radioactive waste is regulated by the Nuclear Regulatory Commission (NRC). These wastes are defined by federal regulation (other than RCRA) and regulated under California law.

The WPS in Appendix A describes common, or potential, non-RCRA HW streams generated by FHL activities. Examples of these waste streams are listed in Table 3-2.

[6] California Code of Regulations Title 22, Division 4.5, Chapter 11, Article 5, 66261.101

Table 3-2. Common Non-RCRA Hazardous Waste Streams

Waste Stream/Material	Comments
Absorbent, Used (Non-hazardous)	See Absorbents Non-Hazardous WPS.
Asbestos Brake Shoes and Debris	See Asbestos WPS.
Biomedical Waste	Contact the Medical Clinic or Fire Department for assistance.
Used Oil Filters and Diesel Fuel Filters	Used oil filters and diesel fuel filters are disposed as general refuse after being drained for 24 hours, crushed, and placed in a drum.
Dried Paint (Latex)	None.
Soil, Contaminated (Non-hazardous)	Includes POL spills. See WPS for Contaminated Soil.
Used Shop Rags	None.

3.1.4 Extremely Hazardous Waste

A waste or a material is extremely hazardous if it meets any of the following characteristics:

- Acute oral LD50 less than or equal to 50 milligrams per kilogram.
- Acute dermal LD50 less than or equal to 43 milligrams per kilogram.
- Acute inhalation LC50 less than or equal to 100 parts per million as a gas or vapor.
- Contains any of the substances listed in the regulation 40CFR302.4 at a single or combined concentration equal to or exceeding 0.1 percent by weight.
- Exposure is deemed likely to result in death, disabling, personal injury or serious illness due to carcinogenicity or toxicity.
- Is water-reactive.

Definition: LD50 is the dose of a chemical which kills 50% of a sample population. LC50 is the concentration of a chemical which kills 50% of a sample population. This information can be found on the MSDS.

3.1.5 Universal Waste

UW is a category of HW subject to special regulations that are less stringent than normal HW management regulations. UW must be turned in before 365 days have passed from the accumulation start date (ASD) that is marked on each storage container or item. The ASD begins on the date the owner decides to discard it or it is no longer usable. It is recommended that facilities turn in UW every six (6) months to avoid exceeding

threshold requirements. Table 3-3 lists UW streams that are commonly generated by FHL. Refer to Appendix A WPS for more information on specific UWs.

Table 3-3. Common Universal Waste Streams

Waste Stream	Description
Aerosol Cans	Spent empty Aerosol Cans.
Batteries	Spent batteries, such as Alkaline, Lithium, Magnesium, Mercury Nickel-Cadmium (Ni-Cad), and sealed lead-acid batteries, such as the ones used in emergency lighting. **Does not include:** Lead-Acid automotive batteries. See the WPS for Automotive batteries in Appendix A for managing spent lead-acid automotive batteries.
Lamps	Fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.
Consumer Electronic Devices	Cathode ray tubes or CRT or CRT device includes a vacuum tube or picture tube used to convert an electrical signal into a visual image, such as computer monitors and televisions, cash registers, and oscilloscopes. Liquid crystal display (LCD) [7] monitors and laptops are also included. Other consumer electronic devices may be added as further testing continues. See the DTSC Fact Sheet in Appendix C for handling guidelines.
Mercury Containing Devices	Used Mercury Thermostats-Heating and cooling control devices
	Used Mercury switch: an electrical switch that employs mercury to make an electrical contact. "Mercury switch" includes, but is not limited to the following mercury-containing switches: mercury-containing motor vehicle switches, tilt switches, vibration-sensing switches, off-balance switches, float switches, silent light switches, and relays.
	Used Mercury Gauges.
	Used Mercury Novelties, such as singing or talking greeting cards.
	Used Mercury counterweights and dampers: - an enclosed device that uses liquid mercury for weight or dampening. Includes, but is not limited to, mercury bow stabilizers used in archery, mercury recoil suppressors used in shooting, and mercury counterweights used in clocks.
	Used Mercury Dilators or Used Mercury-Weighted Tubing.
	Used Mercury-Containing Flooring or Rubber Flooring.
	Used Mercury Gas Flow Regulator.

3.1.6 Reused, Recycled, or Reclaimed Materials/Waste

Certain HWs are subject to special regulations as long as they are reused, recycled, or reclaimed. HW that may be reused, recycled, or reclaimed includes: acetone, benzene, butanol, carbon tetrachloride, chloroform, ethanol, ethyl acetate, ethylene glycol (used antifreeze), Freons, hexanes, lead-acid batteries, methanol, methylene dichloride, methyl

[7] Refer to California Senate Bill 20 and Health and Safety Code, Division 20, Ch 6.5 for more information on LCD waste recycling

ethyl ketone, mixed hydrocarbon solvents, paint thinner, perchloroethylene, trichloroethane, toluene, xylenes, and used oil. Commonly reused, recycled, or reclaimed materials/wastes are listed in Table 3-4. The storage areas for the above mentioned waste streams should be included in the Central Hazardous Waste Facility (CHWF) weekly inspections. See Appendix B for *CHWF Weekly Inspection Sheet*.

Table 3-4. Commonly Reused, Recycled, or Reclaimed Materials / Waste

Material	Comments
Used Antifreeze (Recycled)	See Antifreeze WPS in Appendix A.
Batteries, Lead-Acid (automotive and non-automotive) (Reclaimed)	Exchange old batteries for new ones through a battery exchange program with local vendor or sell them through an approved scrap metal program. See Lead-Acid Batteries WPS in Appendix A.
Used Oil (Recycled)	See Used Oil WPS.
CFC (Reclaimed)	Reference *Department of Defense Ozone Depleting Substances Turn-In Procedures* in Appendix G.

3.1.7 General Refuse/Solid Waste

Solid waste that is general refuse and poses little or no threat to human health and the environment may be thrown in the dumpster. In addition to common garbage such as waste paper and food wrappers, these waste streams also include used flameless ration heaters from Meals Ready to Eat (MREs). Recyclable items such as aluminum cans, paper, cardboard, and glass/plastic should be placed in the dumpsters designated for recyclable items.

Note DO NOT throw liquids in a dumpster. If unsure of what can be thrown in a solid waste dumpster, call DPW O&M or DPW-ENV.

3.1.8 Abandoned Materials and Waste

Occasionally, containers of unknown HMs and/or HWs may be discovered by a unit or other personnel. When containers of unknown origin are discovered, the discovering unit must perform the following actions:

Step 1. Do not approach the container.

Step 2. Alert others in the area to not approach the container.

Step 3. Obtain coordinates and other identifying information to direct response personnel to item(s).

Step 4. If inside the cantonment area, contact the HMWC.

Step 5. If outside the cantonment area, contact Range Control.

Step 6. Stay at a safe distance until response personnel arrive on scene.

3.2 Waste Management Made Easy

All FHL facilities generate waste, whether it is residue from the use of products or products themselves that are no longer useful. Learning the detailed requirements of proper waste management can be very time consuming, especially if not performed everyday. For example, the procedures for handling asbestos are much different than those for managing waste paint thinner. In order to simplify the waste management process, specific handling procedures for wastes commonly generated by FHL have been developed in the form of WPSs. The WPSs are easy-to-follow, laying out step-by-step instructions on how to manage each waste stream. These WPSs can be found in Appendix A.

To use the WPSs, turn to Appendix A and find the "Waste Protocol Table of Contents". Find the particular waste you are looking for and turn to that sheet. The handling procedures are self-explanatory. It is very important that the waste meets the description in the WPS. If it does not, or if you cannot find your waste in the index, check for a DTSC Fact Sheet in Appendix D, or contact the HMWC for guidance.

Note	If you want to add a WPS that is not in Appendix A, you may request one by completing the DA Form 2028 in Appendix B and submitting it to DPW-ENV.

3.3 Generator Status

The way HW is managed depends on the facility generator status. The following waste streams are managed as HW: RCRA HW; non-RCRA HW; extremely HW; and reused, recycled, or reclaimed waste. The State of California DTSC recognizes the following HW generator status categories:

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

Facilities designated as a CESQG, generate less than 100 kg (220 lbs) of HW per calendar month. SQG facilities generate less than 1,000 kg (2,200 lbs) of HW per calendar month, and LQG facilities are those that generate more than 1,000 kg (2,200 lbs) of HW per calendar month. FHL is, and is expected to remain, a large quantity generator.

Large quantity generators are those that generate equal to or more than 1,000 kg or 2,200 lbs (more than 5 drums) of HW per calendar month or more than 1 kg or 2.2 lbs of acute HW per calendar month. The accumulation time limit once waste is placed in the CHWF is 90 days.

3.4 Hazardous Waste Generators at Fort Hunter Liggett

The most common types of HWs generated at FHL are used POLs. Typical generators of HW include Equipment Concentration Sites (ECS), Area Maintenance Support Activities (AMSA), auto hobby shops, and DPW-O&M shops.

The quantities of HW generated vary from year to year. The federal government and the State of California require these quantities to be recorded in a biennial report. DPW-O&M, and DPW-ENV is responsible for developing, submitting, and retaining copies of this report.

3.5 Setting up Hazardous Waste Accumulation Areas

There are two levels of regulation governing HW accumulation activities. One level, known as a 90-day accumulation activity, allows generators to accumulate HW at their site for up to 90 days before it must be removed. The other level, commonly known as "satellite accumulation," allows accumulation at a generation point for up to one year if the HW is accumulated in a manner consistent with Section 3.5.1, below.

Federal and state regulations require all HW to be shipped off-site within specific time limits and these wastes can be accumulated on-site for only a limited amount of time. Typically, HW is accumulated at satellite accumulation points (SAPs) and then moved to the CHWF. A shop that accumulates HW is considered an "accumulation activity" by the regulators. If a shop is considered an accumulation activity, it is limited to accumulating the HW it generates, i.e., it cannot accumulate or accept HW from another shop.

3.5.1 Satellite Accumulation Points (SAP)

Satellite accumulation is a special provision of the regulation that allows a generator to accumulate waste in a container (i.e., not a storage tank) before transferring the container to the CHWF[8], assuming the following conditions are met:

- A generator may accumulate one type of waste or collect various types of waste in separate containers within the satellite accumulation point or area, if the accumulation quantity limit is not exceeded. The accumulation quantity limit is 55 gallons of any one HW stream or 1 quart (1 kg) of acutely HW[9].

- The HW must be accumulated “at the initial accumulation point,” which must be “at or near the area where the waste is generated.”

- The initial accumulation point must be under the control of the operator of the process generating the waste[10].

[8] Reference 22 CCR Section 66262.34.
[9] If more than one 55-gallon container of a particular hazardous waste stream needs to be at the SAP, then approval is required from DTSC.
[10] An “operator of the process” means the hands-on operator of the machinery or activity that generates the waste, not the overall operator of the facility.

- The Accumulation Start Date (ASD) is marked on the container at the time the first waste is added. The ASD should be clearly visible for inspection.

- Containers of HW must be clearly marked with the words "Hazardous Waste," and with the following information:

  - Composition and physical state of the wastes

  - Hazardous properties of the waste (e.g., flammable, toxic, reactive, corrosive, etc.) as shown in the MSDS or packaging label

  - Name and address of the person/facility producing the waste

Once the SAP quantity limit of 55 gallons per type of waste stream (or 1 kg for acutely HW) is reached, the generator should arrange for the HW to be taken to the CHWF within three (3) calendar days. The maximum time HW can be accumulated onsite, including at the SAP, is 365 days.

Steps to Follow for Setting up a Satellite Accumulation Point

Step 1. The SAP must be at or near the area of the initial waste accumulation point, which is under the control of the operator of the process generating the waste.

Step 2. Select and prepare a container IAW the procedures outlined in Section 3.7.

Step 3. Provide secondary containment for the container.

Step 4. Segregate incompatible wastes stored in other containers or piles by a distance of not less than 20 feet, or with berms, curbs, walls, spill pallets or other approved physical devices.

Note	A SAP may be used for multiple areas within the same shop as long as the 55-gallon limit per waste stream is not exceeded; however, DO NOT mix multiple wastes in the same container.

Step 5. Place containers holding ignitable or reactive wastes at least 15 meters (50 feet) away from the property line, and at least 20 feet from one another.

Step 6. Select fire extinguishers that are compatible with the types of potential fire hazards present and place them within 15 feet of that location. Coordinate with the safety office for the proper type of fire extinguishers or obtain that information from the products' MSDS.

Step 8. Post a warning sign in a visible location at the SAP. The sign must be readable from a distance of 50 feet from the SAP and must contain the following information:

- "Hazardous Waste Satellite Accumulation Point"

- "No smoking or open flame within 50 feet"

- NFPA Placard with appropriate numbers completed, if appropriate
- The name and phone number of a primary and alternate contact

Note NFPA Placarding Guidelines are found in Appendix E.

Step 9. Place the appropriate amount of spill response equipment nearby to contain a spill quickly. Keep all waste containers within secondary containment such as dikes, curbs, or spill pallets.

Steps to Follow for Maintaining a Satellite Accumulation Point

Step 1. Position container(s) so the label is clearly visible and ensure there is adequate aisle space between containers (usually 3 feet) to conduct inspections.

Step 2. Ground containers if they contain flammable liquids.

Step 3. Complete the *SAP Weekly Inspection Log* IAW Chapter 6. All forms and checklist are available in Appendix B[11].

Step 4. Ensure that waste labels are completed IAW the WPS, located in Appendix A, and ensure the following information is labeled on the container: ASD, EPA ID number, contents, and generator name address and phone number.

Warning! DO NOT fill drums to the top. Allow headspace (Approximately 4" in a 55-gallon drum) so that liquid in the container can expand if necessary. See section 3.8 for more information.

Step 4. Once the container at a SAP reaches the headspace limit, mark the date it became full next to the ASD and move it to the CHWF within three (3) calendar days.

Steps to Follow for Closing a Satellite Accumulation Point

When a SAP is no longer needed to support a unit, the site will be either temporarily or permanently closed. In preparation of closure or relocation, the following actions must be completed:

Step 1. The Unit Hazardous Waste Manager will notify the DPW-ENV two weeks prior to the desired closure/relocation date that the SAP will be closed or relocated. This notification will specify whether the closure will be temporary or permanent.

Step 2. Any hazardous substance spills shall be identified and cleaned-up. If a spill is identified that is beyond the cleanup capabilities of the unit, contact DPW-ENV for further guidance.

Step 3. Turn in all HWs to the HMWC at the CHWF.

[11] If an alternate inspection checklist that contains the same information and meets regulatory requirements is being used, continue using that checklist.

Step 4. If the site is closing permanently, turn-in all HW records to DPW-ENV, to include:

- Personnel training folders
- Environmental compliance orders
- Record-keeping binder

Step 5. Schedule a final walk-through of the SAP with a DPW-ENV representative three days prior to the closure date.

3.5.2 Central Hazardous Waste Facility

Steps to Follow for Setting-up a Central Hazardous Waste Facility

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

Step 2. Provide secondary containment for all containers holding liquid waste for 110% of the largest single container. Secondary containment for multiple containers will be 150% of the largest containers volume or 110% of the aggregate volumes of all containers, whichever is greater.

Step 3. Segregate incompatible wastes stored in separate containers or piles by at least 20 feet or with berms, curbs, walls, spill pallets or other approved physical devices. See Chapter 2 for incompatibility guidance. Take special care to separate flammables from corrosives.

Step 4. Place containers holding ignitable or reactive wastes at least 50 feet away from the property line.

Step 5. Ensure a means of internal communication is provided at the facility, such as a telephone, air horn, two-way radio, or internal communications equipment.

Step 6. Ensure a fire extinguisher is located within 15 feet of the CHWF, or that a fire suppression system is in place. Ensure that fire extinguishers are compatible with the type of potential fire hazards.

Step 7. Ensure spill response equipment is located nearby to contain at least a 55 gallon spill.

Step 8. Post warning signs in visible locations at the site. The signs must be readable from 50 feet away and contain the information in Figure 3-1. To obtain an appropriate sign, call the HMWC for guidance.

Figure 3-1. Hazardous Waste Accumulation Area Sign

Steps to Follow for Maintaining a Central Hazardous Waste Facility

Step 1. The CHWF must be inspected weekly using the *HW CHWF Weekly Inspection Log* located in Appendix B[12].

Step 2. Container(s) must be positioned so that the waste label is clearly visible and there is adequate aisle space between containers to conduct inspections.

Step 3. Labels must be completed IAW this chapter and the WPSs in Appendix A.

Step 4. Segregate incompatible wastes.

Step 5. Ground containers if they contain flammable liquids.

Step 6. Secure containers or area against unauthorized entry. This is to deter tampering of HW or unlawful dumping of HW.

Step 7. Containers must be maintained closed except when adding or removing waste.

Step 8. Follow the instructions in Chapter 4 for turning in waste.

3.6 Security of Hazardous Waste Accumulation Area

Access to the HW accumulation areas must be controlled by O&M personnel. Locks and keys should be used to ensure the areas are controlled at all times. DPW-ENV, the FHL Fire Department, and the HWMC (O&M) should have keys to all HW accumulation areas.

The CHWF must have adequate security devices (e.g., fences, gates, and locked access) to prevent unauthorized personnel from access to within 50 feet of the storage areas.

[12] If an alternate inspection checklist containing the same information and meets regulatory requirements is currently used, continue using that checklist.

Only qualified waste handlers and authorized employees are authorized to have unescorted access to the site.

3.7 Hazardous Waste Storage Area Emergency Preparedness and Prevention

Federal regulations require that the FHL CHWF be maintained and operated to reduce the possibility of fire, explosion, or any unplanned release of HW, which could threaten health or the environment. To achieve these standards, each facility must maintain required equipment, must test and maintain that equipment, must provide access to communications or an alarm system, must maintain aisle space, and must attempt to establish arrangements with local authorities to respond to emergency situations. Persons who respond to spills should not do more than what they are trained to do, unless they are working directly with and being supervised by someone who has received the appropriate training for the emergency response.

As an LQG, Federal regulations also require that FHL post the following information next to facility telephone(s):

- The name and telephone number of the emergency coordinator.
- The location of fire extinguishers and spill control material, and if present, the location of fire alarms.
- The telephone number of the fire department, unless the facility has a direct alarm to the fire department.

California regulations require facilities with a SAP or a CHWF to maintain a contingency plan on-site. FHL satisfies this requirement by incorporating HW emergency response procedures into their Hazardous Materials Business Plan.

3.8 Accumulating Universal Wastes

At a minimum, accumulation or storage areas for UWs should be at a location that provides compatible storage, is protected from the elements, and is provided with a means of secondary containment to prevent potential release to the environment. As a BMP, the *Hazardous Waste CHWF Weekly Inspection Log*, located in Appendix B, may be used to inspect areas that only contain UW. The DTSC Fact Sheet "Managing UW in California" located in Appendix C, can also be referenced.

To set up an accumulation area for these items, follow the steps below:

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

Step 2. Provide secondary containment.

Step 3. Ensure a fire extinguisher is nearby or a fire suppression system is placed, which are compatible with the type of potential fire hazards.

Step 4. Locate spill response equipment nearby in sufficient quantity and type to contain a spill.

Step 5. It is recommended, and for most wastes required, to keep containers used to store waste closed. Containers should be structurally sound and compatible with the contents.

There is a one-year accumulation time limit for UW, so be sure to properly label all containers with the accumulation start date. UW streams that have more stringent accumulation requirements are listed in the following subsections.

3.8.1. Spent Aerosol Cans

Spent empty aerosol cans, must be accumulated in containers that meet the following requirements:

a. Incompatible materials are segregated and managed appropriately in separate containers.
b. The container is closed, structurally sound, and compatible with the contents originally in the aerosol can.
c. The container does not allow leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.
d. The container is placed in a location that has sufficient ventilation to avoid formation of an explosive atmosphere.
e. The container is designed, built, and maintained to withstand pressures reasonably expected during storage and transportation.
f. The container is placed on or above a floor or other surface that is free of cracks or gaps and is sufficiently impervious and bermed to contain leaks and spills.
g. A container holding flammable wastes is kept at a safe distance from heat and open flames.
h. A spill cleanup kit should be readily available to immediately clean up spills or leaks of the contents of the UW aerosol can.

Reference the DTSC Fact Sheet “SB1158 Designates Aerosol Cans as ‘Universal Waste’” in Appendix C for further information.

3.8.2 Consumer Electronic Devices

Consumer electronic device accumulation must meet the following requirements:

a. Managed in a way to prevent releases of any UW to the environment by being in containers that are structurally sounds, adequate to prevent breakage, and compatible with the contents of the consumer electronic devices.

b. Show no evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.
c. Managed to prevent breakage of the device and release of hazardous components of the device (e.g. shrink-wrapped on a pallet).
d. Any consumer electronic device that is broken or shows evidence of breakage, leakage, or damage that could cause the release of hazardous constituents to the environment is immediately cleaned up and is placed in a container.

For more information, see the DTSC Fact Sheet "Electronic Waste Notification & Reporting Quick Reference Guide" in Appendix C.

Note	Consumer electronic devices and government electronic devices are not one and the same. Government electronic devices are returned to DOL for turn-in.

For more information on UW, reference the DTSC Fact Sheet *Managing Universal Waste in California* in Appendix C.

3.9 Selecting and Preparing a Container

Only certain types of containers are authorized for accumulating waste. The type of United Nations Performance Oriented Packaging (UN-POP) approved container selected depends on the type of waste.

- UN-POP open head drums are commonly used for non-liquid wastes such as rags and filters.
- Closed head drums (drums with bung holes) are used for liquids.
- Metal drums are to be used for flammable materials and waste. Plastic drums are to be used for corrosive materials and waste.
- Boxes are normally the best containers for fluorescent lamps.
- Plastic buckets are normally the best containers for alkaline batteries.

Note	A container is defined as any portable device, in which material is stored, transported, treated, disposed of, or otherwise handled. Non-bulk containers are typically 119 gallons or less.

The WPSs, located in Appendix A, lists the container requirements for each waste stream (if there is not a WPS for your waste, contact the HMWC). Drums must be clean and in good condition and able to withstand handling, transport, and long-term storage without leaking. Containers must not be creased, rusted, or dented and also must have appropriate sealing lids. Remove any previous markings and labels from the container or mask over with paint. UN-POP approved containers are listed in Table 3-6.

Table 3-5. UN-POP Approved Containers

Container Type	National Stock Number (NSN)
55-gallon Closed-head Drum	8110-00-292-9783
30-gallon Closed-head Drum	8110-01-447-2937
85-gallon Disposal Drum, Unlined	8110-01-101-4055
85-gallon Recovery Drum	8110-01-101-4056
55-gallon Removable-head Drum	8110-00-030-7780
30-gallon Removable-head Drum	8110-00-366-6809
Box, Fiber (cardboard); 18” x 12” x 10”	8115-00-179-0575
Box, Fiber (cardboard); 16” x 10” x 8”	8110-00-179-0578
Fluorescent Bulbs Box, Fiber	Call DPW O&M
5-gallon Plastic Bucket	Call DPW O&M

3.10 Adding Waste to the Container

These procedures are general instructions that apply to any waste. Some wastes may require special handling. Before adding waste to a container, check the WPS.

Step 1. Ensure the container is appropriate for the waste you are accumulating and that it is marked and labeled properly.

Step 2. Wear the proper PPE during waste handling, per the MSDS or NIOSH guide.

Step 3. Open the container and add the waste. Use a funnel to pour liquids into drums.

Warning! DO NOT mix different waste streams in the same container. Whenever adding flammable waste to a drum, ensure the drum is properly grounded.

Step 4. When adding waste to an empty container in a SAP or CHWF for the first time, use an indelible pen to write the Accumulation Start Date (ASD) on the label.

Step 5. Replace the lid or bungs on the container.

Step 6. When the level of the waste is near the top of the container, **STOP** adding waste. Maintain headspace in the container as noted below per Army FM 3-100.4 Appendix C.

Size of Container	Amount of Headspace
55-gallon	3-4 inches
30-gallon	3 inches
15-gallon	2 inches
5- gallon	1.5-2 inches
less than 15-gallon	1 inch

3.11 Waste Characterization and Requesting Analysis of Waste

HW may be specifically listed in the regulations or may exhibit one or more of the characteristics defined in the regulation. To determine if a waste exhibits one of the HW characteristics of flammable/ignitable, corrosive, reactive, and/or toxic, a generator may either use standard test methods or use knowledge of the waste generating process. All waste determination records must be maintained for at least three years from the date the waste was last sent off site.

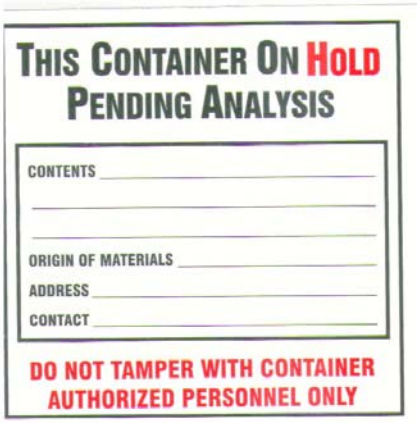
Waste determination, using knowledge of materials or process, can be accomplished through the use of MSDSs. However, in some cases, MSDSs do not include chemicals that make up less than 1% of the total constituents of the material. Therefore, in some cases, using knowledge of materials and processes to characterize a waste as non-hazardous may be inadequate.

If the waste is not characterized through knowledge of its process (i.e., use of MSDSs), it must be sampled and analyzed.

To request a waste analysis contact the HMWC. The HMWC will arrange for the waste to be sampled. Sampling results are typically returned within two to four weeks. The contractor performing the sampling will send results directly to the HMWC who will interpret them and provide guidance on disposing of your waste properly. The HMWC will also provide a copy of the laboratory results to file.

While waiting for the analytical results, the container(s) should be marked or labeled with the ASD and the words “Pending Analysis.” Remember, the ASD begins the moment waste is put in the container, not after receiving the laboratory results. Contact the HMWC for “Pending Analysis” labels. Containers marked, as “Pending Analysis”, must be placed in a CHWF, not at a SAP, and also be marked with a “Hazardous Waste” label. All materials pending analysis must be stored and handled as a HW until analytical results prove otherwise.

Figure 3-2. Pending Analysis Label



3.12 Mixture Rule

Mixtures of characteristic HW and non-HW must still be managed as HW if the resultant mixture exhibits hazardous characteristics, or if any amount of a HW is listed in 40 CFR 261, Subpart D is placed in the container. Therefore, if a HW is mixed with a non-HW and the resultant mixture exhibits characteristics of HW, the waste must be managed as hazardous. Do not mix HW with non-HW or with incompatible HW.

3.13 Using Overpack Drums

Overpack drums must be United Nations/North American (UN/NA) 1A2, 1B2, 1N2, or 1H2, tested and marked for packing Group III or higher performance standards for liquids or solids. Use cushioning and absorption material to prevent excessive movement and to absorb free liquids. The cushioning and absorption material must be compatible with the HM in the drum. Label the drum with the appropriate hazardous waste label and the word “Salvage” or “Salvage Drum.”

3.14 Empty Containers

Regulations establish management practices that, if met, exempt “empty” containers from further regulation under the HW rules. Only containers that once held HMs or HWs are subject to the regulations found in Title 22 California Code of Regulations (CCR) Section 66261.7. The empty container management requirements are limited to containers and container inner liners that are less than 119 gallons in volume. Bulk containers are greater than 119 gallons in volume must follow requirements in 22 CCR 66261.7(p). Containers made of absorptive materials (i.e., wood, cardboard, cloth or paper) that were in direct contact with and has absorbed HMs or HW, must be managed as a HW per 22 CFR 66261.7(n)

3.14.1 Definition of an Empty Hazardous Materials or Hazardous Waste Container

The 22 CCR 66261.7 sets standards to define an empty container:

- Containers That Held Pourable Materials:
  The container has no HM/waste that can be poured or drained from the container or inner liner when the container or inner liner is held in any orientation/position. Typically, removing container tops and draining liquids for 24 hours into the proper accumulation container can accomplish this.

- Containers Holding Non-Pourable Materials
  The container has no HM/waste remaining in or on the container or inner liner that can be removed by physical methods, including scraping, chipping, and wiped clean of any residue (***no rinsing is allowed***). Shop towels used to wipe residue must be properly disposed. Following HM/waste removal, the top, bottom and sidewalls of the container cannot contain any adhering or crusted material. A thin uniform layer of dried material or powder is acceptable.

When containers are empty according to these criteria, they may be disposed of as recyclable solid waste in the proper dumpsters. There is an exception for containers that held extremely or acutely HW; these containers must be triple-rinsed before they can be disposed of as solid waste. However, the triple-rinsing requirement applies only to containers that once held extremely or acutely HWs.

Warning!	DO NOT rinse containers without specific authorization from DPW O&M. DPW O&M must have permission from the CUPA to authorize this process.

3.14.2 Managing Empty Containers

As a BMP, it is recommended that empty drums are managed according to the following:

Step 1. Stored on the sides on a drum rack or covered so they do not accumulate rainwater within the bung ring or inside the container.

Step 2. Clearly mark the word “Empty” on the top and side of each drum using stenciling, a paint pen, or labels. Write the date and note the last held material.

Step 3. Remove or completely cover all other labels or markings.

Step 4. Remove all residues from the outside of the drums.

3.14.3 Disposing of Empty Containers

These regulations establish management practices that, if met, exempt “empty” containers from further regulation under the HW regulations. When HMs or HWs containers are empty according to the definition of an empty container provided in

Section 3.14.1, the containers may be disposed of as recyclable solid waste in the proper dumpsters.

Containers 5 gallons and smaller (including inner liners):

Step 1. Ensure the container is empty, as described in Section 3.14.1.

Step 2. Manage any residue IAW the WPS for that material.

Step 3. Recycle the small empty containers.

Step 4. If a recycler is not available, the container can be disposed of in the facility's dumpster.

Containers larger than 5 gallons (including inner liners)

Step 1. Ensure the container is empty, as described in Section 3.14.1. If the container cannot be emptied, skip to Step 6.

Step 2. Manage any residue from the container IAW the WPS for that material.

Step 3. Mark the date the container was emptied.

Step 4. Ship the container off-site for recycling or reconditioning within one year. If the container is not scrapped, reconditioned, or reused, skip to Step 6.

Step 5. Maintain disposal records for **3 years**. Records must include the name, street address, mailing address, and phone number of the facility where the containers were shipped.

Step 6. Manage the container as HW IAW this Chapter.

Chapter 4. Turning In Hazardous Materials and Waste

This chapter addresses when to turn-in waste, how to prepare waste for turn-in, and how to supervise waste pick ups.

This chapter addresses the following topics:

4.1 When to Turn In Waste

You must turn in a waste before the time limits are reached. Time limits are dictated by the generator status, and depend upon the type of waste generated. FHL must adhere to the appropriate time limits for LQGs, which are listed below.

The HMWC utilizes WASTE-RC to facilitate the turn in of HW to DRMO, and track shipments of HW and receipt of manifest documentation. Personnel at SAPs must comply with the steps listed below in Section 4.2 to assist the HMWC in compiling the necessary information for entry into WASTE-RC.

4.1.1 Universal Waste

Regardless of generator status, all UW can be kept on site for up to one year from the initial date of accumulation. To allow adequate time for disposal, it is recommended that UW be turned into the CHWF no later than 9 months from the ASD.

4.1.2 Hazardous Waste

The frequency in which HW is turned in depends on the HW generator status. LQGs cannot store HW for more than 90 days in their CHWF. The time limit begins when the first drop of waste is put in the container at the CHWF, or the date a HW container is moved from the SAP to the CHWF.

HW cannot be on site for more than one year from the date waste started accumulating in the container, including the time the container was at the SAP. HW in SAPs must be transferred to the CHWF within 3 days from the date the container was filled or within 9 months from the ASD. The HW from the SAP must be turned in within 90 days from the date the container was full or moved to the CHWF.

4.2 Preparing Waste for Turn-in to the CHWF

To prepare waste for turn-in follow the below steps:

Step 1. Review the WPS for the waste and ensure the waste is properly prepared for transfer.

Step 2. Close the accumulation container, allowing the proper headspace as listed in Section 3.10.

Step 3. Create an inventory of all the waste that needs to be turned in by completing the *Hazardous Waste Turn-in Document* form located in Appendix B. Include:

- Facility name
- POC
- Date
- Phone and fax number
- The amount (i.e., 10-gallons) and composition (solid, liquid, gas) of the waste
- Size of the container(s) (i.e., one 15-gallon drum, two 55-gallon drums)
- The approximate weight of the container
- The total number of containers
- Container type (i.e. metal drum, plastic drum, box)

Use the container type abbreviations in Table 4-1 to identify the type of accumulation container. If possible, use the weight estimating guide in Table 4-2 for approximate conversion factors to estimate the weight of the accumulation container, and provide the NSN and/or MSDS number. After the turn-in form is complete, continue to Step 4.

Table 4-1. Container Types

Abbreviation	Container Type Description
DM	Metal Drum, Barrel, Kegs
DW	Wooden Drum, Barrel, Kegs
DF	Fiberboard or Plastic Drum, Barrel, Kegs
RP	Tanks Portable
TT	Cargo Tanks (Tank Trucks)
TC	Tank Car
DT	Dump Truck
CY	Cylinders
CM	Metal Boxes, Cartons, or Cases (including roll-off containers)
CW	Wooden Boxes, Cartons or Cases
CF	Fiber or Plastic Boxes, Cartons, or Cases
BA	Burlap, Cloth, Paper, or Plastic Bags
VARIES	Multiple Container Types

Table 4-2. Conversion Estimates

Item	Unit	Weight (lbs)
Adsorbent Pad	Each	0.5
Aerosol Can	Each	0.25
Air Filter	Each	1
Alcohols	1 gallon	6.55
Antifreeze	1 gallon	7
Asbestos, Shredded	1 gallon	2.94
Asbestos Solid	1 gallon	20.45
Battery	Each, wet cell	25
Battery	Each, AA	0.125
Battery	Each, D	0.25
Cutting Fluid	1 gallon	8
Diesel Fuel	1 gallon	6.96
Earth, Dense	1 gallon	16.7
Earth, Wet, Excavated	1 gallon	13.4
Fluorescent Lamp	Each (4 ft.)	0.75
Freon 113	1 gallon	13
Fuel Filter	Each	0.5
Gasoline, Automobile	1 gallon	6.13
Gasoline, Aviation	1 gallon	6.00
Hydraulic Fluid	1 gallon	7.20
Hydrochloric Acid (40%)	1 gallon	10.02
Jet Fuel (J-4)	1 gallon	6.49
Kerosene	1 gallon	6.67
Metal 1-Gallon Container	Each	1
Metal 5-Gallon Container	Each	3
Metal Drum	55-gallon drum	25
Metal Gas Cylinder	Each	75
Oil	1 gallon	7.35
Oil Filter	Each	3
Oil Filter	55-gallon drum with 65 drained filters	195
Oil Filter	Each, metal content 60%	1.8
Paint	1 gallon	12
Paint Filter	Each	5

Item	Unit	Weight (lbs)
Paint Stripper	1 gallon	7
Paint Thinner	1 gallon	7
PD-680 Solvent	1 gallon	8
Plastic Container	30-gallon drum	30
Sand, Dry	1 gallon	13.36
Sand and Gravel, Dry	1 gallon	14.4
Shop Rags	50 (1 bundle)	30
Shop Rags	55-gallon drum (3.3 bundles)	100
Sorbent with Oil	1 gallon	4
Tires	Each	20
Transmission Fluid	1 gallon	7
1,1,1-Trichloroethane	1 gallon	11
Turpentine	1 gallon	7.22
Waste Oil	1 gallon	7
Water	1 gallon	8.34

Step 4. The facility ECO/ ECNCO, or other designated person, submits the completed *Hazardous Waste Turn-in Document* form, to the HMWC at the CHWF.

Warning! Facility personal must not transport hazardous waste outside of the facility boundaries. Transporting hazardous waste on public roads without the proper license or paperwork is against the law and can be punishable by fines and/or imprisonment. See Section 5.3.1 for further instruction.

The HMWC populates the information from the *Hazardous Waste Turn-in Document* form into Disposal Turn-In Document (DTID) 1348-1a using the WASTE-RC program. DRMO receives the DTID for processing, contacts a contracted waste disposal vendor, and schedules a pick-up. The contracted vendor prepares the HW Manifest(s) and presents the manifest(s) to the HMWC at the time of pick up.

Note Consult the WASTE-RC User Manual for additional information on scheduling hazardous waste pick-ups.

4.3 Supervising Pick Ups

4.3.1 Hazardous Waste

During pick up of HW from the CHWF, the HMWC must ensure:

- The contracted waste hauler marks each container of 119 gallons or less with the following information:

  "HAZARDOUS WASTE - State and Federal Law Prohibit Improper

Disposal. If found, contact the nearest police or public safety authority, the U.S. Environmental Protection Agency, or the California Department of Health Services."

Generator's Name and Address
Manifest Document Number
(22 CCR, sections 66262.30 through 66262.33)

- Reviews the manifest for proper shipping name and waste code, proper container weight, EPA ID number, and Land Disposal Restriction (LDR) with the contractor and correct any mistakes.

- Retains a copy of the manifest and LDR.

- Mails a legible copy of the manifest and LDR immediately to:

  DTSC Generator Manifests
  P.O. Box 400
  Sacramento, CA 95812-0400

- Records the HW pick up on the *Uniform Hazardous Waste Manifest Log*, Form 3, located in Appendix B.

When the TSDF receives the waste, they return a signed copy of the manifest to the HMWC. HMWC then retains the signed manifest and other disposal paperwork on file with the original manifest for at least 3 years. Review Chapter 6 for recordkeeping requirements.

4.3.2 Universal Waste

During pick up of UW, the HMWC must ensure the record for each shipment of UW includes the following information:

- Name and address of the UW handler, destination facility, or foreign destination for where the UW is to be sent.

- Quantity of each type of UW sent (e.g., batteries, thermostats, lamps, mercury switches, etc.).

- Date the shipment of UW left the facility.

- Generators of UW must retain the shipment records for at least 3 years from the date a shipment of UW left the facility.

This page is intentionally left blank.

Chapter 5. Transporting Hazardous Materials and Waste

This chapter is a guide for transporting HM, highlighting the primary steps taken when shipping HM. These procedures are designed as a reminder for the trained and certified HM Handlers and are not intended for anyone who is unfamiliar with DOT requirements for shipping HM.

This chapter addresses transporting hazardous waste, universal waste and hazardous materials.

5.1 Transporting Hazardous Waste

5.1.1 DRMO Contractor Pick Up

A properly licensed, permitted commercial DRMO contractor picks up and transports HW from FHL. The contractor provides all the necessary paperwork (manifest and LDR). The driver of the transporting vehicle is responsible for the following:

a. Inspecting shipments prior to leaving to ensure use of proper containers, packaging, labels, and manifests.
b. Placing the proper DOT shipping labels on the containers.
c. Segregating incompatible waste and materials within the transporting vehicle.
d. Securing wastes in the vehicle.
e. Placarding the vehicle.
f. All proper shipping papers.

5.2 Transporting Universal Wastes

5.2.1 DRMO Contractor Pick Up

Universal waste transported off site must comply with DOT regulations 49 CFR, parts 172 through 180, including:

a. Packaging
b. Labeling, marking, and placarding the shipment
c. Shipping papers

Universal wastes are conditionally exempt from classification as HW. DO NOT modify the Proper Shipping Name for Universal Waste with the terms “waste”, “hazardous waste n.o.s.” or “hazardous waste”.

5.3 Transporting Hazardous Materials

5.3.1 Self Transporting

In some cases, FHL units will transport HM and wastes across public roadways. Possible transport scenarios include the following:

- Units carrying HMs (including bulk fuel shipments) to and from the field during training exercises.
- Units/facilities turning in HM, and non-HWs to DPW O&M.

When transporting HM and/or waste across public roadways, FHL must comply with DoD Regulation 4500.9-R, the Defense Transportation Regulations (DTR) and the Military Munitions Rule (40 CFR 260).

The DTR mandates compliance with all DOT, state, and local transportation rules. It lays out specific guidelines for packaging and transporting HW in military vehicles, including:

- Using shipping papers (DD Form 836)
- Marking/labeling the containers
- Placarding the vehicle

The Military Munitions Rule reduces the transportation paperwork burden if traveling on public roadways if specific criteria are met. The Rule only applies if the public roadway is on or along the border of contiguous property with the same EPA ID number.

Most chemicals used by FHL units are DOT HMs. Only DOT HAZMAT certified personnel can package these materials for shipment or transport.

When packaging or transporting HMs, review 49 CFR 172 and 173 and check for the following items:

- The product is a HM.
- The material(s) are properly packaged in a United Nations (UN)/North American (NA)-rated container.
- The container(s) are properly marked with the shipping name, hazard class/division label, UN/NA number, and packaging group number
- The container(s) are properly labeled with a HM label, unless exempted, and any additional subsidiary or handling labels.
- Containers with liquid materials are marked with “THIS SIDE UP” and arrows showing upright orientation on the outside of the package.

- Shipping papers are prepared and emergency information is available.
- The transport vehicle is properly placarded, if applicable.

Drivers transporting HM and HWs must have a military driver's license with a HM endorsement; the Army's counterpart to the commercial driver's license (CDL).

Note See Section 6.1.7 of this IHMWMP for more information on training requirements. For specific guidance on transporting HMs, contact DOL. If you believe that a particular HM is not a DOT HM, contact DOL for approval to use less stringent shipping standards.

5.3.2 DOT Hazard Class Labels

Only units that transport HM over public roads must attach DOT Hazardous Class labels to containers. The following labeling procedure applies to all HM categories:

Step 1. Contact the Logistics director to identify the hazard class for the material being transported.

Step 2. Using the hazard class for the material, check Table 5-1 for the proper label to be displayed on the container.

Step 3. Obtain the appropriate 4" x 4" DOT label(s) from Logistics or DPW O&M.

Step 4. Securely attach the label(s) to the side of the container. The label must be on the same surface and near the container label discussed in the section above. If multiple labels are required for a single package, place the primary and secondary hazard labels next to each other on the same side of the package.

Table 5-1. DOT Hazard Classes and Label Names

Hazard Class	Label	49 CFR Reference
1.1	EXPLOSIVES 1.1	172.411
1.2	EXPLOSIVES 1.2	172.411
1.3	EXPLOSIVES 1.3	172.411
1.4	EXPLOSIVES 1.4	172.411
1.5	EXPLOSIVES 1.5	172.411
1.6	EXPLOSIVES 1.6	172.411
2.1	FLAMMABLE GAS	172.417
2.2	NONFLAMMABLE GAS	172.415
2.3	POISON GAS	172.416
3 (flammable liquid, combustible liquid)	FLAMMABLE LIQUID (NONE)	172.419
4.1	FLAMMABLE SOLID	172.420
4.2	SPONTANEOUSLY COMBUSTIBLE	172.422

Hazard Class	Label	49 CFR Reference
4.3	DANGER WHEN WET	172.423
5.1	OXIDIZER	172.426
5.2	ORGANIC PEROXIDE	172.427
6.1 (inhalation hazard, Zone A or B)	POISON INHALATION HAZARDOUS	172.429
6.1 (Packing Group I and II, other than Zone A or B inhalation hazardous)	POISON	172.430
6.1 (Packing Group III)	KEEP AWAY FROM FOOD	172.431
6.2	INFECTIOUS SUBSTANCE	172.432
7 (see 49 CFR 172.403)	RADIOACTIVE WHITE-I	172.436
7	RADIOACTIVE YELLOW-II	172.438
7	RADIOACTIVE YELLOW-III	172.440
7 (empty packages, see 49 CFR 173.427)	EMPTY	172.450
8	CORROSIVE	172.442
9	CLASS 9	172.446

5.3.3 Preparing Shipping Papers

Department of Transportation Regulations (DTR) requires shipping papers for all HM shipments over public roadways. Chapter 204.G.2 of the DTR, states that a DD Form 836, located in Appendix B, must be used as a shipping paper with emergency response information for all government vehicles transporting HM. Follow the instructions included with the DD 836 to complete the form. Proper shipping names may be obtained from the Transportation Information Section on the HMIRS MSDS. Contact the DOL if there are any questions about completing the DD Form 836.

5.3.4 Placing Placards on the Vehicle

Whether a vehicle requires a placard is determined by the type and volume of HM transported. Provided below is a summary of the placarding requirements specified in 49 CFR. Obtain proper vehicle placards from DOL.

Note Due to possible changes in the regulation, transporters should refer to the actual DOT regulation when determining placard use.

Anytime a freight vehicle is transporting any amount of HM listed in Table 5-2 [see Table 1 of 172.504(e)], the vehicle must be placarded on all four sides with the appropriate placard for each hazard class. If a freight vehicle or transport container contains less than 1,001 pounds of total HMs listed only in Table 5-3 on the following page [see Table 2 of 49 CFR 172.504(e)], then placarding is not required for the vehicle because it is exempted by 172.504I(1).

In addition, if the vehicle is transporting a "Poison Inhalation Hazard" [see 172.203(m)(2)], or a "Dangerous When Wet" material [see 173.124], or more than 1,001 pounds of fissile radioactive material or uranium hexafluoride [see 172.505(b)], then the vehicle must be placarded on all four sides for these materials, in addition to any placarding required by Table 1 or Table 2 in 172.504(e).

If a freight vehicle transporting two or more materials listed in Table 5-3, and no more than 2,205 pounds of any one hazard class was loaded on the vehicle at any one loading facility, then the vehicle may be placarded with a "Dangerous" placard instead of the placards that are normally required on all four sides of the vehicle for each HM being transported [see 172.504 (b)].

Note Empty non-bulk containers containing only residues of HMs listed in Table 5-2 being transported do not need placarding. When more than one division placard is required for Class 1 materials on a transport vehicle, one may elect to display only the placard for the Class 1 material with the lowest division number. Refer to additional placarding exceptions listed in 172.504 (f) (3) through (f) (11).

Table 5-2. Hazard Classes I

Hazard Class I	Label	49 CFR Reference
1.1	EXPLOSIVES 1.1	172.522
1.2	EXPLOSIVES 1.2	172.522
1.3	EXPLOSIVES 1.3	172.522
2.3	POISON GAS	172.540
4.3	DANGER WHEN WET	172.548
6.1 (Inhalation Hazard Only)	POISON	172.554
7 (Radioactive Yellow Label Only)	RADIOACTIVE	172.556

Table 5-3. Hazard Classes II

Hazard Class II	Label	49 CFR Reference
1.4	EXPLOSIVES 1.4	172.523
1.5	EXPLOSIVES 1.5	172.524
1.6	EXPLOSIVES 1.6	172.525
2.1	FLAMMABLE GAS	172.532
2.2	NONFLAMMABLE GAS	172.528
3	FLAMMABLE	172.542
Combustible Liquid	COMBUSTIBLE	172.544

Hazard Class II	Label	49 CFR Reference
4.1	FLAMMABLE SOLID	172.546
4.2	SPONTANEOUSLY COMBUSTIBLE	172.547
5.1	OXIDIZER	172.550
5.2	ORGANIC PEROXIDE	172.552
6.1 (Packing Group I and II, Other Than Zone A or B Inhalation Hazardous)	POISON	172.554
6.1 (Packing Group III)	KEEP AWAY FROM FOOD	172.553
6.2	None	
8	CORROSIVE	172.558
9	CLASS 9	172.560
ORM-D	None	

Placards must reflect the hazard class of the materials being transported. Examples are provided below:

a. Battery acid and other acids (corrosive).
b. Caustic soda, boiler chemical radiator shop caustic descalers (corrosive).
c. Flammable liquids (flashpoint less than 100 degrees F°) such as paint thinners, fuels, and alcohols (flammable).
d. Combustible liquids (flashpoint between 100-200 degrees F°) such as dry cleaning solvent, cleaning compounds, and rust preventive compounds (combustible).
e. Materials such as trichloroethylene, 1,1,1-trichloroethane, most pesticides, and fire resistant hydraulic fluid (none).

5.3.5 Loading/Segregation of Containers

Containers with HMs must be secured in the vehicle and segregated to prevent accidental mixing of incompatible materials. Refer to the segregation table in 49 CFR 174.81 for proper segregation of materials during transport.

Chapter 6. Training, Inspections, and Recordkeeping

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

6.1 Required Training

FHL personnel must receive training under Federal, California, and DoD regulations. FHL commanders and supervisors are responsible for providing emphasis and guidance to all personnel whose duties may impact the environment. To help prevent personal injury or harm to public health and the environment, concerted efforts must be made by all FHL personnel to ensure environmental training requirements are met and environmental stewardship is incorporated into all mission/duty activities.

All personnel in assigned units/activities on FHL who, because of their job assignment, are required to handle HM and/or HW, and those individuals who are designated to supervise activities involving the generation, collection, transportation and turn-in of HW shall be given orientation and/or appropriate training in the proper control of HM and HW.

6.1.1 DPW-ENV and DPW-O&M Personnel

Personnel assigned to the FHL DPW-ENV and/or DPW O&M, who work with HM and HW and who manage and oversee people working with HM and HW must receive the following training:

a. Federal Hazard Communication (HAZCOM) Training
b. Safety and DOT training upon assignment, if required. See Section 6.1.7.
c. Emergency Response/Contingency Plan Training

Employee training is required for all employees handling HMs/HWs on a daily basis or who participate in clean-up operations. Training must be given upon modification to emergency response/contingency plan, and updated/refreshed annually for all employees.

6.1.1 Environmental Compliance Officers/NCO's (ECO/ECNCO)/Civilian Equivalents[13]

Individuals assigned to an organization or unit whose responsibilities include managing unit environmental compliance requirements on behalf of the Commander, director, or supervisor whose primary responsibilities include the following:

[13] All references to ECO/ECNO within this document also include the civilian equivalents.

a. Conducting daily and weekly unit level inspections of environmental compliance.
b. Overseeing SAPs.
c. Internal monitoring of programs to ensure compliance.
d. Servings as unit/activity point of contact during compliance inspections.
e. Advising Commander or supervisor on environmental issues.

Employee training to satisfy the requirements of 40 CFR 265.16 is required for all employees handling HMs/HWs on a daily basis or who participate in clean-up operations. The training must describe proper handling and emergency procedures appropriate to the type(s) of HW generated by the activity, as well as information on complying with environmental federal, state, local, and Army regulations and may include the following topics:

a. Material Safety Data Sheets
b. Hazard communication related to health & safety
c. Methods for safe handling of hazardous substances
d. Fire hazards of materials/processes
e. Conditions likely to worsen emergencies
f. Notification procedures
g. Applicable laws & regulations
h. PPE
i. Decontamination procedures
j. Control & containment procedures

Documentation of the training must be maintained, and training must be conducted within six months of duty assignment. The ECO/ECNCO is responsible for maintaining their training certificate.

6.1.2 Shop Level/Environmental Awareness Training

The activity or unit ECO/ECNCO is required to conduct in-shop training to discuss HM and waste management issues at locations that maintain HMs, other than janitorial cleaning supplies, and/or generate HW. Use the following guidelines for this training:

- Shop-level training should be conducted to persons who handle HMs or HW within 6 months of hire, with annual refresher training.
- The training may be arranged in conjunction with regular safety training.
- All personnel attending in-shop training sessions should maintain a sign-in roster to document the training was conducted. The ECO/ECNCO may use chapters from this IHMWMP as the curriculum for shop training.
- Ensure unit personnel understand HW turn-in procedures.

At a minimum, the ECO/ECNCO will ensure that all personnel become familiar with the following:

a. Communication and alarm systems
b. Use of emergency response equipment
c. Evacuation procedures
d. The Hazardous Materials Business Plan (HMBP) and its contingency procedures
e. The Spill Prevention, Control, and Countermeasure (SPCC) Plan

6.1.3 Hazard Communication Training

Employees must complete initial hazardous communication (HAZCOM) course prior to the time they begin work with hazardous chemicals, and periodically when HMs inventory changes[14]. The Safety Office and Fire Department administer the Hazard-Communication (HAZCOM) program and provides appropriate safety training required by 29 CFR 1910.1200. The training addresses the requirements of the HAZCOM program, including the location and availability of the written plan, lists of hazardous chemicals, and MSDSs. HAZCOM training must also include the physical and health hazards of substances in the work area, and the measures employees can take to protect themselves from work-site hazards.

Free HAZCOM training is available on the internet at:

http://www.free-training.com/osha/hazcom/hazmenu.htm

Maintain documentation to show an inspector/assessor that HAZCOM training was successfully completed.

6.1.4 Spill Drill Training

On an annual basis, personnel that respond to accidental releases of HMs must complete and document a spill drill, as described in the SPCC[15].

The drill should cover:

- The initial response to a release or threatened release
- The use of emergency response equipment and supplies
- Evacuation plans and procedures
- Monitoring and decontamination procedures for emergency responders and equipment
- First-aid procedures for HMs incidents
- Procedures for informing the public, if necessary

[14] Title 8 CCR, Division 1, Chapter 4, Subchapter 7, Group 16, Article 109.
[15] California Health and Safety Code, Section 25504(b).

6.1.5 Hazardous Materials Business Plan (HMBP) Training Requirements

The ECO/ECNCO or Shop Chief will train personnel in the proper implementation of the emergency response procedures or consolidated contingency plan contained in the HMBP. All HMBP training completed must be properly documented. Personnel shall be thoroughly familiar with the following requirements contained in the HMBP:

a. Location of the plan
b. How to activate the plan
c. Understand the evacuation procedures and site map symbols
d. Location of emergency response equipment and its proper usage
e. Spill response actions and procedures
f. Personnel protective equipment requirements
g. Proper containment and pollution prevention techniques

6.1.6 First Responders

In emergency situations, first response is coordinated through the FHL Directorate of Emergency Services (DES). First Responder courses and training activities are determined by the Directorate and follow Federal, State, local and Army laws, regulations and policies.

6.1.7 DOT Hazardous Materials Transportation

All personnel involved with the preparation and shipment of HAZMAT for transportation must receive training IAW 49 CFR 172.704 and DOD Regulation 4500.9-R, Part II, Chapter 204. The training must include general awareness/familiarization training, function-specific training, safety, and driver training. The training also covers safe loading, unloading, handling, storing, and transporting of HMs and guidance in emergency preparedness to respond to accidents or spills. The following requirements apply to HW Shippers/Transporters:

- Anyone responsible for on-post HM/HW transportation must receive emergency response training.
- Activity/unit personnel who transport large quantities of HM/HW (over 55 gallons) must possess a DD Form 1902, Certification of Qualification (Ammunition and Fuel Handlers) after receiving appropriate training.
- All personnel responsible for the preparation and/or shipment of HM/HW in commerce (off-post) must receive training IAW with 49 CFR 172.704 and DOD Regulation 4500.9-R. Training must include general awareness, function specific, safety and security training.
- Anyone signing HM shipping papers or HW manifests must attend and receive certification from a DOD approved school as outlined in DOD Regulation 4500.9-R, Chapter 204.

- All personnel signing certification statements on HM shipping papers must be appointed in writing by the activity/unit Commander. Appointment must include scope of authority.
- All HAZMAT personnel must receive refresher training at 24-month intervals IAW with DOD Regulation 4500.9-R.

6.2 Inspections

All FHL units and activities are subject to external inspections by the DoD and by state and federal regulatory agencies. Local governments may also inspect for compliance with permits, local codes, or other regulations. If an external inspection takes place, immediately notify the DPW-ENV by telephone and forward copies of all correspondence related to the inspection.

Regulations require periodic internal inspection of certain areas that deal with HMs and HW. The following describes the inspections that must be completed on a daily or weekly basis at HM and waste storage areas.

6.2.1 Hazardous Chemical Storage Areas

Use the *Hazardous Material Storage Weekly Inspection Checklist* located in Appendix B, or a similar form, to document weekly inspections of all HM storage locations. Maintain a copy of each checklist on file for three years.

6.2.2 Satellite Accumulation Point

Use the *SAP Weekly Inspection Log* located in Appendix B, or a similar form, to document weekly inspections for each SAP. Maintain a copy of each checklist on file for three years.

6.2.3 Central Hazardous Waste Facility

Use the *CHWF Weekly Inspection Log* located in Appendix B, or a similar form, to document weekly inspections of the CHWF. Maintain a copy of the checklist on file for three years. The HMWC is responsible for ensuring the inspection of the hazardous waste accumulation area is inspected weekly.

6.2.4 Aboveground Storage Tanks

Use the *Monthly Aboveground Storage Container Inspection Checklist*, located in Appendix B, to document inspections. Maintain a copy of the inspection log on file for three years.

6.2.5 Underground Storage Tanks

Underground Storage Tanks located at the DOL Central Fuel Point and the Army and Air Force Exchange Service (AAFES) fuel station and are managed IAW Federal, State and local regulations and the UST Permit issued by the CUPA. Copies of all inspection logs are maintained on file and available at DOL and the AAFES fuel station, respectively.

6.2.6 Environmental Performance Assessment System

The ENV Compliance Branch Chief schedules internal environmental performance assessments annually. The U.S. Army sponsors an external environmental performance assessment once every three (3) years. The purpose of the assessment is to evaluate the effectiveness of each facility or command to comply with applicable environmental requirements and to identify potential environmental challenges before it becomes a legal action or impacts the environment adversely.

The results of the assessment are summarized into finding(s). The facility may generate a "negative" finding, or a "positive" finding. Notices of the findings and suggested corrective actions are issued to the unit, shop or Directorate by the DPW-ENV EO. The facility point of contact should work with DPW-ENV and their command leaders to correct negative findings in a timely manner.

6.3 Recordkeeping

All FHL units/activities must establish a recordkeeping system IAW AR 200-1. See AR 25-400-2, paragraph 1-6 for specifics. Retain all files for at least three (3) years. Below is a list of recordkeeping requirements:

EPA Hazardous Waste Manifest – The RCRA manifest system ensures HW designated for delivery to off-site treatment, storage or disposal facilities reaches its destination. The central element of the system is the manifest, which is a control and transport document that accompanies the HW shipment from its point of generation to its point of disposal destination. The HWPC is responsible for maintaining all manifest records.

Biennial Report for the State of California – The State of California requires a biennial report for LQGs describing activities associated with generating, storing and the processing of HW. The report is filed by the HMWC using EPA Form 8700-13 A/B. The report is due by 1 March of each even-numbered year (22 CCR 66262.41) and also satisfies the biennial report required by 40 CFR 262.41. Biennial Report forms are supplied by the State of California. The HMWC retains copies of the biennial reports for a period of three years from the due date of the report (22 CCR 66262.40). Large Quantity Generators must keep a copy of the report on site.

Hazardous Material and Waste File – Files maintained on-site should include the following documents and records:

- This IHMWMP

- Assignment orders
- Job descriptions, including job title for each activity position related to 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
- HAZMAT chain of command and points of contact for your facility
- Hazardous Material Inventory Reports
- Waste Analysis Test Results
- Shipping Documents for recycled or exchanged waste, such as, used oil, used oil filters, empty containers and lead acid batteries.
- Completed Inspection Checklists (See Section 6.2)
- Fire, Spill, and Other Incident Reports
- HW Training Records (including training rosters)
- Manifests, Bill of Lading, and LDRs
- Exception Reports
- Biennial Reports

The following is a summary of recordkeeping and reporting requirements for HW generators. These should be reviewed to verify requirements are being met by the facility. Since regulations are constantly changing, periodically review the requirements to determine recordkeeping and reporting compliance status.

Table 6-1. Recordkeeping and Reporting Requirements

Type of Report	Due	Submitted to
Hazardous Waste Manifest	Date pick up initiated, transporter provides copies of manifest	Maintain on site
	No later than 30-days from date of pick up mail copy of manifest	CA Department of Toxic Substances Control (DTSC)
	Date of pick up send copy of manifest	DPW-O&M and HMWC
	Within 30-45 days from initiation receive original manifest with all signatures	Maintain on site

Type of Report	Due	Submitted to
Exception Report is submitted **IF** the Manifest with all signatures is not returned by TSDF within 45 days of initial shipment	45 days after initiation of manifest	DTSC, and copy to DPW-O&M and HMWC
Hazardous Material Inventory Reports (See Section 2.9)	January 31 annually	DPW-ENV
Biennial Report	March 1 of each even numbered year	U.S. EPA
EPA Manifest and EPA ID Number Verification Fee	30 days from receipt of fee invoice, usually in June	DPW-ENV
Fire, Spill, and Explosion incidents involving HMs or Wastes. Report spills of more than 2 feet in area in any direction, or equal to or greater than 5 gallons to DPW-ENV and HMWC. Also report spills of any amount if the spill enters storm waste drains or any waterways. NOTE: DPW O&M may require report of survey.	Initial report by telephone immediately Incident report (FHL Spill Information Form) due within 72 hours.	Local enforcement agency DPW-ENV
Hazardous Materials Business Plan	Updates required annually by 1 March	CUPA
Inspections by Local Enforcement Agencies (no violations)	Within 7 days	DPW-ENV
Inspections by Local Enforcement Agencies (with Notice of Corrections [NOC] or Notice of Violations [NOV])	Provide copy of NOC or NOV within 24 hours	DPW-ENV
Environmental Training Rosters (i.e., HAZCOM)	Day of Training	Maintain on-site or in personnel file
Appointment Orders for Environmental Officer	Within 1 month of filling the position	Maintain on-site and send copy to DPW-ENV

Chapter 7. Spill Response Procedures/Contingency Plans

This chapter provides basic guidelines and procedures for accidental releases of HMs and waste to the surrounding environment. More detailed spill response procedures are provided in the FHL SPCC Plan.

7.1 Initial Spill Response Procedures

Personnel are permitted to respond to spills in a safe and competent manner based on the certified level of training and the available resources, and capabilities.

Important! FOR ALL SPILLS, FOLLOW THE STEPS IN THE SPCC PLAN.

If a spill is less than 5 gallons, contact the HMWC to report the release and initiate clean up, if safe to do so. Drips and leaks collected in a drip pan are not reportable spills, so be sure to use a drip pan for all valves and similar dispensing equipment.

If a significant release of a HM has occurred, immediately notify DES and the HMWC. Within the cantonment area, call 911 for DES. If outside the cantonment, immediately contact Range Control by radio at frequency 41.05 or phone at (831) 386-2503. Range Control will dispatch DES, who will then notify DPW-ENV and the HMWC. A significant release is generally defined as one involving a substance that is ignitable, corrosive, reactive or toxic. See below for more examples of what constitutes a significant release.

Examples of significant releases

- Cannot be controlled at the time of release by personnel in the immediate release area
- Result in an emergency response
- Cause injury
- Go offsite
- Are released into the environment
- Involves more than 5 gallons or spreads more than 10 feet in any direction

Examples of releases within a facility's boundaries that may not be significant:

- Present no health or safety hazard
- Do not harm environment
- Do not enter atmosphere
- Are completely contained onsite
- Are completely recovered or removed quickly
- Do not require additional PPE to be worn

Warning! You may be injured if you try to clean up a spill beyond your capability.

This page is intentionally left blank.

Chapter 8. Hazardous Material Business Plans

This chapter covers the reporting requirements of the Hazardous Materials Business Plan (HMBP)[16].

8.1 HMBP Background Information

The Hazardous Materials Business Plan (HMBP) (i.e., Business Plan), contains detailed information on the type and quantity of HMs stored at a facility. It also includes emergency response plans and procedures and training requirements in safety procedures for all new and existing employees.

The HMBP requirements originated in California in 1984 as part of the "Hazardous Materials Release Plans and Inventory" statute. The intent of the HMBP is to ensure emergency response personnel, in the event of an emergency, have the necessary information on the types and quantity of HMs stored in order to properly respond to incidents, prevent damage to public health and safety and to the environment, and to mitigate damage if necessary. This plan complies with the federal and state Community Right-To-Know laws.

California legislators decided any business or organization with more than designated Threshold Quantities (TQs) of HMs are required to report information on their HMs on an annual basis to the local Certified Unified Program Agency (CUPA) or the local participating Administering Agency (AA) and the local fire agency.

FHL DPW-ENV prepares and submits the HMBP for the entire installation. The HMBP is available as an annex to this Plan.

[16] Reference: California Health and Safety Code, Chapter 6.95, Sections 25500-25520.

This page is intentionally left blank.

Chapter 9. Glossary and Acronyms

9.1 Glossary

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

Accumulation – The process of collecting waste in containers or tanks on site prior to shipping to a Treatment, Storage, and Disposal Facility (TSDF). Waste can be accumulated at satellite accumulation points and HW storage areas.

Activity – A unit or organization that performs a function or mission, or a group or facility on an installation assigned space for a common usage or function and held operationally accountable by an authority other than the Installation Commander.

Acute Hazardous Waste – 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), (P-listed Hazardous Wastes).

Accumulation Start Date (ASD) – The date when a hazardous waste first becomes subject to the accumulation time limits. This is the date the waste is first placed into a container within a SAP or the CHWF.

Central Hazardous Waste Facility (CHWF) – One location for activities to accumulate hazardous waste until it can be removed. Waste may be accumulated in an CHWF for no more than 90 days after the ASD. Waste may be accumulated initially in an CHWF or placed in the CHWF after initial accumulation in a satellite accumulation point (SAP).

Characteristic of Ignitability (22 CCR 66261.21(a)) – A waste exhibits the characteristic of ignitability if representative samples of the waste have any of the following properties; (1) it is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 60 degrees C (140 degrees F). --the rest is methodology behind the tests and what the names of the tests are. **A waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.**

Characteristic of Corrosivity (22 CCR 66261.22) – (a) A waste exhibits the characteristic or corrosivity if representative samples of the waste have any of the following properties: (1) it is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter; (2) it is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55 degrees centigrade; (3) it is not aqueous and, when mixed with an equivalent weight of water, produces a solution having a pH less than or equal to 2 or greater than or equal to 12.5 as determined by a pH meter; (4) it is not a liquid and when mixed with an

equivalent weight of water, produces a liquid that corrodes steel (SAE 1020) at a rate greater than 6.35mm (0.250 inch) per year at a test temperature of 55 degrees centigrade. **A waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.**

Characteristic of Reactivity (22 CCR 66261.23) – (a) A waste exhibits the characteristic of reactivity if representative samples of the waste have any of the following properties: (1) it is normally unstable and readily undergoes violent change without detonating; (2) it reacts violently with water; (3) it forms potentially explosive mixtures with water; (4) when mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment; (5) it is a cyanide or sulfide bearing waste, which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in sufficient quantity to present danger to human health or the environment; (6) it is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement; (7) it is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; (8) it is a forbidden explosive as defined in 49 CFR section 157.51, or a Class A explosive as defined in 49 CFR section 173.53 or a Class B explosive as defined in 49 CFR section 173.88. **A waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.**

Characteristic of Toxicity (22 CCR 66261.24) – A waste exhibits the characteristic of toxicity if representative sample of the waste have any of the following properties: (1) when using the Toxicity Characteristic Leaching Procedure (TCLP), test Method 1311, the extracts from representative samples of the waste contain any of the contaminates listed in Table 1 at a concentration equal to or greater than the respective value given in that table unless the waste is excluded from classification as a solid waste or hazardous waste or is exempted from regulation pursuant to 40 CFR section 261.4.

Container – A device that is open or closed, and portable in which material can be stored, handled, treated, transported, recycled or disposed of. Containers range in size from small bottles to trucks and rail cars, but the most common containers used for HM and hazardous waste management are 55-gallon steel or plastic drums and inner liners of these drums.

Environmental Quality Control Committee (EQCC) – The EQCC serves as the advisory committee to the Installation Commander on all environmental issues, such as environmental priorities, policies, strategies and programs.

Generator – Any person, by site, whose act or process produces hazardous waste or whose act first causes a hazardous waste to become subject to regulation.

Hazardous Chemical – Any element, hazardous chemical compound, or mixture of elements and compounds that is a physical hazard or a health hazard. Hazardous chemicals are any items requiring an MSDS, to include batteries, filters, and other solids, liquids, or gases. 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) – All hazardous materials are considered hazardous chemicals, but not all hazardous chemicals are hazardous materials. Defined by the DOT, it is anything that due to its chemical, physical, or biological nature causes safety, public health, or environmental concerns when transported in commerce. Hazardous materials include hazardous waste and materials exhibiting explosive, flammable, corrosive, and oxidizing properties.

Hazardous Material (HM) Employee – Personnel at FHL 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.

Hazardous Materials Information Resource System (HMIRS) – A website sponsored by the Defense Logistics Agency. The HMIRS contains MSDSs for chemicals procured through military supply channels.

Hazardous Materials and Waste Coordinator (HMWC) – A position designated at FHL to manage the hazardous material and hazardous waste program for the installation.

Hazardous Waste– A waste, or combination of wastes, which due to its quantity, concentration, or physical, chemicals, or infectious characteristics may either cause, or significantly contribute to an increase in morality or an increase in serious irreversible or incapacitating irreversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise maintained.

A substance is a hazardous waste if it meets the following criteria and it is not specifically excluded from regulation as a hazardous waste:

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

Hazardous Waste Manifest – A hazardous waste manifest is a document (shipping paper) that identifies all hazardous waste transferred from the site. A copy of the manifest must accompany each shipment of waste from the generating facility to the disposal destination. The hazardous waste manifest meets DOT shipping documentation requirements.

Large Quantity Generator (LQG) – An activity that generate equal to or more than 1,000 kg or 2,200 lbs (more than 5 drums) of HW per calendar month or more than 1 kg or 2.2 lbs of acute HW per calendar month.

Manifest – A shipping document that must accompany hazardous waste to the TSDF.

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

Non-RCRA Hazardous Waste – All hazardous waste regulated in the State of California, other than RCRA (federally-regulated) hazardous waste. A hazardous waste is presumed to be RCRA hazardous waste, unless it is determined pursuant to Section 66261.101 that it is a non-RCRA hazardous waste.

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) – P2 is a concept of reducing wastes and emissions by changing the processes or the way waste is generated. The goal is to reduce the volume or toxicity of pollutants released to land, air, and water. P2 also aims at conserving our natural resources.

Resource Conservation and Recovery Act (RCRA) – Federal statute that regulates generators, transporters, and facilities that treat, store or dispose of hazardous waste. All RCRA hazardous wastes are identified in 40 CFR 261 and 22 CCR 66261.1 et. seq. and appendices.

Recycle – To collect, transport, store, transfer, handle, segregate, process, use or reuse, or reclamation of recyclable material to produce recycled material.

Reuse – Material that is either (a) employed as an ingredient, including use as an intermediate, in an industrial process to make a product; or (b) employed in a particular function or application as an effective substitute for a commercial product.

Satellite Accumulation Point (SAP) – A designated point where a generator may accumulate up to 55 gallons of hazardous waste or one quart of acutely hazardous waste. 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. Once the accumulated waste at an SAP equals 55 gallons, it must be moved within 72 hours to the CHWF.

Small Quantity Generator (SQG) – An activity that generates more than 220 pounds but less than 2,200 pounds of hazardous waste per month, and does not accumulate more than 2,200 pounds of hazardous waste at any one time. SQGs may accumulate hazardous waste for no more than 180 days from the ASD.

Solid Waste – All discarded materials including solids, semi-solids, 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.

Spill – The accidental leaking, pumping, emitting, discharging, emptying, or dumping of waste or materials to the environment (air, water, or soil).

Tank – A stationary device, designed to contain an accumulation of hazardous waste constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

Transfer – The physical movement of waste from one activity or point to another, such as from an SAP to an CHWF or off site to a TSDF.

Universal Waste (UW) – Defined in 40 CFR Part 273, UWs include certain batteries, mercury thermostats, and 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. For the purposes of this IHMWMP, used oil does not include transformer oil or other dielectric fluids.

This page is intentionally left blank.

9.2 Acronyms

AA	Administering Agency
AAFES	Army and Air Force Exchange Service
ACM	Asbestos Containing Materials
AR	Army Regulation
ASD	Accumulation Start Date
AST	Aboveground Storage Tank
BMP	Best Management Practice
Cal EMA	California Emergency Management Agency
Cal EPA	California Environmental Protection Agency
CBPM	Compliance Branch Program Manager
CCR	California Code of Regulations
CDL	Commercial Driver License
CESQG	Conditionally Exempt Small Quantity Generator
CFC	Chlorofluorocarbons
CFR	Code of Federal Regulations
CHWF	Central Hazardous Waste Facility
CL	Corrosive Locker
CUPA	Certified Unified Program Agency
DA	Department of the Army
DA PAM	Department of the Army Pamphlet
DLA	Defense Logistics Agency
DoD	Department of Defense
DOL	Directorate of Logistics
DOT	Department of Transportation
DPW ENV	Directorate of Public Works Environmental Division
DPW O&M	Directorate of Public Works Operations & Maintenance Division
DRMO	Defense Reutilization Marketing Office
DTR	Department of Transportation Regulations
DTSC	Department of Toxic Substances Control
ECO	Environmental Compliance Officer
ECNCO	Environmental Compliance Non-Commissioned Officer
EO	Environmental Officer
EHS	Extremely Hazardous Substance
EMS	Environmental Management System
EPA	Environmental Protection Agency
EPAS	Environmental Performance Assessment System
EPCRA	Emergency Planning Community Right-to-Know Act

EQCC	Environmental Quality Control Committee
FGS	Final Governing Standard
FHL	Fort Hunter Liggett
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FL	Flammables Locker
FRAG ORDS	Fragmentary Order
GSA	General Services Administration
HAZCOM	Hazardous Communication
HAZWOPER	Hazardous Waste Operations and Emergency Response
HCC	Hazard Characteristic Code
HM	Hazardous Material
HMIRS	Hazardous Material Information Resource System
H&S	Health and Safety
HSWA	Hazardous and Solid Waste Amendments
HMWC	Hazardous Materials and Waste Coordinator
HW	Hazardous Waste
IAW	In Accordance With
IHMWMP	Integrated Hazardous Material and Waste Management Plan
IMPAC	International Merchant Purchase Authorization Card
IRT	Installation Response Team
lbs	Pounds
LCR	Liquid Crystal Display
LDR	Land Disposal Restriction
LQG	Large Quantity Generator
MRE	Meal Ready to Eat
MSDS	Material Safety Data Sheet
NCO	Non-Commissioned Officer
NFPA	National Fire Protection Association
Ni-Cad	Nickel-Cadmium
NIOSH	National Institute for Occupational Safety and Health
NOC	Notice of Correction
NOV	Notice of Violation
NRC	Nuclear Regulatory Commission
NSN	National Stock Number
OL	Oxidizer Locker
OP ORDS	Operations Orders
OSHA	Occupational Safety and Health Administration
OWS	Oil/Water Separator
P2	Pollution Prevention
PCB	Polychlorinated biphenyl
POC	Point of Contact

POL	Petroleum Oil & Lubricant
PPE	Personal Protective Equipment
RCRA	Resource Conservation Recovery Act
SAP	Satellite Accumulation Point
SB	Storage Building
SLC	Shelf Life Code
SLN	Storage Location Number
SOP	Standard Operating Procedure
SPCC	Spill Prevention, Control, and Countermeasure Plan
SQG	Small Quantity Generator
SR	Storage Room of Storage Rack
TCLP	Toxicity Characteristic Leaching Procedure
TPQ	Threshold Planning Quantity
TSCA	Toxic Substance Control Act
TSDF	Treatment, Storage, Disposal Facility
TQ	Threshold Quantities
UN/NA	United Nations/North American
U.S.	United States
USAG	United States Army Garrison
USC	United States Code
UST	Underground Storage Tank
UW	Universal Waste
WASTE	Web Application System for Turn-in Execution
WPS	Waste Protocol Sheet

This page is intentionally left blank.

APPENDIX A: WASTE PROTOCOL SHEETS

The Waste Protocol Sheets (WPS) provide a hazardous waste management tool that supplements the Integrated Hazardous Material and Waste Management Plan (IHMWMP) with concise and easily referenced information, fundamental to waste site operations. The WPS summarizes basic management instructions for the common waste streams generated at FHL. Each WPS is designed to provide information specific to the task that must be completed by shop-level personnel when accumulating waste streams that are routinely generated.

Each WPS is subdivided into three (3) to four (4) key sections, which may include:

Definition – Provides a basic description of the waste stream and may include special warning and/or handling information associated with the waste.

Preparing the Container/Label – Provides important information about the type of container that can be used to accumulate the waste and identifies the information that should be on the label.

Contact the HMWC for all storage containers and labels. Only use labels approved by the HMWC.

Adding Waste – Provides procedures for adding the waste to the container.

Turning In Waste – Provides guidance for completing the waste turn-in form and for coordinating and documenting the turn-in.

Some basic steps for adding waste to a container include:

Step 1. Wear the proper Personal Protective Equipment (PPE) during waste handling. PPE guidance is described in the product Material Safety Data Sheet (MSDS). Further PPE guidance can be provided by the HMWC.

Step 2. Open the container and add the waste. Use a funnel to pour liquids into drums.

Step 3. DO NOT mix different waste streams in the same container. Whenever adding flammable waste to a drum, ensure the drum is properly grounded.

Step 4. When adding waste to an empty container for the first time, use an indelible pen to write the ASD on the label.

Step 5. Keep the lid or bungs on the container closed unless adding/removing waste.

Step 6. Leave ample head space in the container: A 55 gallon container should have a minimum of 4 inches of space from the top of the container to the top of the level of the waste inside the container. Leave 3 inches of headspace in a 30 gallon container, 2 inches of headspace in a 15 gallon container, and 1 inch of headspace for any container smaller than 15 gallons.

Table 1. Common Waste Labels

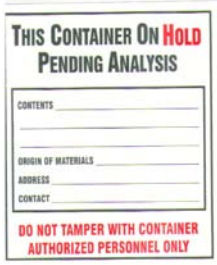
Label	Usage
Hazardous Waste 	Any RCRA or Non-RCRA waste
Universal Waste 	* Batteries: Nickel Cadmium, Silver Button, Mercury, Alkaline, Carbon Zinc, Burglar Alarm & Emergency Light * Lamps: Fluorescent, High Intensity Discharge, High Pressure Sodium Lamps, Neon, Mercury Vapor, Metal Halide * Cathode Ray Tubes (CRTs) ***** Mercury Thermostats
Pending Analysis 	***** The contents of the drum are pending analysis. Drums that are "pending analysis" must be stored in the CHWF. * NOTE: This label must be used in conjunction with the yellow hazardous waste label depicted above until analytical results are returned.

Table 2. Common Hazardous Waste Streams Generated

Waste Streams	Federal Waste Code(s)	California Waste Code(s)
Absorbent (Containing POL)		CA352
Adhesive waste		CA281
Aerosol Cans (Not Punctured and Drained)	Depends on the contents of the container	Varies
Antifreeze Filters (From Recycling Operations)	Typically D006, D008 (Toxic for Cadmium and Lead)	CA 343132
Antifreeze, (waste contaminated)	Typically D006, D008 (Toxic for Cadmium and Lead)	CA 343
Cleaner Lubricant Protectant (CLP) and CLP Debris (Chlorinated)		CA211
CLP and CLP Debris (Non-Chlorinated)		CA221
Contaminated soil		CA611
Detergent and soap		CA561
Decontamination Kits; M-258 & M -258Al		CA 331
Detector Kits; M-229		CA 331
Detector Kits; M-256 & M-256Al		CA 141
Engine Gas Path Cleaner		CA 134
Filters, Protective Mask	D007 (Toxic for Chromium)	CA181
Filters, Fuel / Oil	D001, D018 (Toxic for Benzene)	CA 352
Fuel; Used		CA 343
Greases		CA 343
Methylene Chloride		CA 221
MRE Heaters, Unused	D003 (Reactive)	CA141
NBC Kit, M-229 (Part A Refill Kit)	D002 (Corrosive)	
NBC Kit, M-229 (Part B Refill Kit)	D001, D011 (Ignitable and Toxic for Silver)	
NBC Kit, M-229 (Part C Refill Kit)	U088 (Listed for 1,2-Benzenedicarboxylic Acid, Diethyl Ester)	
NBC Kit, M-256 A1 (Detector Kit)	D001, D009, P030 (Ignitable, Toxic for Mercury, and Listed for Cyanides)	
NBC Kit, M-256 A1 (Sampler Detector Kit)	D001, U154 (Ignitable and Listed for Methyl Alcohol)	
Oil Water Separator (OWS) Sludge		CA 222
Paint and Paint-related Waste (Non-latex)	Varies	CA 461
Paint (Latex)		CA 291
Used Oil, Contaminated	Varies	CA223
Weapons Cleaning Patches and Rags	Depends on analytical test, but commonly D008 (Lead)	

This page is intentionally left blank.

WPS TABLE OF CONTENTS

Waste Stream	Waste Type	EPA/CA Waste Codes (if known)	Page Number
Weapons Cleaning Patches and Rags	HW	EPA D008	A-77
Wood Waste	Pending Analysis	Various	A-79

ABANDONED MATERIALS OR WASTE

(Any type of abandoned material)

DEFINITION
1. **"Abandoned materials"** refers to any unknown containers of hazardous materials or waste discovered on the installation. **WARNINGS:** DO NOT Approach abandoned containers
REPORTING THE DISCOVERY OF ABANDONED MATERIAL OR WASTE
Step 1. Do not approach the container. Step 2. Alert others in the area to not approach the container. Step 3. Obtain coordinates and other identifying information to direct response personnel to item(s). Step 4. If inside the cantonment area, contact the HMWC. Step 5. If outside the cantonment area, contact Range Control. Step 6. Stay at a safe distance until response personnel arrive on scene. Refer to Chapter 3 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

ABSORBENT – FLAMMABLES

(Any type of absorbent used for any type of hazardous chemicals, not including POL)

DEFINITION

1. **"Absorbent pads"** refers to cloth fabric pads, rags, or kitty litter, used to clean up fuel and/or flammables spills and leaks. Separate absorbents by type of spilled material absorbed, for example separate absorbents contaminated with gasoline from absorbents contaminated with battery acid.

WARNINGS: Absorbent soaked with flammable liquid can emit flammable vapors.
DO NOT handle waste unless you have been trained or are supervised by trained personnel.
DO NOT eat, drink, or smoke while handling waste.

PREPARING THE LABEL AND CONTAINER

Step 1. Select a UN-POP approved **open head** plastic, polypropylene, or metal 55-gallon or smaller container. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number,**D001**
(C) CA Waste Number, **CA 352**
(D) "**Waste Absorbents**" for the contents,
(E) Check **solid** for the physical state,
(F) Check **flammable** for the hazardous property and
(G) A general description of what is in the container, or the DOT Shipping Name, **"RCRA Hazardous Waste, Solid, UN1993"**.

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

ABSORBENT – FLAMMABLES

(Any type of absorbent used for any type of hazardous chemicals, not including POL)

ADDING WASTE

Step 1. Wear the proper PPE during waste handling.

Step 2. Open the container and add the waste.

Step 3. DO NOT mix different waste streams in the same container. When adding flammable waste to a drum, ensure the drum is properly grounded.

Step 4. When adding waste to an empty container for the first time, use an indelible marker to write the **ASD** on the label.

Step 5. Keep the lid or bungs on the container closed unless adding/removing waste.

Step 6. Leave ample head space in the container: A 55 gallon container should have a minimum of 4 inches of space from the top of the container to the top of the level of the waste inside the container. Leave 3 inches of headspace in a 30 gallon container, 2 inches of headspace in a 15 gallon container, and 1 inch of headspace for any container smaller than 15 gallons.

TURNINGING IN WASTE

Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF.

Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF.

Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met.

Refer to Chapter 4 of the IHMWMP for more information.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

ABSORBENT – POL

(Absorbent used for POL only)

DEFINITION

1. **"Absorbent pads"** refers to cloth fabric pads, rags, or kitty litter, used to clean up petroleum spills and leaks. Separate absorbents by type of spilled material absorbed, for example separate absorbents contaminated with gasoline from absorbents contaminated with battery acid.

PREPARING THE LABEL AND CONTAINER

Step 1. Select a UN-POP approved **open head** plastic, polypropylene, or metal 55-gallon or smaller container. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number, **NA**
(C) CA Waste Number **352**,
(D) "**Waste Absorbents - POL**" for the contents,
(E) Check **solid** for the physical state,
(F) Check **flammable** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name, **"Non-RCRA Hazardous Waste, Solid"**.

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

ADDING WASTE

Step 1. Wear the proper PPE during waste handling.

Step 2. Open the container and add the waste.

Step 3. DO NOT mix different waste streams in the same container. Ensure the drum is properly grounded.

Step 4. When adding waste to an empty container for the first time, use an indelible marker to write the **ASD** on the label.

Step 5. Keep the lid or bungs on the container closed unless adding/removing waste.

Step 6. Leave ample head space in the container: A 55 gallon container should have a minimum of 4 inches of space from the top of the container to the top of the level of the waste inside the container. Leave 3 inches of headspace in a 30 gallon container, 2 inches of headspace in a 15 gallon container, and 1 inch of headspace for any container smaller than 15 gallons.

ABSORBENT – POL

(Absorbent used for POL only)

TURNINGING IN WASTE
Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF.
Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF.
Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met.
Refer to Chapter 4 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

USED AEROSOL CANS

(Not containing acutely hazardous chemicals or pesticides)

DEFINITION

1. **"Used Aerosol Can"** is a container in which pressurized gas is used to dispense a material through a valve or nozzle as a spray or foam. An aerosol can is processed as **"Universal Waste"** only when it is deemed to be no longer useable under any of the following circumstances: (1) the can is as empty as possible, using standard practices, (2) the spray mechanism no longer operates as designed, (3) the propellant is spent, or (4) the product is no longer used.
2. If the aerosol can contains pressurized contents that may explode when heated, if the propellant is ignitable or toxic, if the product itself is ignitable, corrosive, or toxic, then the non-empty aerosol can is a hazardous waste.

Note: DO NOT vent or puncture aerosol cans, as additional requirements may apply.

PREPARING THE LABEL AND CONTAINER

Step 1. Obtain a UW label and a **removable head container (plastic or metal)**.

Step 2. Use an indelible marker to label the container.

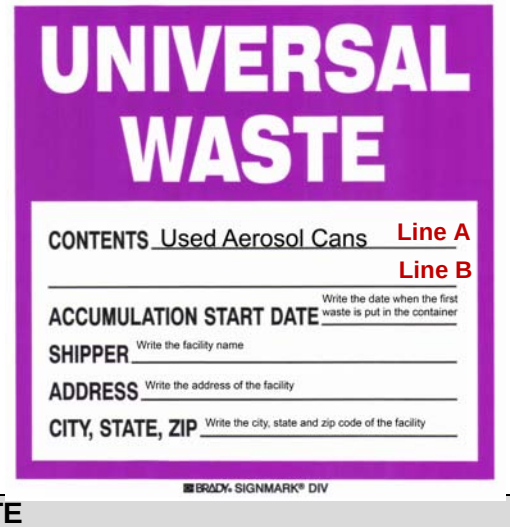
Step 3. In "Contents" line A, write **Used Aerosol Cans**.

Step 4. Fill in the remaining sections of the label with the **name of your facility, the facility address, city, state, zip code**.

Step 5. Leave the **ASD** blank until waste is added.

Step 6. Attach the label securely to the side of the container and the container with the label clearly visible.

Step 7. You are now ready to add waste to the container.



ADDING WASTE

Step 1. Remove the lid.

Step 2. Add the waste. DO NOT mix incompatible waste within the same container.

Step 3. Secure the lid. Never leave it off.

Step 4. If adding waste for the first time, mark the **ASD** on the label.

TURNING IN WASTE

Step 1. Process the container for turn-in IAW Chapter 4 of the IHMWMP when the container is full or within 9 months from the ASD.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

USED AEROSOL CANS

(Acutely hazardous chemicals or pesticides)

DEFINITION

1. An **"Aerosol can"** is a container in which pressurized gas is used to dispense a material through a valve or nozzle as a spray or foam. If the propellant is ignitable or toxic, if the product itself is ignitable, corrosive, or toxic, then the non-empty aerosol can is a **"Hazardous Waste**.

Note: DO NOT vent or puncture aerosol cans, as additional requirements may apply.

PREPARING THE LABEL AND CONTAINER

Step 1. Select a UN-POP approved **removable head container (plastic or metal).** Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number (varies, leave blank and consult the HWPC),
(C) CA Waste Number **varies**,
(D) Incompatible waste must be in separate containers, so on the contents line, write "**Aerosol Cans**" and the type of waste (i.e. **Pesticides, Flammable, Corrosive)**.
(E) Check **solid** for the physical state,
(F) Check the hazardous property that matches the contents of the cans, and
(G) A general description of what is in the container, or the DOT Shipping Name, **"RCRA Hazardous Waste, Pesticides, Liquid, Toxic, n.o.s, 6.1, UN2902, PGII".**

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

ADDING WASTE

Step 1. Remove the lid.

Step 2. Add the waste. Do not mix incompatible waste within the same container.

Step 3. Secure the lid. Never leave it off.

Step 4. If adding waste for the first time, mark **ASD** on the label.

TURNING IN WASTE
Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF. Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF. Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met. Refer to Chapter 4 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

USED ANTIFREEZE

(For Recycling)

DEFINITION

1. **"Used antifreeze"** typically contains ethylene glycol. However, other formulations have been developed recently using less toxic chemicals.
2. Recycling used antifreeze reduces hazardous material procurement and hazardous waste disposal costs. Antifreeze that cannot be recycled must be managed as a hazardous waste.

PREPARING AND LABELING THE CONTAINER

Step 1. Obtain a UN-POP approved **non-removable head container**. The container must not have severe rusting, bulging or major dents, or visible leaks.

Step 2. Use an indelible marker to label the container with the words: **Used Antifreeze**.

Step 3. Ensure the label is clearly visible.

Step 4. You are now ready to add waste to the container.

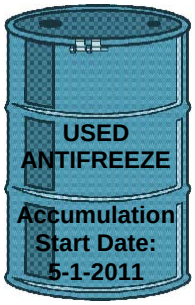
ADDING WASTE

Step 1. Open the container.

Step 2. Add the contents into the container.

Step 3. Close the container.

Step 4. If adding waste for the first time, mark the **ASD** on the container or label.



TURNING IN WASTE

Step 1. Contact the HMWC for off-site recycling of the used antifreeze. Ensure the waste is recycled or moved offsite prior to the accumulation time limits (i.e., 90 days). Refer to Chapter 4 of the IHMWMP for additional turn-in requirements.

Step 2. Maintain records that contain the following information for at least three years: (1) Name and address of the generator and the recycling facility for off-site shipments, (2) Amount of used antifreeze shipped or recycled off-site, (3) Date of shipment or recycling.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

WASTE ANTIFREEZE

(Only for Antifreeze that cannot be recycled/reclaimed

DEFINITION

1. **"Waste antifreeze"** typically contains ethylene glycol contaminated with metals or other debris that cannot be recycled/reclaimed.
2. Antifreeze that cannot be recycled must be managed as a Non-RCRA hazardous waste.

PREPARING AND LABELING THE CONTAINER

Step 1. Obtain a UN-POP approved **non-removable head container**. The container must not have severe rusting, bulging or major dents, or visible leaks.

Step 2. Use an indelible marker to label the container with the words: **Used Antifreeze**.

Step 3. Ensure the label is clearly visible.

Step 4. You are now ready to add waste to the container.

ADDING WASTE

Step 1. Select a UN-POP approved **non-removable head** metal container. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number, **NA**,
(C) CA Waste Number **342**,
(D) "**Waste Antifreeze**" for the contents,
(E) Check **liquid** for the physical state,
(F) Check **toxic** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name, **"Non-RCRA Hazardous Waste, Liquid, PGIII, UN 6850"**.

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

TURNING IN WASTE

Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF.

Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF.

Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met.

Refer to Chapter 4 of the IHMWMP for more information.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

MAJOR APPLIANCES

DEFINITION

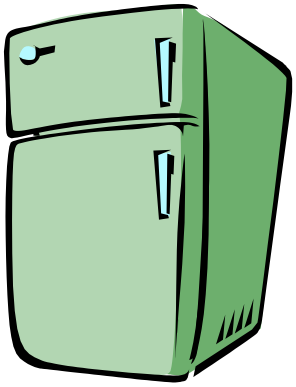
1. "**Major Appliances**" include washing machines, clothes dryers, hot water heaters, dehumidifiers, conventional or microwave ovens, stoves, refrigerators or freezers, air-conditioners, trash compactors, and residential furnaces.
2. Major Appliances are recycled instead of taken to a landfill. Under no circumstance should a major appliance be discarded or abandoned behind buildings, on roadsides, or in vacant lots.
3. Some appliances (e.g., refrigerators, air-conditioners) are hazardous to the environment because of the freon (CFC R-11 and CFC R-12) used in the coils. These chlorofluorocarbons constitute an environmental hazard due to their harmful effects on the ozone layer and must be removed by a certified technician prior to recycling.

ACCUMULATING MAJOR APPLIANCES

Step 1. "Serviceable" (in working order) major appliances that are government owned should be turned into DRMO. Privately owned appliances should be re-used or donated.

Step 2. "Unserviceable" major appliances should be stored in such a manner to prevent the breeding and harborage of mosquitoes, rodents, and other vectors.

Step 3. Once the major appliances determined to be "serviceable" or "unserviceable", store serviceable major appliances separately from scrap major appliances (i.e., unserviceable) and in such a manner that maintains their good working condition.



WARNING: Do not attempt to tamper with the cooling system, freon, or refrigerant lines of a major appliance unless you are a trained technician.

DISPOSING OF MAJOR APPLIANCES

Step 1. Unwanted major appliance
(a) If government-owned, submit a DPW O&M Work Order to remove all coolant
(b) If privately owned, find someone to give, sell, or donate it to. Do not dump appliances.

Step 2. DPW O&M will facilitate recycling the appliance.

This page is intentionally left blank.

ASBESTOS

Brake Shoes, Clutch Plates, Fire Suits, and Blankets

DEFINITION

1. Asbestos is a naturally occurring mineral that takes the form of hollow, microscopic fibers that are nearly indestructible. It can be densely packed into a tough, flexible, and very useful material.
2. Asbestos that is **"friable"** may be crumbled, pulverized, or reduced to powder when dry. Friable asbestos has the potential to release asbestos fibers that can become airborne, and potentially create a health hazard, such as:
   Asbestosis – A progressive, non-cancerous, and irreversible scarring of the lungs that can produce shortness of breath. Typical latency period is over 20 years.
   Pleural disease – Plaque deposits or a thickening of the thin tissue that separates the lungs from the other organs in the body.
   Lung cancer – Cancerous tumors that have a latency period of 20 to 30 years, usually fatal.
   Mesothelioma – A cancer in the lining of the chest cavity or abdomen, very rare but always fatal.
3. Asbestos containing materials (ACM) are managed as **Non-RCRA Regulated Waste**.

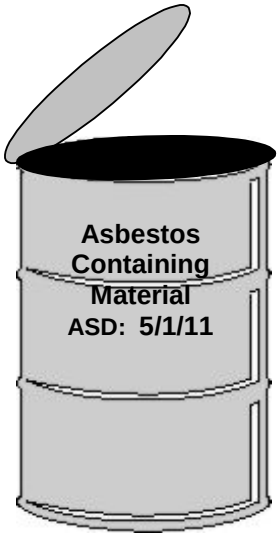
ACCUMULATING WASTE

Step 1. Select an approved container. Use an open top UN-POP rated 55-gallon or smaller metal drum lined with a properly marked polyethylene bag for accumulation. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Mark and label the container. Complete and attach a Non-RCRA Regulated Waste label to the side of the container. Mark the container using an indelible marker, on the Contents line write: **Asbestos Containing Material**.

Step 3. Attach the label securely to the side of the container and the container with the label clearly visible.

Step 4. Put waste in the container. Wear proper PPE listed on the MSDS. Ensure lid is placed back on the container. Write the **ASD** when waste is first placed in the container.



TURNING IN WASTE

Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF.

Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF.

Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met.

Refer to Chapter 4 of the IHMWMP for more information.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

USED BATTERIES

(Does not include automotive lead-acid batteries)

DEFINITION

1 **"Universal Waste Used Batteries"** does **not** include automotive lead-acid batteries. For automotive lead-acid batteries, see the **"Used Lead-Acid Batteries"** WPS**.** The following batteries may be managed using this WPS:

- **Alkaline Batteries.** The electrolyte used in alkaline batteries is either potassium hydroxide or sodium hydroxide. Alkaline batteries can be hazardous for mercury.
- **Lithium Batteries.** Lithium-sulfur dioxide batteries contain pressurized sulfur dioxide gas and lithium-thionyl chloride batteries contain liquid thionyl chloride that, upon exposure to air, vaporizes. Both gases are highly toxic.
- **Magnesium Batteries.** Magnesium batteries contain an electrolyte of an aqueous solution of magnesium bromide or magnesium perchlorate. These chemicals can emit highly toxic fumes when heated.
- **Mercury Batteries.** These batteries contain mercury and mercuric oxide, and a potassium hydroxide or sodium hydroxide electrolyte. Mercury is a listed hazardous metal and highly toxic.
- **Nickel-Cadmium (Ni-Cd).** There are two kinds of Ni-Cd batteries: sealed non-serviceable batteries without vent-filler caps (dry) and serviceable vented batteries with vent-filler caps (wet). The cell of a Ni-Cd battery typically contains cadmium, nickel, and a caustic electrolyte solution of potassium hydroxide. Cadmium is a listed hazardous metal and highly toxic.
- **Lead-Acid (Non-Automotive).** These batteries are managed as universal waste only if the one-for-one battery exchange contractor will not accept them.

PREPARING THE LABEL AND CONTAINER

Step 1. Obtain a UW label and a **removable lid container (i.e., plastic container)**

Step 2. Use an indelible marker to label the container.

Step 3. In "Contents" line A, write **Used Batteries**. Incompatible waste must be in separate containers; therefore, **do not combine battery types in one container**. On "Contents" line B, write the battery type **and the UN/NA number, if applicable, as follows:**

"Alkaline- UN3028"

"Lithium- UN3007"

"Ni-Cad"

"Dry lead acid- UN2800"

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Fill in the remaining sections of the label with the **name of your facility, the facility address, city, state, zip code**.

Step 6. Attach the label securely to the side of the container and the container with the label clearly visible.

Step 7. You are now ready to add waste to the container.

USED BATTERIES

(Does not include automotive lead-acid batteries)

ADDING WASTE
Step 1. Open the container. Step 2. Add the waste. Do not mix incompatible waste within the same container. Separate and double-bag leaking batteries. Place non-conductive tape over exposed battery contacts. Step 3. Close the container. Do not leave it open. Step 4. If adding waste for the first time, mark the **ASD** on the label. 
TURNING IN WASTE
Step 1. Process the container for turn-in IAW Chapter 4 of the IHMWMP when the container is full or within 9 (9) months from the ASD.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

USED LEAD-ACID BATTERIES

(Automotive lead-acid batteries)

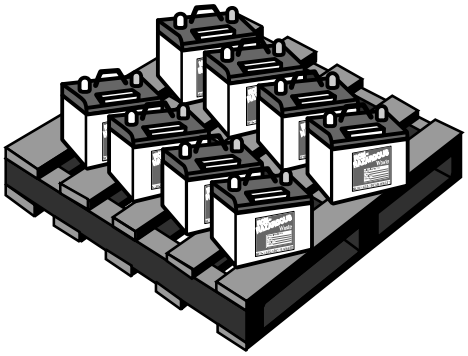
DEFINITION

1. **"Lead-acid battery"** refers to automotive lead-acid batteries with an acidic (usually sulfuric acid and water solution) electrolyte. Lead-acid batteries may be the maintenance or maintenance-free type. There are two types of lead-acid batteries: sealed batteries without vent-filler caps and vented batteries with vent-filler caps for servicing the battery.
2. The cells of a lead-acid battery contain lead and lead dioxide and an acidic electrolyte solution of sulfuric acid. The electrolyte is a strong corrosive and reactive agent. The batteries should be kept cool, dry, and away from open flame, heat and combustibles. Do not store them in a way that they may leak.
3. Lead-acid batteries are managed as **recyclable materials**. It is illegal to dispose of a lead-acid battery in a landfill or an incinerator.
4. Containers holding broken, leaking batteries, or liquid or solid waste from lead-acid batteries should be marked as "**Hazardous Waste**" and follow the turn-in requirements listed in Chapter 4 of the IHMWMP.

ACCUMULATING WASTE

Step 1. Until batteries are exchanged, stack them on pallets in an area with secondary containment.

Step 2. Mark the pallet with the words **"Lead-Acid Battery- Bad"** and the **ASD.**



TURNING IN WASTE

Step 1. Used automotive lead-acid batteries are turned in as part of a battery exchange program with local or state vendors or sold to scrap metal recyclers through the CHWF.

Step 2. If your shop or unit participates in a battery exchange program, contact your local vendor for a battery pick-up, otherwise turn in batteries for recycling at the CHWF.

Step 3. Provide copies of battery pick up receipts or a log of battery pick ups to the HMWC and DPW-ENV on a no less than quarterly basis.

Step 4. Maintain a record of the manifest, bill of lading, or other vendor receipt for at least three years. At a minimum the record should show the name of the vendor and the quantity and type of battery transported.

Step 5. Do not keep used batteries for more than 180 days.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

BIOHAZARDOUS WASTE

DEFINITION

1. "**Biohazardous waste"** refers to such medical related items as: primary human cell lines and tissue cultures; Organisms with recombinant DNA cultures and stocks of infectious agents; Potentially infectious bacteria, viruses, and spores; Medical toxins; Live and attenuated vaccines; Blood and blood products; and labware (not defined as a sharp) that has come into contact with the above wastes (e.g., contaminated plastic pipettes, pipette tips, Petri dishes, centrifuge tubes, eppendorf tubes, disposable gloves, and wipes).
2. "**Medical solid waste"** does not include biohazardous waste or infectious waste, but shall include (but not limited to) objects which appear to be or have been contaminated with biohazardous material including: Autoclaved biohazardous waste; Empty specimen containers; Bandages or dressings containing non-liquid blood; Surgical gloves; Decontaminated biohazardous waste; and other materials which are not biohazardous.

BIOHAZARDOUS WASTE ACCUMULATION AREA

Step 1 The medical waste accumulation area must be secure from unauthorized access and have a warning label legible from a distance of within 25 feet.

Step 2 The storage area must be marked with the two following statements:
"CAUTION – BIOHAZARDOUS WASTE STORAGE AREA – UNAUTHORIZED PERSONS KEEP OUT"
"CUIDADO – ZONA DE RESIDOUS – BIOLOGICOS PELIGROSOS – PROHIBIDA LA ENTRADA A PERSONAS NO AUTHORIZADAS"

Step 3 Secure the area with locks on entry doors, gates, or receptacle lids.

Step 4 Protect medical waste from animals and natural elements, and prevent medical waste from being a breeding place or a food source for insects and rodents.

PREPARING CONTAINER

Step 1. Place waste in a rigid and leak-proof accumulation container; securely fasten the lid; and label as "Biohazardous Waste" or affix a biohazard symbol and the word "Biohazard" on the biohazardous waste container. The label should be on the top and sides of the container.

Step 2. Medical waste must be contained separately from other waste at the point of origin.

Step 3. The container must be kept closed unless waste is being added.

Step 4. If adding waste for the first time, mark the **ASD** on the label.

DISPOSING OF BIOHAZARDOUS WASTE

Step 1. Dispose of biohazardous and medical waste within six months of the accumulation start date (ASD) or when containers are full, whichever occurs first. Remember, the ASD begins when waste is first placed in the container.

Step 2. Disposal records are maintained onsite for 2 years. Disposal records include the name of the registered handler, the date and the quantity transported.

NOTE: Biohazardous or sharps medical waste may not be stored at or below 32 degrees Farhenheit for more than 90 days.

Contact the FHL Medical Clinic or Safety Directorate if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

CALCIUM HYPOCHLORITE

DEFINITION

1. Calcium hypochlorite is used in water purification processing. This chemical is a strong oxidizer and must be handled very carefully, and should be managed as **hazardous waste**.
2. Ensure all personnel that may come in contact with this substance have the proper PPE required by the MSDS.

PREPARING THE LABEL AND CONTAINER

Step 1. Select a UN-POP approved **open head poly** 55-gallon or smaller **container**. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number,**D001**
(C) CA Waste Number, **NA**
(D) "**Waste Calcium Hypochlorite**" for the contents,
(E) Check **solid** for the physical state,
(F) Check **oxidizer** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name, "**RCRA Hazardous Waste, Calcium Hypochlorite (60%-80%), 5.1, UN1748, PGII, D001"**

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible. Place the container is in a proper accumulation area. Separate this oxidizer from flammables or corrosives.

ADDING WASTE

Step 1. Wear proper PPE listed on the MSDS before opening the container.

Step 2. Put calcium hypochlorite in the container.

Step 3. Ensure lid is placed back on the container.

Step 4. Write the ASD on the label after waste is put in the container the first time.

CALCIUM HYPOCHLORITE

TURNING IN WASTE
Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF.
Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF.
Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met.
Refer to Chapter 4 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

USED DIESEL FUEL

(Used Diesel Fuel Only)

DEFINITION

1. **"Used Diesel Fuel"** refers to diesel fuel that can no longer be used and must be managed as a hazardous waste.

PREPARING THE LABEL AND CONTAINER

Step 1. Select a UN-POP approved **non-removable head** metal container. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number, **D001** and **D018**
(C) CA Waste Number **352**,
(D) "**Waste Diesel Fuel**" for the contents,
(E) Check **liquid** for the physical state,
(F) Check **flammable** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name, **"RCRA Hazardous Waste, Liquid, Diesel Fuel, NA1983"**.

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

ADDING WASTE

Step 1. Wear the proper PPE during waste handling.

Step 2. Open the container and add the waste.

Step 3. DO NOT mix different waste streams in the same container. Ensure the drum is properly grounded.

Step 4. When adding waste to an empty container for the first time, use an indelible marker to write the **ASD** on the label.

Step 5. Keep the lid or bungs on the container closed unless adding/removing waste.

Step 6. Leave ample head space in the container: A 55 gallon container should have a minimum of 4 inches of space from the top of the container to the top of the level of the waste inside the container. Leave 3 inches of headspace in a 30 gallon container, 2 inches of headspace in a 15 gallon container, and 1 inch of headspace for any container smaller than 15 gallons.

USED DIESEL FUEL

(Used Diesel Fuel Only)

TURNINGING IN WASTE
Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF. Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF. Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met. Refer to Chapter 4 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

ELECTRONIC DEVICES

DEFINITION

1. "**Electronic Devices"** include cathode ray tube (CRT) and liquid crystal display (LCD) which is used to convert electronic signals into visual images in television sets and computer monitors. CRT and LCDs may also be found in electronic test equipment, avionics gear, camcorders, and laptops.
2. CRTs contain, among other hazardous substances, approximately two to seven pounds of lead and/or lead compounds in the component parts (i.e., glass funnel, face plates, and soldered connections).
3. Government Electronic Devices need to be turned in to DOL for return to DRMO.

PREPARING THE LABEL AND CONTAINER

Step 1. Obtain a UW label and a **container** that is compatible with the contents of the consumer electronic device. Devices may also be stored on pallets, if appropriate.

Step 2. Use an indelible marker to label the container, or the individual device, if stored on a pallet.

Step 3. In "Contents," write **Universal Waste - Electronic Devices**. Separate incompatible waste in separate containers or pallets and label properly.

Step 4. Leave the **ASD** blank until waste is added to the container. If storing waste on a pallet, complete the **ASD** with the date the waste was placed on the pallet.

Step 5. Fill in the remaining sections of the label with the **name of your facility, the facility address, city, state, zip code**.

Step 6. Attach the label securely to the side of the container or device and store the container or device with the label clearly visible.

ELECTRONIC DEVICES

ADDING WASTE
Step 1. Open the container, or prepare the pallet. Step 2. Add the contents into the container or pallet. Be careful not to break the contents and avoid disassembling the device unless it is in a manner prescribed in the operating manual or the removal of batteries or ink cartridges. Step 3. If using a container, close the container. Step 4. If adding waste for the first time, mark the **ASD** on the label. 
TURNING IN WASTE
Step 1. Contact DOL to arrange turn-in to DRMO.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

CONTAMINATED SOIL

DEFINITION

1. **"Contaminated soil"** refers to dirt, mud, vegetation, or otherwise unpaved areas tainted by a spill of hazardous material or waste (HM/HW). It is important to clean up all HM/HW spills, and particularly those occurring in or spreading to the environment, as specific remediation methods may be required.
2. Soil remediation typically involves digging up contaminated soil, placing the material in drums, and properly disposing of as waste. Soil contamination should be prevented with the appropriate HM/HW handling techniques and by the use of secondary containment systems (e.g., berms, drip pans, vessels, etc.).

NOTE: Contaminated soil shall be reported immediately when spills occur or are discovered. Follow the procedures in the SPCC Plan.

PREPARING THE LABEL AND CONTAINER

Step 1. Select an approved container. Use an open top UN-POP rated 55-gallon or smaller metal drum for accumulation. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Attach a "Pending Analysis" label to the side of the container. Mark the container using an indelible marker. On the "Contents" line write "**Contaminated Soil**". In addition, mark the container with the date sample was taken.

Step 3. Attach a completed "Hazardous Waste" label to the side of the container while contents are pending analysis.

ADDING WASTE

Step 1. Put waste in the container. Wear proper PPE. Ensure lid is placed back on the container after adding waste.

Step 2. Make sure container is placed at the CHWF.

TURNING IN WASTE

Step 1. If analysis states that the waste is hazardous, complete Steps 2-3; however, if the waste is non-hazardous, complete Steps 4-5.

Step 2. If the waste is hazardous, affix a "Hazardous Waste" label to the drum. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number,
(C) CA Waste Number,
(D) Name of the contents,
(E) Check the appropriate box for the physical state,
(F) Check the appropriate box for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name.

Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months).

Step 4. Maintain the analytical results on file in the HMWC's office.

CONTAMINATED SOIL

Step 5. Arrange for disposal at a landfill. Refer to Chapter 4 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

EMPTY CONTAINERS

DEFINITION

"**Empty Containers**" refers to any container, 55 gallons or smaller, that previously stored hazardous materials, such as petroleum, oils, or lubricants (POL), paints, solvents, etc. The definition of an empty container is dependent on the material it previously stored:

1. Containers that previously held a pourable material are empty when there is no longer a continuous liquid stream of material coming out of the container when held in any orientation.
2. Containers that previously held a non-pourable material are empty when all materials have been feasibly removed, including by scraping or chipping.
3. Containers that previously held acute or extremely hazardous waste (including all pesticides) are empty when they have been triple-rinsed in a manner approved by the State of California Department of Toxic Substance Control.
   Note: DO NOT TRIPLE RINSE CONTAINERS. Contact HMWC for empty acute or extremely hazardous waste container management..
4. Containers made of absorptive material such as wood, cardboard, cloth or paper that was in direct contact with and has absorbed the hazardous material must be managed as a hazardous waste.

ACCUMULATING EMPTY CONTAINERS

Step 1. Drain or pump containers of all free flowing liquids (so that only drops come out of the container), and/or chip and scrape residual material from the container. Place the drained liquid or residual material into an appropriate hazardous waste container.

Step 2. Empty containers smaller than 5 gallons, should be recycled or disposed of as solid waste.

Step 3. For empty containers larger than 5 gallons, up to and including 55-gallon drums, write **"EMPTY"** and the date the container was emptied on the drum. Store the containers in a manner to prevent the accumulation of rainwater.

TURNING IN EMPTY CONTAINERS

Step 1. An empty container of 5 gallons or smaller should be recycled but may be disposed in a solid waste dumpster.

Step 2. Within one year of being emptied, containers larger than 5 gallons must be reclaimed for scrap value, reconditioned, remanufactured or refilled, if not, they are considered to be a hazardous waste by the State of California and must be managed accordingly.

Step 3. The CA Waste Code for Empty containers that previously contained **pesticides and is greater than 30 gallons is CA 511**. All other empty containers **greater than 30 gallons use CA 512** and all other containers **less than 30 gallons use CA 513**.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

USED GASOLINE FILTERS

(MOGAS/ Unleaded Only)

DEFINITION

1. **"Used Gasoline Filters"** refers to gasoline fuel filters that must be managed as **hazardous waste**. MOGAS may contain volatile organic compounds (VOCs) such as benzene, toluene, trimethylbenzene and xylene in varying levels.
2. Filters should be allowed to drain for 24 hours before placing them in the storage container.

PREPARING THE LABEL AND CONTAINER

Step 1. Select a UN-POP approved **open head** metal 55-gallon or smaller container. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels. The container must have a tight-fitting lid that is kept closed when waste is not being added or removed (22 CCR 66265.171 and 66265.173).

Step 2. Apply a yellow hazardous waste accumulation label to each storage container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number for Gasoline filters is **D001, D018,**
(C) CA Waste Number, "**CA 352"**
(D) "**Used Gasoline Filters"** for the contents,
(E) Check **solid** for the physical state,
(F) Check **toxic** for the hazardous properties 22 CCR 66262.34, and
(G) A general description of what is in the container, or the DOT Shipping Name, **"Non-RCRA Hazardous Waste, Solid, (Oil/Fuel Filters)"**.

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible. Ignitable waste must be stored at least 15 meters (50 feet) from property boundaries.

USED GASOLINE FILTERS

(MOGAS/ Unleaded Only)

ADDING WASTE

Step 1. DO NOT air dry the used gasoline filters prior to placing them in the container.

Step 2. Ensure the container storing ignitable waste is properly grounded when waste is being added or removed (22 CCR 66265.176 and 66265.31). Contact your local Fire Marshall for their requirements regarding flammable waste storage.

Step 3. Open the container.

Step 4. Add the contents into the container.

Step 5. Close the container.

Step 6. If adding waste for the first time, mark the **ASD** on the label.

TURNING IN WASTE

Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF.

Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF.

Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met.

Refer to Chapter 4 of the IHMWMP for more information.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

DRAINED USED OIL AND FUEL FILTERS

(Does not include MOGAS/unleaded fuel filters)

DEFINITION

1. **"Drained Used Oil and Fuel Filters"** refers to oil and fuel filters that are removed from the engines of motor vehicles, generators, aircraft,etc.
2. Filters should be allowed to drain for 24 hours prior to being crushed and placed in the storage container.
3. Filters not drained and recycled must be managed as **hazardous waste**[1], see WPS for **Used Gasoline Filters**.

PREPARING THE CONTAINER AND ADDING WASTE

Step 1. Select a UN-POP approved **open head** metal container. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number, **NA**
(C) CA Waste Number **352**,
(D) "**Drained Used Oil and/or Fuel Filters**" for the contents,
(E) Check **solid** for the physical state,
(F) Check **flammable** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name, **"Non-RCRA Hazardous Waste, Solid, Used Oil and Gas Filters"**.

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

ADDING WASTE

Step 1. Oil and fuel filters must be drained of free-flowing used oil, in general, drain for 24 hours[2].

Step 2. The container used to accumulate, store or transfer drained used oil and fuel filters must remain closed unless filters are added.

TURNING IN WASTE

Step 1. Process the container for turn-in IAW Chapter 4 of the IHMWMP when the container is full or within 9 months from the ASD.

Step 2. Storage of less than one ton of used oil and fuel filters is limited to one year; whereas, storage of one ton or more of used oil filters is limited to 180 days.

Step 3. Drained used oil and fuel filters must be transported for purposes of metal reclamation to (1) a scrap metal processor where they are recycled or; (2) a municipal solid waste

[1] CCR Title 22, Division 4.5, Chapter 16, Article 10, 66266.130 - Management of Used Oil Filters

[2] Note that filters and filter components that are not recycled as scrap metal (e.g., plastic and paper waste fuel filters) are not covered by the provisions of AB 2254. Any absorbent filter materials contaminated with fuel cannot be accumulated with the used oil filters, but must be evaluated and managed separately. See the DTSC fact sheet for filters at: http://www.dtsc.ca.gov/HazardousWaste/

DRAINED USED OIL AND FUEL FILTERS

(Does not include MOGAS/unleaded fuel filters)

incinerator for energy recovery if residual casings are transferred for recycling; or (3) a consolidation facility that transfers it to either location (1) or (2).

Step 4. Maintain a bill of lading to record the transfer of used oil and fuel filters on the premises for a period of three years. The bill of lading must indicate generator, transporter, and receiving company names, addresses, telephone numbers, the quantity and size of used oil and fuel filter containers transferred, and the date of transfer.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

GREASE

(Artillery, Maintenance and Automotive Products)

DEFINITION

1. **"Grease"** refers to semi-solid oil-based products used as lubricants in maintenance processes. Waste grease must be managed as a hazardous waste due petroleum ingredients.

PREPARING THE LABEL AND CONTAINER

Step 1. Select a UN-POP approved **open head** plastic, polypropylene, or metal 55-gallon or smaller container. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number, **NA**
(C) CA Waste Number **221**,
(D) "**Waste Grease**" for the contents,
(E) Check **solid** for the physical state,
(F) Check **flammable** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name, **"Non-RCRA Hazardous Waste, Solid. Grease"**.

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

ADDING WASTE

Step 1. Open the container and add the waste.

Step 2. DO NOT mix different waste streams in the same container.

Step 3. When adding waste to an empty container for the first time, use an indelible marker to write the **ASD** on the label.

Step 4. Keep the lid on the container closed unless adding/removing waste.

TURNINGING IN WASTE

Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF.

Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF.

Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met.

Refer to Chapter 4 of the IHMWMP for more information.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

LAMP(S)

(Includes used fluorescent mercury and non-mercury containing lamps)

DEFINITION

1. **"Lamp(s)"** refers to most any type of electric light bulb: fluorescent and neon tubes, high intensity discharge, high-pressure sodium, mercury vapor, and metal halide lamps[3].
2. Waste lamp tubes are extremely fragile and should be handled and packaged to prevent breakage. Broken lamps may expose the handler to glass and chemical particulate hazards.
3. Small quantities of mercury, antimony, cadmium, barium, and lead are used to manufacture fluorescent bulbs and high intensity discharge (HID) lamps such as, high pressure sodium and mercury vapor lamps.
4. All spent lamps including fluorescent bulbs and HID lamps are **universal wastes**. Broken lamps must be managed separately from unbroken lamps, see the **Broken Lamps WPS** for additional guidelines.

PREPARING THE LABEL AND CONTAINER

Step 1. Obtain a UW label and a **container (fiber drum, cardboard box, plastic container)**.
Step 2. Use an indelible marker to label the container.
Step 3. In "Contents," write **Universal Waste – Lamp(s)**.
Step 4. Leave the **ASD** blank until waste is added.
Step 5. Fill in the remaining sections of the label with the **name of your facility, the facility address, city, state, zip code**.
Step 6. Attach the label securely to the side of the container and the container with the label clearly visible.
Step 7. You are now ready to add waste to the container.

ADDING WASTE

Step 1. Open the container.
Step 2. Add the waste. Do not mix incompatible waste within the same container.
Step 3. Secure the lid to prevent spillage or breakage in the event the container tips over.
Step 4. If adding waste for the first time, mark the **ASD** on the label.

TURNING IN WASTE

Step 1. Process the container for turn-in IAW Chapter 4 of the IHMWMP when the container is full or within 9 months from the ASD.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

[3] Online training for waste lamp management: http://ccelearn.csus.edu/mercurylamp/content/index.htm

This page is intentionally left blank.

BROKEN LAMPS

DEFINITION

1. **"Broken Lamps"** refers to broken or damaged electric light bulb: fluorescent and neon tubes, high intensity discharge, high-pressure sodium, mercury vapor, and metal halide lamps.
2. All broken lamps including fluorescent bulbs and HID lamps are **universal wastes**.

STANDARD OPERATING PROCEDURE

Follow these guidelines when a fluorescent light breaks:[4]

Step 1. Turn off air conditioner/fan/heater to avoid circulating mercury vapor from lamp and prevent others from walking on the broken lamp.

Step 2. Put on appropriate PPE (i.e., dust mast, gloves) and avoid inhaling dust or allowing glass to contact skin.

Step 3. All waste and materials used to clean up the broken lamp should be placed in an airtight container (a sealable bag, glass jar, or pail) with a tight fitting lid.

Step 4. Place large pieces in the container.

Step 5. Collect smaller pieces and dust and put it into the container by using a mercury spill kit or two stiff pieces of paper (i.e., index cards, manila folder). If using a broom, sweep gently to avoid suspending phosphor powders in the air.

Step 6. Pat the area with the sticky side of tape and place into plastic container.

Step 7. Wipe the area with a damp paper towel or cloth, and place into plastic container.

Note: DO NOT VACUUM broken lamp debris. The exhaust from the vacuum will disperse mercury into the air. If you must vacuum the debris, only vacuum after sweeping up as much debris as possible and wiping up the powder with a wet paper towel. Dispose of the vacuum bag in the same container as the broken lamp.

Step 8. Use a purple Universal Waste label and write "**Accidentally Broken Mercury Lamp**" in the Contents section.

Step 9. Write the **ASD** on the label.

Step 10. Fill in the remaining sections of the label with the **name of the facility, and the facility address, city, state, and zip code**.

Step 11. Attach the label securely to the side of the container and the container with the label clearly visible.

Step 12. Open doors and windows to ventilate area for at least 15 minutes.

Step 13. If the bulb breaks on carpet, the carpet may need to be removed.

Warning: If a large number of lamps break, there is a high potential for exposure to airborne mercury. Immediately close off the area with the broken lamps and call a local hazardous materials response agency, usually the local fire department.

TURNING IN WASTE

Step 1. Dispose of the contained debris using the same guidelines for recycling intact waste mercury lamps. Process the container for turn-in IAW Chapter 4 of the IHMWMP when the container is full or within 9 months from the ASD.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

[4] California Department of Toxic Substances Control website last accessed April 2008: http://www.dtsc.ca.gov/hazardouswaste/universalwaste/fluorescent_lights.cfm

This page is intentionally left blank.

PCB-CONTAINING LIGHT BALLASTS

(Fluorescent light ballast containing polychlorinated biphenyls)

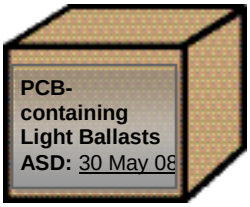
DEFINITION

1. "**Light ballasts"** in older buildings may contain **polychlorinated biphenyls (PCBs)**. Generators of PCB-containing light ballasts, who transport no more than two fifty-five (55) gallon drums per transportation vehicle, are exempt from hazardous waste requirements.[5]

PREPARING THE LABEL AND CONTAINER

Step 1. Obtain a **container (cardboard box, plastic container)**.

Step 2. Use an indelible marker to label the container with the words **PCB-containing Light Ballasts**.



ADDING WASTE

Step 1. Open the container.

Step 2. Add the **PCB-containing Light Ballasts**. Do not store any other waste in the container.

Step 3. Close the container.

Step 4. Mark the ASD on the label.

TURNING IN WASTE

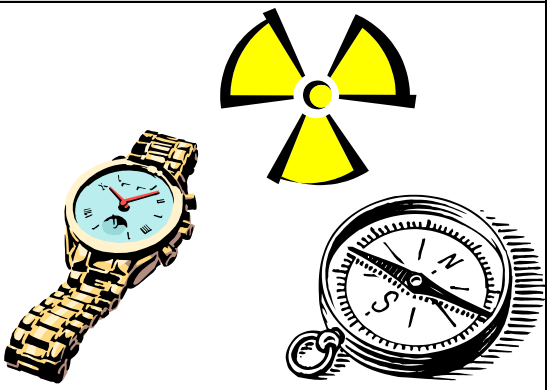
Step 1. Retain a legible copy of each manifest or shipping document for three years.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

[5] CCR Title 22, Division 4.5, Chapter 42, Requirements for Management of Fluorescent Light Ballasts which contain polychlorinated biphenyls (PCBs) http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/

This page is intentionally left blank.

LOW-LEVEL RADIOACTIVE MATERIAL (LLRM)

DEFINITION
1. "**Radioactive waste"** refers to low-level radioactive materials (LLRM), such as tritium or strontium, contained in commodities, devices, or other equipment. 2. Examples of LLRM containing commodities include, but are not limited to: drogue markers for refueling, some weapon sights, gauges, compasses, and watch dials.
ACCUMULATING LLRM
Step 1. Do not accumulate LLRM. Immediately contact the Safety Directorate for LLRM instructions. Step 2. When discarding LLRM commodities, safely handle and package the material to prevent breakage, damage, and radiation exposure. 
DISPOSING OF LLRM
Step 1. Contact the Safety Directorate if you have questions.

This page is intentionally left blank.

MERCURY-CONTAINING EQUIPMENT

(Does not include fluorescent lamps)

DEFINITION

1. **"Mercury-containing equipment"** may include: switches, thermometers, gauges, novelties, counterweights and dampers, dilators and weighted tubing, and gas flow regulators, pressure or vacuum gauges, and rubber flooring.
2. Persons who handle mercury-containing devices must be thoroughly familiar with proper handling and emergency procedures.
3. If mercury-containing devices are stored on-site, a mercury clean-up system must be readily available.

PREPARING THE LABEL AND CONTAINER

Step 1. Obtain a UW label and a **container** that is compatible with the contents of the consumer electronic device.

Step 2. Use an indelible marker to label the container.

Step 3. In "Contents" line, write **Universal Waste – Mercury-Containing Equipment**. Incompatible waste must be in separate containers; therefore, in the second "Contents" line, write the type of mercury containing device accumulated (i.e., **Switches, Thermostats, etc**.).

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Fill in the remaining sections of the label with the **name of your facility, the facility address, city, state, zip code**.

Step 6. Attach the label securely to the side of the container and the container with the label clearly visible.

Step 7. You are now ready to add waste to the container.

ADDING WASTE

Step 1. Open the container.

Step 2. Add the contents into the container. Be careful not to break the contents and avoid disassembling the device unless it is in a manner prescribed in the operating manual or the removal of batteries or ink cartridges.

Step 3. Close the container.

Step 4. If adding waste for the first time, mark the **ASD** on the label.

Step 5. Most mercury-containing devices need to be packaged in airtight containers.

TURNING IN WASTE

Step 1. Process the container for turn-in IAW Chapter 4 of the IHMWMP when the container is full or within 9 months from the ASD.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

USED OIL

(Motor Oil, Differential Fluid, Transmission Oil, Hydraulic Oil, Gear Oil, Lubricating Oil)

DEFINITION

1. **"Used Oil"** refers to used petroleum-based and synthetic oils (but not vegetable- or animal-based oils), which is managed as a **Hazardous Waste**. Petroleum solvents are not considered used oil.
2. Used oil potentially contains traces of metals such as chromium, cadmium and lead, which are hazardous metals. No solvents or other hazardous waste can be mixed with used oil.

DO NOT place fuel in the used oil container.

PREPARING THE CONTAINER

Step 1. Select a UN-POP approved **non-removable head container or tank** for accumulation. Tanks and containers must be made of non-earthen, non-absorbing, rust-resistant material such as steel or oil-resistant plastics, and have adequate structural support to contain the used oil. Used Oil Storage Tanks must have secondary containment.

Step 2. Aboveground storage tanks and containers accumulating used and fill pipes used to transfer used oil into underground storage tanks must be labeled with the words: "**USED OIL**", "**HAZARDOUS WASTE**", and the initial date of accumulation.

Step 3. Position the container with the label clearly visible.

PREPARING THE LABEL AND CONTAINER

Step 1. Apply a yellow hazardous waste accumulation label to the aboveground storage tank or the container.

Step 2. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number **NA**
(C) CA Waste Number, "**CA 221"**
(D) "**Used Oil"** for the contents,
(E) Check **liquid** for the physical state,
(F) Check **flammable** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name, **"Non-RCRA Hazardous Waste Used Oil, Liquid"**.

Step 3. Leave the **ASD** blank until waste is added.

Step 4. Position the container with the label clearly visible.

USED OIL

(Motor Oil, Differential Fluid, Transmission Oil, Hydraulic Oil, Gear Oil, Lubricating Oil)

ADDING WASTE
Step 1. Open the tight fitting lid. Step 2. Added the used oil. Step 3. Keep the container or tank closed with a tight fitting lid, except when used oil is being added or removed. Step 4. If a funnel is used in the bung hole of the container, it must be either removed when used oil is added to the container or equipped with a valve or cover to prevent leakage. Step 5. If adding waste for the first time, mark the **ASD** on the label. **Note:** Regular inspections of used oil storage tanks and containers are required. See Chapter 6 of the IHMWMP for more information.
TURNING IN WASTE
Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF. Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF. Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met. Refer to Chapter 4 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

OILY RAGS

(Rags contaminated with Motor Oil, Differential Fluid, Transmission Oil, Hydraulic Oil, Gear Oil, Lubricating Oil)

DEFINITION

1. **"Oily Rags"** refers to rags soiled with petroleum-based and synthetic oils. Units and shops generating oily rags should arrange for a rag laundering service to reduce the amount of HW generated. If oily rags are not laundered, they must be managed as a **Hazardous Waste**.
2. Oily rags contain POLs, and potentially contain traces of metals such as chromium, cadmium and lead, which are hazardous metals.

PREPARING THE LABEL AND CONTAINER

Step 1. Select a UN-POP approved **open head** metal container. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number, **NA,**
(C) CA Waste Number **352**,
(D) "**Oily Rags**" for the contents,
(E) Check **solid** for the physical state,
(F) Check **flammable** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name, **"Non-RCRA Hazardous Waste, Solid"**.

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

ADDING WASTE

Step 1. Open the tight fitting lid.

Step 2. Added the oily rags.

Step 3. Keep the container closed except when rags are being added or removed.

Step 4. If adding waste for the first time, mark the **ASD** on the label.

OILY RAGS

(Rags contaminated with Motor Oil, Differential Fluid, Transmission Oil, Hydraulic Oil, Gear Oil, Lubricating Oil)

TURNING IN WASTE
Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF. Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF. Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met. Refer to Chapter 4 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

OWS/SUMP WASTEWATER AND SLUDGE

DEFINITION

1. Contaminants found in oil/water separators (OWS) and sump wastewater/sludge will depend on the processes and materials used in the surrounding area. Likely contaminants include metals such as lead or cadmium.
2. The residues or sediments that settle out of liquid solutions range in consistency from slurries to sludge. These residues or sediments may be **hazardous waste**, depending on the constituents of the original solution.
3. As a result of usage, the HMWC schedules routine clean out of OWSs. The HMWC conducts sampling of the OWS sludge and wastewater. PRFTA contracts clean out and disposal of OWS sludge and wastewater, the contractor is responsible for containerizing, marking, and labeling the drums for disposal.

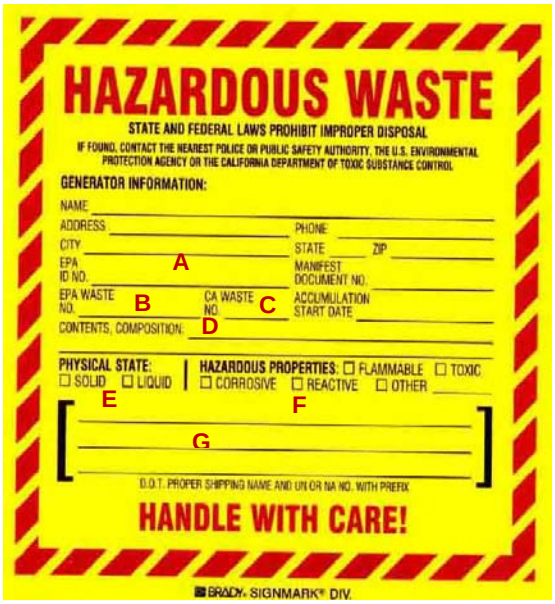
PREPARING THE LABEL AND CONTAINER

Step 1. Apply a yellow hazardous waste accumulation label to the UN-POP container.

Step 2. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number **NA,**
(C) CA Waste Number, "**CA 222"**
(D) "**Oil Water Separator Sludge"** for the contents,
(E) Check **solid** for the physical state,
(F) Check **flammable** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name, **"Non-RCRA Hazardous Waste, Solid"**.

Step 3. Leave the **ASD** blank until waste is added.

Step 4. Position the container with the label clearly visible.



TURNING IN WASTE

Step 1. The HMWC will schedule a contractor to clean out all sumps, sludge pits, and OWSs, as needed. Drum transport to the CHWF is coordinated between the OWS pump out contractor and HMWC.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

WASTE PAINT

(Latex)

DEFINITION

1. **"Waste Paint - Latex"** typically includes unused paint from spaying or other activities and a limited amount of waste thinner used to clean equipment.
2. All paint remaining in paint cans must be drained or scraped into the collection drum in order for the can to be considered empty by California standards.
3. Separate empty paint cans or paint-contaminated debris from waste paint in a different container and label it "**Paint Contaminated Debris**."

PREPARING THE LABEL AND CONTAINER

Step 1. Select a UN-POP approved **non-removable head** metal 55-gallon or smaller container. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number is (various, leave blank and consult the HWPC),
(C) CA Waste Number is **291**,
(D) "**Waste Paint - Latex**" for the contents,
(E) Check **liquid** for the physical state,
(F) Check **flammable** for the hazardous properties, , and
(G) A general description of what is in the container, or the DOT Shipping Name, **"Non-RCRA Waste Paint, Latex, Liquid"**.

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

ADDING WASTE

Step 1. Open drum lid.

Step 2. Add the waste, leaving ample headspace.

Step 3. Secure drum the lid. Ensure nut of open top drum is securely tightened on bolt.

Step 4. If adding waste for the first time, mark the **ASD** on the label.

WASTE PAINT

(Latex)

TURNING IN WASTE
Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF. Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF. Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met. Refer to Chapter 4 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

WASTE PAINT

(Non-Latex)

DEFINITION

1. **"Waste Paint (Non-Latex)"** typically includes unused paint from spaying or other activities and a limited amount of waste thinner used to clean equipment.
2. All paint remaining in paint cans must be drained or scraped into the collection drum in order for the can to be considered empty by California standards.
3. Separate empty paint cans or paint-contaminated debris from waste paint in a different container and label it "**Paint Contaminated Debris**."

PREPARING THE LABEL AND CONTAINER

Step 1. Select a UN-POP approved **non-removable head** metal 55-gallon or smaller container. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number is (various, leave blank and consult the HWPC),
(C) CA Waste Number is **CA 291**,
(D) "**Waste Paint Non-Latex**" for the contents,
(E) Check **liquid** for the physical state,
(F) Check **flammable** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name, **"**Non-Reg Paint, Non-RCRA Hazardous Waste, Liquid".

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

ADDING WASTE

Step 1. Open drum lid.

Step 2. Add the waste, leaving ample headspace.

Step 3. Secure drum the lid. Ensure nut of open top drum is securely tightened on bolt.

Step 4. If adding waste for the first time, mark the **ASD** on the label.

WASTE PAINT

(Non-Latex)

TURNING IN WASTE
Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF.
Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF.
Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met.
Refer to Chapter 4 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

BLASTING MEDIA

DEFINITION

1. Blasting media is managed as **hazardous waste**, until analytical results prove otherwise. If analytical results prove the media is not hazardous, then the blast media will be managed as **non-hazardous waste**. Contaminants that may be found in media are heavy metals.
2. Contact the HMWC to arrange for sampling and testing of plastic blast media.

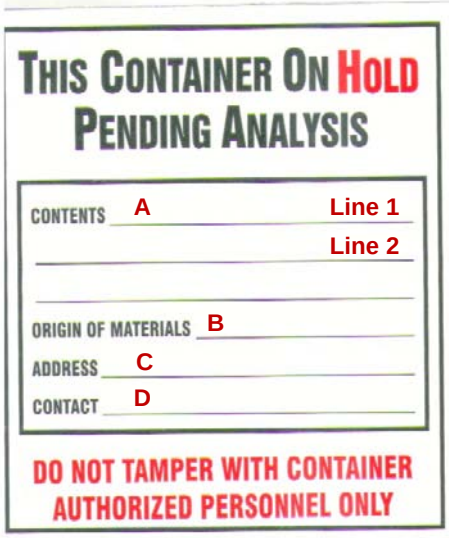
PREPARING THE LABEL AND CONTAINER

Step 1. Select an approved container. Use an open top UN-POP rated drum for accumulation. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Obtain a "**Pending Analysis**" label and use an indelible marker to label the container
(A) In "Contents" Line 1, write **Blasting Media**. In "Contents" Line 2, write the date the sample was taken.
(B) In the "Origin of Materials" write **Vehicle Maintenance**.
(C) Write the address of the facility where the sample was collected.
(D) Write the name of the person at the facility who is responsible for ensuring the waste is properly managed.

Step 3. Apply a yellow "**Hazardous Waste**" label to the drum until the analytical results are returned.

Step 4. Put waste in the container.



ADDING WASTE

Step 1. Open drum lid.

Step 2. Add the waste, leaving ample headspace. Wear proper PPE listed on the MSDS.

Step 3. Ensure container is closed when waste is not being added.

TURNING IN WASTE

Step 1. Process the container for turn-in IAW Chapter 4 of the IHMWMP. Remember not to exceed the accumulation time limits. If analytical results indicate the solution is not a hazardous waste contact the HMWC for re-labeling instructions.

Step 2. Do not dispose of media in the dumpster without the written approval of the HMWC.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

WASTE SOLVENT

DEFINITION

1. **"Solvent waste"** refers to toxic and/or flammable liquids generally used for cleaning, degreasing, stripping, etc., such as mineral spirits, methyl ethyl ketone (MEK), isopropyl alcohol, halogenated cleaners, methylene chloride, and thinner.
2. Typically, solvents used in painting operations (mineral spirits, methylene chloride, paint thinner, and MEK) are considered "**paint related waste.**"
3. Many cleaning and degreasing solvents contain halogens (chlorine or fluorine additives) and used in conjunction with petroleum products.

CAUTION: Do not mix halogenated or flammable solvents with "used oil."

PREPARING THE LABEL AND CONTAINER

Step 1. Select a UN-POP approved **non-removable head** 55-gallon or smaller **container**. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number is **D001,**
(C) CA Waste Number is **231**,
(D) "**Waste Solvent**" for the contents,
(E) Check **liquid** for the physical state,
(F) Check **flammable** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name. **"Non-RCRA Waste Solvent, Liquid"**.

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

ADDING WASTE

Step 1. Open the container.

Step 2. Add the contents into the container.

Step 3. Close the container.

Step 4. If adding waste for the first time, mark the **ASD** on the label.

WASTE SOLVENT

TURNING IN WASTE
Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF.
Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF.
Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met.
Refer to Chapter 4 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

SULFURIC ACID

(From Lead-Acid Batteries)

DEFINITION

1. **"Sulfuric acid waste"** normally refers to a low pH liquid electrolyte acid used in lead-acid batteries. This waste stream typically results from battery maintenance or from draining broken lead-acid batteries.
2. Sulfuric acid, as battery electrolyte, is usually a 50% acid and 50% water solution. Pure sulfuric acid, an oxidizing mineral acid, is rarely used to service lead-acid batteries. Use caution and protective clothing while handling sulfuric acid.

PREPARING THE LABEL AND CONTAINER

Step 1. Select a plastic UN-POP approved non-**removable head container**. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number, **D002**,
(C) CA Waste Number, **CA 135,**
(D) contents **"Waste Sulfuric Acid",**
(E) Check **liquid** for the physical state,
(F) Check **corrosive** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name, **"RCRA Hazardous Waste Sulfuric Acid, 51%, 8, UN1830, PGII"**.

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

ADDING WASTE

Step 1. Open the container.

Step 2. Add the contents into the container.

Step 3. Close the container.

Step 4. If adding waste for the first time, mark the **ASD** on the label.

SULFURIC ACID

(From Lead-Acid Batteries)

TURNING IN WASTE
Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF. Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF. Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met. Refer to Chapter 4 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

USED TIRES[6]

DEFINITION

1. **"Used tires"** refers to military aircraft, automobile, support equipment, and tires from other government vehicles being discarded. Privately owned vehicle (POV) used tires are not included in this waste stream and should not be managed or disposed of at the government expense.
2. Tires should be managed properly to avoid exposure to elements. If not properly covered, tires may hold water and can be a breeding ground for disease carrying mosquitoes. Tire piles are fire hazards, through arson or accident. Tire fires are difficult to put out, and produce heavy smoke and toxic run off of constituents, such as carbon, phenolic resin, and certain oils, to ground or water. DO NOT store unserviceable tires near excessive heat sources or open flames.
3. DO NOT store more than 500 unserviceable tires installation-wide at one time. Storing more than 500 unserviceable tires requires a special permit from CalRecycle. Only dispose of unserviceable tires through the DRMO.

ACCUMULATING USED TIRES

Step 1. Accumulate used tires in a manner that: prevents the breeding and harborage of mosquitoes, rodents, and other vectors; does not exceed 5,000 square feet of contiguous area; and does not exceed 10 feet in height.

Step 2. Maintain fire lanes unobstructed at all times.

Step 3. Dispose of used tires through DRMO when a quantity of 400 has been reached, to ensure the 500 tire limit is not met.

DISPOSING OF USED TIRES

Step 1. Contact the HMWC to schedule a pick-up with the tire hauler contractor.

Step 2. Maintain the records for at least three years.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

[6] If used tires are not turned in through the CHWF, provide bill of lading or other documents to the HMWC and DPW-ENV on no less than a quarterly basis.

This page is intentionally left blank.

TONER CARTRIDGE

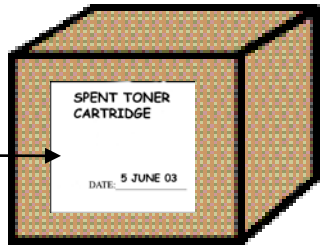
DEFINITION

1. **"Toner cartridges"** refers to the carbon and color toner vessels in photocopiers, fax machines, and computer printers. Used printer ribbon cartridges also are included in this waste stream. Spent toner cartridges and ribbons can be reconditioned for reuse. Recycling in this manner diverts significant amounts of discarded waste from the landfill. In other cases, the reclaimed cartridges produce plastics; metals and reconditioned parts are used to manufacture new cartridges and other products.

PREPARING THE LABEL AND CONTAINER

Step 1. Place spent **toner cartridges** in the toner recycling containers provided by the Recycling Coordinator or similar container.

Step 2. Mark the container **"Spent Toner Cartridge**" and mark the date.



TURNING IN WASTE

Step 1. Contact the FHL Recycling Coordinator when accumulation container is full. The Recycling Coordinator will ensure the toner is properly recycled.

Contact the Recycling Coordinator if you have any questions or are unsure how to handle this waste.

This page is intentionally left blank.

WEAPONS CLEANING PATCHES AND RAGS

DEFINITION

1. Weapons cleaning patches and rags are managed as **hazardous waste**, unless waste characterization determines otherwise.
2. Weapons cleaning patches, rags, Q-tips, pipe cleaners, etc. may be contaminated with lead residue after cleaning weapons. Lead is a characteristic toxic metal.
3. As a best management practice, do not use Breakfree® manufactured before 1994 for cleaning weapons, as it contains chlorinated solvents. Do not re-use Pre-1994 CLP spray bottles or containers. Turn in all Pre-1994 CLP and spray containers to the CHWF.

PREPARING THE LABEL AND CONTAINER

Step 1. Select a UN/NA approved **open top** 55-gal or smaller poly container for. Containers must be clean and free from dents, bulges, excessive corrosion, and any previous markings or labels.

Step 2. Apply a yellow hazardous waste accumulation label to the container.

Step 3. Use an indelible marker to mark the label with the:
(A) name, address and EPA ID number of the facility generating the waste,
(B) EPA Waste Number, **D008**,
(C) CA Waste Number, (leave blank)
(D) contents **"Weapons Cleaning Patches"**
(E) Check **solid** for the physical state,
(F) Check **toxic** for the hazardous properties, and
(G) A general description of what is in the container, or the DOT Shipping Name.

Step 4. Leave the **ASD** blank until waste is added.

Step 5. Position the container with the label clearly visible.

Step 6. Place the container in a proper accumulation area. Separate this oxidizer from flammables or corrosives.

ADDING WASTE

Step 1. Open the container.

Step 2. Put waste in the container.

Step 3. Ensure lid is placed back on the container.

Step 4. Write the ASD on the label after waste is put in the container the first time.

TURNING IN WASTE

Step 1. If waste is accumulated at a SAP, containers must be moved to the CHWF within 3 days of reaching container capacity. To allow adequate time for disposal, waste may accumulate at a SAP for up to 9 months before moving to the CHWF.

Step 2. Complete the Hazardous Waste Turn-in Document at the time the waste is transported to the CHWF.

WEAPONS CLEANING PATCHES AND RAGS

Step 3. Waste at the CHWF must not accumulate longer than 90 days (approximately 3 months). The HMWC will submit a DTID 1348-1a to ensure that waste disposal timeframes for the CHWF are met. Refer to Chapter 4 of the IHMWMP for more information.
Contact the HMWC if you have any questions or are unsure how to handle this waste.

WOOD WASTE

DEFINITION

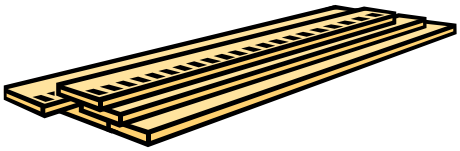
1. **"Wood waste**" refers to real solid wood lumber products, as opposed to ply-wood, particle board, or pressboard materials[7]. Some lumber and wood products are "treated" with chemical preservatives to prevent bacteria, fungi, and insects from attacking the lumber. Commonly used preservatives include chromated copper arsenate, inorganic arsenate, creosote, zinc napthenate, and pentachlorophenol.
2. Ammo boxes and munitions crates, construction lumber, and railroad ties are several sources of treated wood waste. Treated wood products can be identified by its greenish hue, perforation imprints, or stamped/stenciled markings (as in the case of ammo boxes).
3. Treated wood is wood that has been treated with a chemical preservative to protect the wood from insects, microorganisms, fungi and other environmental conditions that can lead to wood decay. Some commonly applied chemicals include creosote, pentachlorophenol, copper azole, copper boron azole, chromated copper arsenate, ammoniacal copper zinc arsenate, copper naphthenate and alkaline copper quaternary. The wood preservatives are registered pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act and by the California Department of Pesticide Regulation. Other common surface applied coatings such as paint, varnish and oil stain are not considered wood preservatives.

Note: Non-treated and unpainted real wood and lumber waste can be collected and turned in for recycling.

ACCUMULATING WOOD WASTE

Step 1. Identify **wood waste** as either treated or non-treated and separate.

Step 2. Accumulate wood waste in a manner that prevents the breeding and harborage of mosquitoes, rodents, and other vectors.



DISPOSING OF WOOD WASTE

Step 1. Contact DPW-ENV for disposal methods, which are determine on a case-by-case basis.

Note: Contractors that generate wood waste are responsible for arranging for the waste to be removed and should provide the facility POC with manifest documentation. The facility POC will maintain a copy of the manifest onsite for 3 years and forward a copy to the DPW-ENV.

Contact the HMWC if you have any questions or are unsure how to handle this waste.

[7] http://www.dtsc.ca.gov/HazardousWaste/Treated_Wood_Waste.cfm

This page is intentionally left blank.

APPENDIX B FORMS

Table of Contents

Section	Form	Form Number
3.2,1.3	Recommended Changes to Publications and Blank Forms	DA Form 2028
2.5	Shelf-Life Extension Notice	DD 2477-3
5.3.1	Instructions for Completing Dangerous Good Shipping Paper	DD Form 836
2.7	Hazardous Material Storage Set-up Checklist	FHL IHMWMP1
2.7.1, 2.9	Hazardous Materials Storage Inventory	FHL IHMWMP2
4.3.1	Uniform Hazardous Waste Manifest Log	FHL IHMWMP3
3.1.6, 3.5.2, 3.8, 6.2.3	Central Hazardous Waste Faciltiy Weekly Inspection Sheet (For 90 Day Facility)	FHL IHMWMP4
3.5.1, 6.2.2	Satellite Accumulation Point Weekly Inspection Log	FHL IHMWMP5
6.2.4	Monthly Aboveground Storage Container Inspection Checklist	FHL IHMWMP6
2.7.1, 6.2.1	Hazardous Material Storage Area Weekly Inspection Log	FHL IHMWMP7
4.2	FHL Central Hazardous Waste Facility Turn In Document	FHL IHMWMP8
6.1	Spill Information Form	FHL IHMWMP9

Recommended Changes to Publications and Blank Forms
DA Form 2028

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is OAASA	Use Part II *(reverse)* for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE
TO: *(Forward to proponent of publication or form) (Include ZIP Code)*	**FROM:** *(Activity and location) (Include ZIP Code)*	

PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER	DATE	TITLE

ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON

** Reference to line numbers within the paragraph or subparagraph.*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

DA FORM 2028, FEB 74 REPLACES DA FORM 2028, 1 DEC 68, WHICH WILL BE USED. USAPA V3.01

Shelf-Life Extension Notice
DD Form 2477-3

SHELF-LIFE EXTENSION NOTICE

PER DoD 4140-27M, CONTAINERS REQUIRE REMARKING WITH EXTENDED SHELF-LIFE DATA.
UNITS OF ISSUE REQUIRE RE-MARKING UPON OPENING CONTAINER.

NSN: _____

CONTRACT NUMBER: _____

LOT/BATCH NUMBER: _____

DATE TESTED: _____

NEXT INSP/TEST DATE: _____

AUTHORITY: _____
(QSL, MQCSS, OTHER)

INSPECTED BY: _____
(ACTIVITY AND INSPECTOR'S NAME OR NUMBER)

DD FORM 2477-3 MAR 1999 Previous edition may be used until supply is exhausted

Dangerous Good Shipping Paper
DD Form 836

HAZMAT//HAZMAT//HAZMAT//HAZMAT//HAZMAT//HAZMAT

1.a. NOMENCLATURE:	c. CONTAINER SEAL NO.:	e. TCN NUMBER:
b. MODEL NO.:	d. SERIAL NO.:	f. BUMPER NO.:

DANGEROUS GOODS SHIPPING PAPER/DECLARATION AND EMERGENCY RESPONSE INFORMATION FOR HAZARDOUS MATERIALS TRANSPORTED BY GOVERNMENT VEHICLES/CONTAINERS OR VESSEL

2. SHIPPER/ADDRESS/TELEPHONE NO.:	3. LOCATION AND DATE SHIPMENT PREPARED	4. DATE OF TRAVEL	5. PAGE 1 OF _____ PAGES

6. CARGO *(To be completed by the unit or shipper Transportation Office (T.O.))*

PROPER SHIPPING NAME *(Include RQ, Technical Names, Additional Information per 49 CFR172.203, as required.)* a.	HAZARD CLASS/ DIVISION b.	UN/ID NUMBER c.	PACKING GROUP d.	PACKAGES NUMBER e.	PACKAGES KIND f.	NET TOTAL QUANTITY & GROSS WT. *(kg)* g.	TOTAL AMMO (NEW) h.

(Port personnel complete Items 7 and 8.)

7. PORT OF EMBARKATION *(OCONUS only)*	8a. SHIP NAME *(OCONUS only)*	b. VOYAGE NUMBER

9. CONSIGNEE

10. REMARKS

11 a. COPY OF EMERGENCY GUIDE NUMBER(S). _____ ATTACHED *(See back of this form.)*

b. EMERGENCY NOTIFICATION. In all cases of accident, breakdown or fire, prompt notification must be given to shipper as noted in Item 2.

c. 24-HOUR EMERGENCY ASSISTANCE TELEPHONE NUMBERS:

DOD NON-EXPLOSIVE HAZMAT: 1-800-851-8061 AT SEA: 804-279-3131 (COLLECT)	DOD HAZ CLASS 1 (EXPLOSIVE) ONLY: 703-697-0218/0219 (COLLECT) (WATCH OFFICER)	SAFE HAVEN: 1-800-524-0331 NATIONAL RESPONSE CENTER (NCR): 1-800-424-8802 AT SEA: 202-267-2675 (COLLECT)	DOD RADIOACTIVE MATERIALS. ARMY: (703) 697-0218 (COLLECT) USAF: (202) 767-4011 USN/MC: (757) 887-4692/ 1-888/528-0148 DLA: (717) 770-5283

12. CONTAINER PACKING CERTIFICATE OR VEHICLE PACKING DECLARATION

It is hereby declared that the goods described above have been packed/loaded into the container/vehicle identified above in accordance with applicable provisions. *(Must be completed and signed for all container/vehicle loads by person responsible for packing/loading.)*

☐ CONTAINER NO. _____ ☐ VEHICLE NO. _____

a. TYPE OR PRINT NAME	b. SIGNATURE	c. DATE *(YYYMMDD)*

13. SHIPPER'S CERTIFICATION

This is to certify that the above named materials are properly classified, described, packaged, marked and labled, and are in proper condition for transportaion according to the applicable regulations of the Department of Transportation, international and national governmental regulations.

a. TYPE OR PRINT NAME OF SHIPPER CERTIFIER	c. SIGNATURE(S) OF VEHICLE OPERATOR(S)
b. SIGNATURE OF SHIPPER CERTIFIER	

14. *(X as appropriate)* PREPARED IN ACCORDANCE WITH: ☐ 49 CFR ☐ IMDGC

DD FORM 836, JAN 2001 PREVIOUS EDITION IS OBSOLETE.

This form meets the requirements of SOLAS 74 Chapter VII, Regulation 5: MARPOL 73/78 Annex III, Regulation 4 and IMDG Code, General Introduction, Section 9.

HAZMAT//HAZMAT//HAZMAT//HAZMAT//HAZMAT//HAZMAT

HAZMAT EMERGENCY RESPONSE INFO

EMERGENCY RESPONSE INFORMATION

Guide Numbers 112 and 114 from the U.S. Department of Transportation North American Emergency Response Guide Book (RSPA P 5800.7) are reproduced hereon. These guides are applicable to Hazard Class 1 Materials (Explosives).
Mark an X in the appropriate box:

☐ **USE GUIDE 112 FOR EXPLOSIVES: (1.1), (1.2), (1.3), (1.5) or (1.6) Class A**

☐ **USE GUIDE 114 FOR EXPLOSIVES:**

For all other hazardous materials or substances, annotate appropriate Emergency Response Guide Book Guide Number in the block below, and attach a copy of the guide number page or pages.

GUIDE 112

POTENTIAL HAZARDS
FIRE OR EXPLOSION:
MAY EXPLODE AND THROW FRAGMENTS 1600 METERS (1 MILE) OR MORE IF FIRE REACHES CARGO.

HEALTH HAZARDS:
- Fire may produce irritating, corrosive and/or toxic gases.

PUBLIC SAFETY:
CALL CHEMTREC AT 1-800-424-9300.
- Isolate spill or leak area immediately for at least 500 meters (1/3 mile) in all directions. Move people out of line of sight of the scene and away from windows.
- Keep unauthorized personnel away and stay upwind.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING:
- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

EVACUATION:
LARGE SPILL
- Consider initial evacuation for 800 meters (1/2 mile) in all directions.

FIRE
- If rail car or trailer is involved in a fire and heavily encased explosives such as bombs or artillery projectiles are suspected, ISOLATE for 1600 meters (1 mile) in all directions; also, initiate evacuation including emergency responders for 1600 meters (1 mile) in all directions.
- When heavily encased explosives are involved, evacuate the area for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE:
FIRE:
CARGO Fires: DO NOT FIGHT FIRE WHEN IT REACHES CARGO! CARGO MAY EXPLODE!
- Stop all traffic and clear the area for at least 1600 meters (1 mile) in all directions and let burn. Do not move cargo or vehicle if cargo has been exposed to heat.

TIRE or VEHICLE Fires:
- Use plenty of water - FLOOD it! If water is not available, use CO_2, dry chemical or dirt. If possible, and WITHOUT RISK, use unmanned hose holders or monitor nozzles from maximum distance to prevent fire from spreading to cargo area.
- Pay special attention to tire fires as re-ignition may occur. Stand by with extinguisher ready.

SPILL OR LEAK:
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.

Do not touch or walk through spilled material.
- **DO NOT OPERATE RADIO TRANSMITTERS WITHIN 100 METERS (330 feet) OF ELECTRIC DETONATORS.**
- **DO NOT CLEAN UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID:
- SEE GUIDE 114 FOR INSTRUCTIONS.

GUIDE 114

POTENTIAL HAZARDS
FIRE OR EXPLOSION:
MAY EXPLOSE AND THROW FRAGMENTS 500 METERS (1/3 MILE) OR MORE IF FIRE REACHES CARGO.

HEALTH HAZARDS:
- Fire may produce irritating, corrosive and/or toxic gases.

PUBLIC SAFETY:
CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer,
CALL CHEMTREC AT 1-800-424-9300.
- Isolate spill or leak area immediately for at least 100 meters (330 feet) in all directions. Move people out of line of sight of the scene and away from windows.
- Keep unauthorized personnel away and stay upwind.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING:
- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

EVACUATION:
LARGE SPILL
- Consider initial evacuation for 250 meters (800 feet) in all directions.

FIRE
- If rail car or trailer is involved in a fire, ISOLATE for 500 meters (1/3 mile) in all directions; also, initiate evacuation including emergency responders for 500 meters (1/3 mile) in all directions.

CARGO Fires: DO NOT FIGHT FIRE WHEN IT REACHES CARGO! CARGO MAY EXPLODE!
- Stop all traffic and clear the area for at least 500 meters (1/3 mile) in all directions and let burn. Do not move cargo or vehicle if cargo has been exposed to heat.

TIRE or VEHICLE Fires:
- Use plenty of water - FLOOD it! If water is not available, use CO_2, dry chemical or dirt. If possible, and WITHOUT RISK, use unmanned hose holders or monitor nozzles from maximum distance to prevent fire from spreading to cargo area.
- Pay special attention to tire fires as re-ignition may occur. Stand by with extinguisher ready.

SPILL OR LEAK:
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.

Do not touch or walk through spilled material.
- **DO NOT OPERATE RADIO TRANSMITTERS WITHIN 100 METERS (330 feet) OF ELECTRIC DETONATORS.**
- **DO NOT CLEAN UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID:
- Move victim to fresh air. Call emergency medical care.
- Apply CPR if victim is not breathing.
- Administer oxygen if necessary.
- Remove and isolate contaminated clothing and shoes.
- Flush skin or eyes with running water for at least 20 minutes.
- Ensure that medical personnel are aware of the materials involved, and take precautions to protect themselves.

SUPPLEMENTAL INFORMATION:
Packages bearing the 1.4S label contain explosive substances or articles that are designed of packaged in such a manner that when involved in a fire, may burn vigorously with localized detonations and projection of fragments. Effects are usually confined to immediate vicinity of packages.

If fire threatens cargo area containing packages bearing the 1.4S label, consider initial isolation of at least 15 meters (50 feet) in all directions. Fight fire with normal precaution from a distance.

DD FORM 836 (BACK), JAN 2001

HAZMAT EMERGENCY RESPONSE INFO

Hazardous Material Storage Set-Up Checklist
(For use when setting up new storage areas)

Location Identification: _____

Please check the type of storage area:

Room ☐
Rack ☐
Locker ☐

		Yes	No	N/A
1	Is the room/rack/locker free of modifications (i.e., door removal, wall penetration, ventilation modifications, etc.)?			
2	If not, does the Unit/Activity have written approval for the modification from the Safety Officer or DPW-ENV?			
3	Is the room/rack/locker away from break rooms, bathrooms, offices, and other non-shop areas occupied by people?			
4	Is the room free of floor drains? Or is the rack/locker away from floor drains or drainage channels?			
5	Is the room/rack/locker free of or away from high foot or vehicle traffic?			
6	Is the room/rack/locker in a well-ventilated area?			
7	If not, does the Unit/Activity have written approval for the location from the Safety Officer or DPW-ENV?			
8	Are any signs or markings in a contrasting color and clearly visible on the room/rack/locker?			
9	Are the words “Flammable” and “No Smoking” marked on the exterior of flammable lockers or storage rooms?			
10	For storage racks, is the rack indoors or under cover?			
11	For storage racks, is the rack near work areas?			
12	For storage lockers, is the locker indoors or under cover?			

If No is answered for any question, provide comments below

COMMENTS

#	

HAZARDOUS MATERIALS STORAGE INVENTORY

Activity: **Storage Location:** **Locker No.:**

LOCATION (1)	PRODUCT NAME(2)	MANUFACTURER (3)	SHELF LIFE EXPIRATION (4)	QTY(5)	SIZE & UNIT(6)	MSDS (7)
						YES / NO
						YES / NO
						YES / NO
						YES / NO
						YES / NO
						YES / NO
						YES / NO
						YES / NO
						YES / NO
						YES / NO
						YES / NO
						YES / NO
						YES / NO
						YES / NO

(1) Shelf location number, or storage area number
(2) Product Name
(3) Manufacturer Name
(4) Shelf Life Expiration (for Shelf Life Items with NSN)
(5) Number of containers on hand
(6) Container size (with units, i.e., 12 oz, 1 lb, 1 gal, etc.)
if your items come in a box or case, list out amount per box or case
(7) Is there an MSDS for the product? Circle "Yes" or "No"

Inventory Performed By:

Date of Inventory:

Inventories should be completed monthly and submitted to DPW-ENV quarterly.
To create more pages, highlight the entire page, right click, hit copy, move to the next page, go to the 1st topmost left cell in the page, right click and hit paste.

UNIFORM HAZARDOUS WASTE MANIFEST LOG

FACILITY_____ **EPA #**_____ **YEAR** _____

Date of waste pickup	Manifest Number	Date Manifest Copy Mailed to DTSC	30 Day Suspense for Receipt of signed TSDF Copy*	Date Received TSDF Copy	Date Exception Report Sent to DTSC (if facility didn't receive signed TSDF Copy by day 45 of pickup)

FHL IHMWMP Form 3 (Revised 02 June 2011)

* If TSDF copy is not received within 30 days, contact the HWPM

Central Hazardous Waste Facility Weekly Inspection Sheet

Date_____Time_____Inspector_____ Phone_____ __

90 Day Central HW Facility	Go	No-Go	Action Taken	POC
1. Area Under Control of Generator				
2. No Smoking Sign Posted				
3. Emergency Contacts Posted				
4. Spill Response Supplies				
5. Fire Suppression System				
6. Sufficient Aisle Space				
7. Area Free of Spills				
8. Incompatible Waste Properly Separated				
9. Containers in Good Condition				
10. Containers Properly Labeled				
11. Satellite Waste Accumulation Start Date on Container				
12. 90 Day Accumulation Start Date on Container				
13. Weight Written on Container				
14. Waste Compatible with Container				
15. Containers Closed Except When Adding/Removing Waste				
16. Container on Secondary Containment				
17. Site free of trash and debris				
18. Fire System and Extinguisher up to date				

Minimum Labeling Requirements with water-proof stickers:

- Specify the words "Hazardous Waste" or “Universal Waste”
- Composition and physical state of the waste
- Hazardous properties of the waste
- Name and address of the generator
- Waste accumulation start date
- Date container arrived at the 90 Day Central Hazardous Waste Facility

Satellite Accumulation Point Weekly Inspection Checklist

Fort Hunter Liggett

Unit/Location: _____

Reviewed By: _____

Title: _____

Inspector

Date:

Item No.	Item	N/A	Y	N	Comments/Resolution of Problems
	WEEKLY				
DRUM STORAGE AREAS					
1	Are drums stored on pallets or racks above the ground surface?				
2	Is there any evidence of a release?				
3	Are all drums located within a secondary containment system?				
4	Are drums intact? If not, describe any leakage.				
5	Are drums stacked or stored according to manufacturer's recommendations?				
6	Are drums closed/sealed when not in use?				
7	Is the secondary containment system free of cracks, holes, or other breaches?				
8	Are adequate supplies of spill response materials and equipment readily available?				
9	Are containment release valves closed and operating properly?				
10	Are the contents of each drum clearly labeled?				
11	Are the containment units clean and free of debris or other material?				
HAZARDOUS WASTE STORAGE					
12	Are storage containers and secondary containment systems free of cracks, rust, excessive deterioration, or other signs of compromised integrity? Is there any evidence of a release?				
13	Are all containers marked with a hazardous waste label?				
14	Are all containers marked with an accumulation start date?				
15	Is there sufficient aisle space between containers and are all labels turned to be visible?				
16	Are wastes stored together compatible?				
17	Is the storage area properly marked?				
EMERGENCY RESPONSE SUPPLIES					
18	Is there a telephone or other communications available and is it in working order?				
19	Are emergency phone numbers posted?				
20	Is a spill kit available and fully equipped?				
21	Is there proper personal protective equipment available?				
22	Is there a fire extinguisher available and is it charged?				

Note: N/A = Not Applicable

Aboveground Container Inspection Checklist

Monthly Inspection Log

Location:	Container/AST ID:

Inspect Aboveground Storage Tanks (ASTs) and containers of 55 gallons or greater monthly:

1. Check containers, ASTs and AST-to-piping connections for:

- Apparent drip marks?
- Apparent discoloration?
- Visible corrosion, damage, or deterioration?
- Apparent localized dead vegetation?
- Puddles containing material?
- Ensure that all valves are in the closed position if not in use.
- Ensure that area lighting is operative and sufficient to allow for discovery of spill after hours.

2. Check piping for:

- Visible droplets of stored material?
- Apparent discoloration?
- Visible corrosion?
- Pipe bowing between supports?
- Evidence of stored material on valves or seals?
- Localized dead vegetation?
- Ensure that all valves, hoses, dispensing pumps and nozzles are free of leaks.
- Ensure that tank loading/unloading connections are securely capped as blank-flanged when not in use.

3. Check secondary containment for:

- Release valve closed?
- Cracks or other penetrations apparent?
- Visible seepage at joints?
- Excessive ponded water?
- Product residue in secondary containment?
- Do spill containment sumps have an oily sheen?

IMMEDIATELY CORRECT ANY DEFICIENCIES. If the deficiency cannot be immediately corrected, note the deficiency below and notify the SPCC Program Manager. Once correction is made note the Date Corrected.

If immediate corrections are made or no corrections are required, date and initial the next available line.

DATE	INSPECTOR'S INITIALS	DEFICIENCIES	DATE CORRECTED

Hazardous Material Storage Area Weekly Inspection Log

Activity Name:

Inspect the Storage Locker/Storage Area and ensure that:

1. The storage location must be clean and orderly.
2. All doors, hinges, and other hardware must work properly.
3. All storage locations should be marked with an identifier (FL01, SA02, etc).
4. All storage locations must have a MSDS binder containing the MSDS for the HMs in the storage location.
5. Each storage location must have a current inventory posted.
6. All storage locations must be free of tools, personnel items, unauthorized labels, stickers and other markings.
7. There are no leaking containers.
8. All chemicals in the storage location are compatible.

IMMEDIATELY CORRECT ANY DEFICIENCIES. If the deficiency cannot be immediately corrected, note the deficiency below and notify Hazardous Waste Manager. Once the correction is made, note the Date Corrected.

If immediate corrections are made or no corrections are required, date and initial the next available line.

STORAGE LOCKER/STORAGE AREA:	DATE	INSPECTOR'S INITIALS	DEFICIENCIES	DATE CORRECTED

FORT HUNTER LIGGETT CENTRAL HAZARDOUS WASTE FACILITY
TURN IN DOCUMENT

GENERATING ACTIVITY/DODAC _____

PERSON TURNING IN WASTE _____

TELEPHONE NUMBER _____

BUILDING NUMBER/HOME LOC. _____

DATE: _____

WASTE COMMON NAME	PROFILE #	EPA # /CA#	QUANT.	SIZE/TYPE	TOT.LBS.	CHWF DRUM#
_____	[_____]	[_____]	[_____]	[_____]	[_____]	[_____]
_____	[_____]	[_____]	[_____]	[_____]	[_____]	[_____]
_____	[_____]	[_____]	[_____]	[_____]	[_____]	[_____]
_____	[_____]	[_____]	[_____]	[_____]	[_____]	[_____]
_____	[_____]	[_____]	[_____]	[_____]	[_____]	[_____]
_____	[_____]	[_____]	[_____]	[_____]	[_____]	[_____]
_____	[_____]	[_____]	[_____]	[_____]	[_____]	[_____]
_____	[_____]	[_____]	[_____]	[_____]	[_____]	[_____]
_____	[_____]	[_____]	[_____]	[_____]	[_____]	[_____]
_____	[_____]	[_____]	[_____]	[_____]	[_____]	[_____]

I_____certify that the hazardous waste/wastes listed on this form are properly and accurately identified, Described, packaged, marked, and labeled in compliance with applicable regulations of federal DOT and EPA.

SIGNATURE:_____.DATE:_____.

The hazardous waste listed above was received by the FHL CHWF on and by:
PRINTED NAME OF HWAA OPERATOR: SIGNATURE OF HWAA OPERATOR:

_____._____DATE:_____

Spill or Hazardous Substance Release Report Form

Person Reporting: _____ Date: _____

Facility Name: _____ Phone: _____

Facility Address: _____

Facility Commander: _____

Person notified at DPWE: _____

Emergency or Incident: _____

Summary

Source of Spill: _____ Material Spilled: _____

Quantity Spilled: _____ Date and Time of Spill: _____

Cause of Spill: _____

What was the spill area surface made of ? _____

Was anyone injured? Describe: _____

Was there any equipment damage? Describe: _____

Was evacuation required? Describe: _____

How was the spill contained? _____

How was the spill cleaned up? _____

Was the Fire Department called? _____

Was the spill-response contractor called? _____

List any additional notifications made: _____

Was there a public reaction? Describe: _____

Plans to prevent reoccurrence: _____

Complete and fax this report immediately to the DPWE. Maintain a copy at the facility for a minimum of 3 years.

U.S. Army Garrison Fort Hunter Liggett
DPWE Bldg. 243
Fort Hunter Liggett, CA 93928-7090

Phone: (831) 386-2219
Fax: (831) 386-2787

APPENDIX C Fact Sheets

Table of Contents

Fact Sheet
May 2005

SB1158 Designates Aerosol Cans as "Universal Waste"

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

HAZARDOUS WASTE MANAGEMENT

DTSC is one of six Boards and Departments within the California Environmental Protection Agency. DTSC's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California

California Environmental Protection Agency

Senate Bill (SB)1158 (Chapter 450, Statutes of 2001), effective January 1, 2002, reduced the regulatory and financial burden of managing hazardous waste aerosol cans by designating them as "universal waste." Before SB 1158, non-empty aerosol cans that were discarded had to be fully managed as hazardous waste. Now, qualified universal waste handlers may process the cans onsite without a permit under certain conditions.

What Are Aerosol Cans?

The principle behind aerosol cans has remained unchanged since the 1920s. Two fluids are sealed in a metal can. One fluid, the product, is a liquid at room temperature; the other, the propellant, is a compressed gas. When the valve at the top of the can is opened (by pressing on it), the expansion of the propellant forces the product through a small tube that extends from the bottom of the can to the nozzle. According to an industry group, the Consumer Aerosol Products Council, up to 1,500 kinds of products, from asthma inhalers to shaving cream and low cholesterol cooking sprays, are packaged as aerosols.

When Are Aerosol Cans Hazardous Wastes?

Aerosol cans are not hazardous waste when they have been emptied of contents, but non-empty aerosol cans may be hazardous wastes. Non-empty Aerosol cans are commonly discarded for a number of reasons, such as: the spray mechanism is damaged or clogged and no longer works, the propellant has been exhausted, or the owner decides that he or she no longer wants or needs the product.

If the aerosol can contains pressurized contents that may explode when heated, if the propellant is ignitable or toxic, or the prod-

uct itself is ignitable, corrosive, or toxic, then the non-empty aerosol can is a hazardous waste. Aerosols containing paint, pesticides and degreasers are several examples of materials that are likely to be hazardous when discarded.

In the past, Chlorofluorocarbons (CFCs) were the most common type of propellants in use due to their low toxicity and relative inertness. However, CFCs were banned as aerosol propellants in the United States in 1978 after they were found to damage the Earth's protective ozone layer. In 1994, Congress banned a related class of compounds, Hydrochlorofluorocarbons (HCFCs) from use as aerosol can propellants.

Today most aerosol cans use a hydrocarbon propellant. While hydrocarbons are less harmful to stratospheric ozone than CFCs or HCFCs, they are very flammable. An aerosol product containing a hydrocarbon propellant can become a fire hazard if sprayed near fire.

The Four Hazardous Waste Characteristics

A non-empty aerosol can may be considered hazardous if its contents have any of the following characteristics (Cal. Code Regs., tit.22, div. 4.5, ch.11):

Ignitability (can readily catch fire)

Corrosivity (acidic or alkaline)

Reactivity (can explode)

Toxicity (poisonous)

What Are "Universal Wastes"?

"Universal waste" is a designation which includes certain hazardous wastes which are commonly generated. Because they pose a relatively lower risk to people and the environment than other hazardous wastes, universal wastes are regulated based on a relaxed set of standards which is more appropriate for the specific hazards they pose. For more information or a listing of universal wastes, see the Department of Toxic Substances Control (DTSC) fact sheet entitled "Managing Universal Waste in California" (available at http://www.dtsc.ca.gov/PublicationsForms/HWM_FS_UWR.pdf), and California Code of Regulations (Cal Code Regs.), title 22, chapter 23.

SB 1158 now allows qualified handlers to process hazardous waste aerosol cans as "universal waste aerosol cans." Processing includes puncturing, draining, and crushing the cans. See Health and Safety Code (Health & Saf. Code), section 25201.16.

What Has SB 1158 Changed?

Before SB 1158, generators of hazardous waste aerosol cans were subject to all the requirements generally applicable to California hazardous waste generators. These requirements included: obtaining an EPA identification number; complying with accumulation time limits; planning for contingencies; training employees; transporting only by registered hazardous waste hauler; and using the Uniform Hazardous Waste Manifest.

Onsite processing of non-empty aerosol cans, by methods such as puncturing, draining, and crushing the cans, was considered hazardous waste treatment that required authorization from DTSC under the Conditionally Exempt-Limited Tier for

onsite treatment of hazardous waste. Health and Safety Code, section 25201.14 required generators to get certification from DTSC that the technology they used for processing the cans did not pose "a significant potential hazard to human health and safety or to the environment."

SB 1158 deleted from section 25201.14 this certification requirement. In its place, section 25201.16 was added, which made processing hazardous waste aerosol cans a universal waste handler activity. Qualified handlers can now process the cans onsite without a permit or other authorization from DTSC or the local Certified Unified Program Agency (CUPA). A notification requirement exists, as explained below. It is the handler's responsibility to ensure that equipment used for processing the cans meets the requirements of Health and Safety Code, section 25201.16(e). If you process aerosol cans under the provisions of SB 1158, your processing equipment must be designed, maintained, and operated so as to prevent fire, explosion, and unauthorized releases to the environment.

Note: If the contents drained from the cans are hazardous, you must continue to manage the contents as hazardous waste (Health & Saf. Code, § 25201.16(i)).

Does SB 1158 Apply to Me?

SB 1158 applies to you if you generate or accumulate hazardous waste aerosol cans in accordance with California Code of Regulations, title 22, chapter 23 (which specifies standards for managing universal wastes). You may now process hazardous waste aerosol cans onsite if you meet SB 1158 requirements.

The aerosol can puncturing and draining provisions of SB 1158 do not apply to commercial universal waste handlers such as offsite hazardous waste facilities, hazardous waste transporters, or transfer facilities. Offsite commercial processors remain subject to all applicable requirements for the management of hazardous waste, including obtaining proper authorization for the type of treatment they conduct (Health & Saf. Code, § 25201.16(a)(7) and 25201.16(h)(1)); Cal. Code Regs., tit. 22, § 66273.9).

Notification Requirements

Health and Safety Code section 25201.16(j) requires you to notify your local CUPA if you process universal waste aerosol cans. The notification can be given in person or by letter, via certified mail, with return receipt requested. Some CUPAs may have a notification form that can be completed. In the absence of a CUPA, send the notification to the agency authorized to implement and enforce the hazardous waste generator program in your jurisdiction. Also notify the CUPA or authorized agency within 30 days of any change in operation that changes the information you originally provided.

Requirements for Handling Universal Waste Aerosol Cans

All handlers of universal waste aerosol cans must comply with the requirements of Health and Safety Code section 25201.16 (e), (f), and (g). If you are a qualified handler who processes universal waste aerosol cans, you are subject to additional requirements in section 25201.16. You must:

- Manage the universal waste aerosol cans in a manner and in equipment designed to prevent fire, explosion, and unauthorized releases to the environment;

- Place the unit used to process aerosol cans above a non-earthen floor that is free of cracks or gaps and is sufficiently impervious and bermed to contain leaks and spills;
- Develop and implement a written operating procedure for safely processing universal waste aerosol cans and handling emergencies;
- Provide a spill clean-up kit and promptly clean-up any spills or leaks of the contents of universal waste aerosol cans;
- Promptly transfer the contents of the drained aerosol cans from the processing device to appropriate containers that meet specified requirements;
- Process the universal waste aerosol cans in a well-ventilated area; and
- Train employees on the proper procedure for sorting and processing aerosol cans and handling emergencies.

Requirements for Containment of Universal Waste Aerosol Cans

When accumulating, processing, or transporting universal waste aerosol cans, you must (Health & Saf. Code, § 25201.16(f)):

- Accumulate and transport universal waste aerosol cans in containers that are structurally sound, and compatible with the contents of the can, and show no evidence of leaks, spills, or damage that could cause leaks;
- Keep containers closed that are used to accumulate or transport processed aerosol cans or waste drained from the cans, except when waste is being added or removed;
- Cover containers at the end of each workday that are used to accumulate universal waste aerosol cans for processing or shipping;
- Place accumulation containers in a location with sufficient ventilation to prevent formation of an explosive atmosphere;
- Place containers of processed cans, drained can contents or cans generated offsite on a surface that is free of cracks and gaps, and is sufficiently impervious and bermed to contain leaks;
- Place aerosol cans in containers that are designed, built, and maintained to withstand pressures reasonably expected during storage and transportation;
- Segregate incompatible materials in separate containers;
- Keep containers of flammable wastes a safe distance from heat and open flames;
- Label containers of universal waste aerosol cans with one of the following phrases: "Universal Waste-Aerosol Cans," "Waste Aerosol Cans," or "Used Aerosol Cans;" and
- During accumulation, sort cans by type and compatibility of contents.

There Are No Exemptions from Universal Waste Regulations for Aerosol Cans

California Code of Regulations, title 22, section 66273.8 temporarily exempts households and certain very small generators of universal wastes from requirements that apply to larger universal waste handlers (until 2/9/2006). These exemptions however do not apply to aerosol cans (Health & Saf. Code, § 25201.16(d)(2)). Homeowners and small generators of non-empty

aerosol cans are not allowed to dispose of the cans as solid waste (i.e., put them in the trash). However, anyone may dispose of *empty* aerosol cans as solid waste, or recycle empty cans as scrap metal (Cal. Code Regs., tit. 22, § 66266.2(b)(7)).

Frequently Asked Questions

1. How long can I accumulate universal waste aerosol cans?

For up to one year at each site.

2. Can a business with more than one site transport universal waste aerosol cans to one site for consolidation and processing?

Yes, provided that the business keeps records of shipment and comply with California Code of Regulations, title 22, chapter 23, article 4. Universal waste that is classified as a hazardous material by the United States Department of Transportation (U.S. DOT) regulations must be transported in compliance with applicable U.S. DOT requirements (Title 49, Code of Federal Regulations, Parts 171 through 180).

3. SB 1158 requires that universal waste aerosol cans be processed in a manner and in equipment designed, maintained, and operated to prevent fire, explosion, and the unauthorized release of universal waste to the environment. What is intended by this section of the law?

This is an open performance standard, adopted to grant flexibility. Apply your best professional judgment. Factors to be considered include:

- Is the operation in compliance with the Uniform Fire Code?
- Is the equipment safe?
- Are all the metal parts bonded, and is the equipment grounded?
- Are all electrical components in the immediate vicinity intrinsically safe (such as explosion proof)?
- Is the operation located away from open flames and other ignition sources?
- Are all the equipment components compatible with contents of the can?
- Does the equipment meet Air Pollution Control District requirements?

Also consider things such as:

- Cans stored next to a hot furnace.
- Cans stored near acids where the cans would corrode.
- Cans stored where they are likely to suffer mechanical damage.
- Cans sorted to prevent inadvertent, sequential, processing of incompatible waste.

4. When is a container used to accumulate or transport universal waste aerosol cans considered closed? Structurally sound? Compatible with the contents of the universal waste aerosol can?

The same management standards used for hazardous waste containers apply. Use the general hazardous waste guidance and knowledge to guide your management practices.

5. What does "prior to processing the cans" or "prior to shipping the cans offsite" mean?

"Prior to processing the cans" means after the cans become waste, but before they are processed to remove the contents. "Prior to shipping the cans offsite" means before the cans are processed and/or shipped offsite.

6. What is considered to be sufficient ventilation to avoid formation of an explosive atmosphere?

This is best determined by calculating the airflow in the room or area where cans are being processed and factoring in the releases from the unit. These calculations are commonly performed to design systems and work areas that allow businesses to meet OSHA and CalOSHA exposure limits. Many other businesses regularly perform such calculations to meet the fire code and insurance requirements when they are using flammable solvents with low vapor pressure or flammable gases.

- Note that this standard is most easily enforced when the facility fails to meet it; that is, when the facility fails to keep the atmosphere around the operation below the lower explosive limit (LEL) as measured by a flammable gas meter.

7. What type of container would be considered acceptably designed, built, and maintained to withstand pressure reasonably expected during storage and transportation?

The statutory standard addresses containers that are used to accumulate universal waste cans and containers that are used to accumulate hazardous waste residuals from processing universal waste aerosol cans. It is the generator's duty to determine that the containers meet this standard. Factors to consider include:

- Aerosol cans are designed to be used and stored in small quantities at temperatures of 130 degrees Fahrenheit or less
- Aerosol cans that are damaged, stored in direct sunlight or stored at high temperatures can explode.
- Hazardous waste residues drained from the cans must be properly managed
- Containers must be compatible with their contents. This includes the contents of the universal waste aerosol cans.
- Containers must be able to withstand the vapor pressure of their contents at the highest temperature that will be reached in storage and transportation.
- Containers must meet the United States Department of Transportation shipment standards established for containers of similar materials.
- Containers must be able to withstand shocks and impacts expected during handling and transportation.
- Containers that bulge, rupture, or leak during accumulation or transportation, are inappropriate containers.

8. What is a surface considered "sufficiently impervious and bermed to contain leaks and spills"?

Impervious means that the liquid will not soak through the surface. This determination must be based on the material to be contained. A wooden enclosure is obviously not in compliance. In many cases, unsealed concrete may not be appropriate due to its porosity. Bermed means that a berm completely surrounds the area where a leak can take place. The statute does not address the volume that must be contained, but is best interpreted as having the capacity to hold the contents of the largest container.

9. What is considered a safe distance from heat and open flames?

This is addressed in the Uniform Fire Code. The propellant in aerosol cans is typically a flammable gas and in many cases the contents can produce explosive vapors. These must be isolated from any source of ignition. Unsafe situations can be identified and prevented by applying professional judgment and common sense.

10. How can I determine "compatibility of contents" when accumulating universal waste aerosol cans?

Material Safety Data Sheets (MSDS) usually contain information on material compatibility. Appendix V to the California Code of Regulations, title 22, division 4.5, chapter 14 also contains guidance on incompatible wastes. For instance, an alkaline oven cleaner mixed with chlorinated solvents will release highly toxic phosgene gas. Additional factors to consider include:

- Will combining contents from different cans make the mixture impossible to recycle or significantly increase the cost of recycling?
- Will combining different materials subject a large volume of materials to stricter standards due to the contents of one can (for example, a can containing an acutely hazardous waste)?

11. What is meant by "immediately transfer the contents of universal waste aerosol can to a container meeting the requirements of subdivision (f)"?

This means that the puncturing device itself must meet the requirements of Health and Safety Code section 25201.16(f). You must transfer the contents of the puncturing device to such a container as soon as the puncturing operation is completed. It does not mean that the operator must transfer the contents after each individual can is processed. Contents may not be left in the device until the next batch of cans arrives unless the device itself meets the requirements of section 25201.16(f).

12. What is considered adequate documentation of a training program?

Follow the requirements in Health and Safety Code section 25201.16(h)(8) in developing a training program. Your documentation should contain:

- A copy of the training materials, a course outline, or a detailed description of the training;
- A list of employees trained and the dates of their training for all active employees managing the non-empty aerosol cans, with the training being appropriate for their duties. Additionally, training documentation should be accessible during an inspection; and
- Note that all generators of hazardous waste, including generators who manage hazardous waste contents drained from aerosol cans, must comply with hazardous waste generators requirements, including personnel training standards in the California Code of Regulations, title 22, section 66265.16.

Disclaimer

This fact sheet provides general information about managing universal waste aerosol cans. Consult the actual statutes and regulations before making any decisions that may impact regulatory compliance. The full text of Health and Safety Code, section 25201.16 is included in this fact sheet on pages 9 through 16.

Questions

If you cannot find the answer to your question in this fact sheet, contact your local CUPA. You may also contact the DTSC Public and Business Liasons. You can call them at 800-728-6942, or contact them through the DTSC website at www.dtsc.ca.gov, click on "Toxic Questions?" and follow the Contact a Live Person! link to the page listing each of the Public and Business Liasons' e-mail addresses.

Public and Business Liasons provide informal guidance only regarding management of hazardous waste for the convenience of the public. Such advice is not binding upon DTSC, nor does it have the force of law. If you would like a formal opinion on a matter by DTSC, please contact the responsible program office directly. You should also refer to the statutes and regulations, CUPA and DTSC Policies and Procedures, and other formal documents.

For more information, contact the DTSC office nearest you, or call the regional Public and Business Liaisons at (800) 72TOXIC (1-800-728-6942). From outside California, call (916) 255-3545.

DTSC Headquarters
1001 I Street
Sacramento, CA 95814-2828

Sacramento Office
8800 Cal Center Drive
Sacramento, CA 95826-3200

Berkeley Office
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2721

Clovis Office
1515 Tollhouse Road
Clovis, CA 93611-0522

Glendale Office
1011 North Grandview Avenue
Glendale, CA 91201-2205

Cypress Office
5796 Corporate Avenue
Cypress, CA 90630-4732

San Diego Office
9174 Skypark Court, Suite 150
San Diego, CA 92123-4340

or visit www.dtsc.ca.gov

Below is the full text of Health and Safety Code, section 25201.16:

§ 25201.16. Managing aerosol can as waste; Regulations and requirements

(a) For purposes of this section, the following terms have the following meanings:

(1) “Aerosol can” means a container in which gas under pressure is used to aerate and dispense any material through a valve in the form of a spray or foam.

(2) “Aerosol can processing” means the puncturing, draining, or crushing of aerosol cans.

(3) “Destination facility,” as used in Chapter 23 (commencing with Section 66273.1) of Division 4.5 of Title 22 of the California Code of Regulations, also includes a facility that treats, except as described in subdivision (d), or disposes of, a hazardous waste aerosol can that is shipped to the facility as a universal waste aerosol can, except destination facility does not include a facility at which universal waste aerosol cans are merely accumulated.

(4) “Hazardous waste aerosol can” means an aerosol can that meets the definition of hazardous waste, as defined in Section 25117.

(5) “Unauthorized release” means a release to the environment that is in violation of any applicable federal, state, or local law, or any permit or other approval document issued by any federal, state, or local agency.

(6) “Universal waste aerosol can” means a hazardous waste aerosol can while it is being managed in accordance with the department’s regulations governing the management of universal waste, except as required otherwise in subdivisions (d) to (k), inclusive. Upon receipt of a universal waste aerosol can by a destination facility for purposes of treatment or disposal, the can is no longer a universal waste aerosol can, but continues to be a hazardous waste aerosol can.

(7) With respect to a universal waste aerosol can, the term “universal waste handler,” as defined in Section 66273.9 of Title 22 of the California Code of Regulations, does not include either of the following:

(A) A person who treats, except as described in subdivision (h), or disposes of hazardous waste aerosol cans including universal waste aerosol cans.

(B) A person engaged in offsite transportation of hazardous waste aerosol cans, including, but not limited to, universal waste aerosol cans, by air, rail, highway, or water, including a universal waste aerosol can transfer facility.

(b)(1) The requirements of this section apply to any person who manages aerosol cans, except for the following:

(A) Aerosol cans that are not yet wastes pursuant to Chapter 11 (commencing with Section 66261.1) of Division 4.5 of Title 22 of the California Code of Regulations.

(B) Aerosol cans that do not exhibit a characteristic of a hazardous waste as set forth in Article 3 (commencing with Section 66261.20) of Chapter 11 of Division 4.5 of Title 22 of the California Code of Regulations.

(C) Aerosol cans that are empty pursuant to subsection (m) of Section 66261.7 of Title 22 of the California Code of Regulations.

(2)(A) An aerosol can becomes a waste on the date the aerosol can is discarded or is no longer useable. An aerosol can is deemed to be no longer useable when any of the following occurs:

(i) The can is as empty as possible, using standard practices.

(ii) The spray mechanism no longer operates as designed.

(iii) The propellant is spent.

(iv) The product is no longer used.

(B) An unused aerosol can is a waste, for purposes of Section 25124, on the date the owner decides to discard it.

(c)(1) The disposal of any hazardous waste aerosol can is subject to the requirements of this chapter, and to any regulations adopted by the department relating to the disposal of hazardous waste.

(2) Except as otherwise provided in this section, the treatment or storage of any hazardous waste aerosol can is subject to the requirements of this chapter, and any regulations adopted by the department relating to the treatment and storage of hazardous waste.

(d)(1) Except as provided in paragraph (2), a universal waste aerosol can is deemed to be a universal waste for purposes of the department's regulations governing the management of universal wastes.

(2) The exemptions described in Chapter 23 (commencing with Section 66273.1) of Division 4.5 of Title 22 of the California Code of Regulations for universal waste generated by households and conditionally exempt small quantity waste generators of universal waste do not apply to universal waste aerosol cans.

(e) A universal waste handler shall manage universal waste aerosol cans in a manner that prevents fire, explosion, and the unauthorized release of any universal waste or component of a universal waste to the environment.

(f) Any container used to accumulate or transport universal waste aerosol cans, or the contents removed from a universal waste aerosol can or processing device, unless the contents have been determined to not be hazardous waste, shall meet all of the following requirements:

(1)(A) Except when waste is added or removed or as provided in subparagraph (B), the container shall be closed, structurally sound, and compatible with the contents of the universal waste aerosol can, and shall show no evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(B) The closed container requirement in subparagraph (A) does not apply to a container used to accumulate universal waste aerosol cans prior to processing the cans pursuant to subdivision (h),

or prior to shipping the cans offsite, except that the container shall be covered at the end of each workday.

(2) The container shall be placed in a location that has sufficient ventilation to avoid formation of an explosive atmosphere, and shall be designed, built, and maintained to withstand pressures reasonably expected during storage and transportation.

(3)(A) The container shall be placed on or above a floor or other surface that is free of cracks or gaps and is sufficiently impervious and bermed to contain leaks and spills.

(B) Subparagraph (A) does not apply to a container used to accumulate universal waste aerosol cans prior to processing the cans pursuant to subdivision (h) or prior to shipping the cans offsite.

(4) Incompatible materials shall be kept segregated and managed appropriately in separate containers.

(5) A container holding flammable wastes shall be kept at a safe distance from heat and open flames.

(6) A container used to hold universal waste aerosol cans shall be labeled or marked clearly with one of the following phrases: “Universal Waste-Aerosol Cans”, “Waste Aerosol Cans”, or “Used Aerosol Cans”.

(g) A universal waste handler shall accumulate universal waste aerosol cans in accumulation containers that meet the requirements of subdivision (f). The universal waste aerosol cans shall be accumulated in a manner that is sorted by type and compatibility of contents.

(h) A universal waste handler may process a universal waste aerosol can to remove and collect the contents of the universal waste aerosol can, if the universal waste handler meets all of the following requirements:

(1) The handler is not an offsite commercial processor of aerosol cans. For the purposes of this paragraph, a household hazardous waste collection facility, as defined in subdivision (f) of Section 25218.1, is not an offsite commercial processor.

(2) The handler ensures that the universal waste aerosol can is processed in a manner and in equipment designed, maintained, and operated so as to prevent fire, explosion, and the unauthorized release of any universal waste or component of a universal waste to the environment.

(3) The handler ensures that the unit used to process the universal waste aerosol cans is placed on or above a nonearthen floor that is free of cracks or gaps and is sufficiently impervious and bermed to contain leaks and spills.

(4) The handler ensures that the processing operations are performed safely by developing and implementing a written operating procedure detailing the safe processing of universal waste aerosol cans. This procedure shall, at a minimum, include all of the following:

(A) The type of equipment to be used to process the universal waste aerosol cans safely.

(B) Operation and maintenance of the unit.

(C) Segregation of incompatible wastes.

(D) Proper waste management practices, including ensuring that flammable wastes are stored away from heat and open flames.

(E) Waste characterization.

(5) The handler ensures that a spill cleanup kit is readily available to immediately clean up spills or leaks of the contents of the universal waste aerosol can.

(6) The handler immediately transfers the contents of the universal waste aerosol can or processing device, if applicable, to a container that meets the requirements of subdivision (f), and characterizes and manages the contents pursuant to subdivision (i).

(7) The handler ensures that the area in which the universal waste aerosol cans are processed is well ventilated.

(8) The handler ensures, through a training program utilizing the written operating procedures developed pursuant to paragraph (4), that each employee is thoroughly familiar with the procedure for sorting and processing universal waste aerosol cans, and proper waste handling and emergency procedures relevant to his or her responsibilities during normal facility operations and emergencies.

(i) A universal waste handler who processes universal waste aerosol cans to remove the contents of the aerosol can, or who generates other waste as a result of the processing of aerosol cans, shall determine whether the contents of the universal waste aerosol can, residues, or other wastes exhibit a characteristic of hazardous waste identified in Article 3 (commencing with Section 66261.20) of Chapter 11 of Division 4.5 of Title 22 of the California Code of Regulations.

(1) If the contents of the universal waste aerosol can, residues, or other wastes exhibit a characteristic of hazardous waste, those wastes shall be managed in compliance with all applicable requirements of this chapter and the regulations adopted by the department pursuant to this chapter. The universal waste handler shall be deemed the generator of that hazardous waste and is subject to the requirements of Chapter 12 (commencing with Section 66262.10) of Division 4.5 of Title 22 of the California Code of Regulations.

(2) If the contents of the universal waste aerosol can, residues, or other wastes are not hazardous, the universal waste handler shall manage those wastes in a manner that is in compliance with all applicable federal, state, and local requirements.

(j)(1) A universal waste handler that processes universal waste aerosol cans shall, no later than the date on which the handler first initiates this activity, submit a notification, in person or by certified mail, with return receipt requested, to either of the following:

(A) The CUPA, if the facility is under the jurisdiction of a CUPA.

(B) If the facility is not under the jurisdiction of a CUPA, the notification shall be submitted to the agency authorized, pursuant to subdivision (f) of Section 25404.3, to implement and enforce the requirements of this chapter listed in paragraph (1) of subdivision (c) of Section 25404.

(2) Each notification submitted pursuant to this subdivision shall be completed, dated, and signed according to the requirements of Section 66270.11 of Title 22 of the California Code of Regulations, and shall include, but not be limited to, all of the following information:

(A) The name, identification number, site address, mailing address, and telephone number of the handler.

(B) A description of the universal waste aerosol can processing activities, including the type and estimated volumes or quantities of universal waste aerosol cans to be processed monthly, the treatment process or processes, equipment descriptions, and design capacities.

(C) A description of the characteristics and management of any hazardous treatment residuals.

(3)(A) Within 30 days of any change in operation which necessitates modifying any of the information submitted in the notification required pursuant to this subdivision, the handler shall submit an amended notification, in person or by certified mail, with return receipt requested, to one of the following:

(i) The CUPA, if the facility is under the jurisdiction of a CUPA.

(ii) If the facility is not under the jurisdiction of a CUPA, the notification shall be submitted to the agency authorized, pursuant to subdivision (f) of Section 25404.3, to implement and enforce the requirements of this chapter listed in paragraph (1) of subdivision (c) of Section 25404.

(B) Each amended notification shall be completed, dated, and signed in accordance with the requirements of Section 66270.11 of Title 22 of the California Code of Regulations, as those requirements apply to hazardous waste facilities permit applications.

(k) In addition to the requirements set forth in Article 4 (commencing with Section 66273.50) of Chapter 23 of Division 4.5 of Title 22 of the California Code of Regulations, during transportation, including holding time at a transfer facility, a transporter of universal waste aerosol cans shall comply with the following requirements:

(1) The transporter shall transport and otherwise manage universal waste aerosol cans in a manner that prevents fire, explosion, and the unauthorized release of any universal waste, or component of a universal waste, into the environment.

(2) Universal waste aerosol cans shall be transported and stored in accumulation containers that are clearly marked or labeled for that use and that meet the requirements of subdivision (f).

(l) The department may adopt regulations specifying any additional requirement or limitation on the management of hazardous waste aerosol cans that the department determines is necessary to protect human health or safety or the environment.

(m) The development and publication of the notification form specified in subdivision (j) is not subject to the requirements described in Chapter 3.5 (commencing with Section 11340) of Part I of Division 3 of Title 2 of the Government Code.

(n) In addition to the requirements set forth in this section, a hazardous waste aerosol can shall be managed in a manner that meets all requirements established by the United States Environmental Protection Agency.

Department of Toxic Substances Control

Preventing environmental damage from hazardous waste, and restoring contaminated sites for all Californians.

State of California

California Environmental Protection Agency

Fact Sheet, August 2007

Used Oil and Oil Filter Management

Regulatory Assistance Officers Notes:

This fact sheet provides an overview of requirements for managing used oil and used oil filters in California. These requirements primarily apply to non-household generators of used oil filters, such as businesses and used oil collection centers. If you are a business that generates used oil, oil filters or other hazardous waste, you should consult with your Certified Unified Program Agency (CUPA). If you are a "Do-It-Yourselfer" or hobbyist that generates these or other hazardous wastes, call your county **environmental health department** to find out about your local used oil and household hazardous waste program. For a complete legal description of requirements specific to used oil, consult California Health and Safety Code, chapter 6.5, division 20, article 13 (commencing with section 25250), and California Code of Regulations title 22, division 4.5, including chapter 29 (used oil) (commencing with section 66279.1) and section 66266.130 (used oil filters). See the DTSC publication on **Generator Requirements** for general hazardous waste management guidance. Finally, DTSC strongly encourages all businesses generating hazardous waste to consider waste minimization, source reduction and pollution prevention.

Used Oil Management

Legal Definition of Used Oil:
"Used oil means any oil that has been refined from crude oil, or any synthetic oil, that has been used, and, as a result of use or as a consequence of extended storage, or spillage, has been contaminated with physical or chemical impurities". (Health and Safe. Code § **25250.1**)

Used oil includes, but is not limited to, the following:

Used Oil Management

Health and Safety Code section 25250.4 requires that used oil be managed as a hazardous waste in California unless it is shown to meet the specifications for recycled

Used motor oils:
Vehicle crankcase oils
Engine lubricating oils
Transmission fluids
Gearbox and differential oils

Used industrial oils:
Hydraulic oils
Compressor oils
Turbine oils
Bearing oils
Gear oils
Transformer (electric) oils
Refrigeration oils
Metalworking oils
Railroad oils

Used oil does NOT include:

Antifreeze
Brake fluid
Other automotive wastes
Fuels (gasoline, diesel, kerosene, etc.)
Grease
Solvents
Substances which are not oils
Oils with a flashpoint below 100°F
Oils containing more than 1,000 parts per million (ppm) total halogens unless the rebuttable presumption is rebutted.
Oils mixed with hazardous waste
Wastewater containing small amounts of used oil
Oils containing 5 ppm polychlorinated biphenyls (PCBs) or greater
Oily wastes that are not used oil
Oily wastewaters that are not used oil
Tank bottoms
Used oil processing bottoms
Used oil re-refining distillation bottoms
Cooking oils (edible)

Note: Non-petroleum derived edible oils that exhibit hazardous characteristics are hazardous wastes, but are not technically regulated as "used oil."

Health and Safety Code section 25250.4 requires that used oil be managed as a hazardous waste in California unless it is shown to meet the specifications for recycled oil in Health and Safety Code section 25250.1(b) or qualifies for a recycling exclusion under Health and Safety Code section 25143.2. In most instances, this means that the generator will contract with a registered hazardous waste transporter to have the used oil picked up within the appropriate accumulation period, but generators may self-transport small quantities of used oil to collections centers, as discussed later in this fact sheet. The accumulation period is 90 days for generators of 2200 lbs. of hazardous waste per month or more (large quantity generators) or 180 days for generators of less than 2200 lbs. per month (small quantity generators). Small quantity generators may accumulate for up to 270 days if the generator sends the oil to a used oil facility that is more than 200 miles away. (California Code of Regulations, title 22, section 66262.34.) Generators who generate a total of less than 220 pounds of hazardous waste per month don't have to start the accumulation "clock" until they have accumulated 220 pounds (approx. 27 gallons) of waste.

Mixing of hazardous waste, including household hazardous waste, with used oil is prohibited.

Used Oil Generator Requirements

Persons or businesses generating used oil are required to meet all used oil generator requirements. Used oil collection centers must meet the same requirements. California Code of Regulations, title 22, sections 66279.20 and 66269.21 Householders who change their own oil (do-it-yourselfers) are exempted from regulation as used oil generators. They must, however, manage their used oil appropriately (e.g., by taking it to a used oil collection center, etc., and never disposing of it to land, water, storm drains, etc.) Householders are allowed to transport their own used oil to a used oil collection center or to a used oil recycling facility if specified conditions are met. These conditions are described in this fact sheet under the section "Transportation of Used Oil" and in Health and Safety Code section 25250.11. Some communities have a curbside used oil pickup program for residents; check with your local solid waste or environmental health agency to see if it offered in your area.

An EPA Identification Number issued by DTSC is required for each site where used oil is accumulated or stored. A generator who accumulates used oil at two places in the same site needs only one EPA Identification Number. See the DTSC Fact Sheet "EPA Identification Numbers."

Tanks and containers that are used for the accumulation of used oil must be kept in good condition.

Tanks must be made of non-earthen, non-absorbing, rust-resistant material such as steel or oil-resistant plastic, and have adequate structural support to contain the used oil. There must be no severe rusting, no apparent structural defects or deterioration, and no leaking. All containers must have tight-fitting lids that are kept closed except when used oil is being added or removed. If a funnel is used in the bung hole of a container, it must either be removed when the container is not being added to (and the container closed), or be equipped with a valve or cover of some sort to prevent leakage if the drum should be turned over. Regular inspection and routine maintenance of all storage tanks and containers is required. Faulty tanks and containers must be repaired or replaced. Definitions of container and tank are given in California Code of Regulations, title 22, section 66260.10; the references to general tank and container management requirements are found in California Code of Regulations, title 22, section 66262.34 subsection (a)(1).

Secondary containment is required for storage tanks. This is a backup containment system designed to prevent the release and migration of wastes or accumulated liquids out of a storage tank or a storage tank system. Examples of secondary containment systems include an impervious bermed area or liner, a vault, or a double-walled tank.

Above-ground storage tanks and containers accumulating used oil, and fill pipes used to transfer used oil into underground storage tanks must be labeled with the words "USED OIL," "HAZARDOUS WASTE," and the initial date of accumulation. In addition, containers must be labeled with the name and address of the generator. California Code of Regulations, title 22, section 66262.34 subsection (f) For shipping, containers must also be labeled as follows:

- HAZARDOUS WASTE - State and Federal Law Prohibit Improper Disposal. If found, contact the nearest police or public safety authority, the U.S. Environmental Protection Agency or the California Department of Health Services.
- Generator's name and address
- Proper Department of Transportation (DOT) shipping name
- Uniform Hazardous Waste Manifest number and the shipping identification number.

Additional requirements for used oil generators are contained in the Health and Safety Code and California Code of Regulations, title 22 provisions cited at the beginning of this fact sheet.

The Rebuttable Presumption

(Health and Safety Code section 25250.1, subdivision (a)(1)(B)(v) and California Code of Regulations, title 22, section 66279.10)

Used oil handlers (e.g., generators, used oil collection centers, transporters, transfer facilities and used oil recycling facilities) are required to determine whether the total halogen content of each used oil shipment exceeds 1,000 ppm. Spent halogenated solvents, such as TCE and PCE, are federally regulated wastes. Used oil containing more than 1,000 ppm total halogens is ***presumed*** to have been mixed with halogenated hazardous waste and must be managed as a federal Resource Conservation and Recovery Act (RCRA) hazardous waste unless it can be demonstrated that such mixing has not occurred (i.e., unless the presumption is rebutted). This is called the "rebuttable presumption."

If a generator, transporter or used oil collection center chooses to apply knowledge to rebut the presumption, it must be done in accordance with criteria specified in California Code of Regulations, title 22 sections 66279.10, subsection (a)(1)(B) for generators, 66279.10, subsection (a)(3)(B) for transporters, and 66279.10, subsection (a)(6) for used oil collection centers.

Used oil transfer facilities and used oil recycling facilities are required to test each shipment of used oil for total halogens before accepting the shipment. See California Code of Regulations, title 22, section 66279.90 subsection (a)

In order to rebut the presumption that the used oil shipment was mixed with RCRA hazardous waste, the used oil handler must demonstrate that the used oil was not mixed with halogenated hazardous waste. Where this demonstration is successfully made, the used oil is regulated as used oil rather than RCRA hazardous waste. The rebuttable presumption is deemed rebutted for the following three types of used oils where specified conditions (California Code of Regulations, title 22, section 66279.10, subdivision (b) are met:

1. metalworking oils or fluids containing chlorinated paraffins,
2. refrigeration oils contaminated with chlorofluorocarbons, and
3. used oil which is exclusively household "do-it-yourselfer" used oil or used oil from a conditionally exempt small quantity generator. (A conditionally exempt small quantity generator generates no more than 100 kilograms of RCRA hazardous waste in a month and does not accumulate more than 1,000 kilograms of hazardous waste onsite at any time. (40 C.F.R. § 261.5).

Transporting Used Oil

In general, California law requires that a registered hazardous waste transporter transport used oil. However, householders and other generators of used oil are allowed to transport up to 20 gallons of used oil per trip to an authorized used oil collection center if the oil is carried in containers that hold 5 gallons or less and specified conditions are met. If the generator of the used oil first gets permission from the used oil collection center, they may transport up to 55 gallons of oil in containers of not greater than 55-gallon capacity. Authorized used oil collection centers include certified used oil collection centers (Public Resources Code section 48622), recycle-only household hazardous waste collection facilities, or collection facilities operating pursuant to Health and Safety Code section 25250.11. Mobile maintenance operations (see below) may also transport up to 55 gallons of used oil in any one vehicle at any one time from an off-site location to a consolidation point.

When used oil is transported by a registered hazardous waste transporter, it must be accompanied by either a standard hazardous waste manifest or a consolidated hazardous waste manifest. (Health & Safe. Code, § 25162). When a consolidated manifest is used, the driver is required to provide the generator (at the time of used oil pickup) with a legible copy of a receipt for each quantity of used oil received. The generator must maintain these receipts for 3 years. Each receipt must contain the following information:

Generator's name, address, EPA Identification Number, contact person and telephone number. Note: as of January 1, 2002, the exemption from EPA number requirements for small generators of used oil was rescinded. (For more information, see the EPA ID Number Fact Sheet)

- Generator's signature or signature of generator's representative,
- Date of shipment,
- State manifest number (pre-printed on the manifest),
- Volume, waste code(s) and shipping description of each type of used oil received,
- Name, address and identification number of the authorized facility to which the used oil is being transported,
- The transporter's name, address and identification number,
- The driver's signature,
- A statement, signed by the generator, certifying that the generator has established a waste minimization program to reduce the volume or quantity and toxicity of the hazardous waste to the degree, as determined by the generator, to be economically practicable.

Additional requirements for used oil transporters are contained in the statutes and regulations cited at the beginning of this fact sheet.

Mobile Maintenance Operations Health and Safety Code section 25250.12

Businesses that generate used oil in the performance of routine maintenance operations at off-site locations are subject to special requirements. Such businesses include off-site heavy equipment operations (e.g., construction vehicle fleets) and mobile oil-changing businesses providing oil changes for personal and business vehicles at the customer's location. The following requirements apply:

- The owner/operator of the business must have a point of consolidation for the used oil,
- The point of consolidation must not be at a residence or residential location,
- The business must have an EPA ID number. When a separate location is used for consolidation, both the maintenance business and the separate location must have EPA ID numbers,
- The transport vehicle must be owned by the business or by an employee of the business,
- The business is not required to register as a hazardous waste transporter as long as they transport no more than 55 gallons of used oil from off-site location(s) to the point of consolidation at any one time,
- The used oil is deemed to be generated at the point of consolidation upon consolidation,
- The used oil must be handled and stored at the point of consolidation in accordance with all applicable hazardous waste laws, and
- The consolidated used oil must be transported by a registered hazardous waste transporter from the point of consolidation to a permitted used oil recycling facility.

Spent Absorbents

Absorbents that have been used to soak up miscellaneous drips and leaks of oil from machinery or devices must be managed like any other waste, that is, by being characterized by the generator as hazardous or non-hazardous, and managed according to the appropriate regulations. They do not fall under the definition of used oil. But absorbents that have been used to soak up spills from used oil tanks and containers should be managed as hazardous wastes. Reusable fabrics, such as oily rags and coveralls, can be sent for commercial laundering. (Health and Safety Code section **25144.6**.) Reusable absorbents being sent off for recycling can be managed as allowed by California Health and Safety Code section **25143.2**.

Many municipal waste programs prohibit the disposal of oily waste to the municipal trash even when the oily wastes pass the hazardous waste tests. You must check with your local CUPA and solid waste program to see how oily wastes are managed in your area. Householders can collect their oily wastes for household hazardous waste events. If your business commonly generates spent oily absorbent, we recommend that you contact your local Pollution Prevention Program to see if there is a different management method or product that can reduce your generation of waste. See the DTSC Pollution Prevention Webpage at http://www.dtsc.ca.gov/.

Miscellaneous

It is unlawful to dispose of used oil on land, to sewers and other water systems, or to burn used oil as a fuel or by incineration, including in space heaters, boilers and similar devices. The use of used oil as a dust suppressant (road oiling) or for insect or weed control is prohibited. Health and Safety Code section 25250.5.

Generators of used oil who also operate used oil collection centers, such as service stations, are advised to not mix the used oil generated in their business with the used oil from the collection center. The rebuttable presumption is not rebuttable if used oil from householders or conditionally exempt small quantity generators has been mixed with used oil from other sources.

Managing USED OIL and fuel FILTERS

(Cal. Code Regs., Title 22, § 66266.130, Health And Safety Code 25250.22)

Introduction

Used oil filters may exhibit hazardous characteristics for lead, other heavy metals and petroleum-derived compounds. This section of the fact sheet outlines the special regulations that DTSC adopted in 1991 to encourage recycling of used oil filters. Unless they are proven to be non-hazardous by laboratory analysis, used oil filters that are **not** being managed according to the used oil filter regulations must be managed as fully regulated hazardous waste. Improper management of used oil filters can result in significant fines and penalties. Do not dispose of used oil filters in trashcans and at non-hazardous waste landfills.

Fuel filters, including gasoline and diesel fuel engine and fuel dispenser filters, usually exhibit hazardous waste characteristics, and previously were **not** allowed to be managed in the same manner as used oil filters. However, legislation enacted in 2004 (AB2254, Aghazarian) allows spent fuel filters to be managed with spent oil filters after January 1, 2005. Health and Safety Code section 25250.22 allows spent fuel filters to be mixed with used oil filters under certain conditions. Fuel filter management under this statute will be discussed in this document following the oil filter management details.

Summary of Generator Management Requirements for Used Oil Filters:

- Drain and collect the free-flowing oil from the filters and manage the collected oil under the requirements for used oil.
- Properly contain, label and store the used oil filters.
- Store them within the allowed time limits.
- Transport them under a bill of lading to an approved destination for purposes of metal reclamation.
- Keep a copy of the bill of lading for three years.

Detailed Management Requirements

Draining: How much is enough?

Used oil filters must be drained of all free-flowing oil before they are placed in storage containers. The term "free-flowing" means a continuous stream of used oil from the filter when it is turned over. Used oil that flows drop-by-drop is not considered to be free-flowing. If the filter is equipped with a flapper valve or other device that blocks the drainage, the valve must be opened or the filter case punctured or opened to allow the residual used oil to drain freely.

Oil filter crushers are commonly used by oil filter generators to remove oil and compact oil filters for shipping. The used oil filter regulations allow generators to pierce and crush drained oil filters to prepare them for recycling, and this treatment does not require a permit. The generator must properly manage all used oil and other residues that drain from the filters as a result of the crushing, puncturing or other activities.

Containers: What to keep them in?

Since oil filters can still drip oil after they have been drained, oil filters must be placed in a container that can capture all of the used oil that continues to drain from the filters.

The containers of used filters must be:

- labeled as "Drained Used Oil Filters,"
- clearly marked with the initial date of accumulation or receipt. The initial date of accumulation is the date when the first filter is placed in the container, or the date when a container of filters is received at a second location,
- rainproof, non-leaking, closed containers, and
- closed and sealed during transportation so that used oil will not spill out if the containers are placed or fall on their sides.

Storage: How much and for how long?
Generators may store up to one ton of used oil filters for a period of up to one year, and storage of one ton or more of used oil filters is limited to 180 days, unless the storage facility has a hazardous waste permit authorizing longer storage. One ton of filters is approximately equivalent to nine drums of uncrushed filters or six drums of crushed filters.

Allowed Destinations: Where can I send them?
The purpose of the oil filter regulations was to encourage recycling of the metal cases and oil. Because of this, you may only send them to certain facilities. The only allowed destinations for used oil filters are:

- to a smelter or scrap metal processor for recycling,
- to a municipal solid waste incinerator for energy recovery, only if the remaining metal casings then are sent to a smelter or scrap metal processor for recycling,
- to a storage or consolidation facility that then transfers the filters to a smelter, scrap metal processor or municipal solid waste incinerator as described above. Households and small businesses will usually give their filters to a person stores and consolidates them, or
- to an authorized hazardous waste facility. Some hazardous waste faculties accept used oil filters for consolidation.

Transportation: Who and how?
You can either take your filters to a destination facility in your own vehicle, or you can hire a shipper to take them there for you. Before you ship, you need to be sure that you:

- only transport properly drained filters,
- prevent any spillage of used oil by sealing the containers tightly before transportation and inspecting them to be sure that they do not leak,
- secure the containers in the transport vehicle to prevent movement or tipping during transportation,
- use a bill of lading with each shipment of used oil filters, and include the following information on the bill of lading:
    - Generator's name, address, and telephone number
    - Transporter's name, address, and telephone number
    - Name, address and telephone number of the receiving facility Quantity and capacity of the containers in the shipment
    - Date of transportation
- A copy of each bill of lading must be kept on file by the transporter, generator and receiving facility for at least 3 years. Unlike the hazardous waste manifest, copies do <u>not</u> have to be sent to DTSC.

Management Requirements for Spent Fuel Filters

The passage of AB 2254 added section 25250.22 to the California Health and Safety Code. This section greatly simplifies the management of spent fuel filters by allowing them to be handled and accumulated along with used oil filters, as long as certain requirements are followed. Failure to manage fuel filters in accordance with the legal requirements could result in you being cited for violations of the hazardous waste laws, and if your failure to manage them properly resulted in fire, explosion or injury, the penalties could be severe.

Used fuel filters may be managed under the same standards as used oil filters that have been discussed above, unless the DTSC adopts regulations specific to fuel filters. In addition, they must meet all of the following requirements:

1. The filters must be stored and otherwise managed in accordance with applicable state and local fire code regulations,
2. Gasoline filters must be stored in containers that are designed to prevent ignition of the gasoline and that are labeled "used oil

and gasoline filters." Check with your local fire marshal to see if they require grounding, safety lids, or special marking,

3. When the filters are ready for transportation to a reclaimer or intermediate handler, the filters must be packaged, marked, labeled and transported in accordance with the applicable Department of Transportation requirements for those materials.
4. If any gasoline or used oil commingled with gasoline is removed from the used oil and fuel filter accumulation container, it must be evaluated and handled properly.

Alternately, fuel dispenser filters from gasoline and diesel filling station pumps may be managed as hazardous waste under the consolidated manifesting provisions of Health and Safety Code section 25160.2. If fuel dispenser filters are being transported under consolidated manifesting, the transporter may place different generators' fuel filters into one container for shipment on a single hazardous waste manifest that is held by the transporter.

USEFUL CONTACT INFORMATION

DTSC Regulatory Assistance Officers
If you cannot find the answer to your question in this fact sheet, contact the DTSC Regulatory Assistance Officers. You can call them at 800-728-6942, or contact them through the Department of Toxic Substances Control website — http://www.dtsc.ca.gov — follow the "Contact Us" and "Regulatory Assistance Officers" links to the page listing each of the Regulatory Assistance Officers' email addresses.

DTSC Regulatory Assistance Officers' role is to provide informal guidance regarding management of hazardous waste for the convenience of the public. Such advice is not binding upon DTSC, nor does it have the force of law. If you would like a formal opinion on a matter by DTSC, please contact the responsible program office directly. You should also refer to the statutes and regulations, DTSC Policies and Procedures, and other formal documents.

We also encourage you to complete a Cal/EPA Customer Satisfaction survey. http://www.calepa.ca.gov/Customer/ so that we may improve our Regulatory Assistance Officer Program.

OTHER USEFUL NUMBERS

For specific locations of authorized used oil collection centers in your area:

Cal/EPA Recycling Hotline:
1-(800) CLEAN-UP or 1-(800) 253-2687 or

Additional information on EPA ID Numbers, see the online fact sheets
"**EPA Identification Numbers**" and
"Hazardous Waste Generator Requirements"

DTSC Generator Information Services Section (GISS):
(916) 255-1136 or (800) 618-6942, California only. GISS processes permanent ID number applications, and issues temporary California EPA ID numbers over phone.

Report illegal disposal or management of used oil or used oil filters, contact:
Your local Certified Unified Program Agency or DTSC Waste-Alert Hotline at
(800) 698-6942 or 911 - Only if you see a crime (such as disposal to a storm drain) in progress.

Local government contacts:
http://www.dtsc.ca.gov/InformationResources/local_contacts.cfm

Department of Toxic Substances Control

Preventing environmental damage from hazardous waste, and restoring contaminated sites for all Californians.

State of California

California Environmental Protection Agency

Fact Sheet, December 2006

Management of Spent Lead-Acid Batteries

A note from the Regulatory Assistance Officers:

The Regulatory Assistance Officers of the Department of Toxic Substances Control (DTSC) prepared this fact sheet to provide general information about the hazardous waste requirements and exemptions for managing lead-acid batteries. This fact sheet covers the accumulation, transportation and recycling of those batteries. Clicking on bolded numbers or text will take you to sites containing the regulations. If you generate hazardous waste, you should consult with your Certified Unified Program Agency (CUPA). You may be subject to local ordinances. Finally, DTSC strongly encourages all businesses generating hazardous waste to consider waste minimization, source reduction and pollution prevention. Go to the Regulatory Assistance Officers FAQs for useful links.

Does the information in this fact sheet apply to me?

The batteries discussed here are equivalent in size and type to common vehicle batteries, including utility batteries and those used in emergency power supplies. Because they contain lead and sulfuric acid, lead-acid battery **disposal** is fully regulated as a hazardous waste management activity, but when intact lead-acid batteries are managed for **recycling,** the handling requirements are relaxed. Processing lead-acid batteries for recycling by draining the electrolyte, crushing, smelting or other physical methods is a fully regulated hazardous waste activity that requires a hazardous waste treatment permit. Contact your local DTSC Facility Permitting Unit if you intend to process batteries in this manner. The "universal waste" regulations address small, sealed lead-acid "gel-cell" type batteries and large utility batteries, such as fork lift batteries. See section California Code of Regulations, title 22, section 66273.2 for the universal waste battery management regulations.

The regulations addressing used lead-acid battery management are found in California Code of Regulations, title 22, sections 66266.80 and 66266.81. Generators of lead-acid batteries include vehicle owners, garages, parts stores and service stations, as well as other businesses and factories that generate dead or damaged batteries. If you generate no more than 10 batteries per year, or store or transport no more than 10 batteries at one time, you are not subject to the reporting and record keeping requirements given in the battery regulations as long as the batteries will go to someone who stores, recycles, uses, reuses or reclaims them. This also applies to people who trade in an old battery for a new one and to the person accepting the trade-in. Persons or

businesses that generate more than 10 batteries per year, or who store or transport more than 10 at one time, may still manage them under the relaxed standards, but must keep records about the batteries as described below.

How do consumers get rid of spent batteries?

Retailers are required to accept the trade-in of a spent lead-acid battery by a consumer upon purchase of a new one, (Health and Safety Code section 25215.3**),** and certain dealers may accept them without a purchase (but you should ask first). Some battery wholesalers also accept them from businesses and the public. The public can also take their lead-acid batteries to a household hazardous waste collection location and to certain recycling centers. Call 1-800-CLEANUP or visit this HHW Community Locator (have your zip code ready) and follow the prompts. Again, you should inquire with the facility before taking your batteries in. In some places, conditionally exempt small quantity generators (businesses generating less than 220 pounds of hazardous waste per month) may also take their batteries to one of these locations. If you are taking your batteries to one of these locations, you do not need a manifest or a bill of lading, nor are there reporting requirements.

It is illegal to dispose of, or even try to dispose of, a lead-acid battery on or in any land, including landfills, lakes, streams or the ocean. Abandoning lead-acid batteries on streets and parking lots or placing them in waste dumpsters also constitutes illegal hazardous waste disposal, and can be prosecuted under state law. The penalty can be up to $25,000 per occurrence. If you plan to do anything other than recycle these batteries, you must manage them as hazardous waste.

What are the rules about accumulating and storing spent batteries?

The reason that spent batteries are managed as hazardous waste is that batteries can leak hazardous acid and lead if they are cracked, overturned or missing a cap. There are many sites in California where mountains of broken batteries left a legacy of highly contaminated soil and groundwater. Businesses must take care in the way that they accumulate batteries prior to shipment to a recycler. Undamaged batteries should be stored upright on a covered pallet over a non-reactive, curbed and sealed surface such as coated concrete or asphalt, and care should be taken to prevent the terminals from short-circuiting. Check with your local hazardous waste agency to see if there are additional local requirements or recommendations for the storage of batteries. "Damaged batteries" are batteries that are cracked, broken, or missing one or more caps. You must store and transport damaged batteries in non-reactive, structurally-secure, closed containers such as polyethylene buckets or drums. If missing caps can be replaced and there are no other leaks or damage, the battery can be managed along with intact batteries. Damaged and intact batteries can be transported together. You must label the container holding damaged batteries in ink or paint with the date the first battery was placed there. This is considered the accumulation start date. For other packaging advice, check with the person that will be receiving the shipment of batteries from you.

Whether you are a generator or considered to be an interim storage facility (one which holds batteries until they are sent to a battery breaker or recycler), and if you keep one ton or less, you may store those batteries for no more than one year at any single location. If you hold more than one ton of batteries at one location, you may not keep them for longer than 180 days. If these quantities or times are exceeded, the business is no longer exempt from the regulations for generation, storage and transportation of hazardous waste.

If I am shipping spent batteries, what should I know about transportation requirements?

If you ship more than 10 batteries at a time, a legible hazardous waste manifest or a legible bill of lading must accompany the shipment. The generator, transporter and storage, recycling or disposal facility each must retain their copies of either of those documents for three years. The bill of lading must be dated and show the names and addresses of the generator, transporter, and receiving location, as well as the number of batteries transported. California Code of Regulations, title 13, section 1161.

The transporter must make certain that the batteries are loaded so as to prevent damage, leakage of lead or acid, or short circuits, and must comply with all U.S. Department of Transportation (DOT) regulations for hazardous materials. You may transport damaged batteries (packaged as described above) with intact batteries.

What kind of record keeping and reporting is required?

Brokers and handlers of more than 10 batteries per year and those who transport more than 10 batteries at a time are required by the battery regulations to keep all copies of bills of lading and manifests related to the transportation of lead-acid batteries for a period of at least three years. DTSC no longer requires you to submit an annual battery report per California Code of Regulations, title 22, section 66266.81(a)(7)(C), but you must keep the data that would enable you to create such a report. That data should be found on the battery shipment bills of lading and manifests mentioned above.

A final word . . .

Remember that all businesses are required to determine whether the wastes that they generate are hazardous wastes. If you have unknown substances, it is your responsibility to determine whether they are hazardous or not. Wastes that have been determined to be hazardous must be labeled and managed as hazardous wastes, regardless of whether you are eligible to treat them onsite under exemptions, or send them away with a hazardous waste hauler for offsite treatment or disposal. If you generate less than 100 kilograms of hazardous waste per month, you may be eligible to take your waste to a small business/household hazardous waste program, if your local agency has one. Call your county environmental health program (look under "Local Government Contacts" in the Information Resources section of the DTSC website) or your DTSC Regulatory Assistance Officer to determine whether you have a small business program in your area.

If you cannot find the answer to your question in this fact sheet, please contact the Regulatory Assistance Officer directly. You can call them at 800-728-6942, or contact them via the Department of Toxic Substances Control website -- http://www.dtsc.ca.gov -- click on "Contact Us" "Regulatory Assistance Officers", and you find a phone listing of the Regulatory Assistance Officers as well as a hot link to their email addresses.

DTSC Regulatory Assistance Officers provide informal guidance only regarding management of hazardous waste for the convenience of the public. Such advice is not binding upon DTSC, nor does it have the force of law. If you would like a formal opinion on a matter by DTSC, please contact the responsible program office directly. You should also refer to the statutes and regulations, DTSC Policies and Procedures, and other formal documents.

If you believe that you have received incorrect information from a Regulatory Assistance Officers, please contact the External Affairs at (916) 322-0476. We also encourage you to complete a Cal/EPA Customer Satisfaction survey (http://www.calepa.ca.gov/ContactUs/) so that we may improve our Regulatory Assistance Officers Program.

Fact Sheet
December 2005

Management of Waste Gasoline and Diesel Fuel Filters

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Law governing the management of waste fuel filters: Assembly Bill 2254

DTSC is one of six Boards and Departments within the California Environmental Protection Agency. The Department's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California

California Environmental Protection Agency

Introduction

Assembly Bill (AB) 2254 (Aghazarian, ch. 240, stats. 2004), was signed into law on August 23, 2004, and became effective on January 1, 2005. Generally, this new law allows waste filters that contain residues of gasoline or diesel fuel (hereafter referred to as waste fuel filters) to be managed according to Department of Toxic Substances Control (DTSC) regulations for the management of used oil filters. AB 2254 imposes several specific requirements on the accumulation of waste fuel filters containing gasoline residues and commingled used oil/waste fuel filters containing gasoline residues.

Properly drained waste fuel filters can now be accumulated and stored with used oil filters to be recycled for scrap metal content. Note that filters and filter components that are not recycled as scrap metal (e.g., plastic and paper waste fuel filters) are not covered by the provisions of AB 2254. Any absorbent filter materials contaminated with fuel cannot be accumulated with the used oil filters, but must be evaluated and managed separately.

DTSC is authorized to apply more stringent requirements should it discover that the standards allowed by this law are not sufficiently protective of health, safety, and the environment.

Who is affected by AB 2254?

Anyone involved in the management of used oil and waste fuel filters is potentially affected by AB 2254. Affected parties include: household generators, small quantity generators (SQG), businesses that generate waste fuel filters, household hazardous waste collection centers, used oil collection centers, used oil recyclers, and any other entity that generates, transports, recycles or manages waste fuel filters and used oil filters commingled with waste fuel filters.

Household generators and small quantity generators should contact their local household hazardous waste collection facility or used oil collection center to ensure compliance with local collection requirements. Some centers may not accept waste fuel filters or used oil filters that have been commingled with waste fuel filters. Businesses that generate waste fuel filters could also consult with their local Certified Unified Program Agency (CUPA) if they have waste management questions that have not been answered by this fact sheet.

The full text of AB 2254 is found in California Health and Safety Code division 20, chapter 6.5, article 13, section 25250.22 (and is also included at the end of this fact sheet). Used oil filter management requirements are found in California Code of Regulations title 22, section 66266.130, "Management of Used Oil Filters." A reader friendly discussion of used oil and used oil filter management standards is provided by DTSC's fact sheet titled "Used Oil and Oil Filter Management", available on DTSC's web site at http://www.dtsc.ca.gov/HazardousWaste/upload/OAD_Used-Oil_FS.pdf

What Has Changed in the Law?

AB 2254 has made the following changes:

Waste fuel filters may now be accumulated in the same container with the used oil filters and handled in the same manner as used oil filters. This provision only applies to used oil and/or waste fuel filters that have been drained of all free flowing liquid and are destined for recycling as scrap metal.

When the accumulated filters contain residues of *gasoline,* additional requirements apply. Such filters:

- Must be stored in containers designed to prevent the ignition of gasoline, and must be labeled "Used Oil and Gasoline Filters."

- Must be properly packaged and labeled before transporting, as required by U.S. Department of Transportation. Applicable provisions include Title 49 of the Code of Federal Regulations (49 C.F.R.), Parts 172, 173, 178, and 179. Part 172 lists the Hazardous Materials Table, special provisions, hazardous materials communications, and emergency response requirements. Part 173 lists general requirements for shipments and packaging. Part 178 lists specifications for packaging, and Part 179 lists specifications for tank cars. (Website: www.dot.gov)

- Must be stored and managed in accordance with state and local fire code requirements. Note: Local fire codes may limit or prohibit the accumulation and storage of waste fuel filters containing gasoline. Contact your local Fire Marshal to inquire about local fire safety regulations that may affect your operations.

- Any residues containing gasoline that accumulate in filter storage containers, and any non-filter material removed from filter housing must be evaluated for hazardous waste characteristics under section 66262.11 of title 22 of the California Code of Regulations, and managed according to the waste's classification.

Disclaimer
This fact sheet does not replace or supersede relevant statutes and regulations. The information contained in this fact sheet is based upon the statutes and regulations in effect as of the date of the fact sheet. Interested parties should always review the most recent relevant statutes and regulations.

For more information

For more information, you can contact your local CUPA. A list of CUPA addresses and phone numbers is available on the Cal/EPA web site at www.calepa.ca.gov/CUPA/CUPAMail.htm You can also contact the DTSC office nearest you, or call the regional Public and Business Liaisons at (800) 72-TOXIC (800-728-6942). From outside California, call (916) 255-3545.

DTSC Headquarters
1001 I Street
Sacramento, CA 95814-2828
(916) 323-2678

Sacramento Office
8800 Cal Center Drive
Sacramento, CA 95826-3200
(916) 255-3617

Berkeley Office
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2721
(510) 540-3739

Clovis Office
1515 Tollhouse Road
Clovis, CA 93611-0522
(559) 297-3901

Glendale Office
1011 North Grandview Avenue
Glendale, CA 91201-2205
(818) 551-2830

Cypress Office
5796 Corporate Avenue
Cypress, CA 90630-4732
(714) 484-5400

or visit www.dtsc.ca.gov

California Health and Safety Code, section 25250.22

§ 25250.22. Management of used filters; Additional requirements with gasoline residue

(a) Notwithstanding any other provision of state law, and to the extent consistent with the federal act, a filter that contains a residue of gasoline or diesel fuel, may be managed in accordance with the requirements in the department's regulations governing the management of used oil filters, unless the department adopts regulations establishing management standards specific to filters that contain those residues.

(b) Management of filters that contain residue of gasoline, and commingled filters that include filters that contain residue of gasoline, shall also meet all of the following requirements:

(1) The filters shall be stored in containers that are designed to prevent ignition of the gasoline and that are labeled "used oil and gasoline filters."

(2) For purposes of transportation, the filters shall be packaged, and the package shall be marked and labeled in accordance with the applicable requirements of Parts 172 (commencing with Section 172.1), 173 (commencing with Section 173.1), 178 (commencing with Section 178.1), and 179 (commencing with Section 179.1) of Title 49 of the Code of Federal Regulations.

(3) The filters shall be stored and otherwise managed in accordance with applicable state and local fire code regulations.

(4) Any gasoline, or used oil commingled with gasoline, that accumulates in containers or other equipment used for filter storage or recycling, and nonmetal filter material removed from filter housing, shall be evaluated pursuant to Section 66262.11 of Title 22 of the California Code of Regulations, to determine its regulatory status under the federal act, and it shall be managed accordingly.

Department of Toxic Substances Control

Preventing environmental damage from hazardous waste, and restoring contaminated sites for all Californians.

State of California

California Environmental Protection Agency

Fact Sheet, December 2006

Hazardous Waste Accumulation Time for Generators

Regulatory Assistance Officer's Note:

This fact sheet was produced by the Department of Toxic Substances Control (DTSC) Regulatory Assistance Officers to provide a simple overview for hazardous waste generators. Hazardous waste accumulation requirements are discussed in greater detail in the DTSC fact sheets Accumulating Hazardous Waste at Generator Sites and Hazardous Waste Generator Requirements. We advise you to review these other resources as well. If you generate waste, you should consult with your Certified Unified Program Agency (CUPA). Finally, DTSC strongly encourages all businesses generating hazardous waste to consider waste minimization, source reduction and pollution prevention.

How long can I accumulate hazardous waste in tanks or containers?

The answer depends in part on the total amount of hazardous waste that you generate each month (Cal. Code Regs. Title 22, § 66262.34**)**:

When does my accumulation clock begin?

Hazardous Waste Generated per Calendar Month	Maximum Allowed Accumulation Time
Less than 1,000 kilograms (2,200 pounds) (Federal term: "Small Quantity Generator")	180 days or less, or 270 days or less if the waste will be transported 200 miles or more for treatment, storage, or disposal. (Cal. Code Regs. title 22 § 66262.34(d))
The generator may not hold more than 1 kilogram of acutely or extremely hazardous waste for more than 180/270 days.	The quantity of waste held at one time may never exceed 6,000 kilograms (13,200 pounds). Generator must meet the requirements of 40 Code of Federal Regulations section 26234 subsections (d), (e), and (f)**.**
1,000 kilograms (2,200 pounds) or more (Federal term: "Large Quantity Generator") *or* 1 kilogram of acutely or extremely hazardous waste	90 days or less from the first date on which any amount of hazardous waste begins to accumulate during that month. **(**Cal. Code Regs. title 22, § 66262.34 subsection (b)(2)**)** The generator must also comply with California Code of Regulations, title 22, section 66262.34 subsections (a), (c), and (f)**.**

Hazardous Waste Generation Rate	Accumulation "Clock" Begins
100 kilograms (220 pounds) or less per calendar month, or 1 kilogram of acutely or extremely hazardous waste in any calendar month	The time begins on the date the generator has accumulated 100 kilograms of hazardous waste, or 1 kilogram of acutely or extremely hazardous waste.
More than 100 kilograms (220 pounds) per month	The time begins on the first date on which any amount of hazardous waste begins to accumulate during that month.

What is "satellite accumulation," and how are the requirements different?

Because of the complexity of the satellite accumulation regulations, the Regulatory Assistance Officers encourage you to contact your Certified Unified Program Agency (CUPA) and/or the Regulatory Assistance Officer in your region. In brief, a generator may accumulate as much as 55 gallons of hazardous waste, or one quart of acutely or extremely hazardous waste, without a permit and without complying with California Code of Regulations, title 22, section 66262.34 subsections (a), (b), and (c), if:

1. The waste is accumulated in containers (not tanks) at the initial accumulation point, near or at the generation point, and is under the control of the operator of the process generating it.

2. The generator does not hold the hazardous waste on-site for more than one year from the initial date of accumulation.

3. The initial date of accumulation is clearly marked and visible on each container, and the containers are managed according to regulation. (Cal. Code Regs. title 22 §§ 66265.171 66265.172 66265.173 subsec. (a))

Within three days of reaching the quantity limits, the generator must mark the container with the date that limit was reached, and comply with the other applicable regulations discussed above.

The generator may use separate containers for different waste streams generated by a given process or group of processes if:

1.The waste streams are incompatible;

2.If using a single container prevents recycling;

3.If using a single container requires unreasonable procedures; or

If using a single container is not safe for the public, workers or the environment.

A 55-gallon or one quart limit applies to each group of waste streams. The generator's determination of the separation of the process wastes is subject to review and approval by DTSC at any time.

If you are considering satellite accumulation, please consult the regulations cited above. If you are not sure that your accumulation area satisfies the criteria for satellite accumulation, check with your local CUPA and/or the DTSC Regulatory Assistance Officers.

A few handy approximations for weight/mass:

Water: 100 kg ~ 27 gallons ~ half-full 55-gallon drum
1000 kg ~ five 55-gallon drums

55 gallons ~ 0.27 cubic yard

1 Cubic yard of Soil: ~ 0.84 ton ~ 770 kilograms

How do I label my accumulation containers?

To comply with the requirements (Cal. Code Regs. title 22 § 66262.34 subsec. (f)) the generator must ensure that:

1. In a generator accumulation area, the accumulation start date is clearly marked and visible on each container.
2. The accumulation start date is clearly marked and visible on each satellite accumulation container, and satellite accumulation end date is placed on the container when 55 gallons is reached or the container is moved to another area.
3. Each container is labeled or marked "Hazardous Waste," and is labeled with the following:
   - the composition and physical state of the wastes;
   - a statement calling attention to the particular hazardous properties of the wastes (toxic, ignitable, reactive, corrosive); and
   - the name and address of the generator.

Accumulation time extensions can be granted under limited conditions. In most cases, extensions are not granted unless requested before the accumulation period has expired. DTSC handles applications for storage extensions of RCRA-regulated waste. The CUPAs can grant non-RCRA waste storage extensions. (Cal. Code Regs. title 22, § 66262.35**)**

DTSC Regulatory Assistance Officers

If you cannot find the answer to your question in this fact sheet, contact the DTSC Regulatory Assistance Officers. You can call them at 800-728-6942, or contact them via the Department of Toxic Substances Control website — http://www.dtsc.ca.gov.

DTSC Regulatory Assistance Officers provide informal guidance only regarding management of hazardous waste for the convenience of the public. Such advice is not binding upon DTSC, nor does it have the force of law. If you would like a formal opinion on a matter by DTSC, please contact the responsible program office directly. You should also refer to the statutes and regulations, DTSC Policies and Procedures, and other formal documents.

If you believe that you have received incorrect information from a Regulatory Assistance Officer, please contact External Affairs at (916) 322-0476.

We also encourage you to complete a Cal/EPA Customer Satisfaction Survey so that we may improve our Regulatory Assistance Officers Program.

Other Useful Numbers

For additional information on EPA ID Numbers:

DTSC Generator Information Services Section (916) 255-1136 or (800) 618-6942 (California only) See the online Fact Sheet: "EPA Identification Numbers" http://www.dtsc.ca.gov/database/Publications/pub_index.cfm

To report illegal disposal or management of hazardous waste, contact:

Your local Certified Unified Program Agency or DTSC Waste-Alert Hotline: (800) 698-6942 or 911 - Only if you see a crime (such as disposal to a storm drain) in progress.

See the online list of local government contacts: http://www.dtsc.ca.gov/InformationResources/local_contacts.cfm

Department of Toxic Substances Control

Preventing environmental damage from hazardous waste, and restoring contaminated sites for all Californians.

State of California

California Environmental Protection Agency

Fact Sheet, March 2007

AB 1125: Rechargeable Battery Recycling Act

Rechargeable batteries are used in a wide variety of products, including cellular and cordless phones, digital cameras, laptop computers, portable electronic devices, remote control toys, electric razors, and cordless power tools. Effective July 1, 2006, a new law prohibits many retailers from selling rechargeable batteries in California unless they have a system in place for collecting used rechargeable batteries from consumers. This law provides a convenient, cost-free opportunity for consumers to return, recycle, and ensure the safe and environmentally sound management of used rechargeable batteries. You can find the text of the new law in Public Resources Code Sections 42451-42456 (available online at: http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_1101-1150/ab_1125_bill_20051006_chaptered.pdf).

Why is it important to recycle rechargeable batteries?

While rechargeable batteries reduce waste and can be more economical than regular household batteries, they may contain mercury, cadmium, lead, and other heavy metals. Proper disposal of batteries that contain hazardous metals is required by law.

Who must comply with this law?

The Rechargeable Battery Recycling Act applies to a retailer, defined in the law as "a person who makes a retail sale of a rechargeable battery to a consumer in the state." A sale includes, but not limited to, a transaction conducted through sales outlets, catalogs, or the Internet. For the purposes of this law, a consumer can be an individual, business, corporation, limited partnership, nonprofit organization, or governmental entity, but not a person who purchases batteries in a wholesale transaction.

Are some retailers and batteries exempted from the requirements of this law?

Large chain supermarkets and persons (including corporations or franchisees) who have less than one million dollars annually in gross sales are not considered "retailers" under this law's definition; and therefore, these businesses are not subject to the law's requirements. Also, sales of rechargeable batteries that are contained in, or packaged with, a battery-operated device are not subject to this law. However, a retailer selling replacement batteries for such devices must comply.

What are the requirements?

Effective July 1, 2006, retailers must have in place, and promote, a system for accepting and collecting used rechargeable batteries for reuse, recycling, or proper disposal. At no cost to the consumer, retailers must:

- Take back from the consumer a used rechargeable battery of a type or brand that the retailer sells or has previously sold.
- Provide a notice with information that directs how the consumer can return used rechargeable batteries at no cost for reuse, recycling, or proper disposal [applies only to a retailer who makes out-of-store sales (e.g. by mail)].
- Publicize information about the used rechargeable battery recycling opportunities that the retailer provides. This may include, for example, signage, brochures, or advertising material given to the consumer, or direct communications with the consumer at the time of purchase.

Is it working?

Beginning July 1, 2007, and annually thereafter, DTSC will post on its Web site the estimated amounts of rechargeable batteries which are returned for recycling in California. Check http://www.dtsc.ca.gov/ for a link to the recycling amount.

What can I do?

For retailers – The Rechargeable Battery Recycling Corporation (RBRC), a nonprofit organization, provides battery collection containers to retailers, free of charge. RBRC also pays shipping and recycling costs. Information is available at their web site, http://www.rbrc.com, or by calling 1-800-8-BATTERY. A commercial collection option available to retailers is the Big Green Box program. Information is available at http://www.biggreenbox.com or by calling (714) 278-9211. Whichever option you choose, DTSC encourages retailers who sell batteries to join the California Take it Back Partnership. Information is available at http://www.dtsc.ca.gov/TIB/index.cfm

For consumers – You can find battery collection locations in your area, by zip code, at http://california.earth911.org and www.rbrc.com. Many local household hazardous waste programs also accept spent batteries. A list, by county, is available at: http://ccelearn.csus.edu/mercurylamp/content/resources5.htm.

For more information about regulatory requirements, please contact the DTSC office nearest you, or call the Regulatory Assistance Officers at:

(800) 72TOXIC (1-800-728-6942) or visit www.dtsc.ca.gov

DTSC Headquarters - (916) 323-2678
1001 I Street, Sacramento, CA 94812

Sacramento Office - (916) 255-3617
8800 Cal Center Drive, Sacramento, CA 95826

Berkeley Office - (510) 540-3739
700 Heinz Avenue, 2nd Floor Berkeley, CA 94710

Clovis Office - (559) 297-3901
1515 Tollhouse Road, Clovis, CA 93611-0522

Chatsworth Office - (818) 717-6500
9211 Oakdale Avenue
Chatsworth, CA 91311-6505

Cypress Office - (714) 484-5400
5796 Corporate Ave., Cypress, CA 90630

San Diego Office - (619) 278-3734
2878 Camino del Rio South, Suite 402
San Diego, CA 92108-3847

Fact Sheet
March 2003

Managing Empty Containers

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Public and Business Liaison Fact Sheets

DTSC is one of six Boards and Departments within the California Environmental Protection Agency. The Department's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California

California Environmental Protection Agency

INTRODUCTION

The Department of Toxic Substances Control (DTSC) has prepared this fact sheet to provide an overview of general information about the management of empty containers. Throughout this fact sheet, citations from the California Code of Regulations and the California Health and Safety Code are linked to databases containing those citations. If you generate hazardous waste, you should consult with your Certified Unified Program Agency (CUPA). Finally, DTSC strongly encourages all businesses generating hazardous waste to consider waste minimization, source reduction and pollution prevention.

BACKGROUND:

Properties throughout California have been contaminated because containers holding residual hazardous materials at the sites were not managed properly. Ironically, operators at many of these sites were recycling and reconditioning drums and containers, activities that we would like to encourage. Since much of the contamination at drum reconditioning sites resulted from mismanaging hazardous material residues that were removed from "empty" containers, the Department of Toxic Substances Control (DTSC) developed regulations that set forth a definition of "empty container." These regulations establish management practices, which, if met, exempt "empty" containers from further regulation under the hazardous waste regulations. Only containers that once held hazardous materials or hazardous wastes are subject to these regulations. The regulations are found in Title 22, California Code of Regulations, section 66261.7.

DEFINITION OF A CONTAINER:

A container is any portable device in which material can be stored, handled, treated, transported, recycled, or disposed of. The definition of container is found in California Code of Regulations, Title 22, section 66260.10. Containers range in size from small lab bottles to trucks and rail cars, but the most common containers used for hazardous waste and hazardous materials management are 55 gallon steel or plastic drums and inner liners from these drums. The empty container management requirements discussed in this fact sheet pertain to containers and their liners that are less than 110 gallons in volume. Those who manage containers with a capacity of greater than 110 gallons ("bulk containers") must follow the requirements given in California Code of Regulations, title 22, section 66261.7(p).

DEFINITION OF AN "EMPTY" CONTAINER

The strategy adopted by DTSC to define an "empty" container or container liner was to establish standards that require the generator (the person who uses the contents of the container) to empty the container of material as much as is reasonably possible. This standard is more stringent than the federal empty standard (found in Title 40 Code of Federal Regulations, section 261.7), which allows up to one inch or 3% of the total weight of the container's contents to remain in the container. The California regulation sets three standards to define an empty container, each based on the type of material held by the container:

Containers That Held Pourable Materials:

For containers that held a material that can be readily poured, all material must be removed by any practicable means (including draining, pouring, pumping or aspirating) before the container can be considered empty. In regards to draining, a container is empty when there is no longer a continuous stream of material coming from the opening when the container is held in any orientation (see the first question in the list of commonly asked questions at the end of this document).

Containers Holding Non-Pourable Materials:

For containers that previously held materials that are non-pourable, no hazardous material shall remain in the container that can feasibly be removed by physical methods, including scraping and chipping, but not rinsing. This standard applies to materials that pour slowly or don't pour at all from the container, including, but not limited to, viscous materials, solids which have "caked up" inside the container, and non-pourable sludges.

Containers Holding Acute or Extremely Hazardous Waste:

Containers which previously held acute or extremely hazardous waste are considered empty only if the container has been triple-rinsed using a solvent capable of removing the material, or cleaning by another method which is proven to achieve equivalent removal to triple-rinsing. These activities may require formal authorization (permitting) by DTSC or the Certified Unified Program Agency (CUPA). This standard is similar to the federal standard.

MANAGEMENT PRACTICES:

In order to retain the exemption from regulation, "empty" containers must be managed according to the following management practices:

- By reclaiming the container's scrap value onsite;
- By sending the container to a person who reclaims the container's scrap value;
- By reconditioning or remanufacturing the container onsite; or
- By shipping the container to a person who reconditions or remanufactures the container.

Note that it is not mandatory for generators to manage empty containers under the provisions of this section. The section allows the generator to use management standards that are less stringent than hazardous waste standards. A generator may instead

decide to recycle containers onsite per the recycling statutes in Health and Safety Code section 25143.2. For example, you may reuse the drum that you use to collect waste oil or antifreeze after your waste hauler has drained it. You could also use an empty product oil drum for the subsequent onsite accumulation of waste oil or other compatible waste or product.

Containers Being Sent Back To The Manufacturer For Refilling

Containers that are sent back to the supplier for the purpose of being refilled are exempt from DTSC regulations if all of the following requirements are met:

- The container was last used to hold a hazardous material acquired from a supplier of hazardous materials;
- The container is empty per the federal standards in Section 261.7 of Title 40 of the Code of Federal Regulations;
- The container is returned to a supplier of hazardous materials for the purpose of being refilled, as long as the supplier's reuse of the container is in compliance with the Department of Transportation (DOT) requirements for shipping containers found in Section 173.28, Title 49, Code of Federal Regulations;
- The container is not treated prior to being returned to the supplier of hazardous materials, except as authorized by section 66261.7.
- The container is not treated (except as authorized section 66261.7) by the supplier of hazardous materials without obtaining specific authorization from the Department; and
- The container is refilled by the supplier with hazardous material which is compatible with the hazardous material which the container previously held unless the container has been adequately decontaminated.

Containers of Five Gallons or Less In Capacity:

"Empty" containers of five gallons or less in capacity can be managed by one of the following methods:

- By reclaiming the container's scrap value onsite;
- By sending the container to a person who reclaims the container's scrap value;
- By reconditioning or remanufacturing the container onsite; or
- By shipping the container to a person who reconditions or remanufactures the container.
- By disposing of the container at an appropriate solid waste facility;

An "appropriate solid waste facility" is one that can accept the empty, unrinsed containers. Some solid waste facilities and municipal waste haulers will not accept empty, unrinsed hazardous materials containers, so generators should check with their local solid waste management agencies before disposing of these containers as solid wastes.

SPECIAL PROVISIONS FOR SPECIFIC CONTAINERS

Household Containers

Emptied household hazardous material and pesticide containers with a capacity of five gallons or less are exempt from regulation if the container was emptied by removing all of the contents that can be removed using practices commonly employed to remove materials from that type of container.

Compressed Gas Cylinders

Compressed gas cylinders are exempt from regulation when the pressure in the cylinder approaches atmospheric pressure.

Aerosol Containers

Aerosol containers are exempt from regulation when the container is emptied to the maximum extent practical under normal use provide that:

- The empty can is not regulated by the federal law under the Resource Conservation and Recovery Act (RCRA); and
- The aerosol container did not previously hold an acute or extremely hazardous waste.

Aerosol containers with hazardous material remaining in the container, including those due to a clogged nozzle, damaged valve, or loss of propellant, are not exempt from regulation and must be managed as hazardous wastes or managed as universal wastes pursuant to California Health and Safety Code section 25201.16**.**

Containers Made of Absorptive Materials:

Containers made of absorptive materials such as wood, cardboard, cloth or paper cannot be exempt from regulation if the container was in direct contact with and has absorbed the hazardous material.

Pesticide Containers From Commercial Farms

Pesticide containers or the inner liners from pesticide containers that have been generated by commercial farming operation do not have to be regulated as hazardous waste if they are managed according to California Code of Regulations, title 22, section 66262.70. The containers must be emptied by removing all of the contents that can be removed by draining, pouring, pumping, or aspirating. The containers then must be triple-rinsed with a liquid capable of dissolving the pesticide that the containers held. The rinsate must be managed properly, such as placing it back into the pesticide sprayer for application. After triple-rinsing, the containers must be punctured, shredded, crushed, or otherwise changed so as to prevent subsequent use or reuse. They then can be disposed of, recycled by reclaiming their scrap value or reused in accordance with the provisions of Health and Safety Code section 25143.2(d)(6).

Bulk Containers

Bulk containers are those with a capacity of 110 gallons or more, including tanker trucks, roll-off bins and railroad cars (see the definition in California Code of Regulations, title 22, section 66260.10). They are included in the contaminated-container regulations, but the requirements are different from smaller containers because they are not normally discarded. If you manage bulk containers, be sure to carefully read the regulations relating to them found in the California Code of Regulations, title 22, section 66261.7(p).

Items Not Considered Containers by this Regulation:

Some containers are regulated by other sections of the federal regulations, the California Code of Regulations or the California Health and Safety Code, so the standards outlined in the contaminated container regulations cannot be used to

exempt the from regulation. The contaminated container regulations do not apply to the following items:

- Used oil filters are managed per California Code of Regulations, title 22, section 66266.130)
- PCB (polychlorinated biphenyl)-contaminated electrical equipment (transformers, circuit-breakers, etc.) managed under:
- 40 Code of Federal Regulations section 761.60: Federal Toxic Substance Control Act requirements for PCBs,
- California Code of Regulations, title 22 sections 66261.24(a)(2): Soluble Threshold Limit Concentration and Total Threshold Limit Concentration values, 66268.29(b)
- California PCB Land Disposal Requirements, and 67426.1 through 67429.1 (management of PCB light ballasts).
- Chemotherapy drug intravenous bags and delivery tubing are managed as medical waste per Chapter 6.1 of division 20 of the Health and Safety Code. The California Department of Health Services Medical Waste Management Program regulates medical waste.

COMMONLY ASKED QUESTIONS

Definition of "Empty":

Q. Regarding the definition of “empty,” no matter how long the container is allowed to drain, some material might still drip when the container is inverted. How would an inspector verify that the container is truly empty?

A. As some residual material will always remain in the "empty" container, an inspector inverting the “empty” container may see some drops drip from the containers. This should not be considered a violation; however, a continuous stream of liquid from the container could be considered a violation. Therefore, generators should allow sufficient time for the container to drain in order to satisfy the “empty” standard.

Q. If I manage to “empty” the container pursuant to California code of Regulations, title 22, section 66261.7, can I assume that the container is non-hazardous at that stage?

A. No. The contaminated container regulations do not classify the containers as non-hazardous at any stage; they only grant an exemption if both the "empty" standard and the management practices are met. The intent of the regulations were to ease the regulatory burden on those generators that are interested in recycling the containers, as well as those involved in the transporting, recycling, refurbishing, and metal recovering contaminated containers. Mismanaged containers lose their exemptions and are subject to full regulation under the hazardous waste control laws.

Management Practices

Q. If the container is considered empty, then why should generators bother with the management practices?

A. “Empty” containers can still contain some residual hazardous materials that could cause significant harm if mismanaged. Therefore, the management practices outlined in California Code of Regulations, title 22, section 66261.7 are necessary to protect public health and the environment.

Q. Do I need to fill out a manifest and use a registered hauler to transport my "empty" containers?

A. Not if they meet all requirements for exemption. You are not required to fill out a hazardous waste manifest or use a registered hauler to transport the exempt containers. However, all empty containers must be transported in accordance applicable US DOT regulations, which include certain packaging and labeling requirements.

Q. My local program has authorized me to rinse containers under the tiered permitting program. Must I continue to manage my containers under these regulations after they have been decontaminated?

A. If you decontaminate your containers so that they do not exhibit hazardous characteristics and no longer present a hazard to human health and the environment, then they are no longer subject to the contaminated container regulations.

Aerosol Containers:

Q. If I have an aerosol container with a clogged nozzle and I know that when I shake the container there is some liquid inside, is this can exempt from regulation?

A. No. Aerosol containers that are not or cannot be emptied of contents and propellant will not qualify for the exemption and should be managed as either hazardous or universal waste.

Q. If an aerosol can is empty to the maximum extent practical under normal use (i.e., I push the nozzle and nothing comes out and invert the container and I don't feel any liquid flow), is this container exempt from regulation? Can I puncture the container and send it for recycling?

A. Yes, but with an important caveat. Empty aerosol containers that did not previously hold acute or extremely hazardous waste are exempt from regulation and can be managed as non-hazardous waste. Puncturing or crushing exempt cans is not treatment of hazardous waste. However, since modern aerosol products often utilize flammable or explosive propellants, puncturing activities should be conducted only with proper aerosol-puncturing equipment that meets air-quality, OSHA, and other mandates.

Permit Requirements

Do I need a formal grant of authorization (permit) from DTSC to conduct the following activities:

Q: Remove non-pourable materials from containers to meet the "empty" definition?

A: No. The DTSC authorized the use of physical methods (excluding rinsing) to remove non-pourable materials from containers. See California Code of Regulations, title 22 section 66261.7(b)(2)**.** This authorization is not applicable to containers that previously held acute or extremely hazardous waste.

Q: Treat a container which previously held acute or extremely hazardous waste?

A: Triple-rinsing, or any other scientifically proven method to remove the acutely or extremely hazardous material, requires formal authorization from DTSC or the CUPA. The only exceptions are:

- When the activity qualifies for exemption as specified in the recycling

provisions of Heath and Safety Code Section 25143.2(c)(2)

- The rinsing is conducted under the laboratory "benchtop treatment" exemption in California Health and Safety Code section 25200.3.1, or
- The "treatment" is part of the manufacture's instruction for using the material. For example, some manufacturers instruct the user of a material to place a small amount of a neutralizing agent into a container after it has been emptied, in order to prevent reactive compounds from forming from the chemical residues.

Q. Treat (rinse or shred) contaminated containers that did not previously contain acute or extremely hazardous waste?

A: The regulations allow treatment of containers without a permit, provided that container is "empty" as defined by the California regulations that it did not previously contain acute or extremely hazardous waste, and that it is managed pursuant to the management practices outlined in California Code of Regulations, title 22, section 66261.7.

Containers of 110 gallons or less in capacity that are empty pursuant to the federal standard (40 CFR 261.7), but not empty to the California standards may be treated under the authorization of the Conditional Exemption tier for Specified Wastestreams (CESW). Generators operating under CESW must comply with all the requirements set forth in California Health and Safety Code section 25201.5. For further information on the tiered permitting requirements, contact your local Certified Unified Program Agency (CUPA).

GENERAL QUESTIONS

Q. Do the contaminated containers regulations apply to underground storage tanks?

A. No. Underground storage tanks are not portable devices and thus are not considered containers (refer to the definition of a container on page 1). Therefore, the contaminated container regulations do not apply to underground storage tanks. Decontamination of underground tanks is covered in California Code of Regulations, title 22, chapter 32, beginning with section 67383.1.

Q. If the container had an inner liner that prevented contact of the material with the inner surface of the container, is the container still regulated as hazardous waste once I remove the inner liner?

A. No. Once the liner is removed, the container is exempt from regulation. This applies to containers of all sizes. It also applies to containers that previously held acute or extremely hazardous waste and containers that are made of absorptive materials. This exemption will not apply if the inner liner leaked and thus resulted in contaminated the outer container.

Q. Can I "reclaim" contaminated containers by making them into barbeques or other items? Isn't that "reclaiming scrap value"?

A. The contaminated container regulations do not address the reuse of containers in this way. The term "reclaiming scrap value" in the regulations is considered to be the sale of containers to a scrap metal facility. If a person wanted to use contaminated containers as a "raw material" to produce another product, the generator or handler would have to manage it as hazardous waste

and decontaminate it. Decontamination of hazardous waste is considered to be treatment subject to permitting requirements, in this case, under tiered permitting. The person conducting treatment would have to be able to demonstrate that the containers were completely decontaminated before managing them as non-hazardous containers. The commercial use of containers to produce food appliances may also come under regulation by the Department of Food, Drug and Agriculture and other State and federal public health agencies.

Q. Does laboratory glassware fit the definition of "empty containers"?

A. Yes. Contaminated laboratory glassware can be discarded or recycled if empty, or washed and reused. If it had contained extremely hazardous or acutely hazardous waste, the generator would need to triple rinse it before discarding it.

DTSC PUBLIC AND BUSINESS LIAISONS

If you cannot find the answer to your question in this fact sheet, contact the DTSC Public and Business Liaisons. You can call them at 800-728-6942, or contact them through the Department of Toxic Substances Control website — http://www.dtsc.ca.gov — follow the "Information Resources" and "Contact a Live Person!" links to the page listing each of the Public and Business Liaisons' email addresses.

DTSC Public and Business Liaisons' role is to provide informal guidance regarding management of hazardous waste for the convenience of the public. Such advice is not binding upon DTSC, nor does it have the force of law. If you would like a formal opinion on a matter by DTSC, please contact the responsible program office directly. You should also refer to the statutes and regulations, DTSC Policies and Procedures, and other formal documents.

We also encourage you to complete a Cal/EPA Customer Satisfaction survey http://www.calepa.ca.gov/about/custsvc.htm so that we may improve our Public and Business Liaison Program.

Fact Sheet, December 2007

AB 1447 (2007) Changes to the Appliance Recycling Program

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

The mission of the Department of Toxic Substances Control is to provide the highest level of safety, and to protect public health and the environment from toxic harm.

State of California

Cal/EPA

Introduction

In 2004, AB 2277 established new certification requirements for those who recycle discarded major appliances. Beginning in 2006 those who remove Materials that Require Special Handling (MRSH) from discarded major appliances must become certified by the Department of Toxic Substances Control (DTSC) by demonstrating the ability to properly remove and manage MRSH in accordance with all applicable hazardous waste control laws.

In 2007, AB 1447 (Calderon) made changes to the existing Certified Appliance Recycling (CAR) program to promote proper recycling of abandoned appliances and to clarify the criteria for recyclers to demonstrate their ability to properly remove and manage MRSH from discarded major appliances.

This fact sheet explains the CAR program and the recent changes to the law and its requirements. The specific statutory requirements established by Assembly Bill 2277 (2004) and Assembly Bill 1447 (2007), can be found in the Public Resources Code (PRC), chapter 3.5, section 42160 et seq. and in the California Health and Safety Code (HSC), chapter 6.5, section 25211 et seq.

What is a Certified Appliance Recycler?

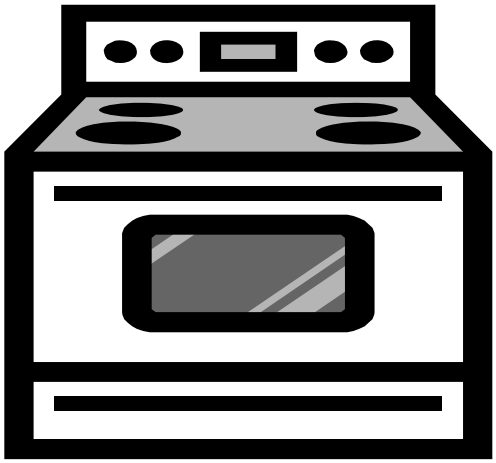
A Certified Appliance Recycler (CAR) is a person or business certified by DTSC to remove and properly manage certain potentially hazardous materials – known as "materials that require special handling" – from discarded major appliances. Those who handle, store, or transport discarded major appliances but do not process or recycle them do not need to be certified by DTSC.

What Changes did AB1447 Make?

As of January 1, 2008:

- Refrigerant service technicians who are certified under Section 608 of the Clean Air Act may remove refrigerants from discarded major appliances without becoming certified by DTSC to recycle appliances.
- Scrap recycling facilities that accept appliances that have already been processed are no longer required to report on the number and type of processed appliances they received on DTSC Form 1430.
- A CAR may recycle an abandoned "orphan" appliance that lacks documentation for removal of materials that require special handling, provided certain conditions are met.

- Scrap recycling facilities that accept "orphan appliances" for recycling must submit a monthly report.
- The information that an applicant for certification must submit to demonstrate his or her ability to properly remove and manage all MRSH is clarified.



What is a Major Appliance?

Section 42166 of the Public Resources Code defines a "major appliance" as a "domestic or commercial device" (a machine you have in your home or business), including but not limited to a:

- Washer or dryer
- Refrigerator or freezer
- Water and space heaters
- Furnace or boiler
- Air-conditioner or dehumidifier
- Trash compactor
- Oven, stove, or microwave

What are "Materials that Require Special Handling"?

Materials that require special handling are materials that when removed from a discarded appliance may not be disposed of in the garbage or at a solid waste facility. (HSC §25212)

The following materials must be removed from an appliance prior to the appliance being crushed, baled, shredded, sawed or sheared apart, disposed of, or otherwise processed in a manner that could result in the release or prevent the removal of these materials, including but not limited to (PRC §42167):

- Mercury, found in switches and temperature control devices.
- Used oil, from compressors and transmissions.
- Chlorofluorocarbons (CFCs), Hydrochlorofluorocarbons (HCFCs), and other non-CFC replacement refrigerants injected in air-conditioning/refrigerant units.
- All metal-encased capacitors
- Any parts that contain encapsulated polychlorinated biphenyls (PCBs) or Diethylhexylphthalate (DEHP).
- Any other material that is a regulated hazardous waste.

The person removing these materials is considered a hazardous waste generator and must comply with applicable laws for generators of hazardous waste.

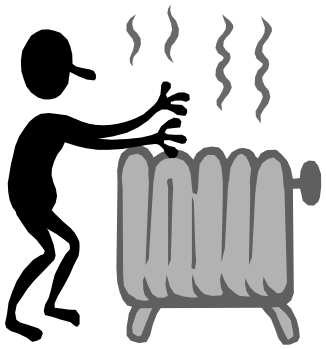
Some materials removed from appliances are hazardous wastes; some of these hazardous wastes have reduced handling standards under the Universal Waste Rule. (CCR, Title 22, §66273.1 et seq.)

How can I Become a CAR?

To operate as a CAR you need to submit an application (DTSC Form 1428) to DTSC and obtain certification. (HSC §25211.4)

Applicants will be evaluated on their ability to remove and properly handle MRSH from discarded major appliance in accordance with all applicable hazardous waste control laws, including a technical description of how each MRSH will be managed.

Once an application has been reviewed an applicant will either be approved to recycle appliances and will receive a certificate with a unique CAR number valid for three years from the date of issuance or denied approval and provided a detailed description of all deficiencies.



What is a Scrap Recycling Facility?

A scrap recycling facility is where scrap metals are processed into scrap iron or nonferrous metallic scrap for sale for remelting purposes. A scrap recycling facility could be a feeder yard, metal shredding facility, metal crusher, or a metal baler. (HSC §25211)

What are the new requirements at the scrap recycling facility?

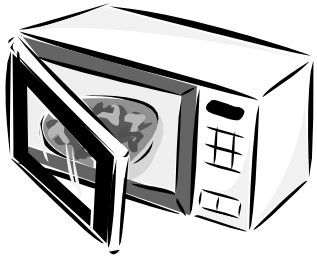
(HSC §25211.2)

- Scrap facilities that accept appliances that **have not been** crushed, baled, shredded, sawed or sheared apart, or otherwise processed in a way that could result in the release or prevent the removal of the materials that require special handling, must be a registered CAR.
- Scrap facilities that accept appliances that **have been** processed, must collect a DTSC Form 1430 from the transporter at the time of transaction, but the number and type of appliances need not be reported; instead the total weight of processed appliances is acceptable.
- A facility that accepts a load of abandoned appliances from which the MRSH have been removed must be a CAR but need not collect DTSC form 1430 from the person delivering the appliances. However, the facility must report, monthly, on the total quantity of "orphan" appliances it received.

DTSC Form 1430 is required to be completed by the CAR that removed the materials that require special handling, not by the transporter. Information required from the CAR:

- ✓ CAR number.
- ✓ EPA identification number.

- ✓ Certification that the CAR removed all materials that require special handling in a manner that did not result in any release prior to processing the appliance.
- ✓ A list of the facilities that all materials requiring special handling were sent to, or are going to be sent.



What Records do I Have to Keep?

If you transport, deliver, or sell discarded major appliances to a scrap recycling facility, or you are a scrap recycling facility or a CAR, you must retain records for at least three years. (HSC §25211.3)

Keep records that demonstrate compliance with the applicable requirements. Records must be kept onsite and must be made available for inspection upon request by DTSC or the local Certified Unified Program Agency (CUPA).

Regarding the materials that require special handling, record:

- Quantity of each material, by weight or volume.
- Method used to recycle, dispose of, or otherwise manage each material.
- Name and address of the facility to which each material was sent.

Where can I find the DTSC Forms?

- Print forms from the internet at: http://www.dtsc.ca.gov/HazardousWaste/Mercury/Certified_Appliance_Recycler.cfm
- Request forms via E-mail from: jfong@dtsc.ca.gov
- Request forms by phone or mail from a DTSC Regulatory Assistance Officer. Refer to page 4.

Compliance and Enforcements Issues

If you would like to submit a comment or complaint on issues regarding compliance or enforcement of the requirements discussed above please visit complete an Environmental Complaint Form Online or call our toll free hotline at (800) 698-6942

Department of Toxic Substances Control

Our Mission is to provide the highest level of safety, and to protect public health and the environment from toxic harm.

State of California

California Environmental Protection Agency

Factsheet, January 2008

Requirements for Generators of Treated Wood Waste (TWW)

What is Treated Wood Waste (TWW)?

TWW is wood lumber commonly used in ground or water contact applications that has been removed from service. This wood is typically treated with preserving chemicals that protect the wood from insect attack and fungal decay during its use. Examples include fence posts, sill plates, landscape timbers, pilings, guardrails and decking.

What are the Health and Environmental Hazards?

TWW contains hazardous chemicals that pose a risk to human health and the environment. Arsenic, chromium, copper, and pentachlorophenol are among the chemicals added to preserve the wood. These chemicals are known to be toxic or carcinogenic. Harmful exposure to these chemicals may result from dermal contact with TWW, or from inhalation or ingestion of TWW particulate (e.g., sawdust and smoke).

What are the Hazardous Waste/Alternative Management Standards (AMS)?

Because TWW contains hazardous chemicals, at elevated levels, it is subject to California's Hazardous Waste Control Law. Department of Toxic Substances Control (DTSC) has developed alternative management standards (AMS) for TWW (California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 34) that are based upon full hazardous waste requirements but are adjusted for the unique circumstances associated with TWW. In summary, AMS lessen storage requirements, extend accumulation periods, allow shipments without a hazardous waste manifest and a hazardous waste hauler, and allows disposal at specific non-hazardous waste landfills. The AMS simplify and facilitate the safe and economical disposal of TWW. (Note -TWW that is removed from utility services or RCRA hazardous waste is not eligible for AMS.)

What are the Handling and Disposal Requirements for TWW?

The new AMS, which went into effect on July 1, 2007, are intended to ease regulatory burdens. Although hazardous waste generators are required to properly classify their waste through knowledge or laboratory analysis, generators of TWW can presume their TWW is hazardous waste and avoid expensive laboratory testing. Generators can then manage their waste in accordance with the AMS, including disposal at certain non-hazardous waste landfills. Upon acceptance at these certain landfills, the TWW, at that point, becomes non-hazardous (Health & Safety Code § 25150.8). Specific generator requirements for households, small business and all others are presented in the following sections.

Households

Households typically generate TWW when a fence or deck is replaced. Under AMS, households must:

1. Keep their TWW segregated from other materials.
2. Store less than 1,000 pounds of their TWW for no more than 30 days following its removal from use.
3. Transport it to an authorized TWW facility. If the TWW is going to a Household Hazardous Waste (HHW) Collection Center, call and confirm the acceptance of TWW. (Not all HHW Collection Centers handle treated wood waste or can only collect limited amounts.)
4. Identify TWW to TWW facility personnel.

It is important to note that AMS also prohibit TWW from being burned, chipped, ground, or mulched. TWW stored for more than 30 days would invoke additional requirements on the household that apply to businesses.

Businesses generating TWW incidental to the normal course of business.

Incidental generation occurs when a business generates TWW as a result of activities not associated with the business's core operation. For example, a retail store, a doctor's office, or an autobody repair shop might generate TWW when repairing or replacing signage or fencing at their place of business. This TWW is considered "incidentally generated" because these businesses are not routinely involved in construction, demolition, or other activities that involve treated wood. Under AMS, businesses that "incidentally" generate TWW can generally comply with handling and disposal requirements by:

1. Keeping TWW segregated from other materials.
2. Storing no more than 1,000 pounds of TWW for no longer than 30 days. Incidental generators who store TWW for more than 30 days are subject to the additional requirements for businesses that are routine generators of TWW.
3. Labeling all TWW bundle/shipments with the following information:

> ***TREATED WOOD WASTE – Do not burn or scavenge.***
>
> ***TWW Handler***
> ***Name:_____***
> ***Address:_____***
> ***Accumulation Date:_____***

4. Taking TWW to an authorized TWW facility. See the listings at the end of the factsheet for information on facilities who have been authorized to accept TWW in California.

Businesses generating TWW during the normal course of business.

Businesses that generate, handle, or accumulate more than 1,000 pound in 30 days engaged in activities expected to routinely generate or handle TWW, such as, construction/demolition contractors, and business and homeowners generating large quantities (i.e., accumulating more than 1,000 pounds in 30 days) must meet the requirements listed below. In complying with the TWW AMS, these generators will minimize their liability concerns and eliminate possible future cleanup cost associated with mismanagement of TWW.

1. Get prior confirmation that the solid waste facility or hazardous waste facility will accept your TWW shipment. Not all facilities accept TWW, so check with the facility before transporting to ensure that your load will not be rejected. To locate the nearest TWW facilities, please contact DTSC at (916) 324-0064. (CCR § 67386.7(b))
2. Store TWW off the ground by placing it on blocks, on concrete surfaces, or in containers. Movement of large quantities of TWW can be facilitated by bailing and or palletizing TWW, which may also prevent ground contact. (CCR § 67386.6)
3. Do not store TWW beyond the allowed limits (90 days – blocked, 180 days – concrete surfaces, 1 year – container).(CCR § 67386.6(a)(2))
4. Cover your TWW during inclement weather

to prevent rain water from leaching chemicals out of the TWW.

5. Accumulate the waste away from public access to prevent scavenging. (CCR § 67386.6(a))
6. Do not burn TWW. It is illegal to burn TWW without a hazardous waste permit. (CCR § 67386.3)
7. Contact DTSC if you plan to reuse the removed TWW to ensure compliance with existing hazardous waste laws. (CCR § 67386.3)
8. Keep segregated TWW from mixing with other waste. (CCR § 67386.3(a))
9. Label all TWW bundle/shipments with the following information:

> ***TREATED WOOD WASTE – Do not burn or scavenge.***
>
> ***TWW Handler***
> ***Name:_____***
> ***Address:_____***
> ***Accumulation Date:_____***

10. Keep records for three years to demonstrate that your TWW was properly managed. Records should include: (1) name and address of the TWW facility to which the TWW was sent; (2) estimated weight of TWW, or the weight of the TWW as measured by the receiving TWW facility; and (3) date of the shipment of TWW. (CCR § 67386.8(a))
11. Notify DTSC if you generate more than 10,000 lbs of TWW per calendar year. See the listings at the end of this factsheet for the online notification weblink.

    The following information must be submitted: (1) your name and mailing address; (2) Identification Number; (3) name and telephone number of the TWW contact person; (4) address or physical location of the TWW management activities; (5) date you exceeded the 10,000 pound limit; and (6) a statement indicating that the handler is generating more than 10,000 pounds of TWW per calendar year. An Identification Number can be obtained by calling 1-800-618-6942. (CCR § 67386.9)
12. Arrange for shipment to a TWW facility. Disposal is allowed at a hazardous waste landfill or a qualified solid waste landfill. See the listings at the end of the factsheet for information on facilities who have been authorized to accept TWW. Contact the TWW facility to obtain costs as they may be adjusted based upon volume. (CCR § 67386.11)
13. Train your employees involved in TWW handling and keep the training records for 3 years. The training shall include applicable Cal/OSHA requirements, methods for identifying and segregating TWW, safe handling practices, requirements of AMS; and proper disposal methods. (CCR § 67386.12)

Frequently Asked Questions (FAQs)

Q: Does the TWW need to be transported with a hazardous waste manifest or use a hazardous waste hauler?

A: No, you can transport using a shipping document, bill of lading, or invoice as documentation and you can use any hauler to transport your TWW off-site.

Q: What information needs to be provided to TWW facility personnel?

A: ID Number or site name, address, contact person's name, mailing address and phone number.

Q: Can I reuse my TWW after its initial removal from service?

A: Yes, with the restriction that you use it on-site for its intended use and if you store it no longer than the allowed time limits. (90 days – blocked, 180 days – concrete surfaces, 1 year – container)

Q: Am I allowed to cut TWW?

A: Yes, but solely for resizing to accommodate for shipping limitations. Any sawdust must be captured and managed as TWW.

Additional Information

For more information on TWW requirements, call the Regulatory Assistance Officers at: (800) 72TOXIC (1-800-728-6942) or (916) 255-3618 if you are calling from outside of California.

For Identification Number issuances contact DTSC at (800) 618-6942.

Treated Wood Waste Webpage Listings

The following items are found on our TWW webpage at: http://www.dtsc.ca.gov/HazardousWaste/Treated_Wood_Waste.cfm

- Regulations and Rulemaking Background
- Treated Wood Waste Online Notification Form
- Permanent Identification Number Form
- List of Landfills Accepting TWW
- Contact for the Nearest Authorized TWW Facility
- Treated Wood Waste Training Materials

Caution:

This factsheet is intended as a basic overview and guidance document for the management of TWW. It does not replace or supersede Federal or State statutes and regulations.

Department of Toxic Substances Control

Our Mission is to provide the highest level of safety, and to protect public health and the environment from toxic harm.

State of California

California Environmental Protection Agency

Fact Sheet, December 2007

Electronic Waste Notification & Reporting Quick Reference Guide

DTSC prepared this fact sheet as a quick reference guide for universal waste electronic waste handlers, and Certified Unified Program Agencies. You can find more information, background, and references on DTSC's Web site, http://www.dtsc.ca.gov/

What are the notification and annual reporting requirements for handlers and recyclers of cathode ray tubes and universal waste electronic materials?

If you treat, recycle, or export CRTs or universal waste electronic devices, you must give DTSC a one-time initial notification and submit annual reports each February 1. In the interest of reducing our paper waste and environmental footprint, we created on on-line reporting system that you can access from our website at, http://www.dtsc.ca.gov/database/UWED/index.cfm

Definitions

What is E-Waste?

In this context, "e-waste" refers to universal waste electronic devices that are widely used in the work-place and at home and which contain toxic substances such as mercury. These are televisions and computer monitors, computers, printers, VCRs, cell phones, telephones, radios, portable DVD players with video screens, and some microwave ovens.

What are CRTs?

CRT is the abbreviation for "cathode ray tube." That is the vacuum or picture tube used to convert an electrical signal into a visual image. As a practical matter, they are older televisions and computer monitors with glass screens.

"CRT Device" means any electronic device that contains one or more CRTs including, but not limited to, computer monitors, televisions, cash registers, and oscilloscopes.

"CRT glass" means any glass released, derived, or otherwise generated from the treatment or breakage of one or more CRTs.

What are the requirements for handlers of UWED and waste CRT Materials?

First, anyone who will store, treat, recycle, or dispose of these wastes must notify DTSC 30 days prior to starting operations. Second, if any of the following bullets apply to you or to a handler, the handler will have to submit to DTSC an annual report on February 1.

- The facility accepts from off site more than 220 pounds (100 kilograms in the regulations) of univer-sal waste electronic devices.
- The facility accepts from off site more than five CRTs (just the vacuum or picture tube), more than five CRT devices (the whole television or computer monitor, or more than 220 pounds of CRT glass.
- The facility generates more than 5,000 kilograms of CRT material (about 200 CRTs).

What are the requirements for handlers/Recyclers of CRT and UWED materials?

Handlers who treat, recycle or export must submit a Notification and Annual Reports to DTSC. A paper form is no longer available for the annual report requirements. The online system may be used for the completion and submittal of the annual report.

For ease of reference, we offer the following citations from California Code of Regulations Title 22. Use the version of the regulation on DTSC's Web site under Laws, Regs & Policies for easiest navigation.

Universal Waste Electronic Material Handling

Notification	small quantity handlers	66273.13 (d)(2)(A)
	large quantity handlers	66273.33 (d)(2)(A)
Annual Reporting	small quantity handlers	66273.13 (d)(2)(B)
	large quantity handlers	66273.33 (d)(2)(B)
EPA ID Number	small quantity handlers	NONE
	large quantity handlers	66273.32

Universal Waste Electronic Treatment and Recycling

Notification	small quantity handlers	66273.13(d)(3)(F)1.a
	large quantity handlers	66273.33 (d)(3)(F)1.a
Annual Reporting	small quantity handlers	66273.13 (d)(3)(F)1.b
	large quantity handlers	66273.33 (d)(3)(F)1.b

CRT Handling and Treatment

	Notification	Annual Reporting
CRT Material Handling	66273.82 (a)	66273.82 (b)(4)
Yoke Removal	66273.83 (c)(2)	66273.83 (c)(4)
Breaking Glass	66273.83 (d)(1)(A)	66273.83 (d)(6)

Fact Sheet
June 2003

Managing Universal Waste in California

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Rules for Managing Some Common Wastes

DTSC is one of six Boards and Departments within the California Environmental Protection Agency. DTSC's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California

California Environmental Protection Agency

Introduction

New laws adopted since 2000 created California's "Universal Waste Rule" to simplify how we manage many common hazardous wastes. The Department of Toxic Substances Control (DTSC) has developed this fact sheet to provide information about these laws.

What are universal wastes?

Universal wastes are hazardous wastes that are more common and pose a lower risk to people and the environment than other hazardous wastes. Federal and State regulations identify universal wastes and provide simple rules for handling, recycling, and disposing of them. The regulations, called the "Universal Waste Rule," are in the California Code of Regulations , title 22, division 4.5, chapter 23. All citations in this fact sheet refer to the California Code of Regulations, title 22, division 4.5, unless otherwise indicated.

All universal wastes are hazardous wastes and, without the new rules, they would have to be managed under the same stringent standards as other hazardous wastes. Also, universal wastes are generated by a wide variety of people rather than by the industrial businesses that primarily generate other hazardous wastes.

Not all waste products of a particular type are hazardous waste and universal waste. For example, waste thermometers that contain mercury are universal wastes but waste thermometers that contain alcohol are neither hazardous waste nor universal waste.

Hazardous Wastes

- Most are generated by industrial businesses
- Subject to detailed management standards

Universal Wastes

- Lower risk than other hazardous wastes
- Generated by a wide variety of people
- Reduced management requirements

Note:
Wastes that do not contain hazardous substances are not universal wastes even if they are similar to universal wastes.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our web site at www.dtsc.ca.gov.

What items are designated as universal wastes?

The following items are universal wastes when they are no longer useful or are discarded:

1. **Mercury thermostats.** These thermostats contain small glass capsules of mercury, a shiny liquid metal, to make electrical contact. Modern electronic thermostats do not contain mercury.

2. **Batteries.** Universal waste batteries include rechargeable nickel-cadmium batteries, silver button batteries, mercury batteries, small sealed lead acid batteries (burglar alarm and emergency light batteries), most alkaline batteries, carbon-zinc batteries, and any other batteries that exhibit a characteristic of a hazardous waste (§§66261.20 through 66261.24).

   NOTE: Spent automotive-type lead acid storage batteries are not universal waste. They are hazardous wastes that require management as specified in chapter 16, article 7.

3. **Lamps.** Universal waste lamps include fluorescent tubes, high intensity discharge lamps, sodium vapor lamps, and any other lamps that exhibit a characteristic of a hazardous waste. Some fluorescent tubes will not be considered hazardous waste, or universal waste, until 2004. For more information regarding which tubes are currently considered hazardous and non-hazardous, call the information numbers listed at the end of this document.

The Four Hazardous Waste Characteristics

An unwanted material may be considered hazardous if it has any of the following properties:

Toxicity (poisonous)
Reactivity (can explode)
Ignitability (can catch fire)
Corrosivity (acidic or alkaline)

4. **Non-empty aerosol cans.** The Legislature added non-empty aerosol cans to the list of universal wastes in 2001. This fact sheet does not address management of non-empty aerosol cans. For information, see Health and Safety Code section 25201.16.

5. **Mercury switches.** Two different types of mercury switches are universal wastes:

   - Motor vehicle light switches that contain mercury. Health and Safety Code section 25214.6 designates motor vehicle light switches (automatic hood and trunk light switches) containing mercury as universal wastes once they are removed from vehicles. As of January 2005, vehicles that contain the switches will also be considered hazardous waste until the mercury light switches are removed.

   - Non-automotive mercury switches and products that contain them, when they are recycled as scrap metal. These switches include thermostats and tip switches in portable heaters, washing machine out-of-balance switches, silent wall switches, and other mercury-containing switches and products containing them. As of February 9, 2006, all discarded products that contain mercury switches will be universal wastes.

6. **Mercury thermometers,** including fever thermometers.

7. **Pressure or vacuum gauges** that contain mercury such as U tube manometers, barometers, and sphygmomanometers (blood pressure meters.)

8. **Dilators and weighted tubing.** These medical devices contain mercury.

9. **Rubber flooring** that contains mercury. Older gymnasium floors that were poured in place to form indoor tracks and gymnastic areas frequently contain mercury.

10. **Novelties** that contain mercury or mercury batteries such as some singing greeting cards, flashing athletic shoes, jewelry, and other devices. As of January 1, 2004, all novelties with added mercury are considered hazardous and universal wastes.

11. **Mercury gas flow regulators.** These older gas flow regulators are managed exclusively by natural gas utilities.

12. **Counterweights and dampers,** including devices that use pouches of high density mercury to dampen shaking on hunting bows and snow skis or to absorb recoil on shotguns.

13. **Dental amalgam** tooth filling materials including waste amalgam, bits and pieces from chairside traps, and spent wastewater filters.

14. **Consumer electronic devices**. Electronics that exhibit hazardous characteristics such as some cell phones, game consoles, and computers (ch. 11, art. 3).

15. **Cathode ray tubes.** Waste cathode ray tubes (CRTs), such as television picture tubes and non-flat panel computer monitors, are universal wastes with special management standards. This fact sheet does not address managing waste CRTs; see the Electronic Waste Recycling page on DTSC's Web site at: www.dtsc.ca.gov.

16. **Gauges.** Vacuum and pressure gauges that contain mercury, including blood pressure gauges, barometers, and manometers

Do these regulations apply to me?

If you generate universal wastes, you must comply with these regulations. However, two exemptions temporarily allow people to dispose of some universal wastes in the regular trash. *These exemptions only apply to waste lamps, thermostats, batteries, and consumer electronic devices.*

Households: Universal waste batteries, thermostats, lamps, and consumer electronic devices generated by people maintaining their private household are exempt. They may be disposed of in the trash unless forbidden by the local solid waste authorities. This exemption will end on February 8, 2006.

Conditionally exempt small quantity universal waste generators: The smallest commercial hazardous waste generators may temporarily dispose of their universal waste batteries, thermostats, lamps, and consumer electronic devices in the trash, unless forbidden by the local solid waste authorities. These exemptions will end on February 8, 2006. To qualify for this exemption, you must meet the following conditions:

From February 9, 2002 until February 8, 2004:

- Generate less than 100 kilograms (220 pounds) of total federally regulated hazardous waste, including all universal wastes (except CRTs) in any calendar month; and
- Generate less than 1 kilogram (2.2 pounds) of any waste identified as an acutely hazardous waste in chapter 11; and
- Remain in compliance with Code of Federal Regulations, title 40, section 261.5.

From February 9, 2004 until February 8, 2006:

- You must meet the above requirements, and
- During this period, you may dispose of no more than 30 universal waste lamps and no more than 20 pounds of universal waste batteries in the regular trash in any calendar month. Mercury thermostats must be recycled or disposed of as hazardous waste.

Temporary and Conditional Universal Waste Exemptions

are in place for batteries, thermostats, lamps, and consumer electronic devices ***only.*** *These exemptions do not apply to CRTs (TV and computer glass), non-empty aerosol cans, or most universal wastes containing mercury.*

Household universal waste is exempt until February 2006.

Small business universal waste is exempt until 2006, if certain conditions are met.

Permanent Household and Conditionally Exempt Small Quantity Universal Waste Generator exemption: Households and the smallest commercial universal waste generators only have to follow the recycling and hazardous waste disposal parts of the universal waste rule. They are not subject to rules for training, accumulation, packaging, their universal wastes.

Where may I send universal wastes?

Many universal wastes must be recycled. Except for households and small generators that are temporarily exempt, everyone must send the universal wastes listed below directly to an authorized recycling facility or to a universal waste consolidator for shipment to an authorized recycling facility.

Universal wastes that must be recycled:

- lamps
- mercury switches
- mercury thermometers
- mercury gauges
- dialators and weighted tubing
- gas flow regulators
- counterweights and dampers
- cathode ray tubes (TV and computer glass)

If you do not recycle these wastes, then you must manage them as hazardous waste rather than as universal waste. This includes notifying DTSC, using a manifest and a registered hazardous waste hauler, complying with shorter accumulation times, and shipping only to an authorized destination facility.

Universal Waste Category	Effective	Recycling Required?	Hazard
Novelty items with mercury	2004	No	Mercury
Lamps with mercury	Most: Current All: 2004	Yes	Mercury
Vehicle light switches with mercury	2005	Yes	Mercury
Non-automotive mercury switches	2006	Yes	Mercury
Mercury thermostats	Current	No	Mercury
Mercury thermometers	Current	Yes	Mercury
Dental amalgam	Current	Yes	Mercury
Rubber flooring	Current	No	Mercury
Pressure or vacuum gauges	Current	Yes	Mercury
Dilators and weighted tubing	Current	Yes	Mercury
Gas flow regulators	Current	Yes	Mercury
Counterweights and dampers	Current	Yes	Mercury
Cathode ray tubes	Current	Yes	Lead
Consumer electronic devices	Current	No	Lead and other metals
Waste batteries	Current	No	Toxic and corrosive
Aerosol cans (non-empty)	Current	No	Reactive, Toxic and Ignitable

Send all other universal wastes to one of three types of destinations:

- another location for consolidation or storage:

  - a business with many locations can designate one location as the consolidation point for the universal wastes from all of its locations

  - universal wastes may be sent to a business that specializes in collecting, consolidating, and shipping universal wastes to a destination facility

- a hazardous waste recycling facility
- a hazardous waste land disposal facility for universal wastes that are not required to be recycled (see table on page 4.)

Unless you are exempt from these rules, you may **not** send universal waste to a municipal solid waste (garbage) landfill or to a non-hazardous waste recycling center.

Disposal at any unauthorized disposal site such as roadsides or ditches is illegal and a serious crime as well as a serious environmental threat.

What rules must I follow to manage my universal wastes?

Unless you are exempt, you must follow the rules for either *large quantity handlers of universal waste* or for *small quantity handlers of universal waste.*

Large quantity handlers of universal waste have more than 5,000 kilograms (5.5 tons) of universal waste at one place at one time. They must follow more stringent standards for handling their universal waste. Generally, only a universal waste collection business will accumulate that much universal waste at once.

Most individuals and businesses are small quantity handlers of universal waste. The rules they follow are in sections 66273.10 through 66273.21. A summary of the requirements is below; however, small quantity handlers of universal waste must comply with the full regulations, not just this short summary.

<u>If you are a small quantity handler of universal waste:</u>

- Send all universal waste to a facility authorized to collect, recycle or dispose of universal waste.
- Do not dispose of universal waste to the trash
- Do not accumulate more than 5,000 kilograms of universal waste at any one time.
- You do not need a hazardous waste identification number.
- Do not store universal waste for longer than one year after generating or receiving the waste. If you think you need more time, contact your Certified Unified Program Agency (CUPA) well before your oldest universal waste will be held for one year (§66273.15).
- Document the length of time you have accumulated universal waste from the date you accepted it from someone else, discarded it yourself after it was "used up," or decided to discard it (§66273.15(c)). The regulations contain several options for documenting accumulation time.
- Label or mark universal wastes, or containers or packages of universal waste, to identify their types. The regulations provide several options for labeling. The purpose of labeling is to ensure that emergency response personnel or an inspector can identify the universal waste (§66273.14).
- Generally, you may not treat universal waste except when cleaning up releases or managing specific wastes as provided in section 66273.13 (for example, removing mercury ampules from thermostats or removing electrolyte from batteries) (§66273.11). Treatment includes any activity that changes the characteristics of the waste.
- Clean up any releases such as leaking batteries or broken fluorescent tubes. Repackage the damaged universal waste and manage it as universal waste. Manage any other materials generated, such as cleanup supplies and contaminated soil, as hazardous wastes if they are identified as hazardous waste (§§66273.13 and 66273.17).
- Train employees in proper universal waste management including handling, packaging, storing and labeling the universal waste, as well as how to respond to releases (§66273.16). This training may be accomplished by simply giving employees written instructions or posting these instructions in the universal waste management areas of the building.

- Determine whether the universal waste is a hazardous material under the United States Department of Transportation (U.S. DOT) rules. For U.S. DOT hazardous materials, properly mark the packaging and placard the transportation vehicle. The applicable U.S. DOT regulations are in Title 49 Code of Federal Regulations, Parts 171 through 180 (§66273.18).
- Prepare proper shipping papers such as a bill of lading. A Uniform Hazardous Waste Manifest is not necessary for universal waste shipments (§66273.18).
- You may transport universal waste in your own vehicle or may use any common carrier allowed by U.S. DOT and California law to transport non-hazardous waste. You are not required to use a registered hazardous waste hauler to transport universal waste (§66273.18).
- Ship the universal waste to another small quantity handler of universal waste, a large quantity handler of universal waste, or a destination facility. When shipping or receiving universal waste, specific rules apply regarding accepting shipments containing hazardous wastes that are not universal wastes and shipments that are rejected (§66273.18).
- Keep records of all shipments and receipts of universal waste for three years (§66273.19).
- When sending universal waste outside the country, comply with regulations addressing universal waste export (§66273.20).

Disclaimer

This fact sheet does not replace or supersede statutes or regulations. All universal waste handlers must follow the hazardous waste control statutes and regulations, including the universal waste regulations, and must comply with the detailed standards applicable to their activities.

Printed on Recycled Paper

For further information about managing universal waste, please contact DTSC's regional Public and Business Liaisons at (800) 72TOXIC (1-800-728-6942) or visit www.dtsc.ca.gov.

DTSC Headquarters
(916) 323-2678
1001 I Street
Sacramento, CA 94812-0806

Sacramento Office
(916) 255-3617
8800 Cal Center Drive
Sacramento, CA 95826-3268

Berkeley Office
(510) 540-3739
700 Heinz Avenue, 2nd Floor
Berkeley, CA 94710-2721

Glendale Office
(818) 551-2830
1011 North Grandview Avenue
Glendale, CA 91201-2205

Cypress Office
(714) 484-5400
5796 Corporate Avenue
Cypress, CA 90630-4732

Clovis Office
(559) 297-3901
1515 Tollhouse Road
Clovis, CA 93611-0522

San Diego Office
(619) 278-3734
2878 Camino del Rio South, Suite 402
San Diego, CA 92108-3847

Table 1: Summary of Universal Waste (UW) Handler Requirements*

[Note: Different Requirements Apply to CRT Material Handlers]

Management Standards	**Household and Conditionally Exempt Small Quantity Universal Waste Generator (CESQUWG)** (§66273.8(b) (households); §66273.8(c) (CESQUWGs))	**Small Quantity Handler of Universal Waste (SQHUW**) (§§66273.10 through 66273.21)	**Large Quantity Handler of Universal Waste (LQHUW)** (§§66273.30 through 66273.41)
Definitions	**Household**: a private residence. (§66273.9) **CESQUWG**: a person who: • Generates, in any calendar month, no more than 100 kilograms (220 pounds) of RCRA hazardous wastes (including all universal waste except CRT materials) and no more than 1 kilogram (2.2 pounds) of acutely hazardous waste; • Generates, in a calendar year, no more than 5 CRT devices; and • Remains in compliance with 40 CFR section 261.5 (§66273.9)	A universal waste handler who does not accumulate 5,000 Kg or more of total universal waste at any time (§66273.9)	A universal waste handler who accumulates 5,000 kilograms or more of total universal waste at any time (§66273.9)
Prohibitions	• Do not dispose (However, temporary exemptions exist for batteries, lamps, thermostats, and Universal Waste Electronic Devices (UWEDs), as specified in §66273.8(a)) (Also see §66273.8(b)(1) (household exemption); §66273.8(c)(1) (CESQUWG exemption)) • Do not disassemble or treat, except under the provisions of section 66273.13 (§66273.8(b)(2) (households); §66273.8(c)(2) (CESQUWGs))	• Do not dispose (e.g., put in trash or landfill) • Do not treat, except in responding to releases as provided in section 66273.17 or by managing specific wastes as provided in section 66273.13 (§66273.11)	• Do not dispose (e.g., put in trash or landfill) • Do not treat, except in responding to releases as provided in section 66273.37 or by managing specific wastes as provided in section 66273.33 (§66273.31)
EPA ID/ Notification	Not required	Not required (§66273.12)	Required (§66273.32)
Uniform Hazardous Waste Manifest	Not required	Not required	Not required
On-Site Accumulation Limits	None	• Less than 5,000 Kg total universal waste (§66273.9); and • No more than 35 kg of mercury that was drained from gauges onsite (§66273.13(g)(2)(l))	• No limit for most universal wastes (but see below); • No more than 35 kg of mercury that was drained from gauges onsite(§66273.33(g)(2)(l))
Waste Management	No specific requirements (but see prohibitions, above) (§§66273.8(b) and 66273.8(c))	• Properly contain wastes (See table 3: "Universal Waste Container Requirements") (§66273.13)	• Properly contain wastes (See table 3: "Universal Waste Container Requirements") (§66273.33)

*All citations, unless otherwise noted, are to the California Code of Regulations, title 22, division 4.5.

Disclaimer: Persons who manage universal wastes are responsible for complying with all applicable requirements. This table summarizes some of the requirements that may apply; it does not replace or supercede any statutory or regulatory requirements. In the event of an inconsistency, the statutes and regulations govern.

Table 1: Summary of Universal Waste (UW) Handler Requirements*

Management Standards	**Household and Conditionally Exempt Small Quantity Universal Waste Generator (CESQUWG)** (§66273.8(b) (households); §66273.8(c) (CESQUWGs))	**Small Quantity Handler of Universal Waste (SQHUW**) (§§66273.10 through 66273.21)	**Large Quantity Handler of Universal Waste (LQHUW)** (§§66273.30 through 66273.41)
		• Classify and properly manage wastes generated during cleanup of releases (§66273.13) • Treat only as specified (See table 4: "Handler Treatment Activities") (§66273.13)	• Classify and properly manage wastes generated during cleanup of releases (§66273.33) • Treat only as specified (See table 4: "Handler Treatment Activities") (§66273.33)
Labeling/Marking	Not required	Label or mark universal waste or containers of universal waste to identify universal waste type (§66273.14)	Label or mark universal waste or containers of universal waste to identify universal waste type (§66273.34)
Accumulation Time Limits/ Demonstration Requirements	None	• No longer than one year, unless solely for the purpose of proper recovery, treatment, or disposal • Demonstration of accumulation time (§66273.15)	• No longer than one year, unless solely for the purpose of proper recovery, treatment, or disposal • Demonstration of accumulation time (§66273.35)
Employee Training	Not required	Inform employees of proper handling and emergency procedures (§66273.16)	Ensure employees are thoroughly familiar with proper handling and emergency procedures, relative to their responsibilities (§66273.36)
Response to Releases	No specific requirements	• Immediately contain releases and residues from UW • May manage residues of leaking, broken or damaged UW as UW, provided the waste is repackaged pursuant to section 66273.13 • Manage other hazardous wastes generated from cleanup as HW (§66273.17)	• Immediately contain releases and residues from UW • May manage residues of leaking, broken or damaged UW as UW, provided the waste is repackaged pursuant to section 66273.33 • Manage other hazardous wastes generated from cleanup as HW (§66273.37)
Off-site Shipments	Transport universal waste only to another universal waste handler or to a destination facility. (§66273.8(b)(3) (households); §66273.8(c)(3) (CESQUWGs))	• Send only to other handlers, destination facilities, or foreign destinations • Comply with applicable DOT requirements for labeling, marking, placarding, and shipping papers • Follow requirements for rejected shipments (§66273.18)	• Send only to handlers, destination facilities, or foreign destinations • Comply with applicable DOT requirements for labeling, marking, placarding, and shipping papers • Follow requirements for rejected shipments (§66273.38)

*All citations, unless otherwise noted, are to the California Code of Regulations, title 22, division 4.5.

Disclaimer: Persons who manage universal wastes are responsible for complying with all applicable requirements. This table summarizes some of the requirements that may apply; it does not replace or supercede any statutory or regulatory requirements. In the event of an inconsistency, the statutes and regulations govern.

Table 1: Summary of Universal Waste (UW) Handler Requirements*

Management Standards	**Household and Conditionally Exempt Small Quantity Universal Waste Generator (CESQUWG)** (§66273.8(b) (households); §66273.8(c) (CESQUWGs))	**Small Quantity Handler of Universal Waste (SQHUW**) (§§66273.10 through 66273.21)	**Large Quantity Handler of Universal Waste (LQHUW)** (§§66273.30 through 66273.41)
Tracking/ Record Keeping	Not required	• Keep a record in the form of a log, invoice, manifest, bill of lading, or other shipping documents • Retain records for 3 years (§66273.19)	• Keep a record in the form of a log, invoice, manifest, bill of lading, or other shipping documents • Retain records for 3 years (§66273.39)
Foreign Exports	Not allowed (§66273.8(b)(3) (households); §66273.8(c)(3) (CESQUWGs))	Requirements are numerous and vary based on whether receiving country is a member of OECD. General requirements include: • Consent of receiving country; • Reporting; • Recordkeeping; • Special notification requirements for exporting UWEDs (§66273.20)	Requirements are numerous and vary based on whether receiving country is a member of OECD. General requirements include: • Consent of receiving country; • Reporting; • Recordkeeping; • Special notification requirements for exporting UWEDs (§66273.40)
Accumulation of UW Received From Other Handlers	Not allowed (household and CESQUWG exemptions apply only to the generator's own universal waste) (§66273.8(b) (households); §66273.8(c) (CESQUWGs))	SQHs that accumulate mercury-containing UW from other handlers are subject to special requirements concerning: • Handling hazardous materials, • Disclosure, • Location, • Seismic, • Zoning, and • Land use. (§66273.21) [No similar special requirements for non-mercury UW]	LQHs that accumulate mercury-containing UW from other handlers are subject to special requirements concerning: • Handling hazardous materials, • Disclosure, • Location, • Seismic, • Zoning, and • Land use. (§66273.41) [No similar special requirements for non-mercury UW]

*All citations, unless otherwise noted, are to the California Code of Regulations, title 22, division 4.5.

Disclaimer: Persons who manage universal wastes are responsible for complying with all applicable requirements. This table summarizes some of the requirements that may apply; it does not replace or supercede any statutory or regulatory requirements. In the event of an inconsistency, the statutes and regulations govern.

Table 2: Universal Waste (UW) Container Requirements ‡

Waste	Container required?	Standards for required containers				Notes/other container requirements
		Must the Container be closed, structurally sound, compatible, lacking evidence of leakage, spillage, or damage?	**Must the waste be packaged with packing materials adequate to prevent breakage?**	**Must the container be airtight?**	**Is a plastic bag required?**	
Batteries (§§66273.13(a)(1) & 66273.33(a)(1))	Yes, if batteries are broken, damaged, leaking	Yes	No	No	No	
Thermostats (§§66273.13(b)(1) & 66273.33(b)(1))	Yes, if thermostats are broken, damaged, leaking	Yes	No	No	No	
Lamps (§§66273.13(c)(1) & 66273.33(c)(1))	Yes	Yes	No	No	Yes, if evidence of leakage, spillage, or damage	
Aerosol Cans (nonempty/pressurized) (Health and Saf. Code §25201.16(g) requires handlers to accumulate universal waste aerosol cans in containers that meet the requirements of §25201.16(f))	Yes	Yes (Prior to processing or shipping cans offsite, containers need not be covered, except at the end of each workday (Health and Saf. Code § 25201.16(f)(1)(B))	No	No	No	- Containers must be: • Placed in a location that has sufficient ventilation to avoid formation of an explosive atmosphere (Health and Saf. Code §25201.16(f)(2)) • Designed, built, and maintained to withstand pressures reasonably expected during storage and transportation (Health and Saf. Code §25201.16(f)(2)) • Placed on or above a floor or other surface that is free of cracks or gaps and is sufficiently impervious and bermed to contain leaks and spills (not applicable prior to processing or shipping cans offsite)

‡ All citations, unless otherwise noted are to the California Code of Regulations, title 22, division 4.5.

Disclaimer: Persons who manage universal wastes are responsible for complying with all applicable requirements. This table summarizes some of the requirements that may apply; it does not replace or supercede any statutory or regulatory requirements. In the event of an inconsistency, the statutes and regulations govern.

Table 2: Universal Waste (UW) Container Requirements ‡

Waste	Container required?	Standards for required containers				Notes/other container requirements
		Must the Container be closed, structurally sound, compatible, lacking evidence of leakage, spillage, or damage?	**Must the waste be packaged with packing materials adequate to prevent breakage?**	**Must the container be airtight?**	**Is a plastic bag required?**	
						(Health and Saf. Code §25201.16(f)(3)(A)) - Incompatible materials must be kept segregated, in separate containers. (Health and Saf. Code §25201.16(f)(4)) - Containers holding flammable wastes must be kept at a safe distance from heat and open flames. (Health and Saf. Code §25201.16(f)(5))
Mercury Thermometers (§§66273.13(e)(1) & (2) & 66273.33(e)(1) & (2))	Yes	Yes	Yes	No	Yes, if evidence of leakage, spillage, or damage	
Mercury-Containing Motor Vehicle Light Switches (§§66273.13(e)(1) & (3)(A)5 & 66273.33(e)(1) & (3)(A)5)	Yes	Yes	Yes	No	Yes, if evidence of leakage, spillage, or damage	
Non-Automotive Mercury Switches (§§66273.13(e)(1) & (3)(A)5 & 66273.33(e)(1) & (3)(A)5)	Yes	Yes	Yes	No	Yes, if evidence of leakage, spillage, or damage	
Dental Amalgam (§§66273.13(f)(1) & 66273.33(f)(1))	Yes	No	No	Yes	No	• Container must be kept closed, except when adding amalgam waste
Mercury Pressure or Vacuum Gauges (§§66273.13(g)(1) & 66273.33(g)(1))	Yes	Yes	Yes	No	Yes	• Openings of gauges must be closed • Gauges must be placed upright into container or package • Drained mercury must be placed in

‡ All citations, unless otherwise noted are to the California Code of Regulations, title 22, division 4.5.

Disclaimer: Persons who manage universal wastes are responsible for complying with all applicable requirements. This table summarizes some of the requirements that may apply; it does not replace or supercede any statutory or regulatory requirements. In the event of an inconsistency, the statutes and regulations govern.

Table 2: Universal Waste (UW) Container Requirements ‡

Waste	Container required?	Standards for required containers				Notes/other container requirements
		Must the Container be closed, structurally sound, compatible, lacking evidence of leakage, spillage, or damage?	**Must the waste be packaged with packing materials adequate to prevent breakage?**	**Must the container be airtight?**	**Is a plastic bag required?**	
						a secondary container
Mercury-Added Novelties • **With Mercury Batteries** (§§66273.13(h)(1) & 66273.33(h)(1))	No	n/a	n/a	n/a	n/a	Manage in accordance with the standards for universal waste batteries in §§66273.13 & 66273.33(a).
• **Painted with Mercury-Containing Paint** (§§66273.13(h)(2) & 66273.33(h)(2))	Yes	Yes	No	Yes	No	
• **With Liquid Mercury** (§§66273.13(h)(3) & 66273.33(h)(3))	Yes	Yes	Yes	Yes	No	
• **With Mercury Switches** (§§66273.13 & 66273.33)	Yes	Yes	Yes	No	Yes, if evidence of leakage, spillage, or damage	Manage in accordance with the standards for universal waste switches and thermometers in §§66273.13 & 66273.33.
Mercury Counterweights and Dampers (§§66273.13(i)(1) & (2) & 66273.33(i)(1) & (2))	Yes	Yes	Yes	No	Yes, if evidence of leakage, spillage, or damage	
Mercury-Added Dilators and Weighted Tubing (§§66273.13(j)(1) & (2) & 66273.33(j)(1) & (2))	Yes	Yes	Yes	No	Yes, if evidence of leakage, spillage, or damage	
Mercury-Added Rubber Flooring (§§66273.13(k) & 66273.33(k))	No	n/a	n/a	n/a	n/a	

‡ All citations, unless otherwise noted are to the California Code of Regulations, title 22, division 4.5.

Disclaimer: Persons who manage universal wastes are responsible for complying with all applicable requirements. This table summarizes some of the requirements that may apply; it does not replace or supercede any statutory or regulatory requirements. In the event of an inconsistency, the statutes and regulations govern.

Table 2: Universal Waste (UW) Container Requirements ‡

Waste	Container required?	Standards for required containers				Notes/other container requirements
		Must the Container be closed, structurally sound, compatible, lacking evidence of leakage, spillage, or damage?	**Must the waste be packaged with packing materials adequate to prevent breakage?**	**Must the container be airtight?**	**Is a plastic bag required?**	
Mercury Gas-Flow Regulators (§§66273.13(*l*)(1), (2), & (3) & 66273.33(*l*)(1), (2), & (3))	Yes	Yes	Yes	Yes	No	The regulator must be placed upright into container or package.
Universal Waste Electronic Devices (§§66273.13(d)(1) & 66273.33(d)(1))	No	No	No	No	No	Whole UWEDs that are stored in a room on a pallet meet this requirement.
CRT Materials (§66273.83(a))	Yes	Yes	No	No	No	Whole CRT devices that are shrink-wrapped on a pallet meet this requirement.

‡ All citations, unless otherwise noted are to the California Code of Regulations, title 22, division 4.5.

Disclaimer: Persons who manage universal wastes are responsible for complying with all applicable requirements. This table summarizes some of the requirements that may apply; it does not replace or supercede any statutory or regulatory requirements. In the event of an inconsistency, the statutes and regulations govern.

Table 3: Handler Treatment Activities ‡

Waste	Treatment Activities that May Be Conducted by a (Universal Waste or CRT Material) Handler without a Permit or Other Authorization	Status of Resultant Material
Aerosol Cans (Health and Saf. Code §25201.16(h))	Processing aerosol cans to remove and collect the contents, provided the handler meets all the requirements of subdivisions (h) and (i). (Notes: An offsite commercial processor may not process aerosol cans as a universal waste handler; an offsite commercial processor needs a hazardous waste facility permit to operate. Also, a household hazardous waste collection facility is not considered to be an offsite commercial processor.)	The drained contents of an aerosol can, if characteristically hazardous, are fully-regulated hazardous waste. A drained can, if empty, is not regulated as a hazardous waste. (§66261.7(m))
Batteries (§§66273.13(a)(2) & 66273.33(a)(2))	Sorting, mixing, or discharging batteries; disassembling battery packs; removing batteries from consumer products	The batteries are universal waste.
	Regenerating used batteries	Regenerated batteries are not considered wastes. However, fully-regulated hazardous wastes could also be generated in the process.
	Removing electrolyte	Removed electrolyte, if characteristically hazardous, is a fully-regulated hazardous waste
Universal Waste Electronic Devices (§§66273.13(d)(2) & 66273.33(d)(2))	[BEYOND THE SCOPE OF THIS DOCUMENT]	[BEYOND THE SCOPE OF THIS DOCUMENT]
Counterweights and Dampers – Mercury	n/a	n/a
CRT Materials (§66273.83(b)(1))	[BEYOND THE SCOPE OF THIS DOCUMENT]	[BEYOND THE SCOPE OF THIS DOCUMENT]
(§§66273.83(c)(10) and (11))	[BEYOND THE SCOPE OF THIS DOCUMENT]	[BEYOND THE SCOPE OF THIS DOCUMENT]
Dental Amalgam	n/a	n/a
Dilators and Weighted Tubing – Mercury-Added	n/a	n/a
Gas-Flow Regulators – Mercury	n/a	n/a
Gauges – Mercury Pressure or Vacuum (§§66273.13(g)(2) & 66273.33(g)(2))	Draining elemental mercury from pressure or vacuum gauges at the site where the gauges were generated	Drained mercury is a universal waste. A drained gauge, if characteristically hazardous, is a universal waste.
Lamps (§§66273.13(c)(3) & 66273.33(c)(3))	Removing lamps from products or structures	Removed lamps are universal wastes.

‡ All citations, unless otherwise noted are to the California Code of Regulations, title 22, division 4.5.

Disclaimer: Persons who manage universal wastes are responsible for complying with all applicable requirements. This table summarizes some of the requirements that may apply; it does not replace or supercede any statutory or regulatory requirements. In the event of an inconsistency, the statutes and regulations govern.

Table 3: Handler Treatment Activities ‡

Waste	Treatment Activities that May Be Conducted by a (Universal Waste or CRT Material) Handler without a Permit or Other Authorization	Status of Resultant Material
Novelties – Mercury-Added		
• **With Mercury-Containing Batteries** (§§66273.13(h)(1)(A), (B), and (C) & 66273.33(h)(1)(A), (B), and (C))	Removing mercury-containing batteries from novelties	• After removing batteries, a novelty that contains no other mercury and does not exhibit a hazardous characteristic is non-hazardous waste; • Batteries removed from universal waste novelties are universal wastes.
• **Painted with Mercury-Containing Paint**	n/a	n/a
• **With Liquid Mercury**	n/a	n/a
• **With Mercury Switches** (§§66273.13(h)(4)(A), (B), and (C) & 66273.33(h)(4)(A), (B), and (C))	Removing mercury switches from novelties	• After removing mercury switches, a novelty that contains no other mercury and does not exhibit a hazardous characteristic is non-hazardous waste; • Mercury switches removed from universal waste novelties are universal wastes.
Rubber Flooring – Mercury-Added	n/a	n/a
Switches – Mercury (§§66273.13(e)(3)(A) & 66273.33(e)(3)(A))	Removing mercury switches from motor vehicles and other products	Removed switches are universal waste.
Thermometers – Mercury	n/a	n/a
Thermostats (§§66273.13 & 66273.33(b)(2))	Removing ampoules	Removed ampoules are universal waste.

‡ All citations, unless otherwise noted are to the California Code of Regulations, title 22, division 4.5.

Disclaimer: Persons who manage universal wastes are responsible for complying with all applicable requirements. This table summarizes some of the requirements that may apply; it does not replace or supercede any statutory or regulatory requirements. In the event of an inconsistency, the statutes and regulations govern.

Table 4: Notification and Record Keeping Requirements for Universal Waste (UW) Handlers and CRT Material Handlers ‡

Waste Streams	Notification	Tracking And Record Keeping
Universal Waste Handlers – General (All UWs except CRT Materials)	**Small Quantity Universal Waste Handler (SQUWH)**: not required to notify (§66273.12) **Large Quantity Universal Waste Handler (LQUWH)** (accumulates >5,000 Kg at any time): Notify USEPA of UW management and obtain an EPA ID number (§66273.32) **Handlers that export universal waste**: Comply with applicable exporter notification requirements: • Notification requirements for exports to OECD (§66262.53) or non-OECD (§66262.83) countries • Annual report requirements for exports to non-OECD (§66262.53) countries (§§66273.20 (SQUWH) and 66273.40 (LQHUW))	**All handlers**: Maintain shipping records for 3 years. Include names and addresses of handlers, foreign shippers, and destination facilities: • from whom universal waste shipments were received, and • to whom universal waste shipments were sent. The records must also include the quantity and type of each universal waste sent or received and the date of shipment or receipt. (§§66273.19 and 66273.39) **Handlers that export universal waste**: Comply with applicable exporter tracking and recordkeeping requirements: • Recordkeeping requirements for exports to non-OECD countries (§66262.57) • Tracking requirements for exports to OECD countries (§66262.84) • Reporting and recordkeeping requirements for exports to OECD countries (§66262.87) (§§66273.20 (SQUWH) and 66273.40 (LQHUW))
Mercury	In addition to applicable handler notification requirements, a handler who accepts mercury-containing universal wastes from other handlers must disclose that mercury is being handled in all business and use permit applications (§§66273.21(b)(2) and 66273.41(b)(2))	In addition to the notification and record keeping requirements that apply to all universal waste handlers, those that handle mercury must also retain records for the following activities: • **removing mercury switches from vehicles or appliances** (number of: vehicles crushed, baled, sheared, or shredded; appliances destined for shredding; vehicles/appliances destined for crushing, baling, shearing, or shredding determined to contain mercury switches; switches removed; switches that could not be removed) (retain for three years) (§§66273.13(e)(3)(A)7 and 66273.33(e)(3)(A)7) • **draining mercury from gauges** (date of accumulations; description of gauges; amount of mercury) [§§66273.13(g)(2)(H) and 66273.33(g)(2)(H)]
CRTs	[BEYOND THE SCOPE OF THIS DOCUMENT]	[BEYOND THE SCOPE OF THIS DOCUMENT]
Universal Waste Electronic Devices	[BEYOND THE SCOPE OF THIS DOCUMENT]	[BEYOND THE SCOPE OF THIS DOCUMENT]

‡ All citations, unless otherwise noted are to the California Code of Regulations, title 22, division 4.5.

Disclaimer: Persons who manage universal wastes are responsible for complying with all applicable requirements. This table summarizes some of the requirements that may apply; it does not replace or supercede any statutory or regulatory requirements. In the event of an inconsistency, the statutes and regulations govern.

Table 4: Notification and Record Keeping Requirements for Universal Waste (UW) Handlers and CRT Material Handlers ‡

Waste Streams	Notification	Tracking And Record Keeping
Universal Waste Handlers who Process Pressurized Aerosol Cans	Notify CUPA by certified mail with return receipt requested, no later than the date on which processing commences: • handler name, identification number, site address, mailing addresses, and telephone number • description of the UW aerosol can processing activities, including: type and estimated volumes or quantities of aerosol cans to be processed monthly, treatment processes, equipment description and design capacities • characteristics and management of hazardous treatment residuals (Health & Saf. Code §25201.16)	See requirements above for "Universal Waste Handlers – General"

‡ All citations, unless otherwise noted are to the California Code of Regulations, title 22, division 4.5.

Disclaimer: Persons who manage universal wastes are responsible for complying with all applicable requirements. This table summarizes some of the requirements that may apply; it does not replace or supercede any statutory or regulatory requirements. In the event of an inconsistency, the statutes and regulations govern.

Department of Toxic Substances Control

Preventing environmental damage from hazardous waste, and restoring contaminated sites for all Californians.

State of California

California Environmental Protection Agency

Managing Hazardous Waste

Fact Sheet, May 2007

It is Illegal to Discard Fluorescent Light Tubes/Lamps in the Trash!

A fluorescent light tube in your dumpster is a violation of the hazardous waste laws. Violation of these laws can result in large fines and criminal prosecution.

Fluorescent tubes contain mercury and become hazardous wastes when they no longer work. Mercury poses especially serious hazards to pregnant women and small children. Non-working tubes must be recycled by an authorized recycling firm and cannot be discarded in the trash.

Fluorescent tubes and bulbs may be managed as universal wastes under Title 22, Chapter 23 of the California Code of Regulations. This allows those who wish to discard their fluorescent tubes and lamps to do so more easily than if they were managed as hazardous wastes.

Although spent fluorescent lights can not go into the trash, there are several options for getting them to an environmentally safe and responsible recycler.

The general public/households

- Look for participants in the Take it Back Partnership who will take fluorescent tubes and/or bulbs at no cost. http://www.dtsc.ca.gov/TIB/index.cfm
- Find the local Household Hazardous Waste Facility to take fluorescent tubes and bulbs along with other universal wastes.

1. http://www.earth911.org
2. http://ccelearn.csus.edu/mercurylamp/content/resources5.htm

Businesses

- Must ensure fluorescent waste tubes and/or bulbs are destined for a recycling facility.
- May handle fluorescent tubes/bulbs as universal waste which allows for the option of self-transport and use of an invoice, bill of lading, or other document rather than a hazardous waste manifest.
- May accumulate spent tubes for up to one year before sending them to a recycling firm.
- Requires only informal training for most employees handling spent tubes.
- Must keep some form of documentation to demonstrate tubes were managed properly.

The regulations do not allow the use of “tube crushers.” If you are considering operating one of these devices, you should contact the Department of Toxic Substances Control regarding permit requirements.

There are a number of resources for further information about recycling spent fluorescent tubes on the Internet.

• **DTSC's Universal Waste** webpage provides further information on universal wastes such as fluorescents:

http://www.dtsc.ca.gov/HazardousWaste/UniversalWaste/index.cfm

• **The California Integrated Waste Management Board's** web site has good information on recycling fluorescent tubes:

http://www.ciwmb.ca.gov/WPIE/FluoresLamps/

• **The Association of Lighting and Mercury Recyclers** home page has information about recycling lamps and lists the nation's fluorescent tube recyclers:

http://www.almr.org

For more information, contact the DTSC office nearest you, or call the regional Public and Business Liaisons at (800) 72-TOXIC (800-728-6942). From outside California, call (916) 255-3545.

DTSC Headquarters
1001 I Street
Sacramento, CA 95814-2828
(916) 323-2678

Sacramento Office
8800 Cal Center Drive
Sacramento, CA 95826
(916) 255-3617

Berkeley Office
700 Heinz Avenue
Berkeley, CA 94710
(510) 540-3739

Clovis Office
1515 Tollhouse Road
Clovis, CA 93611-0522
(559) 297-3901

Glendale Office
1011 North Grandview Avenue
Glendale, CA 91201-2205
(818) 551-2830

Cypress Office
5796 Corporate Avenue
Cypress, CA 90630
(714) 484-5400

or visit www.dtsc.ca.gov

Best Management Practices for Managing Spent Fluorescent Lamps

Overview: This document will guide your business through the nitty-gritty details of lamp recycling. The reader is encouraged to read this document and use it to guide development of a lamp management plan for their business. A lamp management plan helps a business think through all the aspects of lamp management and compliance with the universal waste regulations. In several places, we have made suggestions that will help you demonstrate to a local agency, State, or federal hazardous waste inspector that you are in compliance with the regulations. Topics covered in this section include planning for mass lamp replacement, managing incidental burnt out lamps, accumulating lamps safely for shipment, and shipping spent lamps off for recycling. The following topics are covered below:

- Planning for recycling
    - Choosing lamp management alternatives
    - Establishing a lamp accumulation area
    - Training employees
- Managing waste lamps
    - Changing out lamps
    - Accumulating lamps
    - Shipping to a recycler
    - Keeping records
    - Dealing with broken tubes

1. Planning for recycling. Your business should plan ahead for recycling lamps. Advance planning ensures that you will use the most efficient alternatives for managing spent lamps and that you will stay in compliance with the State's universal waste regulations. We recommend that any sizeable business develop a formal, written lamp management plan, train employees managing spent lamps using the plan, follow that plan for day to day lamp management, and periodically consider revising the plan when it fails or when simpler or less expensive management alternatives become available. The major considerations for a lamp management plan are discussed below:

Choosing a lamp management alternative. There are two main approaches for businesses to manage spent lamps:

> Mass relamping – Many electrical and lighting contractors offer mass relamping services. The contractor moves through the building replacing all the lamps in each fixture. Mass relamping is usually done on a schedule that replaces all the tubes in the building before most tubes fail. By replacing tubes before many fail (about a three to five year period), relamping costs are minimized. The contractor's workers replace all the tubes at once using new tubes bought in bulk. The relamping contractor then takes the spent tubes either to his own place of business or directly

to a lamp recycler. There are many benefits to mass relamping versus replacement when the lamps burn out:

- It is much cheaper to pay for a one-time replacement of all the tubes in a building than to replace them one at a time as they burn out.
- Less lamp burnouts mean happier occupants.
- Lamp management professionals manage most of the spent lamps eliminating the need for specially trained dedicated personnel and a large area dedicated to accumulating spent lamps.
- Lighting contractors have accounts with lamp recyclers; the large volume of spent lamps they generate leads to lower recycling costs.
- Lighting contractors buy lamps in bulk at lower cost than can most businesses.

Choosing a relamping contractor. There are several considerations beyond licensing, cost, and availability for evaluating potential relamping contractors:

- Choose a contractor that relamps with lower mercury lamps. Lower mercury lamps decrease employee and tenant exposure to mercury when lamps break. Additionally, lower mercury lamps protect the environment by releasing less mercury when they accidentally break. All three major American lamp manufacturers make lower mercury lines of lamps.
- Ensure that the contract specifies that the lamps will be safely managed and recycled. The contract should specify who will recycle the lamps.
- Ensure that the contract requires use of trained employees to change and manage the spent lamps.
- Ensure that the contract requires the contractor to be prepared for cleaning up any lamps broken during relamping and subsequent management.
- Ensure that the contract requires the contractor to comply with the State's universal waste regulations for managing spent lamps.

Failed lamp replacement. Replacing lamps when they fail is the alternative to mass relamping. However, every building must plan for some burnout replacement because some lamps fail earlier than others. Factors such as how often a lamp is turned on and off,

vibration, temperature, and manufacturing variability cause some lamps to burn out before the next scheduled relamping. Usually, the building's maintenance staff changes burnouts because it is prohibitively expensive to pay a lighting contractor to replace lamps one or two at a time.

Whether you choose to hire a contractor to mass relamp your building or choose to replace the lamps yourself, you need to plan for replacing and recycling at least the tubes that fail before the next relamping. The points below should be considered in your spent lamp management plan.

There are several options available for recycling smaller quantities of lamps. These options include:

- Mail-in boxes. Most lamp recycling facilities offer pre-paid mail-in boxes for recycling lamps. For a fixed fee, the recycler supplies a strong secure box with partitions for lamps. The fee generally includes mailing or shipping back to the recycler and the cost of recycling the lamps. Mail-in boxes are an excellent alternative for recycling burn outs and for recycling spent lamps from very small buildings.

- Contract recycling. Businesses can contract directly with lamp recyclers. The business replaces burnt out lamps, puts them into containers, properly labels the containers, and ships them to (or has them picked up by) the recycler when sufficient spent lamps have been accumulated.

- Pickup and recycle services. Major urban areas are increasingly served by businesses that pick up and accumulate universal wastes, including spent lamps, for recycling. These services accumulate lamps from many businesses and contract with various recyclers to recycle them. It is imperative that your contract with a pickup service specify that the lamps be managed in compliance with the law and recycled properly. Remember that you retain environmental liability for your lamps even after a pickup service takes them away!

- Household hazardous waste collections. Many cities and counties operate household hazardous waste collection programs with both temporary and permanent collection facilities. These facilities accept hazardous wastes, including universal wastes like spent lamps, from

households and the smallest commercial generators. However, household hazardous waste facilities can legally accept universal wastes like spent lamps from any size business provided that they are managed in compliance with the universal waste regulations. Call your local solid waste management agency to inquire about household hazardous waste collections or visit the California Integrated Waste Management Boards household hazardous waste collection website at www.ciwmb.ca.gov/HHW

- Other private sector options. DTSC is working the California Integrated Waste Management Board and other interested parties to develop additional private sector options for recycling spent lamps. We envision take back programs at retailers or other alternatives to make recycling spent lamps simple and inexpensive. Visit our webpage at www.dtsc.ca.gov occasionally to see if there are any new spent lamp recycling alternatives.

Designating an accumulation area. Once you've chosen how you will get your tubes recycled, it's time to designate a "universal waste accumulation area" for your lamps and prepare the area to receive spent lamps. While you should set aside an area for accumulating spent lamps, you do not need to follow all of the strict rules for access, signs, formal training, and container technical standards that you do for a hazardous waste accumulation area. We've listed some things that you should consider when designating your spent lamp accumulation area below:

- Choosing a suitable location. Spent lamps break easily releasing mercury into the environment. Breakage of tubes exposes both your employees and your customers to mercury and should be avoided. Choosing an appropriate area to accumulate spent lamps is a good start for safe spent lamp management. We've listed some considerations below:
    - You need sufficient room to accumulate as many spent lamps as you expect to accumulate before shipment. This may be as little as two mail-in boxes, or a large quantity of tubes. Note that all spent lamps must be sent to a recycler or other intermediary within one year.
    - The accumulation area should be out of the way of daily stocking and materials movement. Too much

activity around the accumulated lamps increases the chances of spent lamp breakage.
- The accumulation area should be protected from traffic like forklifts and workers carrying large objects. Note too that you should choose an area protected from falling objects that could break the spent lamps.
- The spent lamps should be accumulated on or in a robust structure that will not tip or fall such as a permanently mounted shelf unit.
- The spent lamps should be accumulated in an area protected from vandalism. Outdoor storage is inappropriate if the area can be visited by children because they would be tempted to break the lamps.

- Signs. The accumulation area should be indicated with a sign of some sort. The sign should inform the reader that the area contains spent mercury-containing lamps. It would be good practice to also warn against actions which would break the tubes. For example: "Do not stack boxes on this rack" and "Handle boxes with care".

Training employees. All persons handling universal waste must train their employees in proper management of those universal wastes. The level of training depends on whether you are a "small quantity handler of universal waste" (small quantity handler) or a "large quantity handler of universal waste" (large quantity handler).

- Small quantity handlers:
  - Am I a small quantity handler? A small quantity handler is one that never has 5,000 Kg (11,000 pounds or 5 ½ tons) of universal waste on hand at any one time. This is a very large number of spent lamps; virtually all businesses that generate universal wastes, but don't accept them from other generators (are not in the business of universal waste management) will be small quantity handlers.
  - Training requirements. Small quantity handlers must "inform all employees who handle or have responsibility for managing universal waste." The information must describe proper handling and emergency procedures for lamps. At a minimum, the training should inform employees of the following:
    - The fact that spent lamps are regulated and MUST be recycled, not discarded in the trash.

- Where to store spent lamps.
- How to package spent lamps.
- How to label spent lamps or containers of spent lamps.
- How to indicate the proper accumulation time.

Employees may be trained by several methods:

- A poster on the wall of the facility where employees will see it – for instance, on the wall of the break room.
- Photocopies pages handed out to employees.
- A short training session delivered at an employee meeting or safety meeting.
- Any other method that "informs" the employee.

o Demonstrating compliance with training requirement. It is important to be able to demonstrate that you have complied with the training requirements. Retain some type of documentation in your files showing how you trained your employees. Clearly, a poster on the break room wall demonstrates compliance. A photocopied page handed out to employees with the date distributed can be kept in the businesses files. Or, use some other method to record that you have met the training requirement.

- Large quantity handlers. Because most businesses that generate spent lamps are not large quantity handlers, this document will not address large quantity handler standards in detail.

  o Am I a large quantity handler? Are you a large business that has more than 5,000 kg (12,000 pounds) of universal waste on hand at any one time? Note that most businesses that are not in the business of collecting and accumulating universal waste from other generators are unlikely to be large quantity handlers.
  o Training requirements. Employers must ensure that employees that work with universal wastes are trained in universal waste management. Ensuring that they are trained requires formal training sessions.
  o Recordkeeping. Detailed training records must be kept for employees that work with universal wastes.

2. Managing lamps. This section of the spent lamp management website will address practical considerations that should become part of any universal waste generator's operating procedures. We will discuss practical physical

management of spent lamps, compliance with regulatory requirements, and documenting compliance for a number of topics.

Changing lamps. How many _____ (fill in the blank) does it take to change a light bulb? Just one, unless it's an 8 foot fluorescent tube! In this document, we are not addressing how lamps are physically removed or put into the fixtures or safety outside of the risks from breaking mercury lamps. However, your procedures for changing lamps should take all occupational safety rules into account including the very important issue of safe ladder use. Likewise, the personnel changing lamps should know how they fit into the fixture before leaving the ground – the top of an 8 foot ladder is a bad place to learn how to change bulbs.

- Proper care. This document's lesson for changing out lamps is to encourage careful handling of the lamps to prevent breakage. The lamp should be removed gently and handled carefully after removal to avoid striking other objects that could shatter the lamp.
- Movement. After the lamp has been removed from the fixture (and before the new lamp is placed into the fixture), it must be transported through the facility from the fixture to the spent lamp accumulation area. The best practice is to place the lamp immediately into a protective container such as a spent lamp accumulation box. However, this will often be impractical for single lamp replacement. The employee replacing the lamp should move the lamp directly from the fixture to the spent lamp accumulation area being extra careful to avoid breaking the lamp.

Accumulating lamps. Lamps are accumulated in the accumulation area. They should not be stored in multiple locations or left to be put away later.

- Managing the accumulation area. There are a number of considerations that must be addressed when managing spent lamps:
    - Choosing containers. All spent lamps must be placed in containers while in storage (and for shipment.) Containers must be "that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps." Some firms use the same boxes in which the lamps were sold, although these boxes can be flimsy. Boxes meant for recycling lamps are also available. Contact your lamp recycler to explore options for packaging lamps. Remember that many recyclers sell pre-paid mailing boxes for recycling smaller quantities of spent lamps.
    - Labels. Each spent lamp or each container of spent lamps must be labeled with one of the following: "Universal Waste--Lamp(s)," or "Waste Lamp(s)," or "Used lamp(s)."

- Label placement. The label should be placed on the lamp or container of lamps as soon as the first spent lamps are placed in the accumulation area or the container of spent lamps.
- Accumulation time limits. You may accumulate spent lamps for up to one year prior to shipment to a recycler (or intermediary). Note that you must be able to demonstrate that you are in compliance with the one year time limit. There are a number of acceptable methods for doing so:

    - Mark each spent lamp with the date it was generated (removed from the fixture).
    - Mark each container with the date that the first spent lamp was placed into the container.
    - Maintain an inventory system that tracks the date on which each spent lamp was removed from the fixture.
    - Maintain an inventory system that records the earliest date that a spent lamp entered the accumulation area. That is, record the date when the first spent lamp is removed from the fixture. That first lamp will reach one year before the other lamps in the accumulation area reach one year.
    - Employ some other form of tracking system for spent lamps that can demonstrate to an inspector that spent lamps are not kept at the business for more than one year.

- Containerizing. They should be placed into their storage/shipping container immediately upon arrival. The box should then be closed or otherwise secured to prevent lamps from falling out of the container. The container should be placed into the designated area where it will be safe from accidental breakage.
- Recording accumulation dates. If the lamp being stored is the first lamp in the accumulation area, the accumulation start date should be recorded using the system chosen by the business to demonstrate compliance with the accumulation time limits. Depending on the recordkeeping system chosen to track accumulation times, you may want to record the date generated for each spent lamp.
- Maintaining the accumulation area. The accumulation area should be kept clean and free of obstacles and debris. It should not be used for storing miscellaneous materials and equipment if that storage could cause breakage by, for instance, falling onto a box of spent lamps. The entry, aisle way, and exit should, like all entries,

aisle ways, and exits, be kept clean and free of obstacles that could cause an employee to trip or stumble, breaking lamps.

- Labeling boxes. Labels should be affixed to the spent lamps or the container of spent lamps as soon as spent lamps are generated. The label should be affixed according to the business's spent lamp management plan and should be clearly visible to persons entering the area.

Shipping lamps. When a sufficient quantity of lamps has been accumulated, they must be prepared for shipment and sent off for recycling. The following points should be considered:

- When to ship. Depending on the management option selected for spent lamps, spent lamps should be packaged and shipped when:
  - The pre-paid mailing box is filled, if that option has been chosen for recycling spent lamps.
  - A full shipment of lamps has been accumulated for either self-transport to a recycler or intermediary, or, for a pickup and recycle service.
  - A periodic pickup service is scheduled to visit the business, if that management option has been selected.
  - A scheduled household hazardous waste collection event (if that event accepts business wastes – inquire first) will take place.
  - When the oldest spent lamps are approaching one year from generation. Note that no spent lamp may be accumulated for more than one year without prior approval by the local agency implementing California's hazardous waste program, the Certified Unified Program Agency (CUPA). However, households and the very smallest businesses may accumulate lamps for a longer period without any additional authorization.

- Where to ship spent lamps. Spent lamps may only be shipped to a facility that recycles the lamps or to another "handler of universal waste". That other handler is another business that accumulates spent lamps to accumulate them for shipment to a recycler. Note that, if you have multiple locations, you can ship lamps between your own facilities. Often you can accumulate sufficient lamps at one of your locations to get a better price from a lamp recycling facility. Your lamp management plan should clearly state where lamps will be sent.
- How to ship spent lamps. Spent lamps may be shipped in your own vehicle or by any common carrier. This is different than regular hazardous waste which must be shipped using a "registered hazardous waste transporter". Options for shipment include your

own vehicle, a common carrier, the U. S. mail, or a package service. Your lamp management plan should specify how lamps will be shipped.

- Preparation for transport. Finish packaging the lamps and securely close the box with packaging tape. Prepare the shipping documents and attach properly to the box. Because each tube has very little mercury, few, if any, shipments will require placarding and labeling under the U.S. DOT hazardous materials shipping regulations.

Keeping Records. A number of records must be kept to demonstrate compliance with the universal waste regulations. Note that most of the records you're required to keep are records that are regularly kept anyway by well run businesses. You should keep all of these records in one place; although not required, consolidation will make retrieving these records much simpler if you are inspected.

- Records of shipments. Keep a record of each shipment of spent lamps for at least three years after the shipment. The best record is likely to be the bill of lading for the shipment or the form used to ship via mail or a package express system. Other recordkeeping possibilities include a log book or retained invoices from a tube recycler. The records must contain 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, thermostats, lamps, mercury switches, etc.);
    - The date the shipment of universal waste left the facility

    Many recyclers will return a "certificate of recycling" to customers upon recycling of the customer's lamps. The certificate is another good document to retain.

- Retaining records of third party lamp management (relamping service). Businesses that contract with third party relamping contractors should require documentation from the contractor that the lamps have been recycled. This documentation should be retained for at least three years. Remember that hiring a relamping contractor does NOT eliminate your liability for mismanaged spent lamps.
- Training documentation: For a small quantity handler, training is informal. Records should be retained, however, demonstrating that a business has complied with the requirement that employees

involved in managing spent lamps be "informed" of proper spent lamp management. Retain photocopied handouts discussing spent lamp management and record the dates at which the handouts were distributed. Likewise, if you use a poster to inform employees, date the poster with the posting date and write a note to file documenting its posting. Keep this documentation with other spent lamp documents so it can be shown to any State or local agency inspector.

- Training documentation: For large quantity handlers, training is more complex. The business must retain records showing that they have "ensured" that employees handling spent lamps are properly trained. The documentation should record dates and names of trained employees and the material used for the training, or copies of any training certificates received from outside training services. Because most businesses that are not in the business of managing other businesses' spent lamps will almost uniformly be small quantity handlers, this document does not explore the large quantity handler standards in detail.

Responding to broken tubes. Everyone that works with fluorescent tubes occasionally breaks one. The Universal Waste Regulations allow accidentally broken lamps to be cleaned up and the residue managed as universal waste alongside the intact spent lamps. If a tube is broken, carefully sweep up the pieces and place them in an airtight container (a Ziploc bag, a mayonnaise jar, or a pail with a tight fitting lid.) Label the container "Accidentally broken mercury lamps". This label will make it clear to an inspector that the lamps were not intentionally broken.

Cleaning up one or a few broken spent lamps:

- Sweep up debris with a small broom or a whisk broom, sweeping gently to avoid suspending the phosphor powders in the air.
- Place the debris in an airtight container, seal it, and label it.
- DO NOT VACUUM broken lamp debris. Vacuuming will disperse mercury throughout the area in the exhaust from the vacuum.

NOTE: *Bulb crushing devices such as drum-top tube crushers cannot be used in the State of California without obtaining a hazardous waste facility permit. DTSC has studied drum-top crushers in detail and has not found any crusher that can reliably contain mercury below allowable workplace exposure standards. If a safe and effective tube crusher is identified, regulations will be adopted to authorize its use. Deliberately breaking spent lamps is unsafe and is an illegal activity in this State.*

Response to breaking a large number of tubes. If a more serious incident breaks a significant number of spent lamps, there is a high potential for exposure to airborne mercury. The business should close off the area with the broken spent lamps and call the local hazardous materials response agency.

Department of Toxic Substances Control

Preventing environmental damage from hazardous waste, and restoring contaminated sites for all Californians.

State of California

California Environmental Protection Agency

Fact Sheet, January 2006

EPA Identification Numbers

Regulatory Assistance Officer's Notes:

The Department of Toxic Substances Control (DTSC) prepared this fact sheet to provide general information about EPA Identification Numbers. Throughout the online version of this fact sheet, numbers in blue (66262.12) represent citations from the California Code of Regulations or the California Health and Safety Code. Clicking on the blue numbers will take you to sites containing the regulations. If you generate hazardous waste, you should consult with your Certified Unified Program Agency (CUPA). Finally, DTSC strongly encourages all businesses that generate hazardous waste to consider waste minimization, source reduction, and pollution prevention.

What is an EPA ID Number?

This number, issued either by the U. S. Environmental Protection Agency (U.S. EPA ID Number), or by DTSC (California ID Number), identifies each handler of hazardous waste on hazardous waste manifests and other paperwork. The ID Number enables regulators to track the waste from its origin to final disposal ("cradle to grave.") With the exceptions discussed later in this guidance, most hazardous waste generators must have an ID Number before a registered hazardous waste transporter will accept the waste for shipment. All hazardous waste transporters and permitted treatment, storage and disposal facilities must have ID numbers.

Are State and Federal laws the same?

The federal hazardous waste law (the Resource Conservation and Recovery Act, or "RCRA") allows states to enact their own hazardous waste laws, which must be at least as stringent as the federal laws. The requirements under California law are more stringent than the federal criteria. Wastes that pass the federal hazardous waste criteria but fail the California criteria are called "non-RCRA" or "California-only" hazardous wastes. Wastes containing corrosive solids, asbestos, nickel or zinc are examples of common California-only hazardous wastes. Other states may not consider California-only wastes hazardous. Federal law also exempts generators of small quantities of waste from many federal waste management requirements.

How many ID Numbers do I need?

ID Numbers are site-specific and there is normally only one number at a business address. If you have a business that generates waste at multiple addresses that are not physically connected (contiguous), each address needs a separate ID Number. In the case where generators are independent businesses that operate in suites within the same building, each business must have their own ID Number. If you are not clear as to whether you operate on one site or multiple sites, contact your local environmental agency or the DTSC information resources listed at the end of this fact sheet.

Do I need a U.S. EPA ID Number, or a California ID Number?

If you generate more than 1 kilogram of RCRA acutely hazardous waste per month or more than 100 kilograms of other RCRA waste per month, you must get a U.S. EPA ID Number. If you generate 100 kilograms or less of RCRA waste or one kilogram or less per month of acutely hazardous waste, and meet certain other requirements, you are exempted by U.S. EPA from many of its regulations, including the requirement to have an EPA ID Number. These businesses are called "conditionally exempt small-quantity generators", or CESQGs. The regulatory citation is 40 CFR section 261.5

However, California regulations do not have an equivalent small quantity generator exemption. Almost all business generators of hazardous waste in California that are not required to have a U.S. EPA ID Number must, in practice, have a California ID Number. See California Code of Regulations title 22, section 66262.12. However:

1. Generators handling only hazardous waste produced incidental to owning and maintaining their own place of residence do not need an ID Number, either federal or state.

2. Businesses whose ONLY hazardous waste generation is 100 kilograms or less per month of waste that is hazardous solely because of its silver content ("silver-only waste") do not need an ID Number. This is true even if they treat the waste in silver-recovery units and then send the silver for reclamation. See Health and Safety Code section 25143.13. Also see the DTSC Fact Sheet, "Onsite Tiered Permitting: Changes in Regulation of Silver Wastes."

3. Businesses that generate ONLY universal waste (fluorescent lamps, batteries, mercury wastes, etc.) and manage it as such also do not need an ID Number. For information about Universal Waste, here is a link to DTSC's Managing Universal Waste in California.

In summary, except for the above-mentioned exemptions, if you generate only non-RCRA hazardous wastes, or you generate less than 100 kilograms of RCRA hazardous waste per month (or less than 1 kilogram of RCRA acutely hazardous waste), you must get a California ID Number. If you generate more than 100 kilograms of RCRA waste per month or more than 1 kilogram of RCRA acutely hazardous waste per month, then you must get a U.S. EPA ID Number.

I used to be exempt from ID Number requirements. What happened?

The passage of Senate Bill 271 (effective January 1, 2002) removed the exemption that once allowed small generators of used oil and solvents to offer waste for transport without an EPA ID Number (former milkrun or modified manifest procedures.)

The Consolidated Manifesting procedure that replaced the milkrun manifesting procedure requires that generators using consolidated transporters provide them with an ID Number.

How do I get an EPA ID Number?

Handlers of RCRA waste who need an U.S. EPA ID Number must send a "Notification of Regulated Waste Activity", form 8700-12, to the U.S. EPA contractor at the address given in its instructions. You can request this form by calling **(415) 495-8895**, or you can download the form from the U.S. EPA web site.

Handlers who do not need a U.S. EPA ID but do need a California ID Number can obtain it by completing and submitting the "California Hazardous Waste Permanent ID Number Application", DTSC Form 1358, by mail, email, or fax. You can download the form from the DTSC website or you can request a blank form by calling DTSC at 800-618-6942. DTSC no longer issues permanent ID Numbers by telephone.

Am I charged fees for the issuance of the ID Number?

There is no charge for issuing the number, but DTSC is required to collect an annual business information verification fee for each permanent ID Number. The fee is based on the number of employees in the entire organization. If your business has fewer than 50 employees, the fee is zero. There is no verification fee for a Temporary ID Number. Frequently Asked Questions about the ID Number verification process and manifest fees are available on the DTSC website.

I usually don't generate hazardous waste, but I recently generated some. Can I get a temporary EPA ID Number for this one time event?

DTSC issues temporary (or "provisional") ID Numbers to people or businesses that do not routinely generate hazardous waste. Examples of non-routine activities include asbestos abatement, removing underground tanks, and removing hazardous wastes that were abandoned in a leased building. A California temporary number is only valid for non-RCRA (California only) waste or when the total RCRA waste hauled is less than 220 pounds or 27 gallons per month. To get a California temporary ID Number, call DTSC at (800) 618-6942 (in-state) or (916) 255-1136 (out-of-state.) U.S. EPA also issues provisional ID Numbers for non-routinely generated federal wastes. Temporary and provisional ID Numbers are valid for a maximum of 90 days but can be used to haul any amount of hazardous waste that has been generated at the site before and during that period. Holders of temporary Numbers are not charged EPA ID verification fees.

Do I need to get a new ID Number if I move my business?

Yes. If you have a California ID Number, submit one DTSC Form 1358 to deactivate your old number, and another to request that a number be issued for your new location. This is also true if you are selling or buying a business; the seller must inactivate the old number and have the new owner submit a DTSC Form 1358 to have a new number issued. If you have a U.S. EPA ID Number, these actions are done through the use of Form 8700-12, "Notification of Regulated Waste Activity".

I've always wondered: do the letters in front of the ID Numbers mean anything?

Early federally–issued ID Numbers had two letters corresponding to the generator's state and ten digits. Current ID Numbers consist of three letters followed by nine digits. The significance of those letters is as follows:

EPA ID Numbers

CAR Federal permanent number currently being issued.

CA Federal permanent number that preceded the CAR prefix. ID numbers with a CA prefix are still valid, but have not been issued since February 1995.

CAD Federal permanent number that preceded the CA prefix, or a State permanent or provisional number issued before 1988. ID numbers with a CAD prefix have not been issued since August 1993.

CAT Federal permanent number that preceded the CAD prefix.

CAP Federal provisional or emergency number currently issued.

California ID Numbers

CAL State permanent number.
CAC State provisional or emergency number.
CAH State provisional or permanent number issued for Household Hazardous Waste Collections.
CAI State permanent number issued for Exotic Pest Detection.
CAE State provisional number issued for removal of hazardous waste caused by a natural disaster.
CAF State permanent number issued for farm used oil.
CAS State permanent number issued for Emergency Response.
CLU Clandestine Drug Lab cleanup.
CAX State permanent or provisional number issued before 1987. A CAX number is no longer a valid ID number.
CA99 State permanent number issued to cruise ships.

DTSC Regulatory Assistance Officers provide informal guidance regarding management of hazardous waste for the convenience of the public. Such advice is not binding upon DTSC, nor does it have the force of law. If you would like a formal opinion on a matter by DTSC, please contact the responsible program office directly.

You should also refer to the statutes and regulations, DTSC Policies and Procedures, and other formal documents.

If you cannot find the answer to your question in this fact sheet, contact your local DTSC Regulatory Assistance Officer directly. You can reach them toll-free at 800-728-6942, or contact them through the DTSC website at www.dtsc.ca.gov.

California Environmental Protection Agency
Department of Toxic Substances Control

Fact Sheet

Hazardous Waste Facility Permits

September 1998

The Department of Toxic Substances Control (DTSC) has developed this fact sheet to provide information and guidance on Hazardous Waste Facility Permits required by Health and Safety Code, section 25200.

I. Who Needs a Hazardous Waste Facility Permit?

Any person who stores, treats or disposes of hazardous waste as described in the Hazardous Waste Control Law (Health and Safety Code, Division 20, Chapter 6.5) must obtain a permit or a grant of authorization from the Department of Toxic Substances Control (DTSC). Please Note: Health and Safety Code (HSC) section 25143.2 relating to recycling activities.

II. What is RCRA?

Resource Conservation and Recovery Act (RCRA). Federal statute that regulates facilities that treat, store or dispose of hazardous waste. All RCRA hazardous wastes are identified in Part 261 of Title 40 of the Code of Federal Regulations and appendices.

III. What is non-RCRA Hazardous Waste?

All hazardous waste regulated in the State, other than RCRA hazardous waste.

IV. What is Tiered Permitting?

California has a five-tier permitting program which matches the statutory/regulatory requirements imposed upon each category of hazardous waste facility to the degree of risk posed by them. The five permitting tiers, in descending order of regulatory oversight, are:

(1) The Full Permit Tier - Includes all facilities requiring a RCRA permit, plus selected non-RCRA activities pursuant to Title 22 California Code of Regulations (22 CCR).

(2) The Standardized Permit Tier - A facility that manages waste not regulated under RCRA, but regulated as a hazardous waste by the State of California. These facilities include, but are not limited to recyclers, oil transfer stations, and precious metals recyclers. On-site facilities that are not regulated under RCRA are also eligible for Standardized Permit. For more detailed information on Standardized Permits, see DTSC's Fact Sheet on the Standardized Permit Tier and HSC section 25201.6.

(3) The Permit by Rule Tier - A California-only (non-RCRA) onsite (wastes that are generated at the facility where they are treated) treatment permit for specific waste streams and treatment processes, such as concentrated metal-bearing wastes, concentrated acids or alkalies, wastes posing multiple hazards, and silver recovery. For more detailed information see DTSC's Tiered Permitting Fact Sheet 1772D, and 22 CCR sections 67450.1 through 67450.13.

(4) The Conditional Authorization Tier - A California-only (non-RCRA) onsite treatment authorization for specific waste streams such as metal-bearing rinse waters, and mostly single-hazard wastes, some neutralization, and oil/water separation. For more detailed information see DTSC's Tiered Permitting Fact Sheet 1772C and HSC section 25200.3.

(5) The Conditional Exemption Tier - A California-only (non-RCRA) onsite treatment authorization for small-quantity treatment and other low-risk treatment, including oil/water separation, container rinsing or destruction, gravity settling, and some neutralization. For more detailed information see DTSC's Tiered Permitting Fact Sheets 1772A, 1772B and HSC section 25201.5.

V. Where Should the Applicant Apply?

For a Full Permit, an applicant should contact the appropriate DTSC office for the area in which the proposed project is located *(see page 4)*. Applicants seeking a new hazardous waste facility permit are encouraged to set up a preapplication meeting with DTSC permitting staff to discuss the permitting process, projected time frame for review of the application and approval of the permit, permit fees, etc. There is no fee associated with preapplication meeting. DTSC has written guidance documents that explain regulatory requirements, e.g., *Permit Writer Instructions for Storage and Treatment Facilities and Permit Writer Instructions for Closure of Storage and Treatment*

Facilities. For a Standardized Permit, applicants should apply to DTSC's Headquarters Permit Streamlining Branch. For the three lower tiers (onsite hazardous waste notifications), applicants should apply to DTSC's Headquarters Unified Program Section at (916) 324-2423.

VI. What Are the Application Fees?

Each facility will be billed an activity fee for each application. The amount of the fee is determined by the sized and Series designation of the facility. An activity fee is also assessed for a renewal application. The fees are non-refundable. Alternatively, a facility proponent has the option of signing a project-specific cost reimbursement agreement with DTSC (HSC section 25205.7(a)). *Note*: For more detailed information on hazardous waste Permit Application fees, contact DTSC's Headquarters, Financial Operations at (916) 322-8676 or DTSC's Internet Home Page at **http://www.calepa.cahwnet.gov/dtscdocs/fee97.txt**

VII. Preapplication Public Meeting and Notice

An informal preapplication public meeting is required for all new applicants who apply for a RCRA permit. In addition, current applicants who apply to renew RCRA permits, where the renewal application contains significant changes in the facility's operation (equal to a class 3 Permit Modification), must also hold an informal preapplication meeting. At least 30 days prior to the preapplication public meeting, the applicant is required to advertise the meeting in the newspaper, through a broadcast announcement (e.g., by radio or television), and on a sign posted at or near the property. The meeting provides a chance for the community to interact with and provide input to a facility owner or operator before the owner or operator submits the permit application. In addition, soon after receipt of the application, DTSC must publish a public notice and notify appropriate State and local agencies that the application has been received. The notice must contain the name and telephone number of the applicant's contact; the name and telephone number of the DTSC contact and a mailing address for that contact person; an address to which community members can write to be placed on the mailing list; location of where copies of the application can be viewed and copied; a brief description of the facility and proposed operation, including the address or a map of the facility location on the front page of the notice; and the date the application was submitted.

VIII. Permitting Process for Full and Standardized Permit Applications:

The permitting process begins when an applicant submits or when DTSC calls-in a permit application. Within 60 days of receipt of the application, DTSC must make a Completeness Determination, a finding whether the application has all the required parts. If the application is incomplete, DTSC issues a Notice of Deficiency. Once the application is considered administratively complete, DTSC begins its detailed, in-depth Technical Review, which evaluates facility operation for compliance with applicable technical standards. The Technical Review often results in a request for additional information and amendments or resubmittal of the application to meet these standards. This phase generally leads to DTSC accepting the application as technically complete,
and the applicant is so notified in writing. DTSC then prepares a draft permit and begins a 45-day public comment period.

A Full or Standardized Permit decision by DTSC is subject to compliance with the California Environmental Quality Act (CEQA). Appropriate CEQA analyses and documents are completed before the beginning of the public comment period for the draft permit. Generally, the public comment periods for CEQA documents and the draft permit are conducted in parallel. During the public comment period, DTSC generally holds a public hearing in the vicinity of the facility. After the close of the public comment period, DTSC issues a final permit decision accompanied by a written response to all comments received. The applicant and the public have 30 days to appeal DTSC's decision. The appeal procedures are explained in DTSC's Notice of Decision and 22 CCR section 66271.18.

IX. Permit Processing Time Limits

Pursuant to 22 CCR, HSC 25199.6, Government Code section 65950 and Title 27 CCR section 10300, the following time limits apply to specific steps in processing Full and Standardized Permit applications:

- Initial Completeness Review must be completed by DTSC within 60 days of receipt of all applications.

- When DTSC is acting as the lead agency under CEQA and a Negative Declaration is prepared, the Negative Declaration must be completed within 105 days from the date DTSC accepted the application as technically complete. The Negative Declaration may be approved at a later time when the permit or other entitlement is approved. The permit determination must be completed within 60 days of the date of adoption of the negative declaration.

- When DTSC is acting as the lead agency under CEQA and an Environmental Impact Report (EIR) is prepared, the EIR must be completed within one year from the date DTSC accepted the application as technically complete. The permit determination must be completed within six months of the approval of the EIR.

- When DTSC is acting as a responsible agency under CEQA and the hazardous waste project is not a land disposal

facility, a permit determination must be made within 180 days of the date the lead agency approved or disapproved the project, or within 180 days of the date application was accepted as technically complete, whichever is later.

- When DTSC is acting as a responsible agency under CEQA and the hazardous waste project is a land disposal facility, a permit determination must be made within one year of the date the lead agency approved or disapproved the project; or within one year of the date the application was accepted as technically complete, whichever is later.

Appeal Procedures if Time Limits are Exceeded:

Persons whose permit applications have not been processed within specified time limits may appeal to the Secretary of the California Environmental Protection Agency. The appeal must be filed within 30 days of the date the time periods were allegedly exceeded. If the Secretary finds that the time limits have not been met without good cause he may direct the environmental agency to process the permit application by a specific date. For permits subject to the Permit Reform Act of 1981 (Government Code sections 15374. et seq.), the Secretary may also order that the applicant receive a reimbursement of all filing and permit processing fees.

X. Appeal of Permit Decisions

Once a final permit decision is issued by DTSC, any person who filed comments on the draft permit or participated in the public hearing for the permit has 30 days to petition DTSC to review any condition of the permit decision. In addition, any person who did not file comments or did not participate in the public hearing on the draft permit, may petition DTSC for review of the permit decision. However, the petition for review is limited by law to changes made to the draft permit that are reflected in the final permit decision. (22 CCR section 66271.18).

Within a reasonable time following the receipt of the petition for review, DTSC must issue an order either granting or denying the petition for review. If the petition for review is granted, DTSC will issue a public notice to the project mailing list and set forth a briefing schedule for the appeal. If the petition for review is denied, DTSC will send the notice to deny only to the person(s) requesting the review.

XI. How does CEQA Relate to DTSC's Permit Determinations?

CEQA applies to all discretionary actions taken by DTSC that may have an impact on the environment. Many activities within the DTSC Hazardous Waste Management Programs are subject to CEQA requirements. These activities include: the issuance of facility permits, facility permit renewals or modifications, variances, and approval of closure plans. When DTSC is the lead agency for a project, it is responsible for the preparation of the appropriate environmental documents required under CEQA. DTSC is required to determine whether a project may have a significant effect on the environment and whether the effects can be mitigated, or reduced to a level of insignificance. Generally, mitigation measures are included as conditions in the final permit. When DTSC is not the lead agency, it must still conduct a CEQA evaluation for its discretionary action before it issues a draft permit or permit denial. In practice, DTSC may use and reference the local entity's documents to support the CEQA determination. Appropriate CEQA analyses and documents must be completed prior to the opening of the public comment period. Generally, the 30-day comment period for CEQA documents and the draft permit are conducted in parallel. DTSC provides for public notice in newspapers of general circulation, on radio stations, and in fact sheets that are mailed to potentially interested parties. During the comment period, any interested person may submit written comments or a written request for a public hearing. At the close of the public comment period, DTSC acknowledges, in writing, the receipt of all comments directly to the commenter. If a fact sheet is prepared at the time the final decision is announced, the fact sheet indicates that a copy of the response to comments is available upon request or can be viewed in a public information repository. For more information contact DTSC's Headquarters Planning and Environmental Analysis Section at (916) 322-8693.

XII. What Other Agencies Should the Applicant Contact?

Depending on the type of permit, some or all of the following agencies may be involved:

LOCAL — City and county land use and environmental health agencies, Special Planning or Regulatory Districts, Air Pollution Control Districts and Certified Unified Program Agencies (CUPAs). For more information regarding CUPA addresses and phone numbers, contact the DTSC Unified Program Section at Headquarters or DTSC Field Offices (see page 4).

STATE — Regional Water Quality Control Board; Air Resources Board; California Integrated Waste Management Board (if the facility will manage both hazardous and non-hazardous waste); California Department of Industrial Relations; Division Occupational Safety and Health; Consultation Service; and the Governor's Office of Planning and Research.

FEDERAL — U.S. Environmental Protection Agency, Region IX, (415) 744-1730 (if the proposal includes activities for which California is not

authorized). For RCRA hotline contact (800) 231-7075.

XIII. How Can DTSC Help the Permit Applicants?

The permit applicants may utilize the following resources to obtain more information regarding hazardous waste facility permitting process:

- Permit Assistance Centers: In order to locate the nearest Permit Assistance Center to you, please contact 1-800-468-1786.
- DTSC's Field Offices: See this page for telephone numbers and locations.
- DTSC's Internet Home Page which displays Hazardous Waste Management Program notices and documents. Access at http://www.calepa.ca.gov/dtsc.htm.
- Cal/EPA Environmental Recycling Hotline at 1-800-CLEANUP (1-800-253-2687).
- U.S. Environmental Protection Agency, RCRA Hotline at 1-800-424-9346.

XIV. What Other Sources of Information are Available?

- Guidance Documents "Permit Writer Instructions for Storage and Treatment Facilities" and "Permit Writer Instructions for Closure of Storage and Treatment Facilities," Department of Toxic Substances Control (DTSC). Copies can be obtained from DTSC's Headquarters Hazardous Waste Management Program at (916) 327-4493.
- California Environmental Quality Act, Statutes and Guidelines, DTSC. More information can be obtained from DTSC's Headquarters Office of Planning and Environmental Analysis at (916) 324-8550.
- DTSC Corrective Action Orientation Manual. Copies can be obtained from DTSC's Headquarters Hazardous Waste Management Program. For more information please contact (916) 324-2431.
- DTSC Onsite Tiered Permitting Flowcharts, Notification Forms, and Fact Sheets. Copies of above documents can be obtained from DTSC's State Regulatory Program Division. For more information please contact (916) 324-2423.
- California Hazardous Waste Control Law, Health and Safety Code, Division 20, Chapter 6.5, section 25100 et seq. Copies can be obtained from the Department of General Services. For more information please contact (916) 574-2200.
- California Hazardous Waste Control Regulations, Title 22, California Code of Regulations, Division 4.5, section 66260.1 et seq. Copies can be obtained from Barclays Law Publishers. For more information please contact (800) 888-3600.
- Federal Resource Conservation and Recovery Act (RCRA) Regulations, Title 40, Code of Federal Regulations, Parts 260 through 270. Copies can be obtained at the U.S. Government Printing Office, Washington, D.C.

Where to Contact DTSC

Headquarters Office

Department of Toxic Substances Control
400 P Street
P.O. Box 806
Sacramento, CA 95812-0806
(916) 322-0349

NORTHERN CALIFORNIA REGION

Sacramento Office

Department of Toxic Substances Control
10151 Croydon Way, Suite 3
Sacramento, CA 95827
(916) 255-3545

Clovis Office

Department of Toxic Substances Control
1515 Tollhouse Road
Clovis, CA 93611
(209) 297-3901

Berkeley Office

Department of Toxic Substances Control
700 Heinz Avenue, Bldg. F, Suite 200
Berkeley, CA 94710
(510) 540-2122

SOUTHERN CALIFORNIA REGION

Glendale Office

Department of Toxic Substances Control
1011 N. Grandview Avenue
Glendale, CA 91201
(818) 551-2800

Cypress Office

Department of Toxic Substances Control
5796 Corporate Ave
Cypress, CA 90630
(714) 484-5300

CUPA
Department/Division
Address
Phone: (xxx) xxx-xxxx Fax: (xxx) xxx-xxxx
Website: www.website.com

HAZARDOUS WASTE INSPECTION FORM
LARGE QUANTITY GENERATOR

Facility Name _____ Date _____

Site Address _____ Time In _____ Time Out _____

Owner/Operator _____ Phone _____

Type of Inspection

☐ Routine ☐ Re-Inspection
☐ Follow-up ☐ Other _____

Inspection Consolidation

☐ Combined ☐ Joint ☐ Integrated
☐ Multimedia ☐ Solo

Inspector _____

Facility ID _____

Program Element _____

EPA ID _____

CONSENT TO INSPECT GRANTED BY *Name:* _____

Title: _____

Inspection may involve obtaining photographs, reviewing and copying records, and determination of compliance.

Page ____ of ____

M= Minor Viol, CII= Class II, CI= Class I

CODE	Y	N	N/A	HAZARDOUS WASTE REQUIREMENTS FOR LQGs	M CI CII
Record Keeping/Documentation					
LR01				Biennial Report submitted every even year (*66262.41)* and maintained onsite *(66262.40(b))*	
LR02				Hazardous waste determination was made for all wastes. ☐Analysis ☐Generator knowledge (*66262.11)*	
LR03				Contingency Plan is available for review (*66265.53(a))*	
LR04				Contingency Plan contains all required elements (*66265.52)* and is current (*66265.54)*.	
LR05				Training plan is onsite *(66265.16(d))* and complete (*66265.16(a)(3))*	
LR06				Documentation that training is provided to personnel annually *(66265.16(c))*	
LR07				Personnel have been provided training within 6 months of hire or taking a new position *(66265.16(b))*	
LR08				Manifests are complete *(66262.23(a)(1))*	
LR09				The "Generator copy" of each manifest is being submitted to DTSC *(66262.21(f))*	
LR10				TSDF signed copy of the manifest available is within 35 days of waste shipment. *(66262.42(a))*	
LR11				Bills of Lading for transportation of used oil on a Consolidated Manifest are present and complete *(HSC 25160)*	
LR12				LDRs are available and complete. *(66268.7(a)(5)(C))*	
LR13				Written inspection logs for tanks show daily inspections *(66265.195(c))*	
LR14				Onsite recycling is reported every two years using UPCF *(HSC 25143.10)*	
LR15				Tank integrity/containment assessment is complete *(66265.192e)(1)* & has been completed in past 5 years *(66265.192(h)(1))*	
Container Management					
LC01				Containers are in good condition. *(66265.171)* and compatible with the waste being held *(66265.172)*	
LC02				Containers holding ignitable and reactive wastes are more than 50 feet from property line *(66265.176)*	
LC03				Containers are closed except when adding or removing waste. *(66265.173(a))*	
LC04				Containers are inspected weekly. *(66265.174)*	
LC05				Contaminated empty containers are empty. *(66261.7(b))*	
LC06				"Empty" containers are marked with date emptied. *(66262.7(f))*	
LC07				Satellite accumulation containers are at or near the point of generation *(66262.34(e)(1)(A))*	
LC08				Satellite accumulation containers are under the control of an operator *(66262.34(e)(1)(A))*	
LC09				Satellite accumulation areas contain only one container per wastestream *(66262.34(e)(2))*	
LC10				Container >26 gal & holds VOC containing waste w/ >500 ppms is DOT approved, closed tight *(66265.1087)*	
LC11				Adequate aisle space is maintained to allow access to containers *(66265.35)*	
LC12				Exclude recyclable materials stored in accordance with local ordinance/hazardous materials codes. *(HSC 25143.9(c))*	
LC13				Facility is equipped with emergency equipment and alarms/communication system *(66265.32)*	
Tank Management					
LT01				Tanks are equipped with overfill prevention controls *(66265.194)*	
LT02				Tanks are equipped with secondary containment leak detection device *(66265.192(j)(3))*	
LT03				Tanks are inspected daily *(66265.195)*	
LT04				Tank <19,000 gal, holds VOC >500ppmw, has fixed roof *(66265.1083(b) & 66265.1085(c))*	
LT05				Tank holding VOCs that does not meet criteria above, has cover and control device *(66265.1085(d))*	

HAZARDOUS WASTE INSPECTION FORM
LARGE QUANTIRY GENERATOR

M= Minor Viol, CII= Class II, CI= Class I

ITEM NO.	Y	N	N/A	HAZARDOUS WASTE LQG REQUIREMENTS	M CII CI
Accumulation Time Limits					
LA01				Waste is accumulated for no more than 90 days. *(66262.34(a))*	
LA02				Satellite waste is accumulated for not more than 1 year from first drop. *(66262.34(e)(1)(B))*	
LA03				Satellite waste is accumulated for no more than 90 days from filled date. *(66262.34(e)(1)(B))*	
LA04				Empty containers are managed within 1 year. *(66261.7(f))*	
LA05				Used oil filters are accumulated for less than 1 year (limited to 180 days >1 ton onsite). *(66266.130(c)(4))*	
LA06				Spent lead-acid batteries are accumulated for less than 1 year (limit: 180 days if >1 ton onsite). *(66266.81(a)(6))*	
Labeling/Marking					
LL01				Containers are properly marked/labeled and visible for inspection. *(66262.34(a)(2) & (3)/66262.34(f)))*	
LL02				Satellite containers are marked with initial accumulation start date. *(66262.34(e)(1)(C))*	
LL03				Filled satellite containers are marked with date filled. *(66262.34(e)(3))*	
LL04				Containers holding excluded recyclable materials are marked properly. *(HSC 25143.9(a)*	
LL05				Containers holding drained used oil filters are marked “Drained Used Oil Filters”. *(66266.130(c)(3))*	
LL06				Lead-acid batteries are marked with date removed from service/generated. *(66266.81(a)(6)(D))*	
LL07				Tanks and containers holding used oil are marked “Used Oil”. *(HSC 25143.9(a) & 66279.21(b))*	
LL08				Tanks are marked with “Hazardous Waste”, contents, and start date. *(66262.34(f)(2) & (3))*	
Universal Waste					
LU01				Universal Waste is properly labeled/marked *(66273.14 & 66273.34)*	
LU02				Universal Waste is properly managed *(66273.13 & 66273.33)*	
LU03				Universal Waste is managed within 1 year of generation *(66273.15 & 66273.35)*	
LU04				Records of each shipment of Universal Waste for past 3 years are available *(66273.19 & 66273.39)*	
Treatment, Transport & Disposal/Other					
LM01				Has a permit/authorization to conduct waste treatment. *(HSC 25201 (a))*	
LM02				Offered waste for transport using an authorized transporter. *(HSC 25201(a))*	
LM03				Disposed of waste only to authorized points/parties. *(HSC 25201(a))*	
LM04				Maintained the facility in a manner that minimizes releases *(66265.31)*	
LM05				Emergency equipment is tested and maintained in working order *(66265.33)*	

Comments & Observations

RECEVIED BY: **INSPECTED BY:** **DATE:**

Signature of receipt of this report does not imply agreement with the findings, only receipt of report.

MINOR VIOLATIONS REQUIRE CERTIFICATION OF CORRECTION: Violation(s) must be corrected by _____ .

To certify the correction of all minor violations, return a copy of this report with a SIGNATURE and DATE included in the box below to CUPA NAME, ADDRESS within THIRTY (30) DAYS of the date of inspection.

SIGNATURE (Certification of Compliance) **DATE**

Comments, Observations, Violation Documentation

Guide to violations and violation codes found in left-most column of the inspection report/checklist

Code	Regulation, description, guidance
LR01	**Facility has filed a Biennial Report and maintained a copy.** Biennial reports must be filed in each even numbered year reporting amounts of waste generated and how each was handled. Reports may be filed with DTSC electronically, and a receipt of filing can be printed. Reports must be maintained for three years.
LR02	**Facility waste determinations.** Facilities must make waste determinations for all wastes. They can apply generator knowledge, but it must be based on knowledge of the waste or process. Guidance can be given regarding lab testing, indicating test methods or generic test names (e.g. fish bioassay or CAM-17 WET or pH) and certified labs for use.
LR03	**Contingency plan available for review.** A copy of the contingency plan must be kept onsite.
LR04	**Contingency plan required elements.** Contingency plans should address the following (at a minimum): actions to be taken in event of fire/explosion/release, arrangements (if any) with local response teams, name/address/phone number (home and office) of emergency coordinators, list of emergency equipment/description/location, evacuation plan, State OES emergency number (800-852-7550). HMBP & SPCC plans may be substituted IF all elements are present.
LR05	**Training plan is onsite and complete.** Training plans should address the following (at a minimum): employee response to emergencies, procedures for inspecting monitoring systems, operation of automatic feed cut off systems, alarm and communication systems, response to fires and explosions, and shutdown operations. Plan should be organized to include job title, employee name, job description, type and frequency of training to be provided.
LR06	**Training documentation is available.** Documentation showing that all elements of the plan outlined for each job title and employee must be updated annually and maintained.
LR07	**Personnel training provided within 6 months of hire.** Within the first 6 months, personnel must be supervised until they have been trained in the requirements of job.
LR08	**Manifests are complete.** Generators are responsible for Items 1-15 on the manifest. Generator site address may be blank if same as mailing address. Item 9a may be marked "RQ" to indicate a reportable quantity is being shipped. Item 9a may be left blank if all items on the manifest being shipped are DOT regulated (but it is recommended that any DOT regulated material be marked, regardless). Both federal and state waste codes need to be entered in Item 13, leave blank if none.
LR09	**Generator copy sent to DTSC.** New manifests do not have "mail to" address on the form any longer. Requirement to submit to State still exists. Copies (photocopy or original after TSDF copy is received) should be sent to DTSC Generator Manifests, P.O. Box 400, Sacramento, CA 95812-0400. No proof of submission is required. Inspectors may look at HWTS to determine if copies have been received (look for "Y" in the "Paired" column to start), but be aware that data entry to HWTS may lag by up to 6 months.
LR10	**TSDF copy available w/in 35 days.** TSDF copies should be received within 35 days of shipment. If not, generators should contact TSDF to determine status. If copy not received within 45 days, an exception report should be submitted to DTSC.
LR11	**Bill of Lading for transporting used oil.** LQGs may use consolidated manifesting for transport of used oil. Transporters should leave receipt (Bill of Lading) showing waste, quantity, shipper, TSDF, and date of shipment.
LR12	**LDRs.** LDR notifications must go with all RCRA wastes. Look for LDRs for each waste with a federal waste code in Item 13 of the manifest. LDRs should show what the waste (or code) is and the minimum treatment standard. Can send one LDR per waste each year if waste and receiving facility do not change throughout that year.
LR13	**Tank inspection logs.** Tanks must be inspected daily for leaks, cracks or corrosion, to ensure that spill control equipment is in working order, containment is in good condition, and freeboard is maintained (for open topped tanks)
LR14	**Submitting a recycling report**. Facilities that recycle more than 100 kg of waste for re-use onsite have to fill out a report form. Onsite recycling includes reuse of wastewater in plating baths, antifreeze recycling units, and re-circulating solvent sinks. Facilities may need help determining which exemption applies to them when filing the form.

LR15	**Tank integrity and containment assessment.** Tanks used to hold waste must have and integrity assessment conducted every 5 years. Assessments should address tank construction, design, seismic anchoring, thickness of shell, estimated life remaining, compatibility with contents, and condition and construction of containment area. Ancillary equipment such as piping should be included. Final assessment must be signed by a P.E. Guidance on contents of assessments available at http://www.calcupa.net/technical/hazwaste/index.html and http://www.unidocs.org/hazmat/hazardous-waste/index.html.
LC01	**Containers in good condition and compatible with contents.** Containers holding waste should be free of severe rust, major dents and leakage, and compatible with their contents.
LC02	**Ignitables/Reactives 50 feet from property line.** Containers holding ignitable and/or reactive wastes must be stored at least 50 feet from the property line.
LC03	**Containers not closed.** Containers must be kept closed unless adding or removing waste. For liquid wastes, closed should include a tightened bung or valved funnel, while non-dispersible solids may have the lid loosely fitted but not secured during the workday.
LC04	**Inspecting containers weekly.** While inspections are required, logs are not required to be kept. Look for signs that containers aren't being inspected such as improper labeling, open containers or containers in poor condition.
LC05	**Empty containers not empty.** Empty containers may not have a steady stream of liquid escape when inverted or solids must be scraped clear as much as practical. Empty containers may still have some waste in them after emptying from settling of residues-ensure the facility took measures to make the container empty (i.e. inverted it over new drum).
LC06	**Empty containers marked with date.** Empty containers must be marked with the date emptied, except when the empty container is shipped back to the supplier for re-filling with the same material (see 66261.7(i) for refilling requirements).
LC07	**Satellite: At or near point of generation.** Inspector's discretion for definition of "at or near". Wastes not at or near don't qualify for 1-year satellite accumulation rule, must be held to 90/180/270 day accumulation times.
LC08	**Satellite: Under control of operator**. Containers should be able to receive regular attention from a human being.
LC09	**Satellite: One container per wastestream**. Satellite accumulation rules allow only one container, up to 55 gallons in size, per satellite area **for each waste stream** unless it can be shown that it is not practical or safe to have only one.
LC10	**Containers holding VOCs (Subpart CC).** Containers larger than 26 gallons, that hold wastes with VOC contents greater than 500 ppm by weight (> than 20% by weight and which have a vapor pressure of greater than 2.25 mm Hg) must be kept in DOT approved containers and remain sealed unless adding or removing. If any of above criteria are not met, rule does not apply ("light duty"). If facility cannot prove that criteria are not met, rule applies.
LC11	**Aisle space.** Adequate space must be provided for all containers to allow for unobstructed access in the event of a problem.
LC12	**Excluded recyclable material storage**. These wastes are excluded, and not subject to Title 22 storage or accumulation rules, they are materials. Use fire code and local ordinance to govern storage (i.e. containment, occupancy segregation).
LC13	**Emergency equipment.** Facility must have an internal alarms system, a radio or telephone capable of summoning help, fire extinguishers, and spill control and decontamination equipment. A facility can demonstrate that it does not have the equipment if it is not required to mitigate the hazards posed by the wastes handled at that facility.
LT01	**Tanks equipped with overflow controls.** Tanks must have some spill prevention controls such as check valves, auto cut-offs, high level alarms, or standby tank bypass. 2' freeboard is required for open tanks if containment not present.
LT02	**Secondary containment leak detection.** Containment structures must have leak detection systems that can detect a leak into containment within 24 hours. Visual daily inspection may be substituted for installation of systems if the entire tank can be viewed.

LT03	**Tanks daily inspections.** Written tank inspection logs are required. Only applies to operating days (day tank is being used). Tank inspections should include condition of containment (including dryness), spill control, and corrosion.
LT04 LT05	**Tanks holding VOCs (Subpart CC).** If tank holds VOC containing wastes, is less than 19,000 gallons and the VOC containing waste has a vapor pressure less than 575 mm Hg it must have a fixed roof. If tank holds VOCs, but does not meet any of the criteria in LT03 (above), it must be covered and vented to control device, have an internal or external floating roof, or be a pressurized tank.
LA01	**Accumulation greater than time limits (Storage without a permit).** Hazardous wastes may not be accumulated for more than 90 days unless they meet satellite accumulation rules.
LA02 LA03	**Satellite accumulation for greater than 1 year**. Satellite wastes can be held for 1 year from first drop **OR** 90 days from time container is full, whichever comes first.
LA04	**"Empty" containers held greater than 1 year**. Empty containers should be sent offsite within 1 year for scrap value, reconditioning, reuse or refill if greater than 5 gallons. Those containers ≤5 gallons may be disposed of to a solid waste facility (with the trash) once "empty".
LA05	**Oil filters greater than 180 days/1 year.** A facility can hold up to one ton (≈4 drums of crushed or 8 drums of uncrushed) oil filters for 1 year. If the one ton limit is reached, the filters should be sent off within 180 days of the date the first filter was added to each container.
LA06	**Lead-acid batteries greater than 180 days/1 year**. A facility can hold up to one ton (≈65 batteries) of batteries for 1 year. If the one ton limit is reached the batteries should be sent off within 180 days of the date on the first battery collected.
LL01	**Labeling.** The facility shall clearly mark all containers with the following: 1) the words "Hazardous waste", 2) composition and physical state, 3) hazard property (e.g. toxic), 4) name and address of the generator, and 5) accumulation start date. All labels/markings must be visible for inspection.
LL02 LL03	**Satellite accumulation dates.** Satellite containers need to be marked with the date the first drop is added. This starts the 1 yr. limit. Satellite containers also need a second date once the container is full. This second date starts the 90 day clock. Satellite containers may not be held for more than 1 yr, or 90 days after being filled, whichever comes first.
LL04	**Marking "excluded recyclable materials".** Recyclable materials have the same labeling requirements as hazardous wastes, except that the words "excluded recyclable materials" must be marked instead of the words "hazardous waste".
LL05	**Oil Filter marking.** Filters must be marked with the words "Drained Used Oil Filters" and the date the first filter is added to the container. Drained fuel filters may be co-mingled and the container marked "used oil and gasoline filters"
LL06	**Lead Acid Battery marking.** Each battery must be marked with the date it is received or determined to no longer be usable. Damaged batteries must have the date written on the outside of the container holding the damaged battery.
LL07	**Used oil marking.** All tanks and containers that hold used oil destined for offsite recycling must be marked with the words "used oil". Used Oil containers do not have to have the physical state or hazardous properties marked on them.
LL08	**Tanks properly labeled.** Tanks must be marked with the words "Hazardous Waste", the contents of the tank, and the accumulation start date.
LU01	**Universal Waste marking/labeling.** UW are best marked as "universal waste- XXX". UW can be marked on each individual device or the outer container holding multiple devices. CRTs may use signage in an area in which CRTs are stored. Accumulation start dates may be marked on the device, the container, in an inventory log, or signage in an area.
LU02	**Universal Waste management.** UW needs to be managed in a way that prevents breakage or release to the environment. Commingling of items within a category (i.e. batteries) is allowed. Containers should be closed, structurally sound and compatible with the contents if breakage occurs.

LU03	**Universal Waste Accumulation times.** Universal waste may be stored up to one year. Storage for more than one year may be allowed only if done to facilitate accumulating enough for proper disposal. The burden of proof is on the handler.
LU04	**Universal Waste paperwork.** Records of each shipment must be kept. Records may be in the form of bills of lading, a logbook, , invoice or manifest. The record must include date, quantity, type of UW, and to whom it was shipped.
LM01	**Illegal Treatment.** A permit or authorization (PBR/CA/CE) is needed to treat hazardous waste. Treatment is defined as: method, technique or process that changes the physical, chemical or biological character or composition or a waste **AND** causes the waste to become non- or less hazardous. Many activities have been specifically exempted from this: (1) adding absorbent that changes only the physical state of the waste, (2) dilution that does not result in a less hazardous waste, (3) mixing like wastes for consolidation prior to offsite shipment, and (4) without adding heat, chemicals or pressure (a) sieving or filtering liquids to remove solid fractions, (b) phase separation during accumulation, or (c) evaporation of water.
LM02	**Failed to use registered transporter/used consolidated manifest when not eligible.** All transporters, including consolidated transporters need to have registered with DTSC. List of registered transporters can be found at 916-255-4368 or at http://www.dtsc.ca.gov/HazardousWaste/Trans000.cfm. Generators may not offer waste for transportation to unregistered transporters. If noted, please refer the transporter to DTSC for follow-up/enforcement.
LM03	**Illegal disposal.** Hazardous wastes must be sent to an authorized treatment, storage or disposal facility. Application of wastes to land is prohibited. Allowing hazardous waste to fall on the ground or be carried by the wind can be cited as illegal disposal, whether the act is intentional or negligent.
LM04	**Failure to minimize releases.** Facilities must be maintained and operated in a manner that minimizes releases and the possibility of releases. Releases need not be ongoing or repeat to be considered.
LM05	**Emergency equipment maintenance.** All emergency equipment listed in the contingency plan should be tested and found to be in good working order “as needed”. Generally, eyewash/showers are tested weekly, fire extinguishers annually.

Defining Hazardous Waste

This section contains information on:

- What is a Hazardous Waste?
  - I. Listed Waste
  - II. Characteristic Hazardous Waste
  - III. Used Oil
  - IV. Mixture & Derived-From Rules
  - V. Contained-In Policy
- Links to Additional Resources for Hazardous Waste Identification

What is a Hazardous Waste?

Hazardous waste is a waste with properties that make it potentially dangerous or harmful to human health or the environment. The universe of hazardous wastes is large and diverse. Hazardous wastes can be liquids, solids, or contained gases. They can be the by-products of manufacturing processes, discarded used materials, or discarded unused commercial products, such as cleaning fluids (solvents) or pesticides. In regulatory terms, a hazardous waste is a waste that appears on one of the four RCRA[1] hazardous wastes lists (the F-list, K-list, P-list, or U-list) or that exhibits one of the four characteristics of a hazardous waste - ignitability, corrosivity, reactivity, or toxicity. However, materials can be hazardous wastes even if they are not specifically listed or don't exhibit any characteristic of a hazardous waste. For example, "used oil," products which contain materials on California's M-list, materials regulated pursuant to the mixture or derived-from rules, and contaminated soil generated from a "clean up" can also be hazardous wastes. To view the hazardous waste regulations[2] and statutes, go to:
http://www.dtsc.ca.gov/LawsRegsPolicies/index.cfm

Click below to take a self-paced internet course on hazardous waste identification
http://ccelearn.csus.edu/wasteclass/intro/intro_01.html

The following paragraphs provide an overview of the various ways that a waste may be identified as hazardous waste.

I. Listed Wastes

By regulation, some specific wastes are hazardous wastes. These wastes are incorporated into five lists.

These five lists are organized into four categories:

---

[1] The Resource Conservation and Recovery Act
[2] As used on this web page, "hazardous waste regulations" refers to Chapters 10 through 32 of Division 4.5 of Title 22 of the California Code of Regulations.

- **The F-list (non-specific source wastes):** This list identifies wastes from many common manufacturing and industrial processes, such as solvents that have been used for cleaning or degreasing. Since the processes producing these wastes occur in many different industry sectors, the F-listed wastes are known as wastes from non-specific sources. (Non-specific meaning they don't come from one specific industry or one specific industrial or manufacturing process.) The F-list appears in the hazardous waste regulations in section 66261.31. http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/upload/OEARA_REG_Title22_Ch11_Art4.pdf

- **The K-list (source-specific wastes):** This list includes certain wastes from specific industries, such as petroleum refining or pesticide manufacturing. Also, certain sludges and wastewaters from treatment and production processes in these specific industries are examples of source-specific wastes. The K-list appears in the hazardous waste regulations in section 66261.32. http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/upload/OEARA_REG_Title22_Ch11_Art4.pdf

- **The P-list and the U-list (discarded commercial chemical products):** These lists include specific commercial chemical products that have not been used, but that will be (or have been) discarded. Industrial chemicals, pesticides, and pharmaceuticals are example of commercial chemical products that appear on these lists and become hazardous waste when discarded. The P- and U-lists appear in the hazardous waste regulations in subsections 66261.33(e) and (f). http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/upload/OEARA_REG_Title22_Ch11_Art4.pdf

- **M-listed Wastes (discarded mercury-containing products):** This list includes certain wastes known to contain mercury, such as fluorescent lamps, mercury switches and the products that house these switches, and mercury-containing novelties. For additional information see DTSC's mercury web page: http://www.dtsc.ca.gov/HazardousWaste/Mercury/index.cfm#Types_of_Mercury_Products

II. Characteristic Hazardous Wastes

Wastes may be hazardous wastes if they exhibit any of the four characteristics of a hazardous waste (ignitability, corrosivity, reactivity, and toxicity) as defined in Article 3 of Chapter 11 of the hazardous waste regulations (sections 66261.21 to 66261.24).
These four characteristics are:

Ignitability – Ignitable wastes can create fires under certain conditions, undergo spontaneous combustion, or have a flash point less than 60°C (140°F). Examples include waste oil and used solvents. The characteristic of ignitability is defined in section 66261.21 of the hazardous waste regulations. Test methods that may be used to determine if a waste exhibits the characteristic of ignitability include the Pensky-Martens Closed-Cup Method for Determining Ignitability, the Setaflash Closed-Cup Method for Determining Ignitability, and the Ignitability of Solids (U.S. EPA Test Methods, SW-846 Methods: 1010, 1020, and 1030, respectively.) http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/upload/OEARA_REG_Title22_Ch11_Art3.pdf

Corrosivity – Corrosive wastes are materials, including solids, that are acids or bases, or that produce acidic or alkaline solutions. Aqueous wastes with a pH less than or equal to 2.0 or greater than or equal to 12.5 are corrosive. A liquid waste may also be corrosive if it is able to corrode metal containers, such as storage tanks, drums, and barrels. Spent battery acid is an example. The characteristic of corrosivity is defined in section 66261.22 of the hazardous waste regulations. Test methods that may be used to determine if a waste exhibits the characteristic of corrosivity are pH Electronic Measurement and Corrosivity Towards Steel (U.S. EPA Test Methods, SW-846 Methods: 9040 and 1110 respectively.) http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/upload/OEARA_REG_Title22_Ch11_Art3.pdf

Reactivity – Reactive wastes are unstable under normal conditions. They can cause explosions or release toxic fumes, gases, or vapors when heated, compressed, or mixed with water. Examples include lithium-sulfur batteries and unused explosives. The characteristic of reactivity is defined in section 66261.23 of the hazardous waste regulations. There are currently no test methods available for reactivity. Instead wastes are evaluated for reactivity using the narrative criteria set forth in the hazardous waste regulations.
http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/upload/OEARA_REG_Title22_Ch11_Art3.pdf

Toxicity – Toxic wastes are harmful or fatal when ingested or absorbed (e.g., wastes containing mercury, lead, DDT, PCBs, etc.). When toxic wastes are disposed, the toxic constituents may leach from the waste and pollute ground water. The characteristic of toxicity is defined in section 66261.24 of the hazardous waste regulations. It contains eight subsections, as described below. A waste is a toxic hazardous waste if it is identified as being toxic by any one (or more) of the eight subsections of this characteristic.
http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/upload/OEARA_REG_Title22_Ch11_Art3.pdf

1. **TCLP:** Toxic as defined through application of a laboratory test procedure called the Toxicity Characteristic Leaching Procedure (TCLP - U.S. EPA Test Method 1311). The TCLP identifies wastes (as hazardous) that may leach hazardous concentrations of toxic substances into the environment. The result of the TCLP

test is compared to the Regulatory Level (RL) in the table in subsection 66261.24(a)(1) of the hazardous waste regulations. This criterion does not apply to wastes that are excluded from regulation under the Resource Conservation and Recovery Act.

2. **Totals and WET:** Toxic as defined through application of laboratory test procedures called the "total digestion" and the "Waste Extraction Test" (commonly called the "WET"). The results of each of these laboratory tests are compared to their respective regulatory limits, the Total Threshold Limit Concentrations (TTLCs) and the Soluble Threshold Limit Concentrations (STLCs), which appear in subsection 66261.24(a)(2) of the hazardous waste regulations.
3. **Acute Oral Toxicity:** Toxic because the waste either is an acutely toxic substance or contains an acutely toxic substance, if ingested. As stated in subsection 66261.24(a)(3), a waste is identified as being toxic if it has an acute oral LD_{50} less than 2,500 mg/kg. A calculated oral LD_{50} may be used.
4. **Acute Dermal Toxicity:** Toxic because the waste either is an acutely toxic substance or contains an acutely toxic substance, if dermal exposure occurs. As stated in subsection 66261.24(a)(4), a waste is identified as being toxic if it has an dermal LC_{50} less than 4,300 mg/kg. A calculated dermal LD_{50} may be used.
5. **Acute Inhalation Toxicity:** Toxic because the waste either is an acutely toxic substance or contains an acutely toxic substance, if inhaled. As stated in subsection 66261.24(a)(5), a waste is identified as being toxic if it has an dermal LC_{50} less than 10,000 mg/kg. U.S. EPA Test Method, SW-846 Methods: 3810, Headspace (formerly Method 5020) may be used to "test out" (for volatile organic substances).
6. **Acute Aquatic Toxicity:** Toxic because the waste is toxic to fish. A waste is aquatically toxic if it produces an LC_{50} less than 500 mg/L when tested using the "Static Acute Bioassay Procedures for Hazardous Waste Samples". This test procedure is available at: http://www.dtsc.ca.gov/HazardousWaste/upload/HWMP_bioassay_report.pdf
7. **Carcinogenicity:** Toxic because it contains one or more carcinogenic substances. As stated in subsection 66261.24(a)(7), a waste is identified as being toxic if it contains any of the specified carcinogens at a concentration of greater than or equal to 0.001 percent by weight.
8. **Experience or Testing:** Pursuant to subsection 66262.24(a)(8), a waste may be toxic (and therefore, a hazardous waste) even if it is not identified as toxic by any of the seven criteria above. At the present time, only wastes containing ethylene glycol (e.g., spent antifreeze solutions) have been identified as toxic by this subsection.

III. Used Oil: In California, waste oil and materials that contain or are contaminated with waste oil are usually regulated as hazardous wastes if they meet the definition of "Used Oil" even if they do not exhibit any of the characteristics of hazardous waste. The term "used oil" is a legal term which means any oil that has been refined from crude

oil, or any synthetic oil that has been used and, as a result of use, is contaminated with physical or chemical impurities. Other materials that contain or are contaminated with used oil may also be subject to regulation as "used oil" under Part 279 of Title 40 of the Code of Federal Regulations. http://www.epa.gov/epahome/cfr40.htm

IV. Mixture & Derived-From Rules: When evaluating materials that are mixtures or that are residuals resulting from processing other materials, you should check to see if the hazardous waste mixture-rule or derived-from rule applies. The hazardous waste mixture and derived-from rules are located in section 66261.3 of 22 CCR. There are also additional mixture rules specifically for mining wastes and for used oil. These rules are intended to ensure that mixtures and residuals containing hazardous wastes are regulated in a manner that is protective of human health and the environment. http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/upload/OEARA_REG_Title22_Ch11_Art1.pdf

V. Contained-In Policy: Environmental media (soil, groundwater and surface water) are not normally considered wastes. However, when environmental media are excavated (and stored or transported) for disposal at another location, the environmental media may be regulated as hazardous waste if it contains hazardous waste, including both listed and characteristic hazardous wastes. For example, soil contaminated with lead is often a hazardous waste because the lead "contained-in" the soil is a hazardous waste.

Additional Information and Resources:

Hazardous Waste Determination: As described above, the hazardous waste regulations set forth criteria that identify wastes as hazardous wastes. Although they may meet the definition of hazardous waste, some wastes are specifically excluded or exempted from regulation as hazardous waste (e.g., chlorofluorocarbon refrigerants that are reclaimed for reuse). The process of determining if a waste is a hazardous waste is called the "hazardous waste determination". To ensure an exclusion or exemption is not overlooked, generators should always follow the Hazardous Waste Determination procedure provided in section 66262.11 of the hazardous waste regulations when evaluating their wastes.

http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/upload/OEARA_REG_Title22_Ch12_Art11.pdf

Click below to take a self-paced, internet course on hazardous waste identification
http://ccelearn.csus.edu/wasteclass/intro/intro_01.html

Hazardous Waste Recycling: A material must be a "waste" in order to be a hazardous waste. Generally, a waste is any material that someone possesses, but does not have

a use for. In regulatory terms, a waste is any discarded material that is not otherwise excluded. The process of determining if something is a waste is called "waste Identification." Materials may not be wastes if they are recycled in certain ways, i.e., they may be excluded from the definition of waste in section 66261.2 of the hazardous waste regulations. Besides section 66261.2, you will have to refer to Health and Safety Code sections 25120.5, 25120.55, 25121.5, and 25143.2 (and perhaps others) when making a waste determination.

Click below to review the DTSC Hazardous Waste and Recycling Letters
http://www.dtsc.ca.gov/HazardousWaste/CSERFS/index.cfm

Test Methods: Sampling and analysis of materials and wastes for hazardous waste identification purposes shall be in accordance with U.S. EPA's publication: "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, commonly referred to just as "SW-846." SW-846 is available online at:
http://www.epa.gov/sw-846/main.htm

Additional Links:

DTSC Hazardous Waste and Recycling Letters
http://www.dtsc.ca.gov/HazardousWaste/CSERFS/index.cfm

Q&A for Specific Hazardous Waste and Hazardous Substances
http://www.dtsc.ca.gov/InformationResources/dofaqs.cfm#Specific_Hazardous_Waste_and_Hazardous_Substances

Information for universal waste
http://www.dtsc.ca.gov/HazardousWaste/UniversalWaste/index.cfm

US EPA training module – Introduction to Hazardous Waste Identification
http://www.epa.gov/epaoswer/hotline/training/hwid05.pdf

RCRA online
http://www.epa.gov/rcraonline/

Click below to take a self-paced, internet course on hazardous waste identification
http://ccelearn.csus.edu/wasteclass/intro/intro_01.html

Comments or Questions:
If you still have questions about hazardous waste identification, or if you have suggestions to improve this document, call (916) 327-4499 or send email to wasteclass@dtsc.ca.gov

Last updated on February 9, 2007

Fact Sheet
February 2004

Hazardous Wastes of Concern

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

HAZARDOUS WASTE MANAGEMENT

DTSC is one of six Boards and Departments within the California Environmental Protection Agency. DTSC's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California

California Environmental Protection Agency

In response to security concerns following the September 11, 2001 terrorist attack, legislation was passed [Senate Bill No. 489 (2001-2002 Reg. Session) Romero)] that amended and enacted laws to increase the security of hazardous wastes. SB 489 amended Health and Safety Code §25112.5 and added Article 6.6 beginning with § 25169.5. The new law strengthens the security of hazardous waste that can be intentionally and effectively used to harm the public and or the environment. These wastes are called Hazardous Wastes of Concern (HWC).

The Department of Toxic Substances Control (DTSC) adopted emergency regulations implementing SB 489 that apply to any person handling HWC. The emergency regulations became effective on July 10, 2003.

- Any person handling HWC who discovers that a reportable quantity of a HWC is missing during transportation or storage must notify DTSC by phone within 24 hours and submit a written report within five days.
- Transporters and treatment, storage and disposal facilities (TSDFs) that handle HWC must submit a Disclosure Statement and fingerprints for a criminal background check unless the corporation is exempt.
- Transporters and TSDFs that handle HWC must submit a Disclosure Statement with a new or renewal application by and after January 1, 2004.

This fact sheet provides general information about laws affecting generators, TSDFs and transporters of HWC. Unless otherwise noted, all citations apply to Health and Safety Code §§ 25112.5 and 25169.5. Consult the statutes and regulations before making any decision that may affect regulatory compliance.

The text of the regulations and related information is available on DTSC's Web site at www.dtsc.ca.gov/LawsRegulationsPolicies/HWC/HWC_final_regs.html and in www.leginfo.ca.gov/calaw.html under Health and Safety Code, Division 20 Chapter 6.5, Article 6.6 and www.calregs.com/ under Title 22, Division 4.5.

What Wastes are Hazardous Wastes of Concern?

A HWC is a hazardous waste that is identified with one of the following hazard divisions under the Code of Federal Regulations, Title 49 (49 C.F.R.):

- An explosive material, hazard division 1.1, 1.2, or 1.3;
- A poisonous material, hazard division 6.1, packing group I or II; or
- A poisonous gas, hazard division 2.3 (Cal. Code Regs., Title 22, 66261.111(a)).

DOT Laws and regulations require that any person packaging and shipping hazardous materials, including hazardous wastes, must have completed training that enables them to properly identify, document, package and handle the hazardous materials they are offering for shipment. To determine if a hazardous waste is a HWC:

- The generator or generator's trained employees must compare the DOT hazard classes of their hazardous wastes with those listed in the HWC regulations, and identify HWC for enhanced tracking. Further, the generator must determine if the waste exhibits HWC characteristics by testing the waste according to the approved methods or applying knowledge of the hazards characteristic of the waste in light of the processes that the materials have undergone.
- Transporters and TSDFs must check the information on the manifest in Box 11 (U.S. DOT Description), the additional information in Box J (Additional Descriptions for Materials Listed Above), and the label and markings on the container. If in doubt, the transporter and TSDFs should verify the information with the generator of the waste.

Shipping names, hazard divisions, and packing groups are in 49 C.F.R. The Hazardous Materials Table is in 49 C.F.R Section 172.101. DTSC has prepared an excerpt with the names of the materials listed in the hazard divisions. The excerpt is available as a complete list on DTSC's Web site at www.dtsc.ca.gov/LawsRegulationsPolicies/HWC/hwm_regs_sb489_hwc-list.pdf or call 800-728-6942.

When to Make a Report

Missing HWC is defined as lost, stolen, or disappeared (Cal.Code Regs., Title 22, § 66261.111(b)). Any person handling HWC is required to report missing HWC when the missing waste is of a reportable quantity or a reportable difference in the type of wastes received by the transporter or TSDF, as compared to what is described on the manifest.

- ***Reportable quantities***
  a) bulk waste–a change of more than three percent in weight or volume.
  b) containerized waste–a change in piece count, such as a difference of one drum in a truckload.
- **Reportable differences in type** are obvious differences that can be discovered by sight, inspection, or waste analysis. Examples of differences in type include waste caustic soda substituted for sodium cyanide, or waste containing hazardous constituents not reported on the manifest that would change the hazard class, the shipping name or waste code. Other examples: mineral spirits substituted for waste carbon tetrachloride; or soil substituted for any reactive or poisonous solid, etc.

To Report Missing HWC

Call DTSC's Complaint Hotline at 800-69-TOXIC (800-698-6942) within 24 hours of discovering that HWC is missing and provide the following:

1) Generator name and identification number
2) Transporter name, identification number, and, if available, transporter registration numbers
3) Destination facility name and identification number
4) Manifest number
5) Waste information (lines 11-14 of the manifest), including shipping name, hazard class or division, identification number, packing group, number of containers, container type (as listed in Table I of the Appendix to Chapter 12, Article 7), Quantity or volume of waste, weight or volume units, and waste codes
6) Location or transportation routes where the HWC was first noticed missing (for example: highway or road, rail line, transfer station, truck stop, etc.). Hazardous waste facilities reporting missing HWC during storage must identify the areas at the facility where the waste was handled.

Submit a written report with the above information, including resolution of the discrepancy or missing waste, within five days, to the appropriate address below.

For missing HWC in Los Angeles, Ventura, Santa Barbara, San Bernardino, Orange, Riverside, San Diego and Imperial Counties:

Complaint Coordinator
Department of Toxic Substances Control
Statewide Compliance Division
Glendale Branch
1011 North Grandview Avenue
Glendale, California 91201-2205

For counties not included in the Southern California list, or any out-of-state counties:
Complaint Coordinator
Department of Toxic Substances Control
Statewide Compliance Division
Northern California Branch
8800 Cal Center Drive
Sacramento, California 95826-3200
NOTE: In an emergency, contact law enforcement by calling 911, then contact DTSC.

Disclosure Statements

Anyone who transports HWC or operates a TSDF that handles HWC must provide DTSC with a Disclosure Statement when applying for a new permit, permit renewal, or modification to an authorization or permit issued by DTSC. A Disclosure Statement form is available on the Internet at www.dtsc.ca.gov/database/Publications/forms_index.cfm.

Sole proprietors, partners and officers,or directors as defined in Health and Safety Code, section 25112.5, are required to submit fingerprints with the Disclosure Statement. If there is a change in personnel in the above listed positions, then fingerprinting images and identification information must be submitted for the new individuals in those positions as well.

Corporate Exemptions

Some companies are exempt from submitting Disclosure Statements or from the fingerprint and background requirements:

- Publicly-held corporations that have operated as hazardous waste facilities or interim status facilities continuously since January 1, 1984, are exempt from the Disclosure Statement requirement under specified conditions, but they must submit SEC Annual Reports for the previous three years.
- Publicly-held corporations listed by the Securities and Exchange Commission (SEC), or wholly-owned subsidiaries of SEC-listed companies, are exempt from the fingerprint requirement.

Corporations eligible for the exemptions must report missing HWC and meet all of the requirements of Health & Safety Code §§ 25112.5(b) and (c). A transporter or TSDF that may qualify for a corporate exemption, should provide a letter to DTSC's Permit Program Development Section in Sacramento explaining the exemption eligibility.

To Submit a Disclosure Statement or for More Information

For more information about transporting HWC, call DTSC's Transportation Section at (916) 255-4368.

For information related to Disclosure Statements and TSDFs handling HWC contact:
Department of Toxic Substances Control
Hazardous Waste Management Program
Permit Program Development Section
Attention: Disclosure Statement Coordinator
P.O Box 806, Sacramento, California 95812-0806
(916) 324-1806

For all other information related to HWC, please contact the DTSC office nearest you, or call the Regional Public and Business Liaisons at (800) 72TOXIC (800-728-6942).

DTSC Headquarters (916) 323-2678

Sacramento Office (916) 255-3617

Berkeley Office (510) 540-3739

Clovis Office (559) 297-3901

Glendale Office (818) 551-2830

Cypress Office (714) 484-5400

San Diego Office (619) 278-3734

or visit www.dtsc.ca.gov

Fact Sheet
January 2002

Accumulating Hazardous Wastes at Generator Sites

California Environmental Protection Agency, (Cal/EPA)
Department of Toxic Substances Control (DTSC)

DTSC is one of six Boards and Departments within the California Environmental Protection Agency. DTSC's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California

California Environmental Protection Agency

TABLE OF CONTENTS

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our web site at www.dtsc.ca.gov.

I. ACCUMULATION TIME LIMIT SUMMARY

If the Generator:	Accumulation Starts:	Accumulation Time Limit is:
Produces more than 1,000 kilograms (2,200 pounds) per month for all hazardous waste generated onsite.	The first day the generator begins accumulating any hazardous waste (Title 22, CCR, section 66262.34(b)(2)).	90 days (Title 22, CCR, section 66262.34(a)).
Produces more than 100 kilograms (220 pounds) and less than 1,000 kilograms (2,200 pounds) per month for all hazardous waste generated onsite; or, less than 1 kilogram of acutely or extremely hazardous waste. The total amount of hazardous waste accumulated at any one time can never exceed 6,000 kilograms (13,200 pounds).	The first day the generator begins accumulating any hazardous waste (Title 22, CCR, section 66262.34(b)(2)).	180 days or 270 days if the distance to the treatment or disposal facility is more than 200 miles. Any quantity of acutely or extremely hazardous waste must be removed in 90 days (Title 22, CCR, section 66262.34(d)).
Produces less than 100 kilograms (220 pounds) per month for all hazardous waste generated onsite; or less than 1 kilogram of acutely or extremely hazardous waste per month.	The day 100 kilograms (220 pounds) of hazardous waste or 1 kilogram of acutely or extremely hazardous waste is accumulated (Health and Safety Code section 25123.3 (c)).	180 days or 270 days if the distance to the treatment or disposal facility is more than 200 miles. Any quantity of acutely or extremely hazardous waste must be removed in 90 days (Title 22, CCR, section 66262.34(d)). There is no accumulation time limit for generators of not more than 100 kg/month that are not using the satellite accumulation area and who have not yet accumulated 100 kg (220 pounds) of hazardous waste (or one quart of extremely or acutely hazardous waste). (HSC section 25123.3 (c)).
Accumulates hazardous waste at the initial point of accumulation in a satellite accumulation area.	The first day the generator begins accumulating any hazardous waste.	Three days after 55 gallons of hazardous waste (or one-quart of acutely or one quart of extremely hazardous waste) is accumulated. Then the generator must move the hazardous waste container to a "90-day" accumulation area. The maximum time hazardous waste can be accumulated onsite including at the satellite accumulation area is one year (T22, CCR, section 66262.34(e)).
Accumulates hazardous waste at a laboratory accumulation area. (Health and Safety Code section 25200.3.1.)	The first day the generator begins accumulating any hazardous waste.	Three days after 55 gallons of hazardous waste (or one-quart of acutely or one quart of extremely hazardous waste) is accumulated. Then the generator must move the hazardous waste container to a "90-day" accumulation area. The maximum time hazardous waste can be accumulated onsite including at the satellite accumulation area is one year (HSC, section 25123.3 (d)).

II. DISCLAIMER

This fact sheet does not replace or supersede relevant statutes and regulations. The information contained in this fact sheet is based upon the statutes and regulations in effect as of the date of the fact sheet. Interested parties should keep apprised of subsequent changes to relevant statutes and regulations.

III. BACKGROUND

This fact sheet provides information on the requirements for the accumulation of hazardous waste pursuant to California Heath and Safety Code, Section 25123.3 and Title 22, California Code of Regulations, sections 66262.34 and 66262.35. Those hazardous waste holding activities that do not require a permit or grant of authorization are referred to as "accumulation activities" and are limited to the holding of waste onsite by the generator of the waste. There are two levels of regulation governing hazardous waste accumulation activities. One level allows different accumulation times based on the generator's rate of hazardous waste generation per month. Though commonly known as "90-day accumulation," the accumulation times can range from 90 to 270 days. The other level, commonly known as "satellite accumulation," allows accumulation at a generation point for up to one year subject to certain limitations. See Table 1 on page 2 for a summary of the accumulation requirements.

IV. ACCUMULATION REQUIREMENTS

A. Accumulation Time Limits

(1) 90-day Accumulation Time Limit

Generators that generate more than 1,000 kilograms (kg) (2,200 pounds) of hazardous waste per month must remove their waste within 90 days of generation. The following considerations apply to determining whether or not a generator is in compliance with the 90-day accumulation time limit:

(a) If the generator generates no more than 100 kg (220 pounds) of hazardous waste (or one kilogram of extremely or acutely hazardous waste) during a calendar month, the 90-day period does not begin until the generator has accumulated 100 kg (220 pounds) or one kg of extremely or acutely hazardous waste. (Health & Saf. Code, section 25123.3 (c).) (Title 22, Cal. Code Regs., section 66262.34(b).) There is no accumulation time limit for generators of not more than 100 kg (220 pounds)/month that are not using the satellite accumulation area and who have not yet accumulated 100 kg (220 pounds) of hazardous waste (or one quart of extremely or acutely hazardous waste). (Health & Saf. Code, section 25123.3 (c).)

(b) If the generator generates more than 100 kg (220 pounds) of hazardous waste (or more than one kg of extremely or acutely hazardous waste) during any calendar month, the 90-day period begins when any amount of hazardous waste first begins to accumulate in that month. (Health & Saf. Code, section 25123.3 (c).) For purposes of determining the size of the generator (i.e., less than 100 kg (220 pounds) per month), all generator activities (including satellite accumulation) located on contiguous property (meeting the definition of onsite) and not covered under a grant of authorization must be considered.

(2) 180-day/270-day Accumulation Time Limit

Generators that generate less than 1,000 kg (2,200 pounds) of hazardous waste per month may accumulate onsite up to 180 days (or up to 270 days if the waste is shipped 200 miles or more) without a storage facility permit if the total amount accumulated at any one time never exceeds 6,000 kg (13,200 pounds) and the generator complies with specified federal requirements. Generators may accumulate a total of no more than

one kilogram of acutely or extremely hazardous waste under the 180/270 day accumulation time limits. (Title 22, Cal. Code Regs., section 66262.34(d)). The time period for calculating the 180-day or 270-day period is determined in the same manner as for 90-day accumulation. (Health & Saf. Code, section 25123.3 (c).)

(3) Continuously Used Tanks and Containers. For tanks and containers that are continuously used or reused for the accumulation of hazardous waste, compliance with the 90-day (or 180/270-days) accumulation time limit requires that the tank or container be emptied as completely as possible at least once every 90 days (or 180/270-days), using practices commonly employed to remove materials from that type of tank or container.

For example, drain tanks through the lowest level valve and pump, if feasible, to remove all drainable and pumpable material. In the case of containers, tilt, invert, or pump the container to remove all pourable or drainable hazardous waste. If the hazardous waste is not pourable, empty the container by physical methods commonly employed to remove materials from the container.

As an alternative, in the case of tanks used in flow-through hazardous waste treatment processes, the Department has allowed generators to demonstrate compliance by demonstrating that the volume of the hazardous waste flowing through the tank every 90 days is greater than the volume of the tank. Note: Manage unused tanks and containers with sufficient residuals as hazardous wastes including complying with the accumulation time limits.

B. Qualifying Criteria for Accumulation

In order for a generator accumulation activity to qualify for management under the "90/180/270-day rules," it must satisfy all of the following criteria:

(1) The hazardous waste must have been generated onsite. The definition of onsite is in Section XIII.

(2) The hazardous waste must be accumulated onsite in generator accumulation units (containers, tanks, drip pads, or containment buildings).

(3) The accumulation activity must ensure that hazardous waste is accumulated at the generator site for no longer than the applicable time limit. Then the hazardous waste must be moved immediately to an onsite or offsite authorized hazardous waste facility unless an extension to the accumulation time limit has been granted. For more information on the accumulation time limit extensions, see section V.

Generator requirements become applicable as soon as the first drop of hazardous waste begins to accumulate, even if the 90-day time limit does not start until some later date because the generator generates 100 kg (220 pounds) or less per month. For information on accumulation time limit operational requirements, see DTSC's Hazardous Waste Generator Requirements Fact Sheet (January 2002).

V. SATELLITE ACCUMULATION

A generator may accumulate up to 55 gallons of hazardous waste (or one quart of acutely or extremely hazardous waste) without a permit at the initial point of accumulation, known as a satellite accumulation area, for up to one year (Title 22 Cal. Code Regs., section 66262.34(e)).

A. Satellite Accumulation Operational Requirements

The following operational requirements apply to satellite accumulation:

(1) The containers holding the waste must be managed in accordance with the requirements of Title 22, Cal. Code Regs., sections 66265.171 (Condition of Containers), 66265.172 (Compatibility of Waste with Containers) and 66265.173(a) (Management of Containers).

(2) The initial date that hazardous waste is placed in the container must be clearly marked and visible on all containers used for "satellite" accumulation. Additionally, each container must be labeled with the words "Hazardous Waste," and the following information:

(a) the composition and physical state of the wastes;

(b) a statement that calls attention to the particular hazardous properties of the waste; and

(c) the name and address of the generator.

(3) No treatment of hazardous waste is allowed while being accumulated under the satellite accumulation exemption.

(4) Within three days after the 55-gallon (or one quart) accumulation limit is reached, the generator must move the container to a "90-day" accumulation area and label the container with the date the satellite accumulation limit is reached. The date the 55-gallon (or one-quart) accumulation limit is reached is the start of the 90-day period. Alternatively, the waste may be moved to an authorized onsite or offsite hazardous waste facility within three days after the accumulation limit is reached. The total time hazardous waste can be accumulated at the satellite accumulation area is one year (Health & Saf. Code,, section 25123.3 (d)(3) and Title 22, Cal. Code Regs., section 66262.34(e)(1)(B)).

This one-year accumulation limit applies only to the time during which the waste is held onsite in any generator accumulation area, i.e., the combined accumulation time at a satellite accumulation point (where the waste is generated and initially accumulated) and at a "90-day" accumulation area (where the waste may be transferred when the "satellite" limit is reached). The waste may be moved (either from the "satellite" point or from a "90-day" area) to an onsite or offsite authorized storage facility and held there for any length of time (unless the storage time is limited by conditions specified in the grant of authorization or by the land disposal restrictions (LDRs) under Title 22, Cal. Code Regs., section 66268.50 (b)).

Note: Many storage permits or grants of authorization limit storage at the authorized facility to one year. This one year limit does NOT include any time during which the waste may have been accumulated at an onsite generator ("90-day" or "satellite") accumulation area prior to being transferred to the authorized storage facility. Storage in the authorized storage facility is subject to permit conditions.

B. Qualifying Criteria for Satellite Accumulation Exemption

In order for a generator accumulation activity to qualify for management under the "satellite accumulation rules," all of the following criteria must be satisfied:

(1) The hazardous waste must be accumulated in containers.

(2) The hazardous waste must be accumulated "at the initial accumulation point," which must be "at or near the area where the waste is generated."

The term "initial accumulation point" means that there cannot be any interim accumulation of the waste prior to its being accumulated at the satellite accumulation point. However, certain generating activities (for example, equipment maintenance) may necessitate the temporary interim accumulation of the waste during the process of performing such activities. Such temporary interim accumulation does not disallow satellite accumulation of the waste, if the interim accumulation is necessary to the generating activity and if the waste is placed in the satellite accumulation area prior to the end of the work shift of the individual operator of the process generating the waste. For example, drip pans may be used to collect oil at hard-to-reach locations and then placed in the satellite accumulation area at the end of the work shift. In another example, when maintenance crews are

working on multiple floors or on scaffolding, they may temporarily accumulate the waste where they are working and then move it to a satellite accumulation point at the end of the work shift.

Residuals from the treatment of onsite waste may not be accumulated under the satellite accumulation exemption. (The waste treatment process is not the process initially generating the waste, and the accumulation of the waste subsequent to treatment does not qualify as initial accumulation.)

(3) The initial accumulation point must be under the control of the operator of the process generating the waste.

The term "operator of the process" means the hands-on operator of the machinery or activity that generates the waste, not the overall operator of the generator site or facility as a whole.

The term "under the control" means that the accumulation container must be in the line of sight of the operator or in a locked compartment to which the operator controls access. The purpose of this requirement is to ensure that the operator controls all access to and management of the accumulated waste. This prevents mixing of incompatible wastes and other unsafe management practices.

(4) The satellite accumulation point must be operated so as to ensure that a process or group of processes meeting the requirements above is subject to a single 55-gallon (or one quart) accumulation limit, except as provided below:

If not all of the waste streams generated by a single process or group of processes located within the same physical area are compatible, a separate 55-gallon (or one-quart) limit applies to each group of waste streams that are compatible.

If the generator determines that using only one 55-gallon (or one-quart) container for the initial accumulation of specific compatible waste streams is not practical (e.g., prevents recycling or requires unreasonable accumulation procedures) or is not safe from an environmental or worker and public health and safety standpoint, the generator may apply a separate 55-gallon (or one-quart) limit to those specific compatible waste streams. This determination is subject to review and approval by DTSC.

VI. LABORATORY ACCUMULATION

Pursuant to Health & Saf. Code, section 25200.3.1, a generator may accumulate, except as otherwise required by the federal act, up to 55 gallons of laboratory hazardous waste, or one quart of laboratory hazardous waste that is acutely hazardous waste, onsite in a laboratory accumulation area that is located as close as is practical to the location where the laboratory hazardous waste is generated, if all of the following conditions are met:

- The laboratory accumulation area is managed under the control of one or more designated personnel who have received training commensurate with their responsibilities and authority for managing laboratory hazardous wastes, and unsupervised access to the laboratory accumulation area is limited to personnel who have received training commensurate with their responsibilities and authority for managing laboratory hazardous wastes.
- The laboratory hazardous wastes are managed so as to ensure that incompatible laboratory hazardous wastes are not mixed, and are otherwise prevented from coming in contact with each other. However, incompatible laboratory hazardous wastes may be mixed together during treatment meeting the requirements of Health & Saf. Code, section 25200.3.1 (c), if one laboratory hazardous waste is being used to treat another laboratory hazardous waste pursuant to procedures published by the National Research Council or procedures published in peer-reviewed scientific journals.
- The amount of laboratory hazardous waste accumulated in the laboratory accumulation area is appropriate for the space limitations and the need to safely manage the containers and sepa-

rate incompatible laboratory hazardous wastes.

- All of the requirements of subdivision (d) of Health & Saf. Code, section 25123.3 are met, except for the requirements of paragraph (1) of subdivision (d) of Section 25123.3. These requirements are summarized in Section V (A), Satellite Accumulation Operational Requirements, of this fact sheet.

The laboratory accumulation area may be located in the room in which the accumulated laboratory hazardous wastes are generated or in another onsite location.

A separate fact sheet will be issued to address in detail the requirements for accumulation and/or treatment of hazardous waste in laboratories.

VII. GENERATOR ACCUMULATION EXTENSIONS

A. Extensions for RCRA Wastes

If RCRA hazardous wastes must remain onsite for longer than 90 days due to unforeseeable, temporary, and uncontrollable circumstances, an extension of up to 30 days may be granted at the discretion of DTSC on a case-by-case basis. Mixtures of RCRA regulated wastes and non-RCRA wastes are considered RCRA wastes. For more information on extensions, please contact DTSC at (510) 540-3874. An application for the extension can be obtained at DTSC's Web Site located at www.dtsc.ca.gov/HazardousWaste/HWM_FRM_Accumulation-Extension.pdf

B. Eligibility for Extensions for Non-RCRA Wastes

Title 22, Cal. Code Regs., section 66262.35 allows an extension of the accumulation time limits for non-RCRA hazardous wastes. These extensions apply only to non-RCRA or RCRA exempt hazardous waste generated onsite (Title 22, Cal. Code Regs., section 66262.35). Mixtures of RCRA regulated wastes and non-RCRA wastes are considered RCRA wastes and are not eligible. The accumulation of hazardous waste in waste piles (as defined in Title 22, Cal. Code Regs.,, section 66260.10) is not eligible for an extension. To be eligible, the hazardous waste must be accumulated either:

(1) In tank systems that comply with the standards of article 10 of chapter 15 of division 4.5 (Title 22, Cal. Code Regs.), or

(2) In containers that comply with the standards of article 9 of chapter 15 of division 4.5 (Title 22, Cal. Code Regs.,), or

(3) On drip pads, provided that the generator complies with article 17.5 of chapter 15 of division 4.5 (Title 22, Cal. Code Regs.), or

(4) In containment buildings, provided that the generator complies with article 29 of chapter 15 of division 4.5 (Title 22, Cal. Code Regs.).

C. One-Time "90-Day" Extensions for Non-RCRA Wastes

When unforeseeable, temporary, and uncontrollable circumstances occur, generators may be granted a one-time 90-day extension beyond the applicable accumulation time provided all of the following conditions are met:

(1) The generator submits a certified letter, with return receipt requested, to the Certified Unified Program Agency (CUPA) notifying the CUPA of the extension, provided that the letter is received before the applicable time limit expires.

If the generator is located in a jurisdiction with no CUPA, then the notification letter must be submitted to the officer or agency authorized to implement and enforce the requirements of Health & Saf. Code, section 25404(c)(1), currently DTSC. Contact the DTSC office nearest you for more information. See section XIV for list of phone numbers for DTSC Public and Business Liaisons.

(2) The generator must certify in the letter that the eligibility requirements and the conditions for the extension are met and that the hazardous waste

will be managed in accordance with the requirements of Title 22.

(3) The generator must also certify, where applicable, that the hazardous waste is accumulated in tank systems that comply with the standards of Title 22, Cal. Code Regs., division 4.5, chapter 15, article 10, or containers that comply with the standards of Title 22, Cal. Code Regs., division 4.5, chapter 15, article 9, or placed on drip pads, provided that the generator complies with chapter 15, division 4.5, article 17.5, or placed in containment buildings, provided that the generator complies with article 29 of chapter 15 of division 4.5.

(4) The letter must include the names, mailing address, address or legal description of site location, telephone number, EPA ID number, the hazardous waste stream(s) for which the extension is being requested, the maximum quantity to be stored over the applicable time period, an explanation of how the waste stream is generated, the start and end dates of the 90 day extension period, and a detailed explanation why the extension is needed.

(5) All generators who are also authorized by DTSC with a full permit, Standardized Permit, or Interim Status must simultaneously submit to DTSC a copy of the letter submitted to the CUPA or authorized officer or agency. The letter must certify that the eligibility requirements and the conditions for the extension are met, and that the hazardous waste will be managed in accordance with the applicable requirements of Title 22.

(6) Upon request by a CUPA or authorized officer or agency, the generator must provide all documents, operating logs, reports, or any other information that supports the claim of the necessity for the extension or relates to the management of the hazardous waste for which the extension is requested.

D. Case-By-Case Extensions for Non-RCRA Wastes

One or more 90-day extensions may be granted by the CUPA or by the authorized officer or agency, on a case-by-case basis, upon receipt of a written extension request from the generator. To be eligible for the case-by-case extension, the generator must show one of the following:

(1) There is a lack of offsite treatment capacity, or offsite disposal capacity, or there is no treatment process for the hazardous waste. The generator must submit documentation to the CUPA or authorized agency verifying attempts to locate an appropriate offsite treatment or disposal facility for the hazardous waste and list the names, addresses and phone numbers of all the disposal and/or treatment facilities that have been contacted. An example of this category is a military base that could not locate a treatment or disposal facility that would take its waste that was hazardous for radioactivity, PCBs and metals.

(2) A longer accumulation time is needed by the generator to treat hazardous waste onsite. This might be due to temporary equipment malfunctions or because treatment efficiencies require a larger volume of waste. Any speculative accumulation of hazardous waste, however, is not a sufficient reason for an extension.

(3) An extension is needed because an onsite cleanup activity requires a longer accumulation time (e.g. delays in cleanup due to weather conditions).

(4) An extension is needed because there was an emergency (e.g., explosion, fire) at the business.

(5) Generators that have already qualified for one 90-day extension beyond the 90-day accumulation time, but still require more time due to unforeseen, temporary, and uncontrollable circumstances.

(6) Other good cause as determined by the CUPA or if no CUPA then the authorized officer or agency in that jurisdiction.

E. Extensions for Disasters for Non-RCRA Wastes

In the event of a disaster, DTSC may grant an emergency waiver allowing a 90-day extension to the generators within the geographic area of the disaster if the following conditions are met::

(1) The hazardous waste must be accumulated in tank systems that comply with the technical standards of Title 22, Cal. Code Regs., chapter 15, article 10, or containers that comply with the technical standards of Title 22, Cal. Code Regs., chapter 15, article 9, or placed on drip pads, provided that the generator complies with Title 22, Cal. Code Regs., chapter 15, article 17.5, or placed in containment buildings, provided that the generator complies with article 29 of chapter 15 of Title 22, Cal. Code Regs.. Hazardous waste accumulated in waste piles shall not be eligible for this extension.

(2) DTSC issues a press release specifying which particular geographic area (e.g., city, county) will be granted an emergency waiver.

(3) The emergency waiver may only be activated when there has been a proclamation of a state of emergency by the federal, state, or local government for the geographic area.

(4) DTSC may further extend the effective period of the emergency waiver, as necessary, to assist the recovery process from the disaster. This extension would also be announced through a press release.

Upon request by the Department, a CUPA, or if no CUPA, the authorized officer or agency in that jurisdiction, the generator shall provide all documents, operating logs, reports, or any other information that supports the claim of necessity for the extension or relates to the management of the hazardous waste for which the extension is requested.

VIII. TRANSFER FACILITY EXEMPTION

Hazardous waste generated offsite may be collected and accumulated without a grant of authorization only if the transfer facility exemption, set forth in Title 22, Cal. Code Regs., section 66270.1(c)(2)(C), applies. Under this exemption, transporters may during the normal course of transportation, accumulate manifested shipments of offsite hazardous waste in containers at a transfer facility for periods of six days or less, or 10 days or less for transfer facilities in areas zoned industrial by the local planning authority, subject to the requirements of Title 22, Cal. Code Regs., sections 66262.30 and 66263.18.

IX. PROCESS EQUIPMENT IN WHICH HAZARDOUS WASTE IS GENERATED

Pursuant to Title 22, Cal. Code Regs., section 66261.4(c), hazardous waste (e.g., sludge) in a manufacturing process unit or in a product or raw material tank, vehicle or vessel, or pipeline is not considered to be generated until the waste is removed from the unit, tank or other equipment (unless/until the waste remains in the unit for more than 90 days after the unit ceases to be operated). Therefore, prior to removal, such waste is not subject to the hazardous waste requirements. Additionally, such waste, while it is still in the process, product or raw material unit, is not included in determining the volume of waste being accumulated at the generator site.

X. TREATMENT RESIDUALS

Treatment residuals are hazardous residuals resulting from the treatment of hazardous waste. Treatment residuals are not considered to be newly generated waste, and must be managed as either onsite or offsite waste depending upon the status of the waste prior to treatment (Health & Saf. Code, section 25200.3(c)(8)). Therefore, an authorized treatment facility that treats offsite hazardous waste must manage the hazardous residuals from such treatment as offsite hazardous waste.

An authorized treatment facility that treats hazardous waste originally generated onsite may accumulate the resulting residuals as any other onsite waste. However, the beginning and ending dates of the 90-day period for these residuals is the same as for the waste from which the residuals resulted (i.e., the residuals must be moved to an onsite or offsite

authorized facility within the appropriate time period after the date the original waste was generated). If wastes with different accumulation deadlines are treated together so that their respective residuals cannot be distinguished, the earliest of the deadlines applies to all of the resulting hazardous treatment residuals. (See section IV of this fact sheet for further information on accumulation.) Note: The "satellite" accumulation rules do not apply to the accumulation of treatment residuals.

XI. HAZARDOUS WASTE GENERATED AT REMOTE LOCATIONS

Certain generators (i.e. utility companies, city public works departments) generate small amounts of hazardous waste in the course of conducting routine field maintenance operations. These field operations typically take place in remote locations where it is not feasible or practical to establish a generator accumulation area. The hazardous waste generated during these field operations is transported less frequently than on a daily basis by the generator's employees or by trained contractors under the control of the generator, in vehicles which are under control of the generator, or by registered hazardous waste transporters to a "consolidation site" owned or operated by the generator. Hazardous waste generated during remote field operations and taken to a "consolidation site" owned/operated by the generator for accumulation prior to treatment or disposal is deemed to be generated at the "consolidation site."

Such waste may be accumulated as onsite hazardous waste at the "consolidation site" under the "90-day accumulation rules." Examples of remote locations include utility companies generating waste at substations and city public works departments generating waste paint from public fixture maintenance. A separate fact sheet will be issued to address in further detail hazardous waste generated in remote locations. (Health & Saf. Code, sections 25110.10, 25121.3 and 25163.3.)

XII. REMEDIATION WASTE STAGING AREA

Pursuant to Health & Saf. Code, sections 25123.3(a)(2) and 25123.3(e), a storage permit is not required for the temporary accumulation of non-RCRA contaminated soil that is generated and held onsite, and that is accumulated for the purpose of onsite treatment pursuant to a certified, authorized or permitted treatment method, such as a transportable treatment unit, if all of the following requirements are met:

(1) The hazardous waste being accumulated does not contain free liquids.

(2) The hazardous waste is accumulated on an impermeable surface, such as high density polyethylene (HDPE) of at least 20 mills that is supported by a foundation, or high density polyethylene of at least 60 mills that is not supported by a foundation.

(3) The generator provides controls for windblown dispersion and precipitation runoff and run-on and complies with any storm water permit requirements issued by a regional water quality control board.

(4) The generator has the accumulation site inspected weekly and after storms to ensure that the controls for windblown dispersion and precipitation runoff and run-on are functioning properly.

(5) The staging area is certified by a registered engineer for compliance with the standards specified in Health & Saf. Code, sections 25123.3(a)(2)(A) to 25123.3(a)(2)(D), inclusive.

(6) The total accumulation period is one year or less from the date of the initial placing of hazardous waste by the generator at the staging site for onsite remediation, except that DTSC may grant one six-month extension, upon a showing of reasonable cause by the generator.

(7) The generator must notify DTSC and the CUPA, or authorized agency, of plans to store and treat hazardous waste onsite in a remediation staging area.

If the generator determines that treatment cannot be accomplished for all, or part of, the hazardous waste accumulated in a remediation waste staging area, the generator must immediately notify DTSC and the appropriate local agency that the treatment has been discontinued. The generator must then handle and dispose of the hazardous waste in accordance with hazardous waste laws and regulations.

A generator may not hold hazardous waste for remediation waste staging unless the generator can show, through laboratory testing, bench scale testing, or other documentation, that soil held for remediation waste staging is potentially treatable.

Once an onsite treatment operation is completed on remediation waste, the generator must inspect the staging area for contamination and remediate as necessary.

XIII. DEFINITIONS

Container: A device that is open or closed, and portable in which material can be stored, handled, treated, transported, recycled or disposed of. Note: Railroad cars are "containers," since they are portable when full. Therefore, railroad cars are subject to all storage and management requirements and restrictions applicable to containers.

Containment Building: A hazardous waste management unit that is used to store or treat hazardous waste under the provisions of Article 29 of chapter 14 or 15, division 4.5, Title 22, Cal. Code Regs.

Drip Pad: An engineered structure consisting of a curbed, free-draining base, constructed of non-earthen materials and designed to convey preservative kickback or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

Generator or Producer: Any person, by site, whose act or process produces hazardous waste or whose act first causes a hazardous waste to become subject to regulation.

Grant of Authorization: A permit, interim status authorization, variance, permit-by-rule, conditional authorization, conditional exemption, or consent order.

Hazardous Waste Facility or Facility: All contiguous land and structures, other appurtenances, and improvements on the land used for treatment, transfer, storage, resource recovery, disposal or recycling of hazardous wastes. A hazardous waste facility may consist of one or more treatment, transfer, storage, resource recovery, disposal or recycling operational units or combinations of these units.

Laboratory Accumulation Area: The area where laboratory hazardous wastes are accumulated.

Non-RCRA Hazardous Waste: All hazardous waste regulated in the State of California, other than RCRA (federally-regulated) hazardous waste. A hazardous waste is presumed to be a RCRA hazardous waste, unless it is determined pursuant to Title 22, Cal. Code Regs., section 66261.101 that it is a non-RCRA hazardous waste.

Offsite: Any site which is not onsite.

Onsite: The same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection, and access is by crossing as opposed to going along the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which that person controls and to which the public does not have access, are also considered onsite property.

RCRA: Resource Conservation and Recovery Act (RCRA). Federal statute that regulates facilities that treat, store or dispose of hazardous waste. All RCRA

hazardous wastes are identified in Part 261 of Title 40 of the Code of Federal Regulations and appendices and Title 22, Cal. Code Regs., Section 66261.1 et seq.

Storage Facility: A hazardous waste facility at which the hazardous waste is either:

(1) held onsite past the applicable time limit (90/180/270 days) ;

(2) held for any period of time at an offsite facility that is not a transfer facility; or

(3) held at a transfer facility for periods longer than six days, or longer than 10 days for transfer facilities located in industrial areas.

The department may extend the above period of time for hazardous waste that is generated as a result of an emergency release and that is collected and temporarily stored by emergency rescue personnel, as defined in Section 25501, or by a response action contractor, upon the request of emergency rescue personnel or the response action contractor.

(4) The hazardous waste is held at a transfer facility for any period of time in a manner other than in a container or tank.

(5) The hazardous waste is held at a transfer facility for any period of time and handling occurs other than the transfer of packages or containerized hazardous waste from one vehicle to another.

A grant of authorization from the Department is required for a Hazardous Waste Storage Facility.

Tank: A stationary device, designed to contain an accumulation of hazardous waste and which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support. Note: Devices that are designed to allow the attachment of "hard-piping" are considered to be tanks, because this indicates that they are not intended to be moved while in use.

Printed on Recycled Paper

If you have questions about waste accumulation that were not addressed in this fact sheet, please contact the DTSC office nearest you, or call the regional Regulatory Assistance Officers at (800) 72TOXIC (1-800-728-6942).

DTSC Headquarters
1001 I Street, P.O. Box 806
Sacramento, CA 95812-0806

Sacramento Office
8800 Cal Center Drive
Sacramento, CA 95826

Berkeley Office
700 Heinz Avenue, 2nd Floor,
Berkeley, CA 94710

Clovis Office
1515 Tollhouse Road
Clovis, CA 93611-0522

Chatsworth Office
9211 Oakdale A Avenue
Glendale, CA 94710

Cypress Office
5796 Corporate Ave.
Cypress, CA 90630

San Diego Office
9174 Sky Park Court, Suite 150
San Diego, CA 92108-3847

or visit www.dtsc.ca.gov

APPENDIX D CALIFORNIA WASTE CODES

Inorganic

121. Alkaline solution (pH > 12.5) with metals (antimony, arsenic, barium beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)
122. Alkaline solution without metals pH > 12.5
123. Unspecified alkaline solution
131. Aqueous solution (2 < pH < 12.5) containing reactive anions (azide, bromate, chlorate, cyanide, fluoride, hypochlorite, nitrite, perchlorate, and sulfide anions)
132. Aqueous solution with metals (< restricted levels and see 121)
133. Aqueous solution with total organic residues 10 percent or more
134. Aqueous solution with total organic residues less than 10 percent
135. Unspecified aqueous solution
141. Off-specification, aged, or surplus inorganics
151. Asbestos-containing waste
161. FCC waste
162. Other spent catalyst
171. Metal sludge (see 121)
172. Metal dust (see 121) and machining waste
181. Other inorganic solid waste

Organics

211. Halogenated solvents (Chloroform, methyl chloride, perchloroethylene, etc.)
212. Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
213. Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
214. Unspecified solvent mixture
221. Waste oil and mixed oil
222. Oil / water separation sludge
223. Unspecified oil-containing waste
231. Pesticide rinse water
232. Pesticide and other waste associated with pesticide production
241. Tank bottom waste
251. Still bottom with halogenated organics
252. Other still bottom waste
261. Polychlorinated biphenyls and material containing PCBs
271. Organic monomer waste (includes unreacted resins)
272. Polymeric resin waste
281. Adhesives
291. Latex waste
311. Pharmaceutical waste
321. Sewage sludge
322. Biological waste other than sewage sludge
331. Off-specification, aged or surplus organics
341. Organic liquids (non-solvents) with halogens
342. Organic liquids with metals (see 121)
343. Unspecified organic liquid mixture
351. Organic solids with halogens
352. Other organic solids

Sludges

411. Alum and gypsum sludge
421. Lime sludge
431. Phosphate sludge
441. Sulfur sludge
451. Degreasing sludge
461. Paint sludge
471. Paper sludge / pulp
481. Tetraethyl lead sludge
491. Unspecified sludge waste

Miscellaneous

511. Empty pesticide containers 30 gallons or more
512. Other empty containers 30 gallons or more
513. Empty containers less than 30 gallons
521. Drilling mud
531. Chemical toilet waste
541. Photochemicals / photoprocessing waste
551. Laboratory waste chemicals
561. Detergent and soap
571. Fly ash, bottom ash, and retort ash
581. Gas scrubber waste
591. Baghouse waste
611. Contaminated soil from site clean-ups
612. Household wastes
613. Auto shredder waste
614. Treated Wood Waste

California Restricted Wastes

711. Liquids with cyanides ≥ 1000 Mg/L
721. Liquids with arsenic ≥ 500 Mg/L
722. Liquids with cadmium ≥ 100 Mg/L
723. Liquids with chromium (VI) ≥ 500 Mg/L
724. Liquids with lead ≥ 500 Mg/L
725. Liquids with mercury ≥ 20 Mg/L
726. Liquids with nickel ≥ 134 Mg/L
727. Liquids with selenium ≥ 100 Mg/L
728. Liquids with thallium ≥ 130 Mg/L
731. Liquids with polychlorinated biphenyls ≥ 50 Mg/L
741. Liquids with halogenated organic compounds ≥ 1000 Mg/L
751. Solids or sludges with halogenated organic compounds ≥ 1000 Mg/Kg
791. Liquid with pH ≤ 2
792. Liquids with pH ≤ 2 with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium and zinc)
801. Waste potentially containing dioxins

APPENDIX E: NFPA 704 WARNING PLACARD REQUIREMENTS

THE NFPA DIAMOND

The NFPA diamond is used to record the Degree of Hazard (0-4) of all hazardous substances at your facility. The diamond gives a quick visual determination of the highest level of hazards contained at your facility. The NFPA diamond is divided into four sections with the following designations:

Blue	- Health rating
Red	- Flammability rating
Yellow	- Reactivity rating
White	- Special warnings such as air or water reactive substances.

Each of the first three sections should be filled in with a number from 0 to 4 to indicate the highest level of hazard found at your facility. The labels on many hazardous materials contain NFPA ratings. If the ratings are not on the product, consult material safety data sheets (MSDS) or NFPA rating charts to get the appropriate ratings. Also, see http://www.esd.uga.edu/lab/saftdata.pdf for NFPA listings of many chemicals commonly found in the workplace.

The level of hazard associated with each numerical rating is given below:

Number	Meaning
Health hazard (blue quadrant):	
4	Too dangerous to enter - vapor or liquid
3	Extremely hazardous - use full protection
2	Hazardous - use breathing apparatus
1	Slightly hazardous
0	Like ordinary material
Flammability (red quadrant):	
4	Extremely flammable, flash point below 73°F and a boiling point below 100°F
3	Ignites at normal temperatures, flash points at or below 73°F and a boiling point at or above 100°F
2	Ignites when moderately heated, flash at or above 100°F and below 200°F or solids that readily give off vapors
1	Must be preheated to burn, flash points at or above 200°F
0	Will not burn

Reactivity (yellow quadrant):	
4	May detonate - evacuate area if materials are exposed
3	Strong shock or heat may detonate - use monitors
2	Violent chemical change possible
1	Unstable if heated - use normal precautions
0	Normally stable
Special hazards (white quadrant)	
~~W~~ or "No water"	Indicates a material that is unusually reactive with water (e.g., sodium).
OX or "Oxidizer"	Indicates a material that is an oxidizer (e.g., ammonium nitrate).
POI or “Posion”	Indicates the material is a poisonous material
COR or “Corrosive”	Indicates the materials is corrosive material (e.g., sulfuric acid)

When to Placard a Building

Facility and building placards identify the highest hazard rating in each category based on the combined materials in a category rating exceeding threshold quantities. Placards will be required when the following amounts of materials are stored or used at a facility:

Number	**Amount Requiring Placarding**
Health hazard (blue quadrant):	
4	100 lbs or 10 gals or 50 cu ft
3	> 100 lbs or 10 gals or 50 cu ft
2	> 500 lbs or 55 gals or 1000 cu ft
1	> 1000 lbs or 110 gals or 200 cu ft
Flammability (red quadrant):	
4	500 lbs or 55 gals or 1000 cu ft
3	> 500 lbs or 55 gals or 1000 cu ft
2	> 1000 lbs or 110 gals or 2000 cu ft
1	> 2000 lbs or 220 gals or 4000 cu ft

Reactivity (yellow quadrant):	
4	> 100 lbs or 10 gals or 50 cu ft
3	> 100 lbs or 10 gals or 50 cu ft
2	> 500 lbs or 55 gals or 1000 cu ft
1	> 500 lbs or 55 gals or 1000 cu ft

When to Placard a Room Within a Building

Subdivisions (rooms or compartments) of buildings or areas within a facility will be placarded to indicate the greatest possible hazards within those subdivisions. Placards will be required when the following amounts of materials are stored or used in a subdivision:

Number	**Amount Requiring Placarding**
Health hazard (blue quadrant):	
4	Any Amount
3	Any Amount
2	> 100 lbs or 10 gals or 50 cu ft
1	> 500 lbs or 55 gals or 1000 cu ft
Flammability (red quadrant):	
4	> 100 lbs or 10 gals or 50 cu ft
3	> 100 lbs or 10 gals or 50 cu ft
2	> 500 lbs or 55 gals or 1000 cu ft
1	> 1000 lbs or 110 gals or 2000 cu ft
Reactivity (yellow quadrant):	
4	Any Amount
3	Any Amount
2	Any Amount
1	Any Amount

DEPARTMENT OF DEFENSE
OZONE DEPLETING SUBSTANCES
TURN-IN PROCEDURES

January 2008

PREFACE

The Defense Logistics Agency (DLA) is assigned the mission of managing the Defense Reserve of Ozone Depleting Substances to ensure that the supplies for mission critical uses are available. DLA provides central management for the receipt, storage and issuance through the Defense Supply Center Richmond (DSCR) which is the activity within DLA that manages these substances. The Defense Depot Richmond, Virginia (DDRV) is the primary storage site for ODS.

It is imperative that your Military Service or Defense Agency turn in to the Reserve the following excess CFCs 11, 12, 114, 500, 502; Halons 1202, 1211, 1301; and HCFC-22 . The Reserve accepts both used and new CFCs, Halons, and HCFC-22 in a relatively pure state (i.e. not as a component of other products). These chemicals may have been purchased under the Federal Supply Classes (FSC) 6830 and 4210, or from a commercial source. CFC/Solvent -113 (Type I & II) and 1,1,1 Trichloroethane (FSCs 6850 and 6810) can also be turned in to the Reserve provided they have never been used and the containers in which the chemicals reside have never been opened or unsealed.

Section 1 provides procedures on how to turn-in excess ODS. Section 2 provides specific guidance pertaining to European and Pacific turn-ins and the collection sites at Germersheim, Germany; Yokosuka, Japan; and Pearl Harbor, Hawaii, and at the DoD ODS Reserve European Holding Facility in The Netherlands. Guidance for other overseas collection sites will be added, as needed**.** Section 3 provides National Stock Numbers (NSN's) specifically assigned to identify ODS turned in to the Reserve and associated recovery cylinders. Section 4 lists the chemical names of the Reserve ODS. Section 5 lists the DoD Services' and Coast Guard POC's.

For questions concerning requisitions (sales orders) and stock availability, contact the Reserve at DSN 695-6451, 6102 or commercial (804) 279-6451, 6102. For procedural concerns or questions please call, DSN 695-5203, 5311, 5202 or 3064. The commercial number is (804) 279-5203, 5311, 5202 or 3064.

Program Manager
DoD ODS Reserve

Section 1

GENERAL ODS TURN-IN INFORMATION

I. Procedures

A. No authorization/pre-notification to the item manager or ODS Program Office is required when turning in ODS to the Reserve.

B. All types of ODS containers will be accepted in the Reserve to include cylinders, fire extinguishers, drums, spheres, and canisters. Government recovery cylinders are available free of charge through DSCR for ODS turned in to the Reserve. The Military Standard Requisition and Issue Procedure (MILSTRIP) is used to requisition ODS. The DLA preferred method for your input of a requisition (sales order) into the supply system is through EMALL, but requisitions can be phoned in to DLA Customer Interaction Center. The Center is available 24 hours a day at DSN 661-7766 or COMM toll free (877) 352-2255 (877-DLA-CALL) to answer questions concerning MILSTRIP and requisition status. The government cylinders used for recovering CFC refrigerants are painted orange, and halons red. Both have yellow tops and dual port (two valves) to distinguish them from single port valve standard spec gas cylinders. Dual port spec gas (virgin) CFC cylinders are only available for Navy shipboard applications.

C. All ODS containers returned to the Reserve must be tagged/labeled as follows:

1. The shippers DoD Activity Address Code (DoDAAC).

2. The shipping activity's "in-the-clear" address with POC and phone number.

3. The NSN of cylinder(s) containing the recovered ODS (see Section 3).

4. Type of ODS (i.e., Halon 1301 or CFC-12).

5. The quantity of containers on the pallet or within the shipping crate.

6. Packaged and labeled in compliance with DOT regulations.

Note: When multiple containers (cylinders, drums, spheres, canisters, or fire extinguishers) with the same NSN are shipped palletized or in a box/crate, apply only one tag/label to the shipment, not to each item.

D. Fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Reserve. Also, safety caps must be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during the shipping, receiving, or storage process. Your local area fire protection equipment companies can provide safety services. Special handling procedures for Halon system cylinders are provided latter in Section 1. If further guidance is

needed contact the ODS Reserve Program Office at DSN 695-5202, 5203 or (804) 279-5202, 5203 or email dscr.odsreserve@dla.mil.

E. Monetary credit will not be given for turned in ODS or cylinders. However, ownership credit will always be given to the service or agency for the pounds of ODS returned to the Reserve.

F. Empty recovery, and spec gas cylinders must be turned in to the Reserve. Spec gas empty cylinders (see Section 3 for applicable NSNs) should not be used for recovering ODS. Spec gas cylinders will be refurbished and refilled with product for future requisitions. There are exceptions to recovering product into spec gas cylinders but this applies to limited Navy shipboard applications. Approval by the ODS Program Office is required to obtain these unique spec gas cylinders for shipboard applications.

G. CFC/Solvent - 113 and 1,1,1 Trichloroethane when turned in must be in their original containers in which the seal has never been broken.

H. Burnt out or mixed reserve products can be turned in to the Reserve. Clearly identify the chemical by defining its components (i.e. R-12 & R-502).

I. The following items **are not** a part of the Reserve:

1. Empty fire extinguishers (valves removed)
2. Empty commercial containers
3. Aerosol cans with Reserve chemicals
4. Dry chemicals
5. HCFC refrigerants except for R-22
6. R-134a or other HFC refrigerants

Contact your local Property Disposal Office for guidance on discarding these items.

II. Transportation Guidance

A. When shipping ODS refer to the following regulations if needed:

1. MIL-STD-129L, Military Standard Marking for Shipment and Storage.

2. DLAR 4145.25, Storage and Handling of Compressed Gases and Liquids in Cylinders, and of Cylinders or the following applicable Service regulation:

(a) AR-700-68

(b) NAVSUPINST 4440.128C

(c) MCO 10330.2C

(d) AFR 67-12

3. Code of Federal Regulations 49.173 (particularly 173.301), Requirements for the Shipment of Compressed Gas Cylinders.

B. If money is not available within your activity to ship ODS to the Reserve, transportation cost can be paid by the Reserve for shipments costing $250.00 or greater. This cost assistance is strictly for transporting ODS and not for packing costs. For transportation cost assistance fax the following data to (804) 279-4970/DSN 695-4970 or email to dscr.odsreserve@dla.mil.

1. Type and quantity of ODS

2. Number of cylinders, pallets, total weight of shipment, and cube

3. Estimated shipping cost

4. Requesting facility and point of contact

C. Turn-ins should be forwarded to the following address:

Defense Distribution Depot Richmond Virginia (DDRV)
SW0400
Cylinder Operations
8000 Jefferson Davis Highway
Richmond, VA 23297-5900

Trucks must enter DDRV from Chippenham Parkway (Route 150) through Gate 13.

D. Schedule all deliveries through the DDRV Dispatch Office at DSN 695-3834 or (804) 279-3834. When transporting personally with a Government vehicle, you should schedule the delivery. When using a common carrier, advise the carrier to schedule the delivery based on its anticipated schedule.

III. Special Handling Procedures for Halon 1301 System Cylinders

A. Halon 1301 is typically incorporated into built-in fire suppression systems applications with the charged Halon cylinder connected to the system piping. Because the Halon is over pressurized with nitrogen to facilitate distribution, these system cylinders are usually disconnected from the system and used as the transportation cylinder to return the product to the Reserve as the systems are taken out of service. However, fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Defense Reserve. Special care should be taken when deactivating and disassembling the systems. The valves on these cylinders are designed in a manner that upon activation, they are changed instantly from a closed position to fully open position and will dispense the Halon in less than 10 seconds. The combination of these sensitive valves and the high pressure within the cylinders require compliance with good safety practices.

B. Instructions for dismantling a Halon Fire Suppression System are provided as follows:

1. The first step is to deactivate the actuation system, which is usually electrical or pneumatic. However, disconnection from the electrical or pneumatic source is not sufficient from a safety standpoint. In the case of pneumatic systems, there is often still a small pin exposed that must be covered with a safety cap before handling. Just the slightest touch on this pin could cause full activation of the valve. In the case of electrically activated valves, simple disconnection of the electrical leads to solenoid valves is acceptable. However, if the electrical connection is to an explosive initiator, it is very important to remove the initiator. This is a very important safety practice, because static electricity can cause the explosive to detonate. These actions should be done before any other dismantling is initiated.

2. The next step is to disconnect any discharge piping from the discharge port. Immediately upon disconnection of the piping, install an anti-recoil device (discharge port safety cap). Safety caps should be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during the shipping, receiving, or storage process. Application of manufacturer's designed and supplied caps are the proper safety practice. In some cases the threads are not exactly the same as pipe threads and may not hold under the pressure of release. However, if pipe caps, plugs or plates are substituted for manufacturer's caps, at least four opposing holes must be drilled in the anti-recoil cap, plug or plate to disperse any release of the Halon if the valve inadvertently activates. Anti-recoil device safety caps/plugs/plates must always be in place before handling the cylinders.

3. Adherence with the above safety practices is paramount before removing any cylinders from the mounting position. Once the safety devices are in place, cylinders can be moved with relative safety. However, these are high-pressure compressed gas cylinders and require all the safe handling practices of any other gas cylinder. Also, protective safety wear is required for personnel deactivating cylinders.

Section 2

SITE SPECIFIC PROCEDURES

A. Procedures for European Collection Site at Defense Distribution Depot Europe (DDDE), Germersheim, Germany

I. The primary turn-in site for the DoD ODS Reserve is located at DDRV in Richmond, VA. However, collection sites have been established in Germersheim, Germany for European bases (See Section 2.B. for turn-ins from the United Kingdom), Yokosuka, Japan for Asian bases and Pearl Harbor, Hawaii for Pacific region activities. These sites are not mini Reserves, only ODS Reserve collection sites. The following procedures apply to the European collection site at DDDE.

II. This collection site accepts excess and recovered Halons and Refrigerants, and excess solvents in unopened original issue containers, of the types identified in Section 4. As other items become eligible at later dates, you will be notified when those products will be accepted.

III. Turn-in procedures:

A. All ODS containers being shipped to DDDE-Germersheim will be coordinated in advance through the Transportation Office by telephoning 378-5445/3893 or civilian 49-7274-96-5445/96-3893. ODS will be received Monday through Friday. If units cannot turn in on these days, special accommodations will be made for turn-ins.

B. All types of ODS containers will be accepted in the Reserve to include cylinders, fire extinguishers, drums, spheres, and canisters. Government recovery cylinders are available free of charge through DSCR for ODS turned in. They can be requisitioned by following normal MILSTRIP procedures. The government cylinders used for recovering CFC refrigerants are painted orange, and Halons red. Both have yellow tops and dual port (two valves) to distinguish them from single port valve standard spec gas (virgin) cylinders.

C. All ODS containers being turned in to Germersheim must have the following information attached:

1. The shippers DoD Activity Address Code (DoDAAC).

2. The shipping activity with POC and phone number.

3. The NSN of cylinder(s) containing the recovered ODS (see Section 3).

4. Type of ODS (i.e., Halon 1301 or CFC-12).

5. The quantity of containers on the pallet or within the shipping crate.

Note: When multiple containers (cylinders, drums, spheres, canisters, or fire extinguishers) with the same NSN are shipped palletized or in a box/crate, apply only one tag/label to the shipment, not to each item. Pallets must contain items of the same type, i.e., cylinders, drums, canisters, etc.).

D. Fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Reserve. Also, safety caps must be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during the shipping, receiving, or storage process. Local fire protection experts can provide safety services. Special handling procedures for Halon system cylinders are provided in Section 1. If further guidance is needed contact the ODS Reserve Program Office in Richmond, VA at DSN 695-5202, 5203 or (804) 279-5202, 5203 or email dscr.odsreserve@dla.mil.

E. Monetary credit will not be given for turned in ODS or cylinders. However, ownership credit will always be given to the service or agency for the pounds of ODS returned to the Reserve. ODS can be requisitioned from the Reserve by service-authorized activities.

F. The following procedures will be followed:

1. Units with leaking containers must transfer the ODS into proper storage containers before shipment to DDDE-Germersheim. If guidance is needed related to leaking cylinders, please call one of the collection sites POCs as provided in paragraph H of this section.

2. Cylinders will be banded to wooden pallets using metal/steel-banding material or secured in a wooden crate.

3. Halon fire extinguishers/system cylinders will have safety pins installed where applicable and secured to prevent accidental release. Safety caps will be installed on cylinders.

4. DD Form 1348-1, or local equivalent, will be the document used to turn-in ODS cylinders.

5. The cargo vehicle (truck/trailer) will have means for forklift off-loading; e.g., removable side rails. Cylinders will not be off-loaded by hand.

G. Transportation Guidance

1. When transporting compressed gas cylinders with ODS, the following guidelines apply to military and in some cases contracted carriers:

(a) Military carriers must be in compliance with USAREUR Regulation 55 and USAFE Regulation 75 and comply with the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) and the equivalent in Germany (GGVS).

(b) Any shipment performed by U.S. military and military vehicles will require driver training and certification, inspection requirements of vehicles, and other requirements as mandated by regulation.

(c) Shipments coming from outside of Germany must be in compliance with exporting and importing country requirements.

(d) Shipments performed over water must be in compliance with the International Maritime Dangerous Goods Code (IMDG).

2. For units in Germany without appropriate transportation capability, transportation services for ODS to the collection point in Germersheim will be made through DRMO disposal contracts. Units that want to utilize this service are required to provide a separate DD Form 1348-1 to fund transportation, and shall contact the servicing DRMO for instructions. DRMS will monitor shipments for regulatory compliance.

3. Turn-ins originating in Europe, except for the United Kingdom, should be forwarded to the following consolidation point:

SWE300
Defense Distribution Depot Europe
ATTN: DDDE Hazmat Team, Bldg. 7889
US Depot Germersheim GEB 7525
76726 Germersheim DE
Germany

H. Points of contact at Germersheim are:

	DSN	Commercial
Hazmat Team	378	49-7274-96-5445/5161
Thomas Brame, Receiving Chief	378	49-7274-96-5040
Edward Bowen	378	49-7274-96-5161

After duty hours, contact gate guards at DSN378-3678, Commercial 49-7274-58678. Security guards have the home telephone numbers of the designated personnel.

5. Shipments originating from the United Kingdom are covered in Section 2.B.

Section 2

B. Procedures for United Kingdom Shipments to European Holding Facility in Zevenaar, Netherlands

I. The DoD ODS Reserve established a long-term holding facility in Netherlands in April 2004 to hold stocks of halons for potential emergency use by DoD activities. This facility collects, reclaims and store halons and collects and destroys refrigerants and solvents. Due to its proximity to the Netherlands, ODS turn-ins from the United Kingdom (UK) will be shipped directly to the European ODS Holding facility in The Netherlands rather than to the collection site at Germersheim.

II. All ODS containers being shipped to the DoD ODS Reserve European Holding Facility will be coordinated in advance. The POC for coordinating shipments is: Erick Leferink, Director RCDH Hugen Holding BV, Tel 31-316-247494.

III. All types of ODS containers will be accepted at Hugen, to include cylinders, fire extinguishers, drums, spheres, and canisters. Government recovery cylinders are available free of charge through DSCR for ODS turned in. They can be requisitioned by following normal MILSTRIP procedures. The government cylinders used for recovering CFC refrigerants are painted orange, and Halons red. Both have yellow tops and dual port (two valves) to distinguish them from single port valve standard spec gas (virgin) cylinders.

IV. Turn-in procedures:

A. All ODS containers being turned into the DoD ODS Reserve European Holding Facility must have the following information attached:

1. The shippers DoD Activity Address Code (DoDAAC).

2. The shipping activity with POC and phone number.

3. The NSN of cylinder(s) containing the recovered ODS (see Section 3).

4. Type of ODS (i.e., Halon 1301 or CFC-12).

5. The quantity of containers on the pallet or within the shipping crate.

Note: When multiple containers (cylinders, drums, spheres, canisters, or fire extinguishers) with the same NSN are shipped palletized or in a box/crate, apply only one tag/label to the shipment, not to each item. Pallets must contain items of the same type, i.e., cylinders, drums, canisters, etc.).

B. Fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Reserve. Also, safety caps must be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during the shipping, receiving, or storage process. Local

fire protection experts can provide safety services. Special handling procedures for Halon system cylinders are provided in Section 1. If further guidance is needed contact the ODS Reserve Program Office in Richmond, VA at DSN 695-5202, 5203 or (804) 279-5202, 5203 or email dscr.odsreserve@dla.mil.

C. Monetary credit will not be given for turned in ODS or cylinders. However, ownership credit will always be given to the service or agency for the pounds of ODS returned to the Reserve. ODS can be requisitioned from the Reserve by service-authorized activities.

D. The following procedures will be followed:

1. Units with leaking containers must transfer the ODS into proper storage containers before shipment to the Netherlands facility. If guidance is needed related to leaking cylinders, please call one of the collection sites POCs as provided in paragraph H of this section.

2. Cylinders will be banded to wooden pallets using metal/steel-banding material or secured in a wooden crate.

3. Halon fire extinguishers/system cylinders will have safety pins installed where applicable and secured to prevent accidental release. Safety caps will be installed on cylinders.

4. DD Form 1348-1, or the local equivalent, will be the document used to turn-in ODS cylinders.

5. The cargo vehicle (truck/trailer) will have means for forklift off-loading (removable side rails etc.). Cylinders will not be off-loaded by hand.

E. Transportation Guidance

1. When transporting compressed gas cylinders with ODS, the following guidelines apply to military and in some cases contracted carriers:

(a) Military carriers must be in compliance with USAREUR regulation 55 and USAFE regulation 75 and comply with the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) and the equivalent in Germany (GGVS).

(b) Any shipment performed by U.S. military and military vehicles will require driver training and certification, inspection requirements of vehicles, and other requirements as mandated by regulation.

(c) Shipments performed over water must be in compliance with the International Maritime Dangerous Goods Code (IMDG).

2. The shipping address for the Netherlands Facility is:

RCDH Hugen
Hengelder 17
6902 PA Zevenaar
The Netherlands

For more Information on Hugen, go to this web site:

http://www.hugen.com/

Section 2

C. Procedures for Pacific Collection Site at Defense Distribution Depot Pearl Harbor, Hawaii (DDPH)

I. The primary turn-in site for the DoD ODS Reserve is located at DDRV in Richmond, VA. However, collection sites have been established in Germersheim, Germany for European bases, Yokosuka, Japan for Asian bases and Pearl Harbor, Hawaii for Pacific region activities. These sites are not mini Reserves, only ODS collection sites. The following procedures apply to the Pacific collection site at the DDPH.

II. This site accepts excess and recovered Halons and Refrigerants, and excess solvents in unopened original issue containers, of the types identified in Section 4. As other items become eligible at later dates, you will be notified when those products will be accepted.

III. Turn-in procedures:

A. Deliveries will be accepted Monday through Friday, between 0800 and 1400 (except holidays). Advance notification is not required on quantities of four (4) pallets or less. For quantities greater than 4 pallets, a delivery schedule should be coordinated in advance with DDPH, telephone (808) 474-3770. Any other special accommodations should be coordinated at the same phone number.

B. All types of ODS containers will be accepted in the Reserve to include cylinders, fire extinguishers, drums, spheres and canisters. The exception is aircraft specific Halon canisters, which should be returned through the airframe maintenance channels. Government recovery cylinders are available free of charge through DSCR for ODS turn-ins. They can be requisitioned by following normal MILSTRIP procedures. The government cylinders used for recovering refrigerants are painted orange, and Halons red. Both have yellow tops and dual port (two valves) to distinguish them from single port valve standard spec gas cylinders.

C. All ODS being turned-in to DDPH must have the following information attached to each cylinder or to each palletized load:

1. Shippers DoD Activity Address Code (DoDAAC).

2. Shipping activity with POC and phone number.

3. NSN of ODS container(s) (see Section 3).

4. Type of ODS (i.e., Halon 1301, CFC-12, etc.).

5. The quantity of containers on the pallet or within the shipping crate.

Note: When multiple containers (cylinders, drums, fire extinguishers, etc.) with the same NSN are shipped palletized or in a box/crate, apply only one tag/label to the shipment, not each item. Palletized loads must contain items of the same type and size, i.e., cylinders, drums canister, etc.

Boxed/crated loads may contain different size containers, but should contain the same type of product, and must note on the exterior that multiple NSNs are within.

D. Fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Reserve. Also, safety caps must be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during shipping, receiving, or storage processes. Local fire protection experts can provide safety services. Special handling procedures for Halon system cylinders are provided in Section 1. If further guidance is needed, contact one of the collection site POCs provided in paragraph H of this Section, or the ODS Reserve Program Office in Richmond, VA, phone DSN 695-5202, 5203 or commercial (804) 279-5202, 5303 or email dscr.odsreserve@dla.mil.

E. Monetary credit will not be given to individual activities for turned-in ODS or cylinders. However, ownership credit by Service or Agency will always be maintained for the pounds of ODS returned to the Reserve. ODS can be requisitioned from the Reserve only by Service authorized activities.

F. The following procedures will be followed:

1. Units with leaking containers must transfer the ODS into proper storage containers before shipment to DDPH. If guidance is needed related to leaking cylinders, please call one of the collection site POCs provided in paragraph H of this Section.

2. Cylinders will be banded together in an upright position, utilizing a wooden collar, on wooded pallets using metal/steel-banding material or secured in a wooden crate.

3. Halon fire extinguishers/system cylinders will have safety pins installed where applicable and secured to prevent accidental release. Safety caps will be installed on cylinders.

4. DD Form 1348-1, or the local equivalent, will be the document used to turn-in ODS containers, with the address shown in paragraph G.4.

5. Direct deliveries from installations must be on cargo vehicles (truck/trailer) with means for ground level forklift off-loading (removable side rails, etc.). Off-island shipments can be shipped via routine commercial or military means. Containers will not be off-loaded by hand.

G. Transportation Guidance:

1. When transporting compressed gas cylinders with ODS, the following guidelines apply to military and in some cases contracted carriers:

(a) Shipments coming from outside of Hawaii must be in compliance with exporting and importing country requirements.

(b) Shipments performed over water must be in compliance with the International Maritime Dangerous Goods Code (IMDG).

2. Turn-ins originating in the Pacific region should be forwarded to the following consolidation point address:

Defense Distribution Depot Pearl Harbor (DDPH)
Cylinder Operations (Bldg. 1762)
840 Vincennes Avenue
Pearl Harbor, Hawaii 96860-4544

H. Points of contact at DDPH are:

DDPH – LCDR Jimmy Finley, Chief (808) 473-4072

Section 2

D. Procedures for Pacific Collection Site at Defense Distribution Depot Yokosuka Japan (DDYJ)

I. The primary turn-in site for the DoD ODS Reserve is located at DDRV in Richmond, VA. However, collection sites have been established in Germersheim, Germany for European bases, Yokosuka, Japan for Asian bases and Pearl Harbor, Hawaii for Pacific region activities. These sites are not mini Reserves, only ODS collection sites. The following procedures apply to the Asian collection site at the DDYJ.

II. This site accepts excess and recovered Halons and Refrigerants, and excess solvents in unopened original issue containers, of the types identified in Section 4. As other items become eligible at later dates, you will be notified when those products will be accepted.

III. Turn-in procedures:

A. Deliveries will be accepted Monday through Friday, between 0800 and 1400 (except holidays). Coordinate delivery in advance with DDYJ, Armando Rodriguez, Telephone Commercial: 81-46816-5175 or DSN 243-5175. Any other special accommodations should be coordinated at the same phone number.

B. All types of ODS containers will be accepted in the Reserve to include cylinders, fire extinguishers, drums, spheres and canisters. The exception is aircraft specific Halon canisters, which should be returned through the airframe maintenance channels. Government recovery cylinders are available free of charge through DSCR for ODS turn-ins. They can be requisitioned by following normal MILSTRIP procedures. The government cylinders used for recovering refrigerants are painted orange, and Halons red. Both have yellow tops and dual port (two valves) to distinguish them from single port valve standard spec gas cylinders.

C. All ODS being turned-in to DDYJ must have the following information attached to each cylinder or to each palletized load:

1. Shippers DoD Activity Address Code (DoDAAC).

2. Shipping activity with POC and phone number.

3. NSN of ODS container(s) (see Section 3).

4. Type of ODS (i.e., Halon 1301, CFC-12, etc.).

5. The quantity of containers on the pallet or within the shipping crate.

Note: When multiple containers (cylinders, drums, fire extinguishers, etc.) with the same NSN are shipped palletized or in a box/crate, apply only one tag/label to the shipment, not each item. Palletized loads must contain items of the same type and size, i.e., cylinders, drums canister, etc.

Boxed/crated loads may contain different size containers, but should contain the same type of product, and must note on the exterior that multiple NSNs are within.

D. Fire suppression system cylinders and canisters with electrical charges or initiators must be deactivated prior to shipment to the Reserve. Also, safety caps must be used to cover exposed actuation mechanisms and discharge ports on these special cylinders, otherwise dangerous safety situations could arise during shipping, receiving, or storage processes. Local fire protection experts can provide safety services. Special handling procedures for Halon system cylinders are provided in Section 1. If further guidance is needed, contact one of the collection site POCs provided in paragraph H of this Section, or the ODS Reserve Program Office in Richmond, VA, phone DSN 695-5202, 5203 or commercial (804) 279-5202, 5203 or email
dscr.odsreserve@dla.mil.

E. Monetary credit will not be given to individual activities for turned-in ODS or cylinders. However, ownership credit by Service or Agency will always be maintained for the pounds of ODS returned to the Reserve. ODS can be requisitioned from the Reserve only by Service authorized activities.

F. The following procedures will be followed:

1. Units with leaking containers must transfer the ODS into proper storage containers before shipment to DDYJ. If guidance is needed related to leaking cylinders, please call one of the collection site POCs provided in paragraph H of this Section.

2. Cylinders will be banded together in an upright position, utilizing a wooden collar, on wooded pallets using metal/steel-banding material or secured in a wooden crate.

3. Halon fire extinguishers/system cylinders will have safety pins installed where applicable and secured to prevent accidental release. Safety caps will be installed on cylinders.

4. DD Form 1348-1, or local equivalent, will be the document used to turn-in ODS containers, with the address shown in paragraph G.4.

5. Direct deliveries from installations must be on cargo vehicles (truck/trailer), seavan containers or ship. Off-island shipments can be shipped via routine commercial or military means. Containers will not be off-loaded by hand.

G. Transportation Guidance:

1. When transporting compressed gas cylinders with ODS, the following guidelines apply to military and in some cases contracted carriers:

(a) Shipments coming from outside of Japan must be in compliance with exporting and importing country requirements.

(b) Shipments performed over water must be in compliance with the International Maritime Dangerous Goods Code (IMDG).

2. Turn-ins originating in the Asian region should be forwarded to the following consolidation point address:

Defense Distribution Depot Yokosuka, Japan (DDYJ)
SW3142
Operations Receiving (DDYJ-J3R)
Bldg. 5010
Yokosuka, Japan

H. Points of contact at DDYJ are:

Julio M. Quijano	Tel: DSN 315-243-8344, COM 81-46-816-8344 FAX DSN 315-243-7042, COM 81-46-816-7042 Japan Com 046-816-8344, FAX 7042 Email: julio.quijano@dla.mil
Donald Starnes (Alt)	Tel: DSN 315-243-8339, COM 81-46-816-8339 FAX DSN 315-243-7042, COM 81-46-816-7042 Japan Com 046-816-8339, FAX 7042 Email: donald.starnes@dla.mil

Section 3

I.

NSNs FOR
EMPTY RECOVERY CYLINDERS

COMMODITY	SIZE (LBs)	EMPTY RECOVERY CYLINDER NSNs
HALONS		
Halon 1202	160	8120-01-356-1781
Halon 1211	200	8120-01-356-1248
Halon 1211	1500	8120-01-356-1249
Halon 1301	117	*8120-01-371-0533
Halon 1301	122	8120-01-356-5963
Halon 1301	1000	8120-01-356-5962
REFRIGERANTS		
R- 11	59	8120-01-356-5960
R- 11	170	8120-01-356-9756
R- 11	1400	8120-01-355-9763
R- 12	45	8120-01-355-4017
R- 12	145	8120-01-355-4018
R- 12	1190	8120-01-355-4019
R- 114	57	8120-01-356-1245
R- 114	165	8120-01-356-1246
R- 114	1360	8120-01-356-1247
R- 500	43	8120-01-357-6774
R- 500	127	8120-01-357-7656
R- 500	1045	8120-01-357-7657
R- 502	44	8120-01-357-6770
R- 502	128	8120-01-357-6771
R- 502	1050	8120-01-357-6769
R-22	44	8120-01-357-9140
R-22	128	8120-01-357-9139
R-22	1050	8120-01-357-9141

* DENOTES A HIGH PRESSURE CYLINDER for use when recovering Halon 1301 from nitrogen charged fire suppression system cylinders. This cylinder can accommodate pressure up to 2265 psi.

II.

NSNs FOR EMPTY
SPEC GAS (VIRGIN) PRODUCT CYLINDERS
(FOR TURN-INS ONLY)

COMMODITY	SIZE (LBs)		EMPTY CYLINDER NSNs
HALONS			
Halon 1202	160		8120-01-339-6277
Halon 1202	2000		8120-01-371-0532
Halon 1211	200		8120-00-337-2899
Halon 1211	1500		8120-01-396-2165
Halon 1301	137 &150		8120-00-531-8193
Halon 1301	1123 &1240		8120-01-356-5961
REFRIGERANTS			
R- 11	59		8120-01-355-9760
R- 11	170		8120-01-355-9761
R- 11	1400		8120-01-531-2122
R- 12	45		8120-01-337-1816
R- 12	145		8120-01-337-6242
R- 12	1190		8120-01-355-4016
R- 114	57		8120-01-354-9400
R- 114	165	(49”x10”)	8120-00-063-3983
R- 114	165	(36”x12”)	8120-01-337-6236
R- 114	1360		8120-01-356-1244
R- 500	43		8120-01-357-6773
R- 500	127		8120-01-357-6772
R- 500	1045		8120-01-357-9137
R- 502	44		8120-01-357-7655
R- 502	128		8120-01-337-6239
R- 502	1050		8120-01-357-6907

III.

NSNs FOR
ODS TURN-INS

COMMODITY	CYLINDER CAPACITY SIZE (Lbs)	CYLINDER NSNs
HALONS AND FIRE EXTINGUISHERS		
Halon 1202	160	6830-01-356-1780
Halon 1202	2000	6830-01-447-3632
Halon 1211	1-5	6830-01-376-8013
Halon 1211	6-10	6830-01-376-8014
Halon 1211	11-20	6830-01-376-8015
Halon 1211	21-60	6830-01-376-8016
Halon 1211	61-125	6830-01-376-8017
Halon 1211	126-200	6830-01-356-1209
Halon 1211	201-340	6830-01-376-8018
Halon 1211	341-1500	6830-01-356-1211
Halon 1301	1-5	6830-01-376-8394
Halon 1301	6-10	6830-01-376-8395
Halon 1301	11-20	6830-01-376-8396
Halon 1301	21-70	6830-01-376-8397
Halon 1301	71-100	6830-01-376-8398
Halon 1301	101-117	6830-01-371-0501
Halon 1301	118-125	6830-01-376-8399
Halon 1301	126-150	6830-01-356-9752
Halon 1301	151-200	6830-01-376-8400
Halon 1301	201-261	6830-01-376-8401
Halon 1301	261-350	6830-01-376-8402
Halon 1301	351-530	6830-01-376-8403
Halon 1301	531-600	6830-01-376-8404
Halon 1301	601-1240	6830-01-356-5958

REFRIGERANTS

R- 11	59		6830-01-355-9754
R- 11	100		6830-01-368-4847
R- 11	170		6830-01-355-9756
R- 11	200		6830-01-367-9554
R- 11	650		6830-01-367-9555
R- 11	1400		6830-01-355-9758
R- 12	45		6830-01-355-4013
R- 12	145		6830-01-355-6648
R- 12	1190		6830-01-355-4015
R- 114	57		6830-01-356-1203
R- 114	165		6830-01-356-1205
R- 114	165	(10”x49”)	6830-01-377-1807
R- 114	1350		6830-01-356-1207
R- 500	43		6830-01-357-7650
R- 500	127		6830-01-358-5123
R- 500	1045		6830-01-357-7654
R- 502	44		6830-01-357-6726
R- 502	128		6830-01-357-6727
R- 502	1050		6830-01-357-6905

HCFC

R-22	44		6830-01-357-9131
R-22	128		6830-01-357-9129
R-22	1050		6830-01-357-9133

IV. NSNs FOR DRUMS/CANS

CONTAINING CFC SOLVENTS
FOR TURN-IN

COMMODITY	DRUM/CAN CAPACITY	DRUM/CAN NSN
CFC/Solvent 113		
	6 oz	6850-01-424 8532
	1 pint	6850-01-424-8533
	1 quart	6850-01-424-8540
	1 gl / 11 lbs	6850-01-424-8531
	100 lbs	6850-01-424-8535
	200 lbs	6850-01-424-8536
	5 gl / 60 lbs	6850-01-424-8534
	55 gl / 690 lbs	6850-01-424-8537
1,1,1 Trichloroethane	6 oz	6810-01-424-8538
	1 pint	6810-01-424-9662
	1 quart	6810-01-424-9665
	1 gl / 12 lbs	6810-01-424-8539
	5 gl / 60 lbs	6810-01-424-9674
	55gl / 640 lbs	6810-01-424-9673

Section 4

CLASS I ODS IN THE RESERVE

CFCs	Chemical Name	Symbol
CFC-11	Trichlorofluromethane	$CFCl_3$
CFC-12	Dichlorodifluromethane	CF_2Cl_2
CFC-114	Dichlorotetrafluroethane	$C_2F_4Cl_2$
R-500*	(See note below)	CF_2Cl_2/C_2F_2
R-502**	(See note below)	CF_2Cl/C_2F_5Cl
Halons		
Halon 1202	Dibromodifluromethane	CF_2Br_2
Halon 1211	Bromochlordifluromethane	CF_2ClBr
Halon 1301	Bromotrifluromethane	CF_3Br
Solvents		
Methyl Chloroform	1,1,1 Trichloroethane	CH_3CCl_3
CFC-113	Trichlorotrifluoroethane	$C_2F_3Cl_3$

* Azeotropic mixture of CFC-12 and HFC-152a (1,1 Difluroethane)
**Azeotropic mixture of CFC-115 and HCFC-22

Section 5

SERVICE/AGENCY POINTS OF CONTACT

SERVICE	NAME	OFFICE	PHONE NUMBERS COMMERCIAL	DSN PREFIX	FAX	E-MAIL ADDRESS EXTENSION
AIR FORCE	KENNETH DORMER	HQ-USAF	703-588-7102	425	7399	kenneth.dormer@pentagon.af.mil
	SHERMAN FORBES	HQ-USAF	703-588-7839	425	0066	sherman.forbes@pentagon.af.mil
ARMY	DAVID KOEHLER	HQ-AMC	703-304-1680			david.a.koehler@us.army.mil
	JIM VINCENT	HQ-AMC	636-477-7515		636-447-3875	jim.vincent1@us.army.mil
MARINES	JIM LETTINHAND	HQ-USMC	703-695-8934, X 2433	225	8905	edmond.lettinhand@usmc.mil
NAVY	PETE MULLENHARD	NAVSEA	202-204-1969		703-416-1178	peter.m.mullenhard@saic.com
	GREG TOMS	NAVSEA	202-781-3653	326	4747	gregory.toms@navy.mil
	FRANK STOUDT	NAVSUP	717-605-5520	430	3480	frank.stoudt@navy.mil
	MARY HAMMERER	NAVAIR	301-757-6177	757	301-342-0958	mary.hammerer@navy.mil
	JAMES FERNAN	MSC	202-685-5764	325	5224	james.b.fernan@navy.mil
COAST GUARD	HENRY HERZBERG	HQ-USCG	202-267-6462		4516	henry.j.herzberg@uscg.mil
DLA	STEVE THIEN	DSCR-VO	804-279-3064	695	804-279-4970	dscr.odsreserve@dla.mil
	JOE SCHMIERER	DSCR-VO	804-279-5202	695	804-279-4970	dscr.odsreserve@dla.mil
	BOBBY CARWILE	DSCR-VO	804-279-5203	695	804-279-4970	dscr.odsreserve@dla.mil
	STEVE PEREZ	DSCR-VO	804-279-5311	695	804-279-4970	dscr.odsreserve@dla.mil
	JOHN MONROE	DSCR-VO	804-279-6451	695	804-279-4970	dscr.odsreserve@dla.mil

MASTER TABLE OF CONTENTS

This page left intentionally blank.

Table of Contents

This page intentionally left blank.

Module 1 — Introduction to WASTE

Scope

The target audience for this training curriculum is Regional Support Commands (RSCs) and Installation personnel responsible for documenting waste turn-in to the Defense Reutilization Marketing Office (DRMO). The course is most beneficial to the Installation personnel, RSC Representatives, Area and State Environmental Specialists, Facility Managers, Unit Environmental Compliance Officers (UECOs), and administrative personnel working at a U.S. Army Reserve Centers and their supporting maintenance facilities.

Purpose and Goals

The purpose of this course is to teach students to use the web-based version of Web Application System for Turn-In Execution (WASTE). WASTE is a web-based program that automates the waste turn-ins to the DRMOs. WASTE allows hazardous waste (HW) generators to conduct electronic turn-ins to the DRMO and provides an effective method to keep track of HW accumulations within the RSCs whether the user is using DRMO or not.

It allows RSC personnel to create and print a DD Form 1348-1A (Disposal Turn-In Document (DTID)) and Hazardous Waste Profile Sheets (HWPSs) as well as reports that can be used to track on-site waste generation, funding per waste stream, recyclables, generator status and other reports showing what waste is approaching thresholds.

This training course provides instruction on the following tasks:

- Linking to and opening WASTE through Internet Explorer
- Customizing the WASTE Main Landing Page with Key Performance Indicators (KPIs)
- Entering global defaults and default data and preparing to operate WASTE
- Using WASTE to prepare the following waste turn-in documents:
  - HWPSs (DRMO 1930)
  - Disposal Turn-In Document (DTID or DD Form 1348-1A)
- Using WASTE to track all recyclable materials (used oil, paper, cardboard, scrap metal, brass, etc.)
- Using WASTE for Non-DRMO turn-ins
- Using WASTE to print waste turn-in documents
- Printing and using the reports supported by WASTE
- Using WASTE to track waste shipments
- Utilizing the FSC-LIIN drop-down menu for standardization of locally-assigned stock numbersLSNs and for trends analysis
- Using WASTE to complete an electronic waste turn-in to DRMO

WASTE Application

WASTE is a critical and unique application designed to track and monitor the generation and disposal of HW. WASTE has the ability to interface with the DRMO to electronically track the generation and disposal of HW from cradle to grave via the Generation Communication (GenComm)/DRMO Generator (DRMOGen) standard.

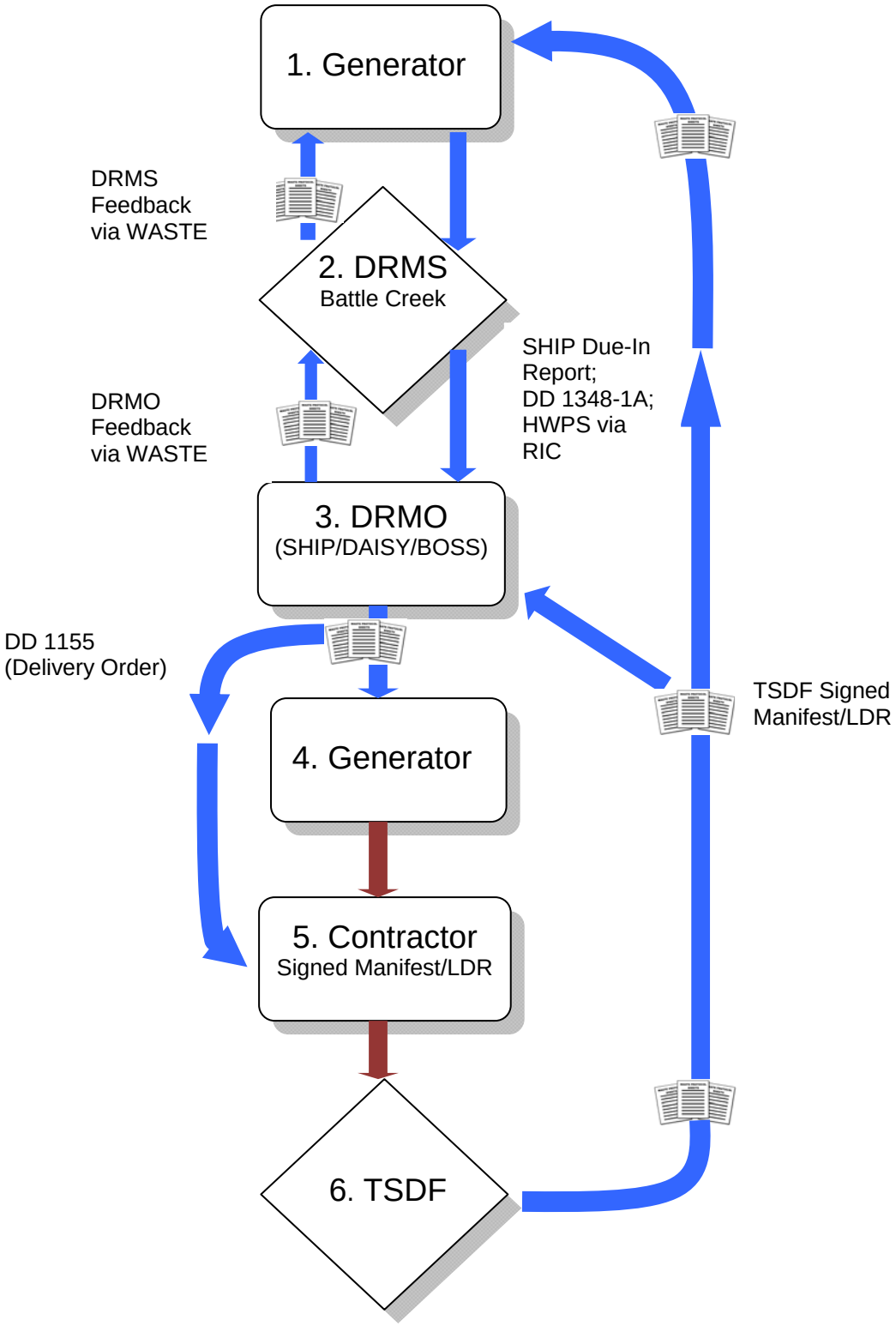
WASTE is a web-based program designed with Role Level Access. Role Level Access allows users to have various levels of data input, access to standard reports, the ability to create and send turn-in documents, etc. WASTE users are established (invited) by the HQ USARC Environmental Program Manager and the RSC's as appropriate.

WASTE has many benefits for its users. Because WASTE is a web-based application, it does not require the installation of software on local computers. Therefore, it does not require support by the Directorate of Information Management (DOIM) support. Users can enter default data only once, which is then stored for re-use throughout the system. This reduces keystrokes and the potential for data input errors.

Waste Disposal Process

Before users can be proficient with the use of WASTE, they must learn the process for disposing of hazardous waste and materials through the Defense Reutilization Marketing System (DRMS)/DRMO systems.

WASTE sends waste turn-in documentation (DD Form 1348-1A and HWPS (DD Form 1930)) to DRMS via the internet. DRMS then submits the DD Form 1348-1A and HWPS via the Routing Identifier Code (RIC) to the proper DRMO. The DRMO sees this information as the Single Hazardous Input Program (SHIP) Due In Report, and eventually creates the DD Form 1155 (Delivery Order) and sends it to the Contractor and Generator. As the DRMO reviews/modifies the documents, DRMO Feedback is generated and sent back to the Generator. After the Contractor receives the DD Form 1155, they will generate the manifest and land disposal restriction (LDR) form, schedule a pickup for the waste, perform the pickup and deliver the waste to the treatment, storage, and disposal facility (TSDF). The TSDF then sends the signed Manifest/LDR to the generator or to the DRMO, who then forwards it on to the generator.


1. Generator
DRMS
Feedback
via WASTE
2. DRMS
Battle Creek
SHIP Due-In
Report;
DD 1348-1A;
HWPS via
RIC
DRMO
Feedback
via WASTE
3. DRMO
(SHIP/DAISY/BOSS)
DD 1155
(Delivery Order)
TSDF Signed
Manifest/LDR
4. Generator
5. Contractor
Signed Manifest/LDR
6. TSDF

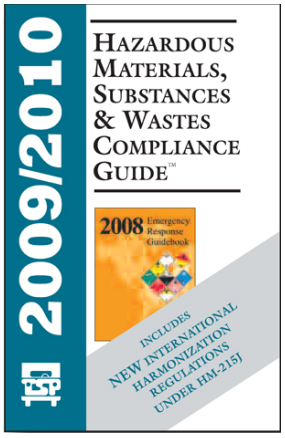
Computer and User Requirements

Computer Requirements

The WASTE program will run only on a computer that meets the following minimum requirements:

- 1.5 GHz Pentium processor
- Internet access
- Microsoft Internet Explorer 7 or higher is recommended for best user experience (Internet Explorer 5.5 and 6 is supported but limited usability for some features)
- Enable Cookies, JavaScript and Pop-up windows
- Army Knowledge Online (AKO), Guard Knowledge Online (GKO) and Web Compliance Assessment and Sustainment System (WEBCASS) access

User Requirements



WASTE users must have a working knowledge of the Microsoft Windows operating system and must understand common Windows terminology. WASTE automates waste turn-in, but it does not make waste management decisions. Therefore, WASTE users should be familiar with U.S. Army Reserve procedures for handling HW and DRMS procedures for waste turn-in.

In addition, users must be familiar with applicable regulations, including regulations on hazardous materials transportation and waste management. Specifically, WASTE users must be familiar with applicable portions of 49 Code of Federal Regulations (CFR) (hazardous materials transportation), 40 CFR (HW management), and other applicable state/local regulations.

Gaining Access to WASTE

To request access to WASTE, send an email to the Environmental Program Manager (roc.tschirhart@us.army.mil) at HQ USARC. Role Level Access with WASTE is based on user levels. Further Information of Role Level Access and their permissions will be given in Module 2.

Level 2 Users (RSC Representatives) will be given access from a Level 1 User (National Program Manager) through an invitation email like the one on the following page. After Level 2 Users gain access, they are allowed to invite Level 3 users (State Environmental Specialists). Facility Managers, Unit Environmental Compliance Officers, and other administrative personnel (Levels 4, 5, and 6) should contact their respective State or Area Environmental Specialist to gain access to WASTE.

Welcome!

You have been invited to join the Army Reserve training version of Web Application System for Turn-in Execution (WASTE). Please follow this procedure to complete your registration:

1. Go to the Login page http://ffxstgws1.plateauinc.com/WASTE/Login.aspx

FOR TRAINING PURPOSES ONLY

2. Log into WASTE with the following information and update your profile

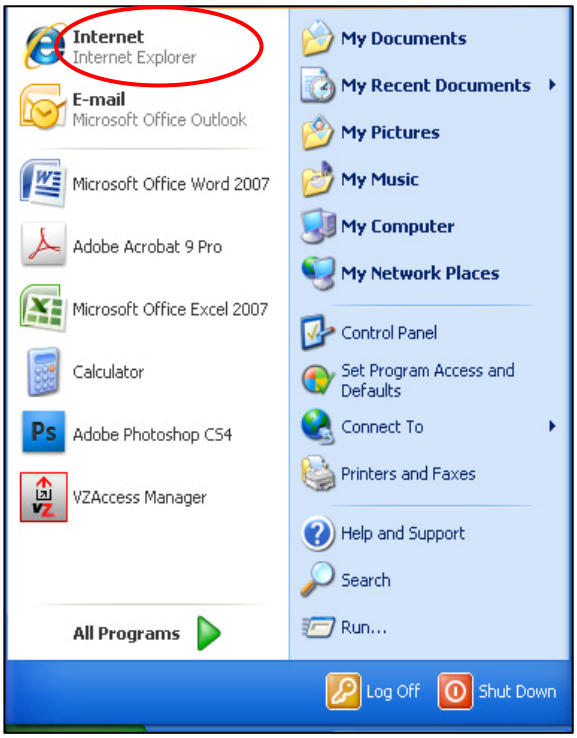
Email address: hello.there@us.army.mil
Temporary password: Yukon

If you have questions regarding your WASTE login, please call Roc Tschirhart at 404-464-9837.

Starting WASTE

You can start* WASTE *using any of these methods!

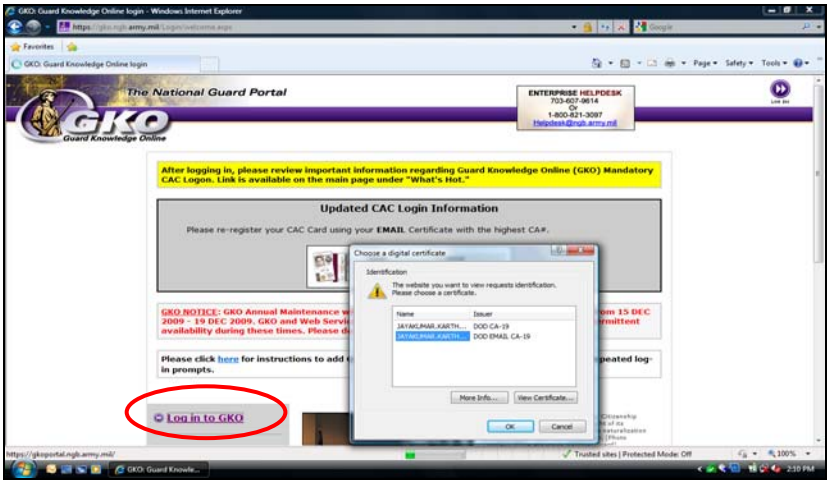
Start by clicking **Start** located in the lower left portion of your screen. Once the menu pulls up choose **All Programs**, then go to the **Internet Explorer** icon or access the **Internet Explorer** icon on your desktop.



For this training course, we will not be accessing the WASTE program through the navigation through Internet Explorer and GKO/WEBCASS or the use of a Common Access Card (CAC).

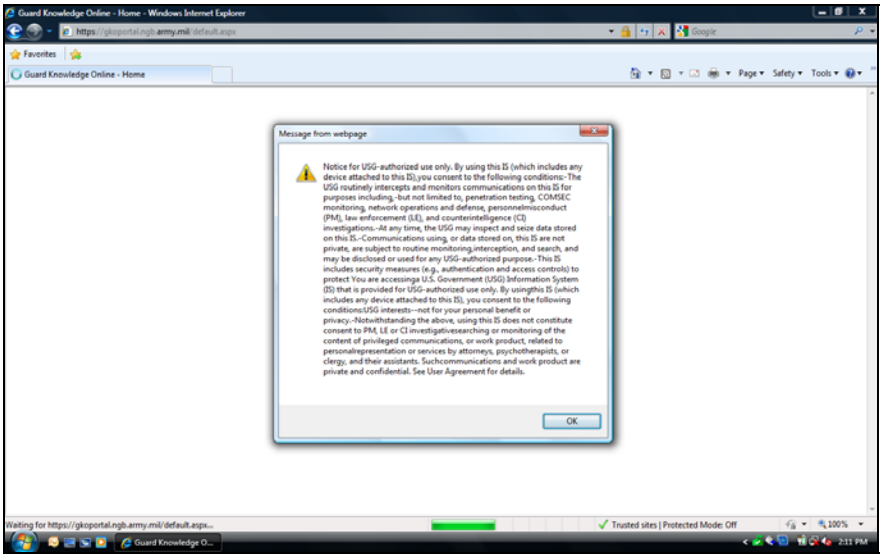
In this training environment, the users will be provided a login and password to access the training server.

The user must access GKO to navigate to the WEBCASS login. GKO can be accessed via https://gko.ngb.army.mil/. Begin the log-in process by clicking **Log in to GKO**.

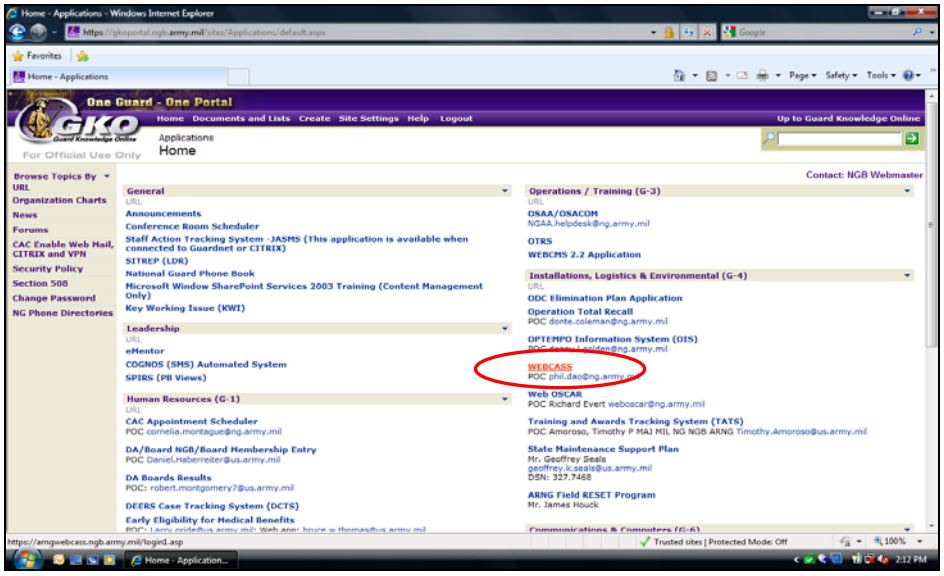


For some users, a window may appear asking the user to select a digital certificate. Choose a certificate and click **OK.**

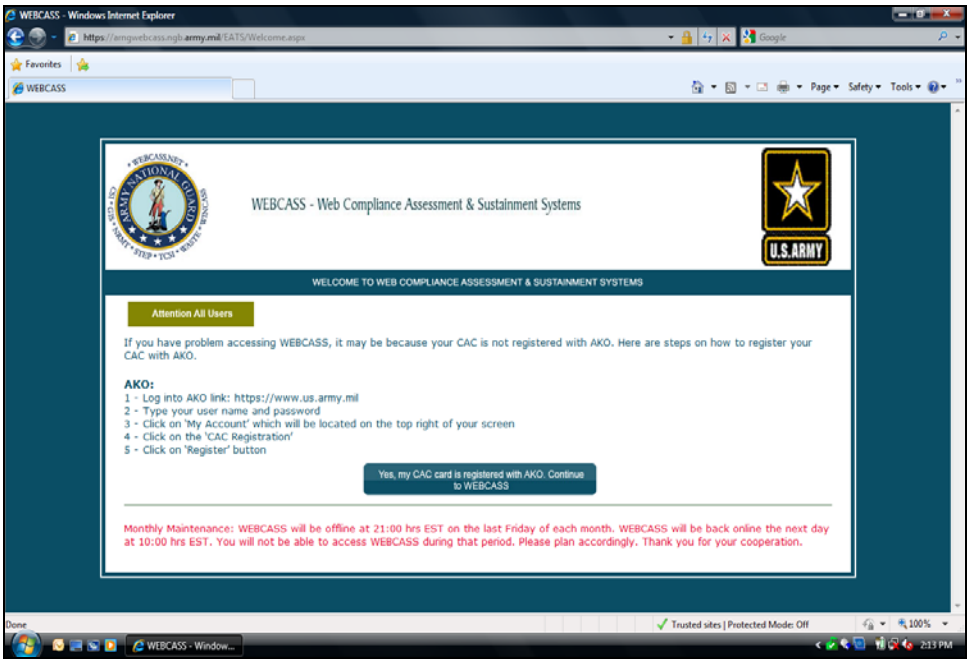
Next, enter your ActivClient Personal Identification Number (PIN) in the ActivClient Log-In window. Users are assigned an ActivClient PIN when their CAC is issued. Click **OK** to complete the log-in process. Some users may see a notice that GKO is to be used for authorized purposes only. Click **OK** to proceed to GKO.

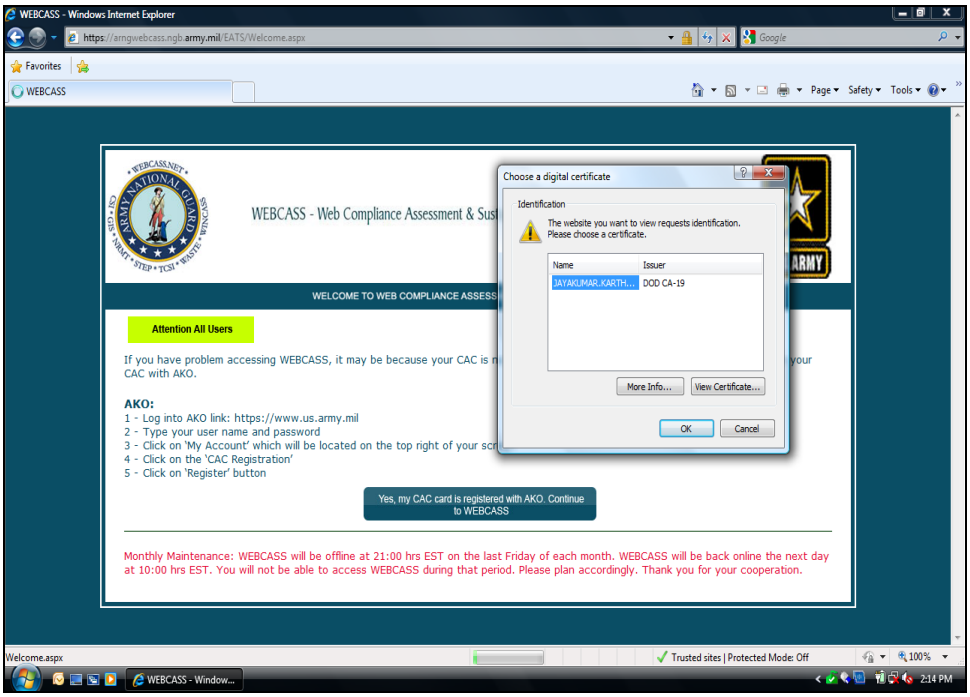


On the GKO homepage, select the **Applications** link located on the left navigation column or the top purple navigation bar. Next, select the WEBCASS link located in the lower right corner of the next screen as on the following page.



Only users who have registered their CAC with AKO will be able to access WEBCASS. Users who need to register their CAC should follow the on-screen directions to register their CAC. For registered users, select **Yes, my CAC card is registered with AKO. Continue to WEBCASS.**


WEBCASS - Windows Internet Explorer
WEBCASS - Web Compliance Assessment & Sustainment Systems
U.S.ARMY
WELCOME TO WEB COMPLIANCE ASSESSMENT & SUSTAINMENT SYSTEMS
Attention All Users
If you have problem accessing WEBCASS, it may be because your CAC is not registered with AKO. Here are steps on how to register your CAC with AKO.
AKO:
1 - Log into AKO link: https://www.us.army.mil
2 - Type your user name and password
3 - Click on 'My Account' which will be located on the top right of your screen
4 - Click on the 'CAC Registration'
5 - Click on 'Register' button
Yes, my CAC card is registered with AKO. Continue to WEBCASS
Monthly Maintenance: WEBCASS will be offline at 21:00 hrs EST on the last Friday of each month. WEBCASS will be back online the next day at 10:00 hrs EST. You will not be able to access WEBCASS during that period. Please plan accordingly. Thank you for your cooperation.


WEBCASS - Windows Internet Explorer
Choose a digital certificate
Identification
The website you want to view requests identification. Please choose a certificate.
Name
Issuer
JAYAKUMAR..KARTH...
DOD CA-19
More Info...
View Certificate...
OK
Cancel
Attention All Users
AKO:
1 - Log into AKO link: https://www.us.army.mil
2 - Type your user name and password
3 - Click on 'My Account' which will be located on the top right of your screen
4 - Click on the 'CAC Registration'
5 - Click on 'Register' button
Yes, my CAC card is registered with AKO. Continue to WEBCASS
Monthly Maintenance: WEBCASS will be offline at 21:00 hrs EST on the last Friday of each month. WEBCASS will be back online the next day at 10:00 hrs EST. You will not be able to access WEBCASS during that period. Please plan accordingly. Thank you for your cooperation.

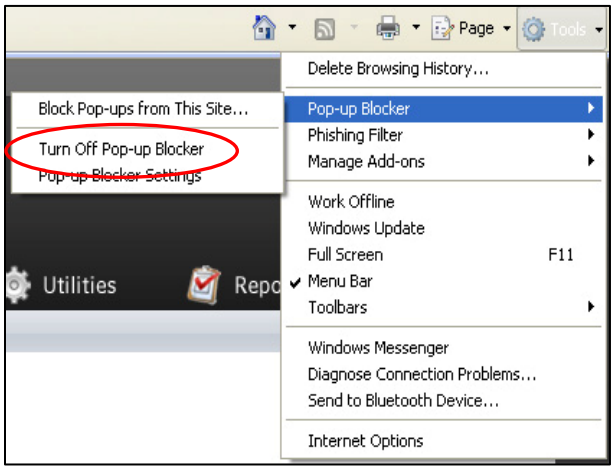
After entering WEBCASS, the link will take the user directly to the WASTE Main Landing Page.

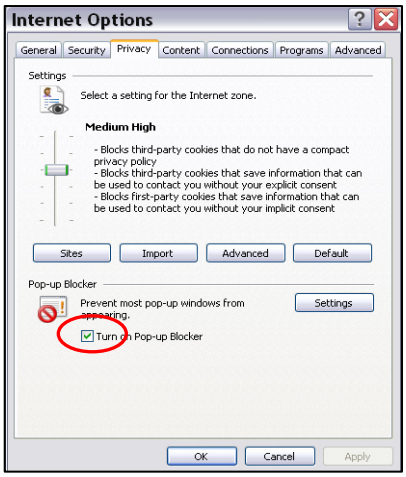
The Main Landing Page of WASTE will give users access to each of the modules; define users' access level; and provide customized reports of Key Performance Indicators and enhancement release notes.

Setting Internet Explorer Properties

Several features of Internet Explorer need to be enabled in order to use WASTE effectively. WASTE utilizes pop-ups for lookup menus and sub forms. WASTE utilizes JavaScript and Cookies for efficient and fast navigation between menus, forms, and sub forms.

1. Click the **Tools** menu option located at the top of the **Internet Explorer** window.
2. If using Internet Explorer version 8.0, click on the **compatibility view** button to have a better screen view.
3. Choose **Internet Options** and then the **Privacy** tab.





4. Deselect the **Pop-up Blocker** box.
5. To change settings, click the **Settings** button in the **Privacy** tab.

6. In the **Pop-up Blocker Settings** window, add the address of the website to allow and click **Add**.

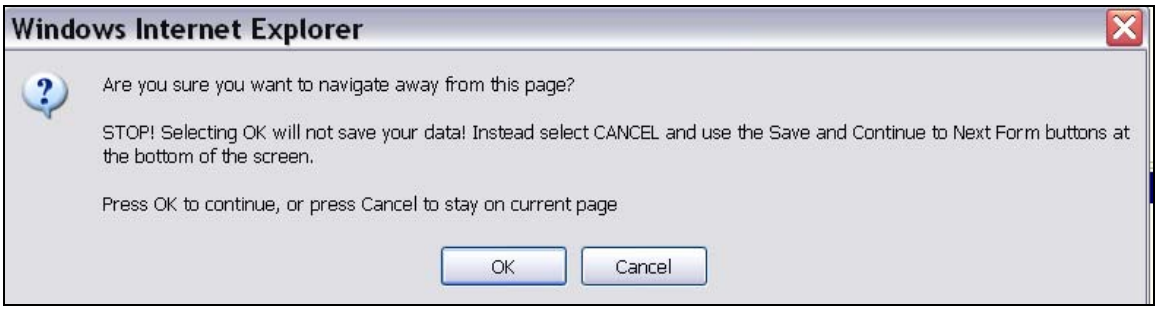
> *Some users may or may not be able to perform these functions. By applying these functions, this will open all pop-ups. Ensure that you add the address of the WASTE website to allow pop-ups for WASTE only.*
>
> *If your DOIM does not allow you to change the pop-up setting you can use the CTRL key and mouse button together to open a pop-up.*

Navigating WASTE

Module Tabs

Use the **Main Landing Page** to navigate through WASTE using module tabs. You will learn all of the **Main Landing Page** features and functions later in this course. You can use your mouse for navigation.

In WASTE, data is not automatically saved from screen to screen; therefore, you must be certain that all data has been saved. This can be done by clicking the **Save** or **Save and Continue** buttons located at the bottom of the forms. If you do not click one of these buttons, the following screen message will appear.



If this screen appears, select the **Cancel** button and then click the **Save and Continue** button. **If you do not select the cancel button, all of the data you have entered will be lost!**

> *Always make sure you enter new records into a blank screen or a screen that has been copied from another record. This will ensure no data is overwritten.*

Customizing WASTE

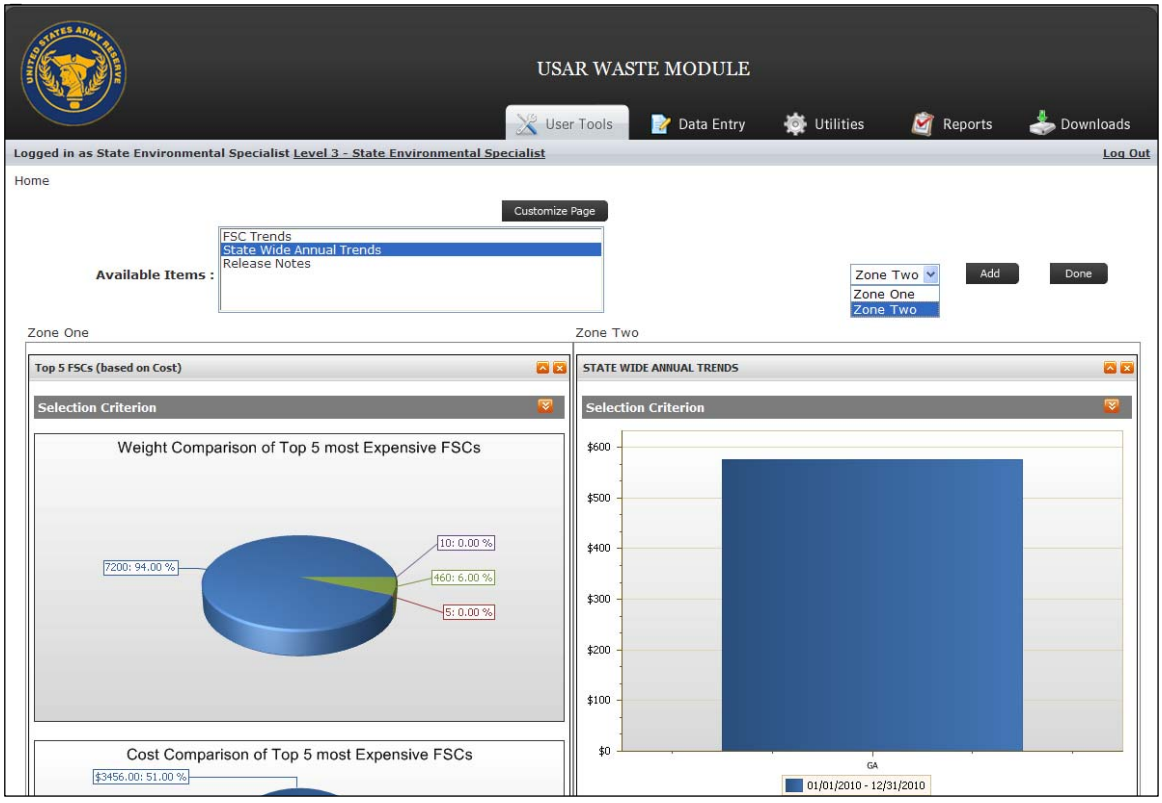
Users may customize certain features on the Main Landing Page to view trend reports based on data entered into WASTE. This screen is in two web parts and enables users to select how data is viewed. This will be described in more detail in Appendix B-Key Performance Indicator Webparts and Other Trends Reports.

1. Click on **Customized Page**.

2. Highlight and select from **Available Items (FSC Trends, State Wide Annual Trends or Release Notes)** that the user wants posted on the **Main Landing Page**. Every time you login the reports selected will show current data. The **Available items** will be discussed later as part of the Reports module.

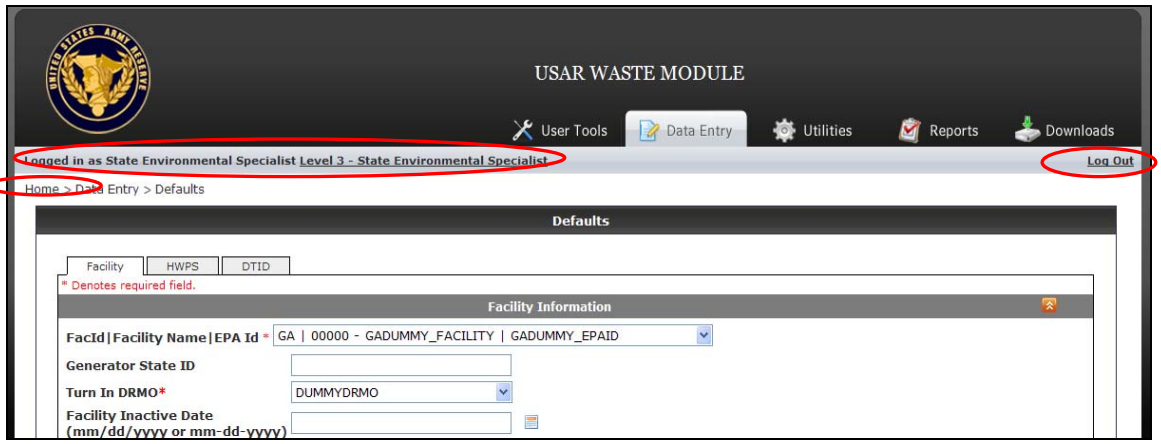
3. Choose from the drop-down menu the zone where you want the Available Items to be placed. Click the **Add** button and the selected report will be placed in the preferred **Zone One** (left side of the Main Landing Page) or **Zone Two** (right side of the Main Landing Page).

4. Click **Done** and the customized selections will be saved. The user can decide to change the Main Landing Page formatting by following steps 1-4.



Menus and Icons

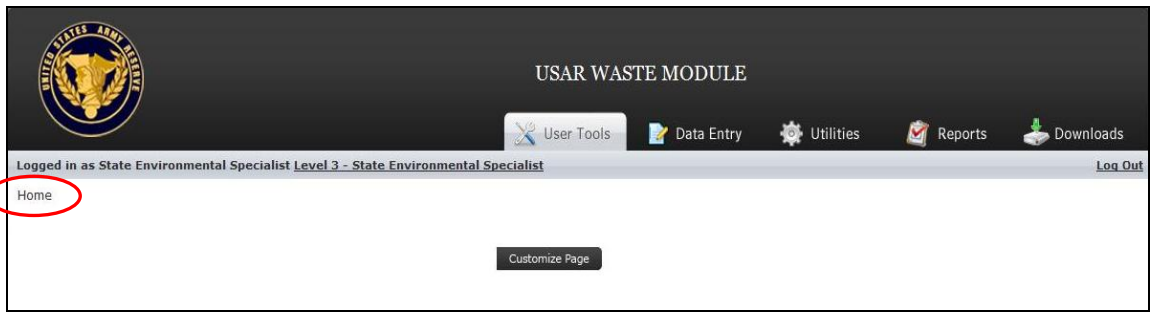
Certain menus and icons appear at the top of every WASTE screen. Look at the **Main Menu** screen. At the top of the screen, you should see who you are logged in as in the top left corner and a **Log Out** link in the top right corner of the screen. Each screen will have similar menus in the top right of the **Internet Explorer** window. The two most common menu options will be **Log Out** and **Home.**



The specific menus available will vary as you change screens. Click each menu item to become familiar with the commands. We will use many of these later in this course.

> *WASTE allows users to skip these fields, but the data is still required before the record is saved.*
>
> *Also, when entering data into WASTE, you should avoid the use of special characters (anything above the numbers on the keyboard) such as &, %, *, -, etc. SHIP cannot recognize some of these characters.*

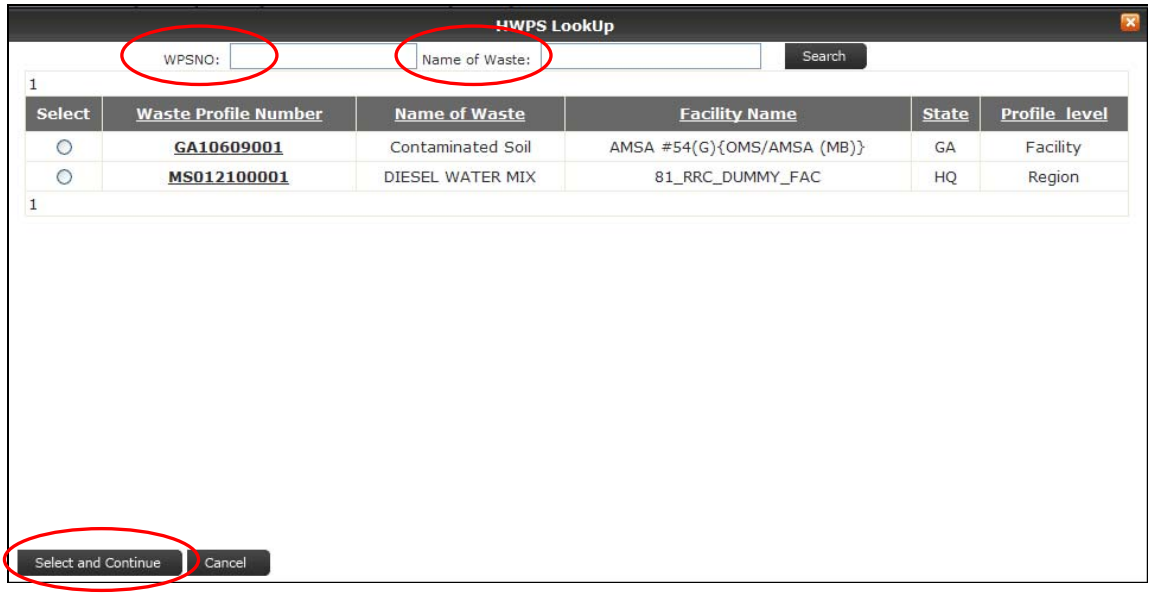
As you navigate through each tab in WASTE, you will be able to return to the previous tabs by clicking on the selections.



Moving Between Records

Moving between records in WASTE consists of clicking on a **Lookup** button like the one shown on the following page or by using provided drop-down menus.

The following screen will appear as a pop-up on your computer. Choose the HWPS that you will be working on and choose with the **radio-button** and **Select and Continue** button at the bottom of the screen. To take you to the HWPS you can either select the individual Waste Profile Number, search by typing any of the Waste Profile Sheet Number (WPSNO) digits using the auto-population feature (i.e. O6WF), or by the Name of the Waste (i.e. oil).



Tour of the Main Menu

- **USER TOOLS (Module 2)** - The first tab from the left side of the screen are the **User Tools** or administrative links. Use these to perform any administrative changes.
- **DATA ENTRY (Module 3)** - The second tab from the left side of the screen are the **Data Entry** or action links. Use these to input default data and prepare and distribute waste management documents.
- **UTILITIES (Module 4)** - The third tab from the left side of the screen are **Utilities** or maintenance links. Use these for DRMO Turn-In, Reports, Threshold Notification, Comparison Report, WASTE Feedback Form and AEDB-EQ (for Level 1 and 2 users only).
- **REPORTS (Module 5)** - The fourth tab from the left side of the screen are **Reports** or data summary links. Use these for creating Aging Plans, Fund Allocations Reports, Hazardous Waste Logs, Location Order Inventory, or Trend Reports.
- **DOWNLOADS (Module 5)** - The fifth tab from the left side of the screen are **Downloads** or enhancement link. Use these for locating system release notes, newsletters whenever available and the WASTE User Training Manual.

We will use the **Data Entry** tab in Module 2 to set up the default data before using WASTE for the first time.

TABLE OF CONTENTS

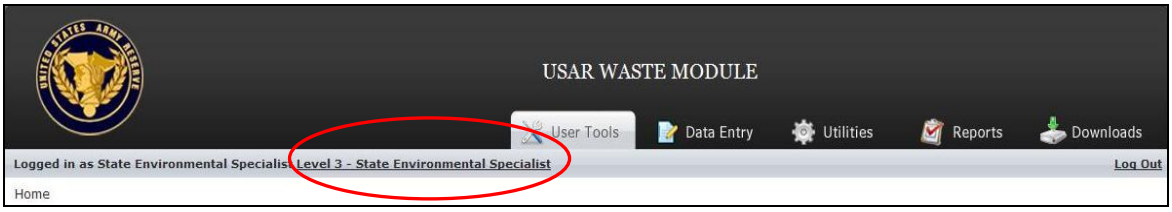
This page intentionally left blank.

Module 2 — User Tools

Introduction

The purpose of this module is to teach WASTE users how functionality and responsibility differ between the various role levels and familiarize users with the various available **User Tools**.

Each level of user represents a different depth of control and functionality. To see a list of the different role levels and functionality associated with each role level while in the application, click on the displayed title located next to the login name on the **Main Menu**. In this case, click on **Level 3 - State Environmental Specialist**.



The privileges assigned to each user level are as follows:

Level 1 – National Program Manager

- Create/Edit each RSCs/State(s) Facility Default Data
- Create/Edit HWPSs for any Facility (in any Region/State)
- Create/Edit DTIDs for any Facility (in any Region/State)
- Create/Edit National HWPSs
- Access National, Regional and State Reports
- Create Level 1 and Level 2 users

Level 2 – RSC Representative

- Add Facilities within their specific Region
- Create/Edit Facility Default Data for their specific Region and include Funding information
- Create/Edit HWPSs associated with any Facility in their Region
- Create/Edit DTIDs associated with any Facility in their Region
- Create/Send DRMO turn-in documents)
- Create/Edit Regional Level HWPSs
- Access Reports for Facilities within their specific Region
- Create Level 3 and 6 users
  - ➢ Associate one or more States to Level 3 users

Level 3 – State Environmental Specialist

- Add Facilities within their associated State(s)
- Create/Edit Facility Default Data for their associated State(s) and include Funding information
- Create/Edit HWPSs associated with any Facility in their State(s)
- Create/Edit DTIDs associated with any Facility in their State(s)
- Create/Send DRMO turn-in documents for any Facility available in any of their associated State(s)
- Approve/Create/Send turn-in documents submitted by Level 5 users
- Create/Edit State Level HWPSs
- Access Reports for Facilities within their associated State(s)
- Create Level 4 and 5 users
  - Associate one or more Facilities to Level 4 users
  - Associate one or more Facilities to Level 5 users

Level 4 – Facility Level User

- Create/Edit Facility Default Data for associated Facilities
- Create/Edit HWPSs for associated Facilities
- Create/Edit DTIDs for associated Facilities
- Create/Send DRMO turn-in documents for associated Facilities
- Access Reports for associated Facilities

Level 5 – Facility Level -Restricted

- View Facility Default Data for associated Facilities
- Create/Edit HWPSs for associated Facilities
- Create/Edit DTIDs for associated Facilities
- Create and Submit DRMO turn-in documents for associated Facilities for review to a Level 3 user
- Access Reports for associated Facilities

Level 6 – Administrative

- Access Reports for their Region

Level 2 users (RSC Representatives) are associated with a region.

Level 3 and 4 users can be associated with states/facilities within a specific region. Level 5 and 6 users can be associated with multiple facilities with restrictions as well.
Multiple users may exist at any level.

User Tools

Through the **User Tools** tab, facilities and users can be added, removed, assigned facilities, or invited to WASTE. User Tools allow Level 2 users to manage Level 3, 4, and 5 users.

Adding a Facility

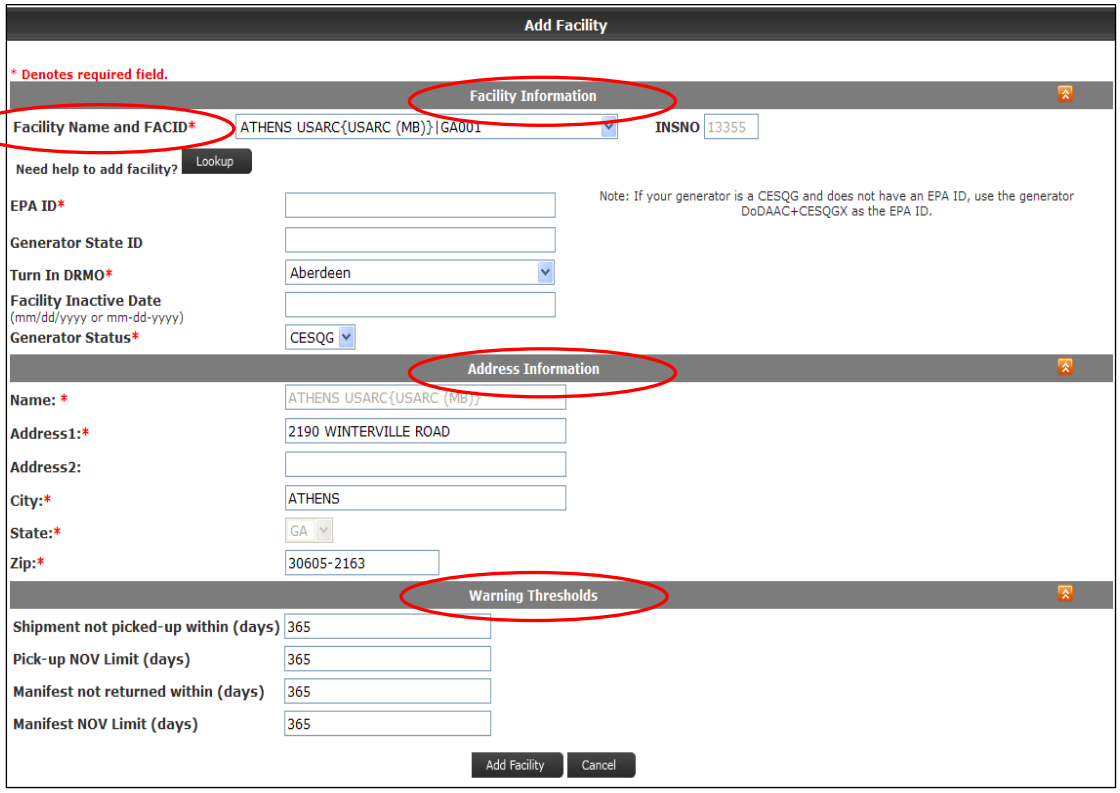
WASTE is pre-populated with facility information from the Engineer Management Automation, Army Reserve (EMAAR) application. (EMAAR pulls its data from the Integrated Facilities System (IFS) Real Property Data Table.) Once the user adds a facility, the data is migrated to the WASTE Facility Table. This keeps the WASTE Facility Table information from being overwritten when the facility data is updated. Before entering waste turn-in data, you must add a facility and then enter the default data for the facility. From the main menu, in the first section titled **User Tools**, click the **Add Facility** hyperlink. As shown on the following page, the **Add Facility** screen has three (3) parts:

- ***Facility Information*:** This section allows you to assign a specific facility to the DRMO that the facility's waste will be turned-in to and edit other information about that facility such as EPA ID, Generator State ID, Turn-In DRMO, Facility Inactive Date, and Generator Status.
- ***Address Information*:** You may edit information about a facility's location in this section.

> *If there is a requirement to change any of the address book information, you **must** notify your Real Property Accountability Officer.*

- ***Warning Thresholds*:** In this section you can adjust your manifest warning times. The application is preloaded with federal generator standards; however, this can be changed to reflect state specific needs.

  Fill in your facility information using the following steps:



1. Using the drop-down menu next to **Facility Name and FACID*,** choose a facility within your established test state.
2. Due to the way the items including Facilities are listed in the PRIDE database and the filter applied by WASTE, you may be confused as to which facility is the correct facility. Click on **Lookup** on the **Need** help to find a facility. The **Asset Name/Site Name/General Description** field or the **FACID** field should help the user identify which facility needs to be added. The user should select the **radio button** for the facility and click **Select and Continue**.

> *The Add Facility Lookup feature has been enhanced so that the user can look up facilities with more details such as Site Name, Description and Asset Name.*
>
> *The user can use one or both, the Asset Name or Description search criteria to narrow down the list of facilities.*

3. For this course, we are using the letters **GA**. Enter (your state letters and 1234567890) in the **EPA ID*** field. This is a primary key field in WASTE and cannot be left blank. When you add 2 facilities with the same EPA ID number, you will be asked to enter a code to differentiate the 2 facilities. It

is recommended that you use the facility FACID. This suffix will not be passed on to DRMO.

4. If your generator is a conditionally exempt small quantity generator (CESQG) and does not have an EPA ID, use the generator Department of Defense Address Activity Code (DoDAAC) and CESQGX (i.e., W81K14CESQGX) as the EPA ID. (The "X" following CESQG is used only to fulfill the 12 character requirement for this field.

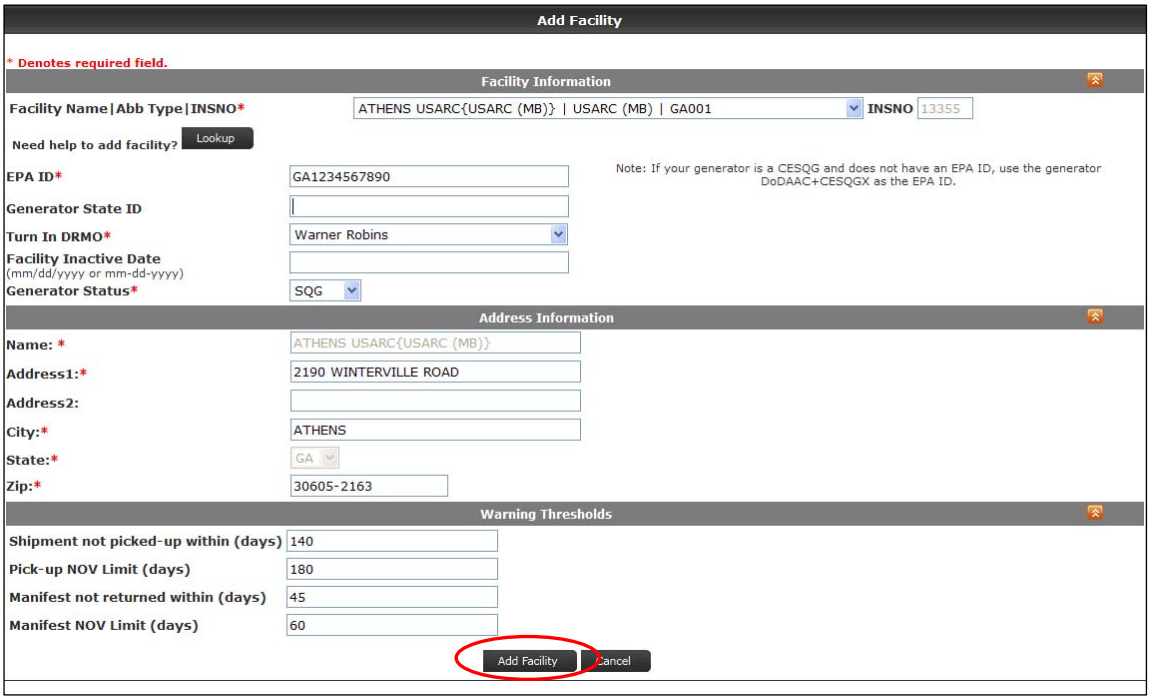
> *The facility name includes details that are not part of the actual name (e.g., MB or G). MB and G are EMAAR identifiers, and when added to a facility name, they allow for specific facilities to be chosen.*
>
> *If the user enters in an incorrect EPA ID at this point, the user must immediately notify Roc Tschirhart at roc.tschirhart@us.army.mil or at 404-464-9837*

5. We are going to choose **Warner Robins** for **Turn-In DRMO*** and **SQG** for the **Generator Status*** for this course.
6. The **Address Information** automatically updates with your selection of Facility Name and FACID.
7. The **Warning Thresholds** section will automatically update to the limits based on the selected generator status:
    a. Shipment not picked-up within: 140
    b. Pick-up Notice of Violation (NOV) Limit: 180
    c. Manifest not returned within: 45
    d. Manifest NOV Limit: 60

The following table identifies the warning threshold limits that are preset in WASTE once generator status is selected for a facility. The number of days changes based on the generator status. The warning date columns represent the number of days passed until shipment pick-up or manifest return should become a concern. If the shipment has not been picked up or the manifest has not been received within the number of days listed, then either the pick-up contractor or TSDF should be notified. The NOV columns are the regulatory time limits. Once this amount of time has been reached then that facility is out of compliance and immediate action should be taken.

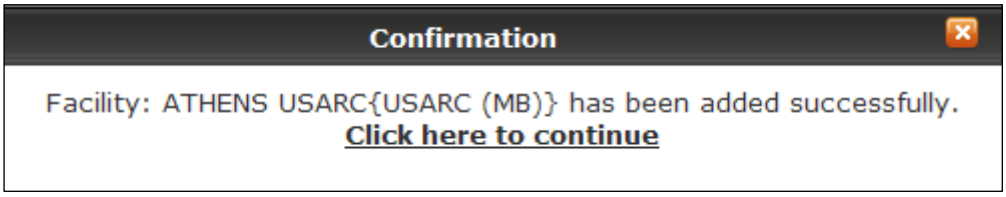
Generator Status	Shipment Picked Up Warning Date	Pick-up NOV Limit	Manifest Return Warning Date	Manifest Return NOV Limit
CESQG	365	365	365	365
SQG	140	180	45	60
LQG	60	90	30	45
SS	60	90	30	45

The values in the warning threshold section can be modified. If a user would like to change the number of days, simply click in the desired text area within the Warning Threshold section, delete the old number of days, and insert the new number of days. If a state specific date is required, you can select State Specific, ("SS") in the generator status dropdown menu and modify the warning threshold limits according to state specific requirement or preference of the user.



The orange arrows on the right hand side of each page within WASTE provide the user the ability to collapse or open each section within each tab as seen below.

8. The data is not entered into the WASTE Facility Table until you click the Add Facility button at the bottom left of the screen. A pop-up will open to ensure that you have entered the accurate EPA ID. Check all of your data before continuing. Click "OK". (A new window will open to let you know your facility has been successfully added). Click the "Click here to continue" hyperlink to return to the ADD FACILITY page.



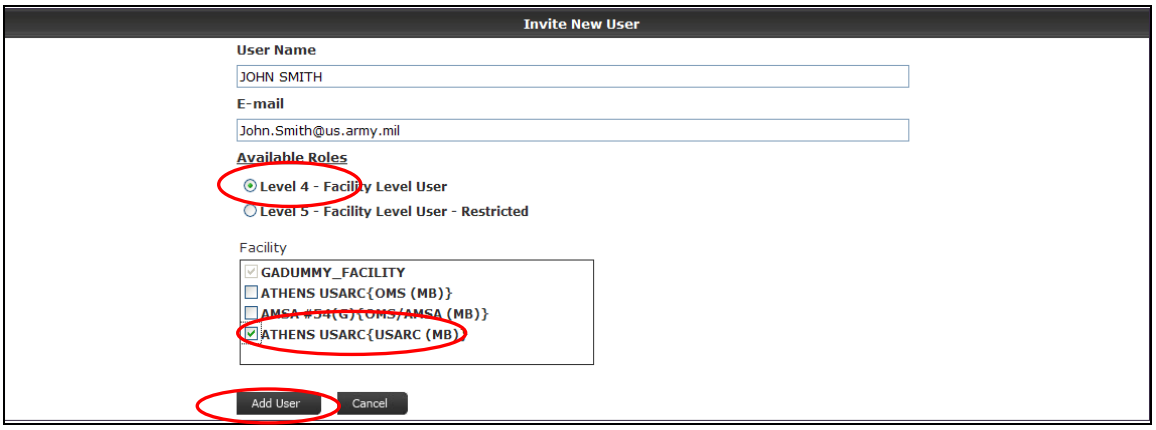
Invite a User

The second option under **User Tools** is to invite a user. If you are a Level 1, Level 2, or Level 3 user you can utilize this option. To invite a user simply click on the **Invite User** hyperlink.

In this mock example, the Level 3 user (State Environmental Specialist) inviting the Level 4 user (Facility Level) is associated with the **81st RSC** and the state of **Georgia** (GA).

Enter the information circled in the following screenshot and click on **Athens {USARC (MB)} | USARC MB**. Once you complete the information in the **Invite User** option (i.e. user name, e-mail address, role level and associated facility), then click "**Add User**". The invited user will receive an e-mail extending an invitation to join WASTE. The e-mail will contain the link to the WASTE URL, login, and temporary password information.

*Always enter their **AKO e-mail address** for user e-mail field.*

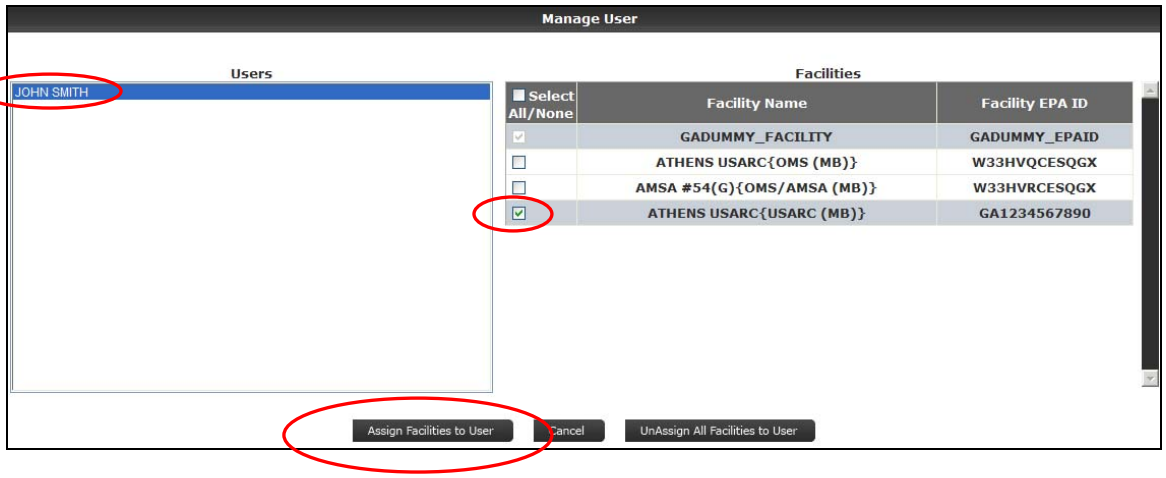


Manage User

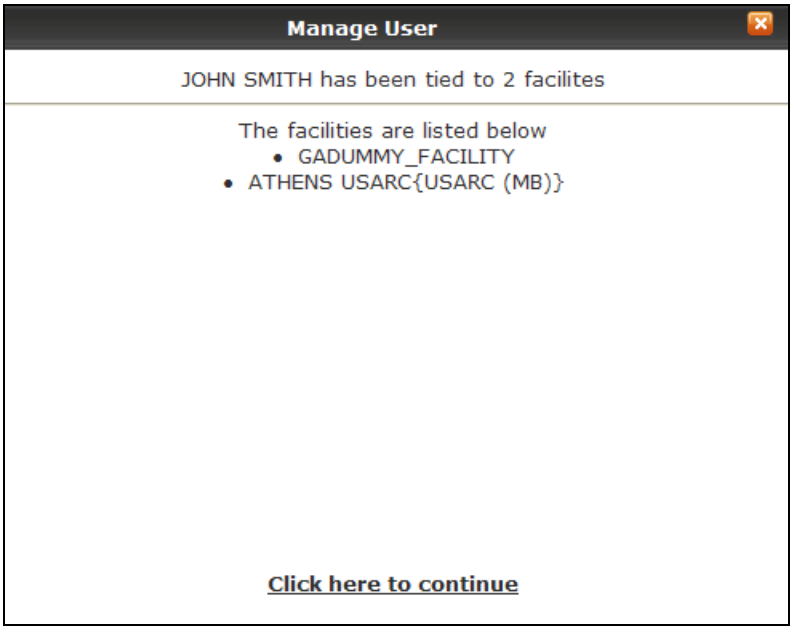
The third option under the **User Tools** column of the main menu is **Manage User**. Level 1 user manages Level 2 users and Level 2 users manage Level 3 and 6 users. Level 3 users manage Level 4 and 5 users.

This option allows a Level 2 or Level 3 user to assign or un-assign facilities to other users so that they can manipulate data for that facility based on their role level. Simply highlight the persons name on the left hand side and check the box/boxes on the right hand side for the facilities that you want them to access.

Once you have selected the appropriate name and facilities, click on the **Assist Facilities to User** button. With WASTE it is also possible to un-assign facilities to users by clicking **UnAssigned All Facilities to User** button.



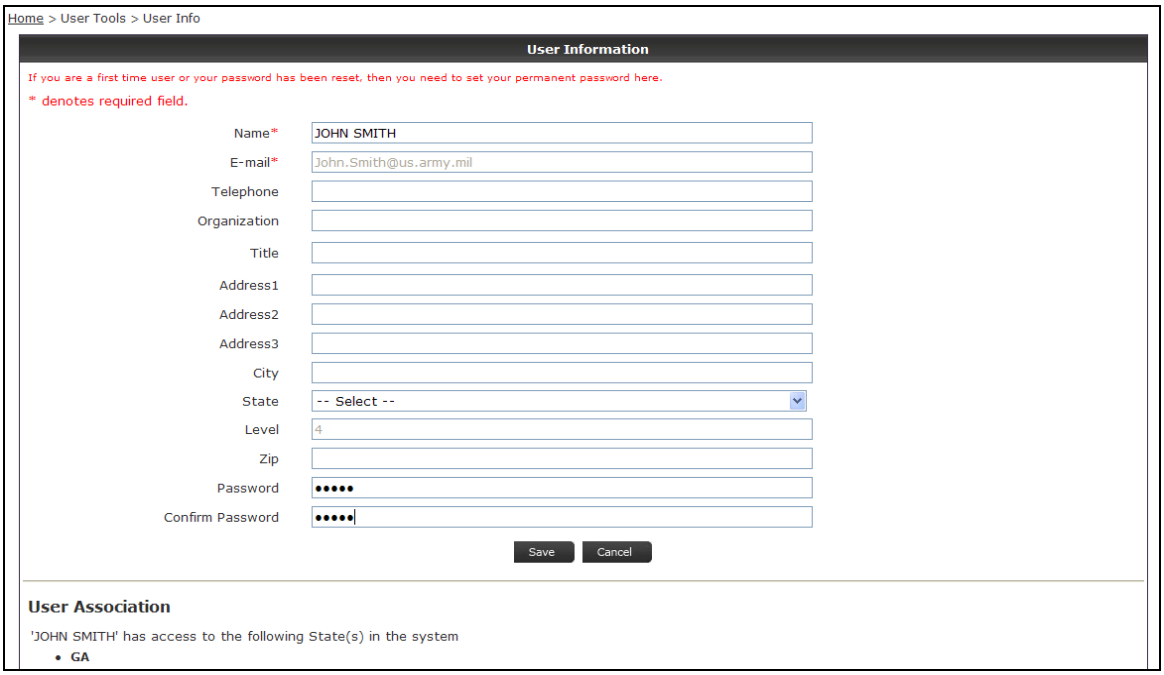
A confirmation screen will appear. Click the hyperlink "**Click here to continue**" and to continue to the **Manage User** page**.**



User Info

The fourth option in the **User Tools** column of the **Main Menu** is the **User Info** option.

In this screen, you will enter required data regarding your login information. When the user receives the e-mail invitation to join WASTE, he/she will use the provided URL, login name and temporary password. The **User Information** screen will automatically open. Enter the required information and click the **Save** button to save the data to your profile. A window will appear stating that the "User Information Saved Successfully". Click "**OK**" to return to the **User Info** page.



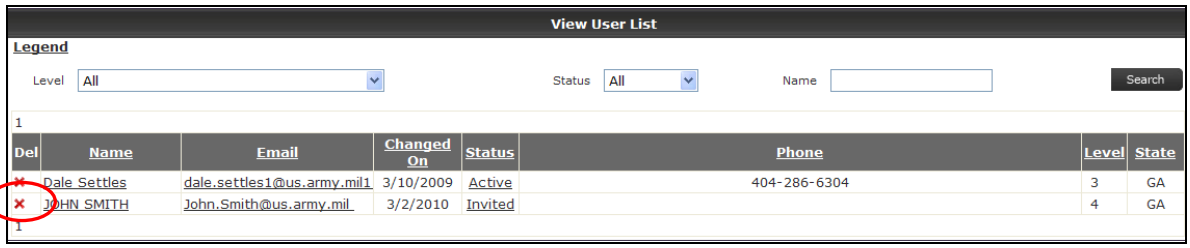
Note that at the bottom of the User Info page; the user can see the User Association section and his/her access to the following State(s) or facilities in WASTE.

View/Delete User List

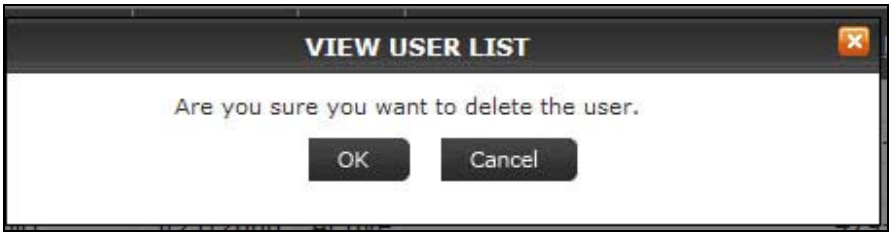
The fifth option in the **User Tools** column of the main menu is the **View/Delete User List** option.

In this window you can see all associated users within your region/state, see which profiles are active, and delete old profiles if necessary.

If a user needs to be deleted from the user list, click the red "**X**" under the **Delete** column located to the left side of the user's name.

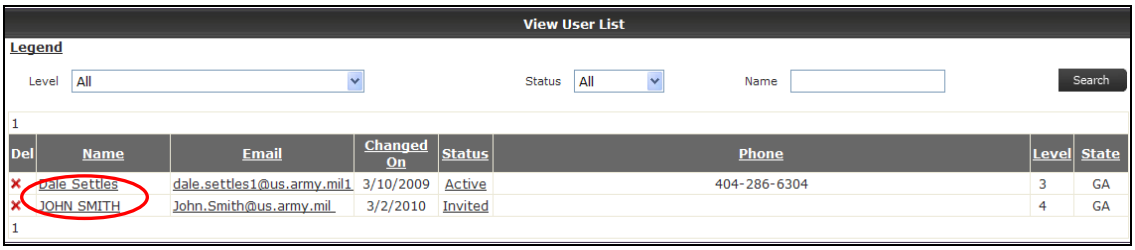


Once you click on red **"X"** you will see the following screen.

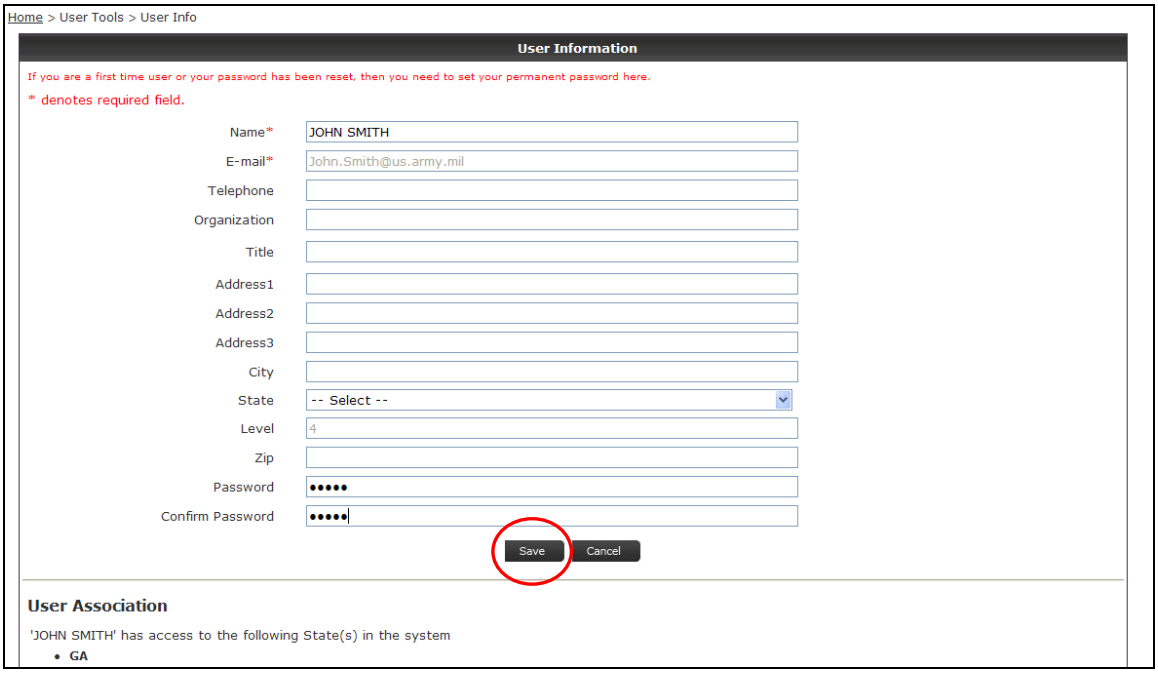


If you wish to delete the user, click the **OK** button. If you do not want to delete the user, click the **Cancel** button.

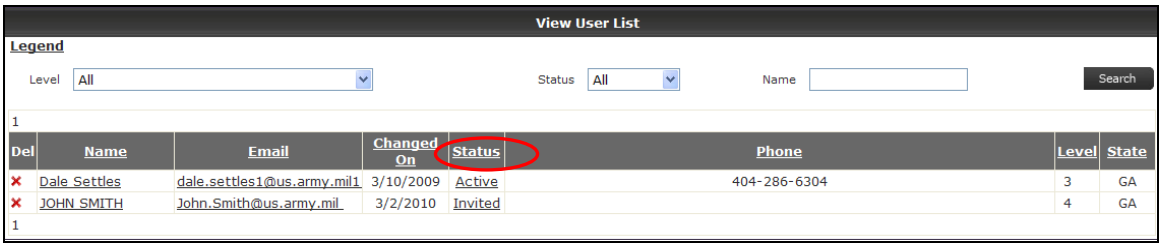
> *Clicking on the e-mail address next to the user name will open an e-mail screen automatically addressed to that user.*



Under the **Name** column of the user list screen you can view the user's profile. Under the user's profile you can change personal information or passwords. Click on the user's name and the User Information screen appears. Simply enter in any personal information or password, confirm and click the **Save** button. A window will appear stating that the "User Information Saved Successfully". After saving the information, click the **Cancel** button to return to the view user list page.



The fourth to the last column in the **View/Delete User List** screen is the status column. In this column you can see and set the status of the selected user. There are four (4) different status options. To change the status of a user, click on the user's current status. The status of the user will cycle through four (4) different options. Stop on the status that you would like to assign to the user.



The four (4) different status options are:

1. ***Invited*** *– When the user has initially been invited, the status will show invited until that user logs into WASTE.*
2. ***Inactive*** *– A Level 2 or 3 users can change a lower level user's status to inactive by clicking on the status level under the* ***Status*** *column. A user's status could be changed to inactive if that user is not going to be using WASTE for an extended amount of time, for example, if a user is deployed. To reactivate the user under the* ***Status*** *column click on* ***Inactive*** *once and the status will change to* ***PwdReset*** *which generates an e-mail to that user with a new temporary password.*
3. ***Active*** *– A user whose status is active shows that their profile is currently in use.*
4. ***PwdReset*** *– To reset a user's password click on the* ***Status*** *of the user until it cycles through to password reset. Once you obtain this status for the user go into the user's profile by clicking on the user's name in the name column and change the user's password.*
    - *A higher level (Level 2 or 3) user can reset a lower level (Level 4, 5, and 6) user's password.*
    - *WASTE sends an e-mail to the lower level user with a temporary password. The lower level user can then log into WASTE and reset their temporary password with a password of their choice.*

Within the ***View User List****, the user has the ability to search all users by Level, Status or by Name.*

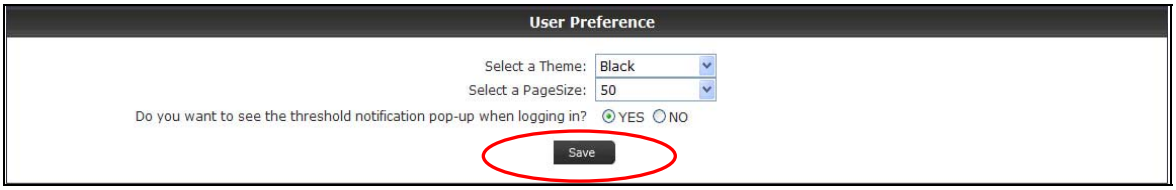
User Preference

The sixth option in the **User Tools** column of the **Main Menu** is the **User Preference** option.

In this screen, you will select the theme, page size, and Warning Threshold Pop-up notification. The user can select from one of the available themes to customize their preferred look and feel throughout the WASTE application. The available themes currently include black, blue, and glass.

The user can also choose the size of the page throughout WASTE (i.e. number of records to be displayed per page where applicable). The selected number of records will be displayed in each page in locations such as DTID look up, HWPS look up, Users List, etc (i.e. setting page size to 50 will display 50 DTIDs to select from in one page).

Threshold Notification Pop-up screen can be set to automatically open every time you login to WASTE, when you select **YES** on the radio button. If you do not want the Threshold Notification Pop-up to open every time you login to WASTE, select **NO** on the radio button. Click the **Save** button to save the data to your user profile.



Role Level Access Summary

Functionality	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Roles	**National PM**	**RSC Representative**	**State Environmental Specialist**	**Facility Level**	**Facility Level-Restricted**	**Administrative**
Create Users	Level 1 & 2	Levels 3 & 6	Levels 4 & 5	No	No	No
Create National Level HWPS	Yes	No	No	No	No	No
Create Regional Level HWPS	No	Yes	No	No	No	No
View Default, DTIDs, HWPS, Turn-in documents	All	Specific Region Only	Associated Facilities Only	Associated Facilities Only	Associated Facilities Only	No
Edit Default Information	No	Specific Region Only	Associated Facilities Only	Associated Facilities Only	No	No
Create/Modify (Level 3) State Level HWPS	No	No	Yes	No	No	No
Send DRMO Turn-in	No	Specific Region Only	Associated Facilities Only	Associated Facilities Only	No- Sends to Level 3 for approval	No
Standard WASTE Reports	Yes	Specific Region Only	Associated Facilities Only	Associated Facilities Only	Associated Facilities Only	Associated Facilities Only
National Reports	Yes	No	No	No	No	No
Regional Reports	Yes	Yes	No	No	No	No
State Reports	Yes	Specific Region Only	Associated Facilities Only	Associated Facilities Only	Associated Facilities Only	Associated Facilities Only
Export Data	Yes	Specific Region Only	Associated Facilities Only	Associated Facilities Only	Associated Facilities Only	Associated Facilities Only
Total Number of Users Allowed at This Level	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple

This page intentionally left blank.

Table of Contents

Module 3 — Data Entry

Purpose and Scope

The purpose of this module is to teach you how to use WASTE on a day to day basis. In this module, you will focus on the **Data Entry** screens in the second tab of the WASTE Main Menu. You will learn how to enter default data, create a Hazardous Waste Profile Sheet (HWPS), and create a Disposal Turn-in Document (DTID or DD Form 1348-1A) using WASTE. You will also learn how to navigate through the various WASTE tabs.

The U.S. Army Reserves generates many wastes that are standard throughout the nation, region, and/or state(s). These wastes are not process specific and carry the same characterization no matter where they are generated. Some examples are used oil, used antifreeze, batteries, fluorescent lamps, NBC detector kits, NBC protective mask filters, and spent solvents. WASTE allows the user to create, copy and save a State Level Hazardous Waste Profile (Level 3), a Region Level Hazardous Waste Profile (Level 2), or copy and save a National Level Hazardous Waste Profile (Level 1). Currently, users must change only the facility information when assigning the waste profile to a facility. However, this method cannot be used for process specific waste like spent solvents generated at an Area Maintenance Support Activity (AMSA).

> *You will not learn how to characterize, classify, or assign proper shipping names (PSNs) to WASTE in this class. You will learn how to enter your waste characterization information into WASTE, how to report the information, and how to transmit the data to DRMO.*

Entering Default Data

This section will teach you how to enter your default data into WASTE. Using default data minimizes keystrokes and data entry errors. WASTE is populated with facility information from the IFS database and DRMO information from DRMS. Always check this information for accuracy.

> *The user must use the TAB function on the keyboard or click in the cell with the mouse to add data to the fields within WASTE. If the user clicks ENTER, the cursor will not advance to the next cell for data entry.*

Global Defaults

The **Global Defaults Form** allows the user to select one or more facilities and apply common information such as servicing DRMO and funding details.

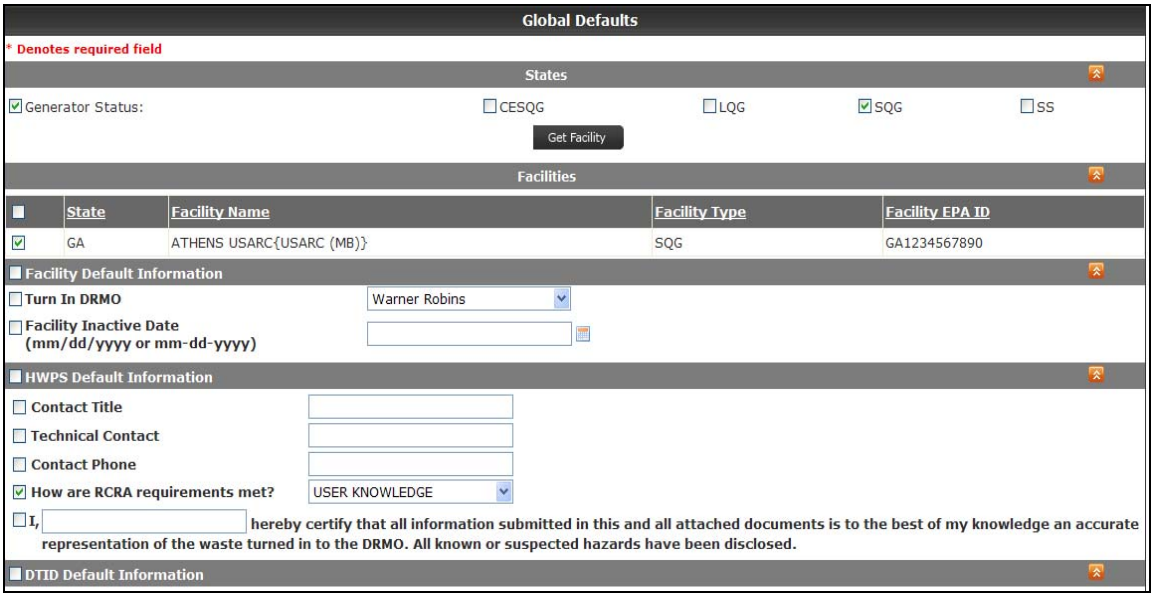
The **Global Defaults** section is an extension to the **Defaults** sections in which the user will be or is able to select the list of facilities to be updated with the provided default information (Facility DRMO change, Default Personnel Contact or Funding information applicable to multiple facilities) The user can update the relevant information across all the selected facilities with just one click for Level 1 and 2 users.

The user may check or uncheck the **Generator Status** to narrow the facility list. For this course, select only the **SQG** facilities. Click "**Get Facility**" and a list of all the available SQGs in the State of **GA** will be displayed.

In the **Facilities** section you can select from facilities that you have added under the **User Tool** module tab. Click the radio-button and select **ATHENS USARC {USARC (MB)}**.

The **Facility Default Information** will allow you to select DRMO facility as the default**.** For this course, select **Warner Robins** from the drop-down menu and check the box.

Leave the **HWPS Default Information** and **DTID Default Information** items unchecked at this time. The information for these sections will be completed under the Defaults section. Click the **Save** button. A confirmation screen will appear stating that the selected facility(s) global default values have been saved.



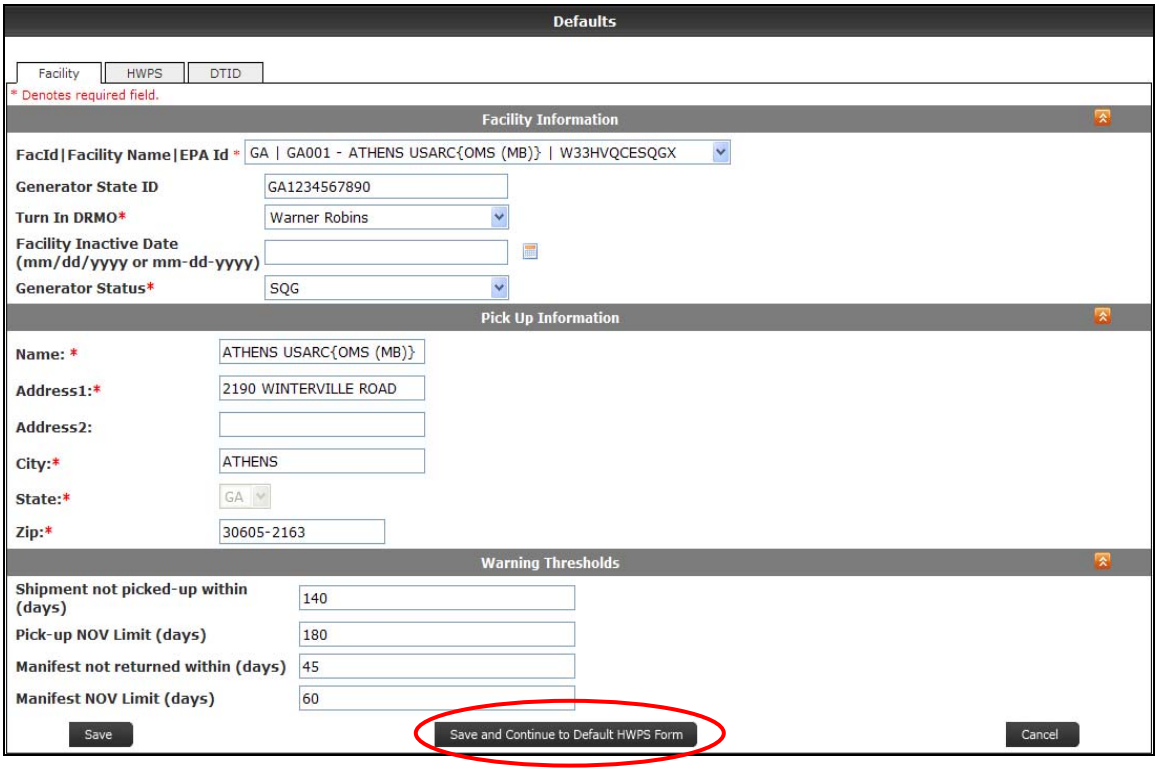
Defaults

The **Defaults Form** has much of the same information as the **Add Facility** screen. One of the main differences is that the drop-down menu next to **FacID|Facility Name|EPA Id** only has those facilities you have added in the **Add Facility** screen. The user should use this screen to edit and verify facility

information. The user will also use this screen to choose the facility for which you will be filling out the HWPS. For this course, we are using **ATHENS USARC {USARC (MB)}**.

Click the **Save** button at any point to save data.

> *As a note to the WASTE user, the FacID has been added as a part of the facility drop-down list to make it easier for the user to identify a facility and is also included in the Default, DTID and HWPS sections.*



DON'T FORGET TO CLICK SAVE AND CONTINUE TO DEFAULT HWPS FORM BEFORE EXITING THIS SCREEN!

> *Notice that you cannot change your facility's EPA ID. If your EPA ID is wrong, you must contact the Environmental Program Manager for HQ USARC, Roc Tschirhart at: roc.tschirhart@us.army.mil or 404-464-9837.*

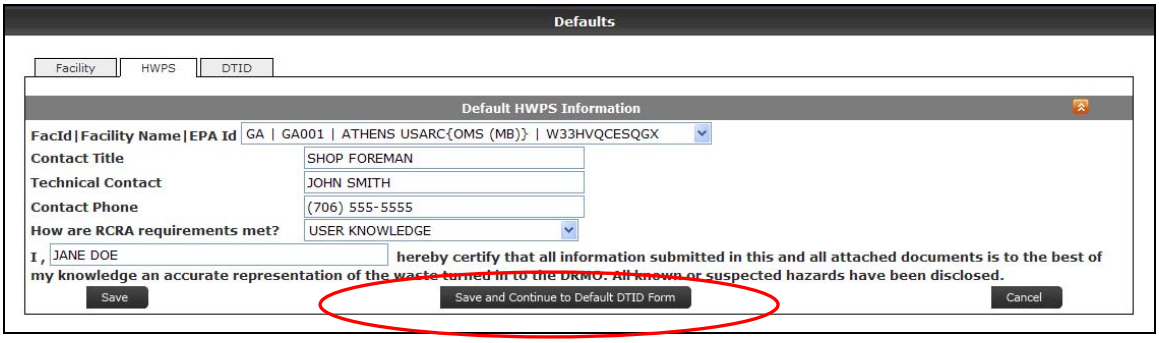
The Default HWPS Information

As you can see, the line beneath the title **Default HWPS Information** has the **FacID|Facility Name|EPA Id** which has been carried over to this screen. At this point, it is important to make sure you are working on the correct facility before starting to input data on the HWPS.

The user can choose which facility you want to work on by selecting the FacID|Facility Name|EPA Id down on any of the Default screens.

Use the completed information from the following sample HWPS screenshot to complete this screen.

1. Fill in the **Contact Title** information.
2. Complete the **Technical Contact** and **Contact Phone** information.
3. From the **"How are RCRA requirements met?"** drop-down menu, choose the most common method of characterization for your state. Your two (2) choices are **User Knowledge** or **Chemical Analysis**.
4. The final component for this screen is the certification block. The user will insert the name of the person certifying the HWPS.
5. Click **Save** or **Save and Continue to Default DTID Form** button.

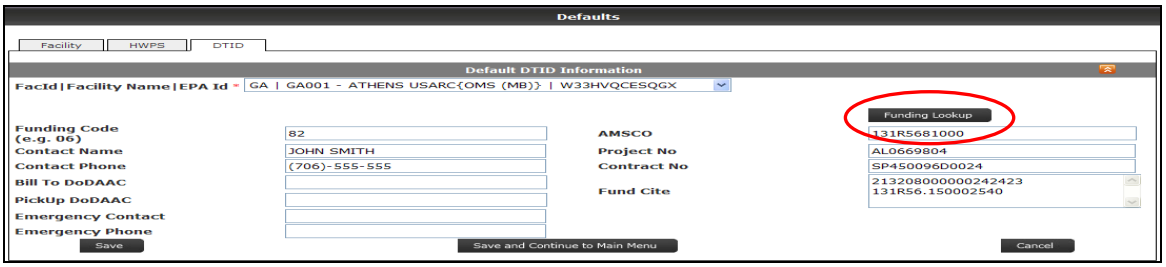


DON'T FORGET TO CLICK SAVE AND CONTINUE TO DEFAULT DTID FORM BEFORE EXITING THIS SCREEN!

The Default DTID Information

WASTE has now directed you to the final default screen, the **DTID Form**. When navigating directly from the HWPS, the facility that you were working on will not change.

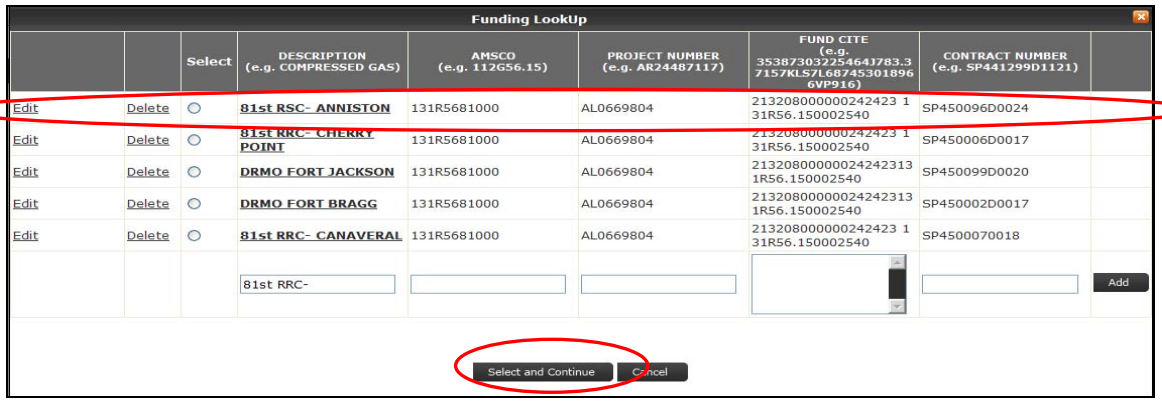
Click the **Funding Lookup** button on the right side of your screen. This opens a new window like the completed one that is illustrated on the following page. You must use the **Funding Lookup** screen to enter funding information. WASTE will not allow the user to type directly into the fields under the **Funding Lookup** button.



This screen allows users to enter multiple waste disposal projects with different funding information. For example, a facility may use different funding information to dispose of spill-contaminated material versus compressed gas cylinders, versus asbestos, versus normal disposal, etc. Enter the mock information for the **Description, AMSCO, Project Number, Fund Cite,** and **Contract Number** from the screen and the bulleted list below. After the data is entered into the **Funding Lookup**, click the **Add** button. After all information has been entered, click the **Save** or **Save and Continue to Main Menu** button.

- Description- **81st RSC- ANNISTON**
- AMSCO- **131R5681000**
- Project Number- **AL0669804**
- Fund Cite- **213208000000242423131R56.150002540**
- Contract Number- **SP450096D0024**

> *All the data entry fields in the **Funding Lookup** are required. Each region/state descriptions will be different.*



DON'T FORGET TO CLICK SAVE AND CONTINUE TO MAIN MENU BEFORE EXITING THIS SCREEN!

The HWPS and DTID

Getting Ready — Profiling Your Wastes
As the User, you previously entered default data in this module. Now you are ready to start using WASTE to profile your known waste streams.

A Hazardous Waste Profile Sheet (HWPS) is a concise summary of information about a single waste stream. A waste stream is any waste that a facility generates. Many waste streams do not change significantly over time.

DRMS requires that you prepare a HWPS for each waste stream turned in and/or for opened hazardous material that meets the definition of a HW when discarded by disposal service contract. You should use the full national stock number (NSN) only for unopened containers (including expired shelf-life items) or batteries.

Once you create a HWPS, you can use it repeatedly by referencing the HWPS number on the DTID, so long as the waste does not change. DRMO states that the facility shall certify each HWPS annually by either providing to the DRMO a new signed and dated HWPS or an electronically transmitted HWPS for each waste which will be generated during the following year. Also, the facility could also provide a letter listing the profile number and the name of the corresponding waste stream for each profile which the generator wishes to remain active for another year along with a certification statement. Refer to http://www.drms.dla.mil/turn-in/Hazardous_/HWPS/hwps.html for specific information about HWPS.

Before you can use WASTE to produce DTID forms or reports, the user must gather the information needed to prepare a HWPS for each of the user's waste streams.

The user should profile every waste stream that passes through the waste management process. When you find out that a new waste stream will be generated through your facility, start the waste profiling process immediately.

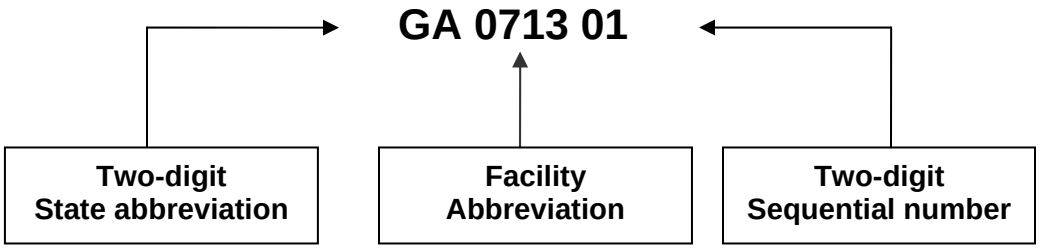
As the user you will need the following materials to profile a waste:

- Knowledge of the process generating the waste.
- A MSDS for every chemical product that goes into the waste stream.
  - You can get a MSDS from several sources. The waste-generating activity should provide you a MSDS for their wastes. You can also access HMIRS online at https://www.dlis.dla.mil/hmirs or get the CD by calling ARMY/ARNG POCs at DSN 795-6408 or 570-895-6408 or email hmirsarmy@dla.mil.
  - Product manufacturers must provide a MSDS for their products. Dozens of sites provide MSDSs on the World Wide Web, for example: http://www.msdssearch.com/DBLinksN.htm.
  - Another helpful resource for MSDSs, environmental links, turn-in procedures, etc, is the Environmental Section of the DRMS homepage located at https://www.drms.dla.mil.
- The Hazardous Materials Table (HMT) from the federal transportation regulations (49 CFR Part 172) at http://www.myregs.com/dotrspa.

- The Department of Transportation (DOT) Emergency Response Guide (ERG) book, 2008 version at http://hazmat.dot.gov/pubs/erg/gydebook.htm.
- HW regulations (40 CFR Part 260-265) are available online. Select Subchapter I - Solid Wastes (Parts 260-265).
- A waste accumulation log or other information describing the chemicals used in the waste stream.
- Waste analysis results, if applicable.
- Optional Waste References:
  - Joint Publication 1-02 "DoD Dictionary of Military Terms" http://www.dtic.mil/doctrine/jel/doddict/
  - DoD 4140.1-R, "DoD Material Management Regulation" http://www.dtic.mil/whs/directives/corres/html/414001r.htm
  - DoD 4140.27-M, "Shelf-life Item Management Manual" https://www.shelflife.hq.dla.mil/policy_DoD4140_27.aspx
  - DoD 4500.9, "Defense Transportation Regulation" http://www.transcom.mil/j5/pt/dtrpart3/dtr_part_iii_toc.pdf

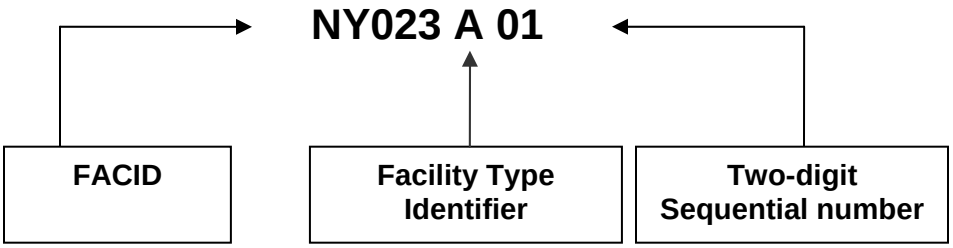
Guidance for HWPS Numbering

It is recommended that RSC/Installation personnel adopt the following eight-character HWPS-numbering system. The first two (2) characters are the state postal abbreviations. The next four-digits are the building number where the waste disposal contractor will collect the waste. A two-digit sequential number makes up the last two (2) characters. A maximum of 11 characters can be used for the HWPS number. In addition, the user should select a specific HWPS numbering system for State Level HWPSs.

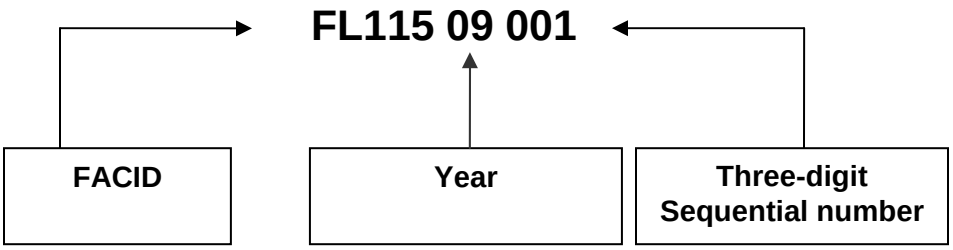


Almost any RSC/state specific numbering system that makes sense to the user is usually okay. **Do not use extremely generic profile names such as Paint, Battery, or Oil.**

Other options for HWPS numbering system are shown below.



Facility Type Identifier: U= Unit, O=OMS, B=BMA, A=AMSA, E=ECS



The HWPS must have a unique numbering system or they could get overwritten if another person has the exact same HWPS number.

> *The items noted in blue in the following sections are transferred to DRMO through the electronic transfer process. Although the default data is transferred during electronic turn-in, to reduce redundancy, it is **not** noted in blue. Also, with the different sections within WASTE noted with a red asterisk (*) are required fields.*

Completing the HWPS (Form 1930)

Remember to have all the necessary information available for **Profiling Your Waste** available before you begin.

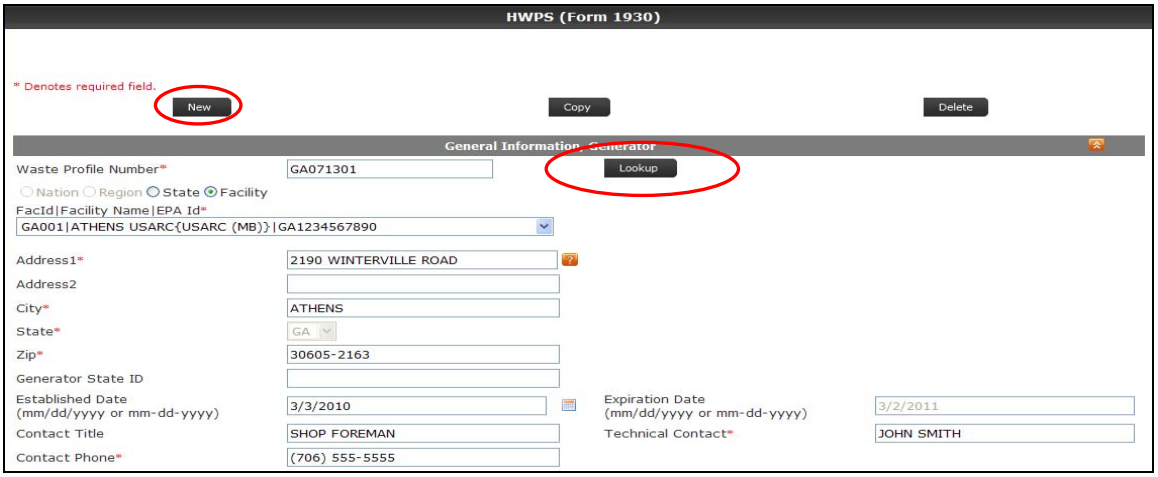
1. Login to WASTE.
2. Click on **HWPS** in the **Data Entry** section and you will see a HWPS screen. This is your entire HWPS. It has been converted to a one (1) page form with collapsible sections for easy viewing.
3. Locate the **New, Copy,** and **Delete** buttons at the top of the screen and the **Save**, **Cancel**, and **View/Print** buttons at the bottom portion of the screen. These buttons have the following functions:
    - **New** - Creates a new HWPS
    - **Copy** - Copies the data from the currently selected profile sheet, thus eliminating keystrokes
    - **Delete** - Deletes the current profile sheet

- **Save** - Saves the current profile sheet and takes you back to the Main Menu
- **Cancel** - Closes page without saving
- **View/Print** - View/print the HWPS

> *In order to delete a HWPS, which is attached to a DTID, the user must first delete the DTID then delete the HWPS.*

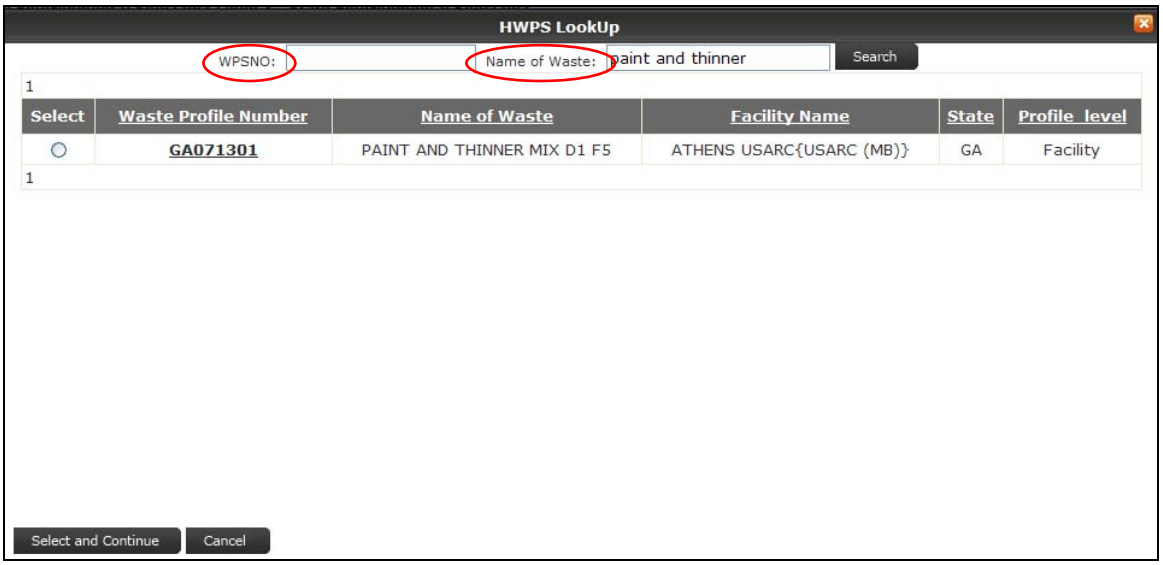
General Information, Generator Section

1. The first section is the **General Information, Generator** section.



2. Each time you open the HWPS, click the **New** button on the HWPS screen.
3. Notice that the first field is for a **Waste Profile Number**. If you already have Waste Profiles in the WASTE system, use the HWPS **Lookup** button to determine if a Profile already exists for your waste stream. The **Lookup** button is located to the right of the **Waste Profile Number**. The end of this section discusses the HWPS **Lookup** button. For this example, we are going to enter **GA071301** as the waste profile number.

> *New WPS Search Criterion has been added in WASTE Version 4.1 to include the following feature:*
> *In the Waste Profile Number **Lookup**, the users will be able to narrow down the available list of WPSs either using the WPS Number (prompting after enter a few characters) or Name of Waste (keywords) by using the **Search** button.*



4. After the user enters the profile number, click the drop-down menu in the **FacID|Facility Name|EPA Id** field. For example, select **ATHENS USARC {USARC (MB)}** from the drop-down menu. WASTE will automatically complete the remaining fields in this section using the default information the user entered **previously.**

The orange *question mark* *provides additional data or guidance on the type of date that needs to be entered by the user in the WASTE application.*

A calendar icon has been provided for the user to assist with entering dates throughout the WASTE application.

General Information, Waste Section

1. Now, scroll down to the next section. You will see **General Information, Waste**.
2. Enter information for the following fields:

   Name of Waste: Use a general name that describes the waste and include abbreviated waste numbers. This will allow you to look up the correct HWPS by name/waste number on the HWPS lookup function and the DTID/HWPS association. Use the same **NAME OF WASTE** on the DTID. For this course example, enter **PAINT AND THINNER MIX D1 F5**.

   Process Generating Waste: Describe the process generating the waste. To make biennial reporting easier, use the EPA Source code. Use the source code best describing the production, service, or waste management process that is the source of waste generation. You can use more than one (1) code. For our current example, enter **G06** for Painting. The codes common to RSC activities are linked to the field. In order to access the source codes, click on **Process Generating Waste**. A more detailed list is also listed in Table 1 on the following page.

Projected Annual Volume/Units: Estimate the annual quantity generated by looking at the previous year's disposal records (e.g. DD Form 1348-1A, manifest, biennial reports, etc.). We are entering **200 LBS** as mock data for this course.

Table 1: EPA Source Codes Most Common to USAR/RSC Activities

Ongoing Production and Service Processes

Code	*Process*	*Code*	*Process*
G02	Stripping	G02	Acid Cleaning
G02	Caustic (Alkali) Cleaning	G06	Painting
G09	Other cleaning & degreasing		

Other Intermittent Events or Processes

Code	*Process*	*Code*	*Process*
G11	Discarding of off specification chemicals or products	G11	Discarding out-of-date chemicals or products
G14	Removal of Tank Sludge/Sediments or Slag	G16	Oil changes
G16	Filter or Battery Replacement	G19	Other one-time or intermittent processes

Pollution Control or Waste Management Residuals

Code	*Process*	*Code*	*Process*
G21	Air pollution control devices	G24	Solvent Recovery

Spills and Accidental Releases

Code	*Process*	*Code*	*Process*
G32	Cleanup of spill residues (infrequent, non routine)	G33	Leak collection and floor sweeping (ongoing, routine)

Remediation of Past Contamination

Code	*Process*
G41	Closure of hazardous waste management unit under RCRA

Mode of Collection: This refers to the outside packaging. For our example, choose DRUM-Metal - **"DM".** We discuss mode of collection in detail in the DTID section of this course. Depending on the specific waste, the Mode of Collection may change from one turn-in to the next. Listed below are the descriptions for the abbreviations listed in the drop-down menu.

Abbreviation	Container Description
DM	Metal Drum, Barrel, Kegs
DW	Wooden Drum, Barrel, or Keg
DF	Fiberboard or Plastic Drum, Barrel, or Keg

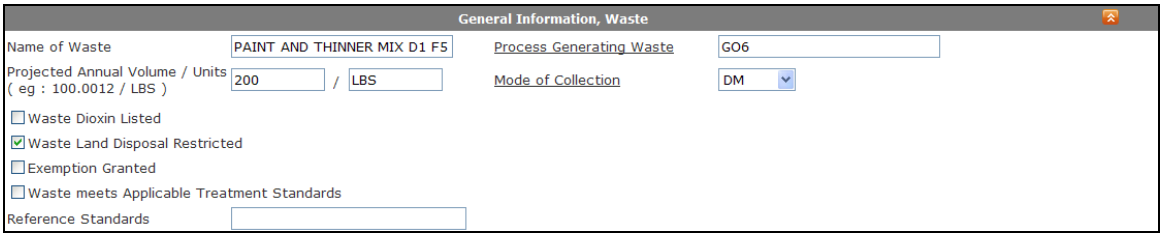
Abbreviation	Container Description
TP	Tanks Portable
TT	Cargo Tanks (Tank Trucks)
TC	Tank Car
DT	Dump Truck
CY	Cylinders
CM	Metal Boxes, Cartons, or Cases (including roll-off containers)
CN	Can or Bucket
CW	Wooden Boxes, Cartons or Cases
CF	Fiber or Plastic Boxes, Cartons or Cases
BA	Burlap, Cloth, Paper, or Plastic Bags
VARIES	Multiple Container Types

Review and answer the four (4) questions in this section.

- **Waste Dioxin Listed -** If the waste has dioxin in it check the box.
- **Waste Land Disposal Restricted -** If the user is disposing of hazardous waste, the answer to the second question will always be Yes. Our example is a **HW**. Therefore, check the box to the question about LDRs.
- **Exemption Granted -** Check the box if an exemption has been granted for your waste that excludes it from the definition of a solid waste.
- **Waste Meets Applicable Treatment Standards -** Check the box if your waste meets applicable treatment standards.

3. Last, enter the **Reference Standards** information only if the user checked **Yes** on the **Waste Meets Applicable Treatment Standards** line. Enter the treatment standard the waste meets. As with the majority of RSC waste, our example of paint waste does not meet any of the treatment standards. Therefore, we did not enter any information.

When you finish, this section should look like the screen shown below.



Material Characteristics Section

The Material Characteristics section contains only optional information. While not required, this information does help DRMO to assess your waste. As the user, you should always give as much information about the waste as possible.

1. Scroll down to the **Material Characteristics** section.
2. Enter the waste **Color**. Use adjectives to describe visual appearance and odor (e.g., thick yellow, lemon-scented, etc.). For our example, enter **DARK GREEN TO BLACK.**
3. **Specific Gravity** (SG) is a ratio comparing the density of the waste to the density of water. The SG of water is 1.0. You can often find SG on a MSDS; if not, you can estimate it. We know the density of water to be 8.34 lb/gal. Use the following steps to calculate SG for a waste:
   a. Calculate the current density of the waste (lb/gal).
   b. Compare the density of the waste to the density of water by dividing by 8.34.

   In our example, we have one 55-gallon drum with 53 gallons of paint-related waste. The drum weighs 460 pounds. We first subtract the weight of the container (35 pounds).

   460 - 35 = 425 lbs of waste

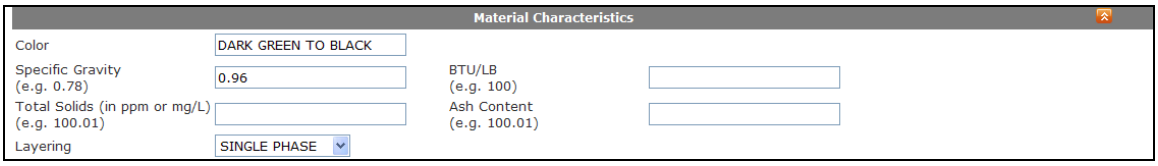
   Divide 425 pounds by 53 gallons to calculate the density.

   425/53 = 8.02 lb/gal

   Divide the waste density by the density of water to calculate SG.

   8.02/8.34 = **0.96**

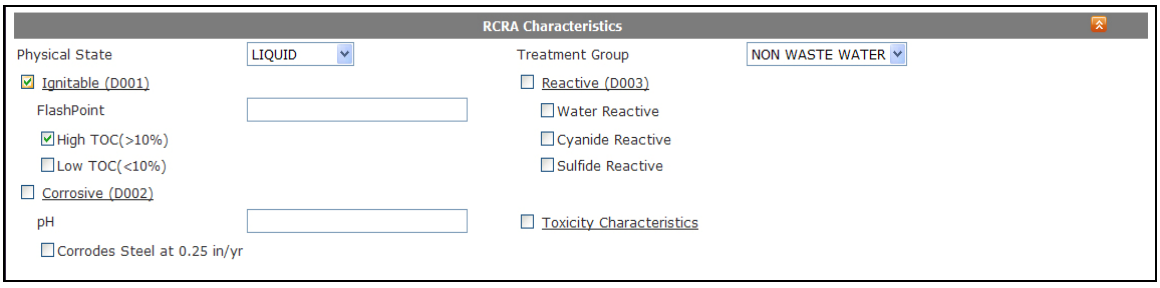
4. **Total Solids** describes the concentration of solids in ppm or mg/L. This usually requires laboratory analysis. Many MSDSs do not provide this information. For our example, you will assume that you have no data and enter nothing into the field. This field is not mandatory but enter the information if you have it.
5. Describe **Layering.** A single-phase waste is the same throughout the container. An example is used oil. Bi-layered waste has two (2) distinct layers that are not soluble with one another. An example is used oil mixed with water. A multi-layered waste has more than two distinct layers that are not soluble with one another. A good example is oil/water separator waste, consisting of oil, water, and sludge. For our example, select **Single Phase.**
6. **BTU/LB** is required only for waste to be burned for energy recovery. This data is available only through laboratory testing. For our example, you will assume that you are not sending the waste for energy recovery and you will enter nothing into the field. This field is not mandatory but enter the information if you have it.
7. The **Ash Content** field is for oil recovery and requires laboratory testing. For our example, you are not sending the waste for oil energy recovery and you will enter nothing into the field. The field is not mandatory but enter the information if you have it.
8. When you are done, this section should look like the screen on the following page.



RCRA Characteristics Section

The **RCRA Characteristics** Section is used to identify the types of characteristics, if any, the waste exhibits. These characteristics are used to assign EPA Hazardous Waste Numbers to a waste.

1. Scroll down to the **RCRA Characteristics** section.
2. Use the **RCRA Characteristics** section to identify physical state, treatment group, and hazardous characteristics for your waste. For this course example, use Liquid as the **Physical State**.
3. Next to **Treatment Group** select **Wastewater** only if it contains less than 1% by weight total organic carbon (TOC) and less than 1% by weight total suspended solids (TSS). WASTE default is set to Non-Waste water because the majority of wastes will be Non-Waste water. Our course example (paint waste) is **NON-WASTE WATER**.
4. Check all applicable **RCRA Characteristics**. The course example MSDS tells us that the paint is RCRA ignitable (below 140 degrees Fahrenheit). Because there is a mixture, as the user, you will leave the **Flashpoint** blank and enter a range in the Material Composition Section. The Corrosive, pH, Reactive, and Toxicity are also transferred during the electronic transfer process to DRMO.
5. TOC is the percentage of organic carbon in the waste. As a rule of thumb, wastes with a low flashpoint have a TOC greater than 10%. The course example waste stream contains 42% aliphatic hydrocarbons.
6. Our course example waste has no other physical characteristics. Check your work against the example screen and move on to the **Toxicity Sub-Form**.



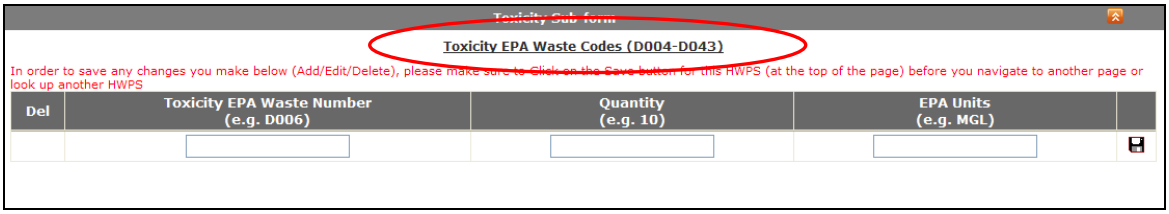
Sub-Forms

Toxicity Sub-Form

The **Toxicity Sub-Form** needs to be populated with only D-listed EPA Hazardous Waste Numbers (D004-D043) that the waste has been assigned. If a waste exhibits any of the other characteristics, the data will be entered on the **EPA Sub-Form** or the **State Waste Sub-Form**. For this course example, there are **no** toxicity characteristics. If there were toxicity characteristics, the Toxicity EPA Waste numbers entered into the HWPS would be pre-populated into the

DTID in the EPA Waste Codes Sub-Form when the HWPS is associated with the DTID.

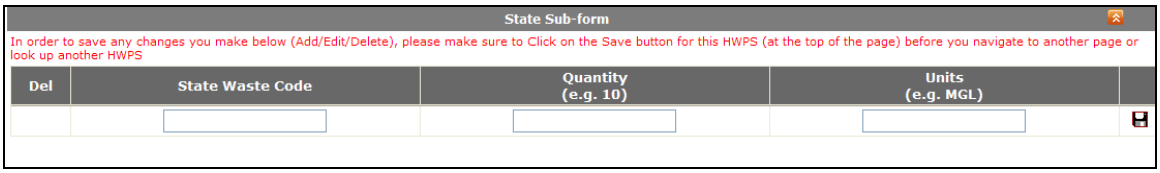
Note that users can access a HTML page listing the Toxicity EPA Waste Codes (D004-D043) by clicking on the hyperlink.



Note, in order to save any changes (Add/Edit/Delete) on the Sub-Forms, the user must click on the **Save** button for the HWPS (**at the top of the page**) before navigating to another page or HWPS.

State Waste Sub-Form

The **State Waste Sub-Form** should be populated with only SS Hazardous Waste Numbers that the waste has been assigned. For this example, there are **no** state waste numbers. Any State EPA Waste numbers entered into the HWPS are then pre-populated into the DTID in the State Waste Codes Sub-Form when a HWPS is associated with the DTID.



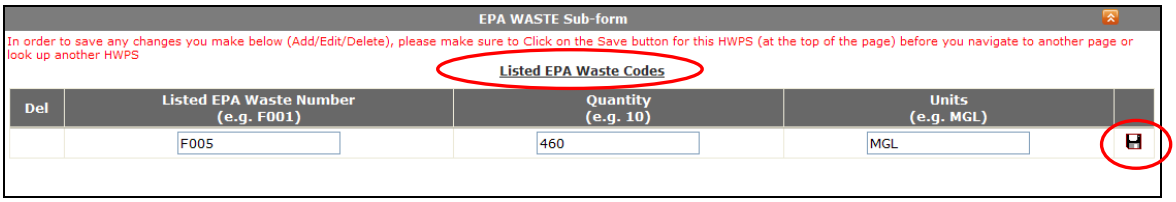
You have finished entering information for this profile. Click **Continue** to navigate back to the **HWPS**.

Note, in order to save any changes (Add/Edit/Delete) on the Sub-Forms, the user must click on the **Save** button for the HWPS (**at the top of the page**) before navigating to another page or HWPS.

EPA Waste Sub-Form

If the **EPA Waste Sub-Form** needs to be populated with EPA Hazardous Waste Numbers and is restricted to F, K, P, U-listed wastes. The EPA Waste numbers entered into the HWPS are pre-populated into the DTID in the EPA Waste Codes Sub-Form when a HWPS is associated with the DTID.

1. Click the **EPA Waste Sub-Form** section.
2. This is the **EPA Waste Numbers** screen. Enter all applicable EPA HW numbers, the associated quantity, and EPA regulatory units, if available. If your waste is not a HW, enter **NONE.**
3. Click the **Add** button.
4. Compare your screen to the following example.



In order to save any changes (Add/Edit/Delete) on the Sub-Forms, the user must click on the **Save** button for the HWPS (**at the top of the page**) before navigating to another page or HWPS.

You have finished entering information for this profile. Click **Continue** to navigate back to the **HWPS**.

Note that users can access a HTML page listing the Listed EPA Waste Codes by clicking on the hyperlink.

Material Composition Section

The **Material Composition Sub-Form** can provide a variety of information. **Use this form to enter all laboratory analysis data necessary to characterize the waste.** Use this form when you combine multiple wastes to provide ranges for flashpoint, pH, specific gravity, etc. The user can also use this form to describe wastes by the following means:

- By Product (listing percentages of all ingredients)
- By Waste Composition (listing the percentage of each product in the waste)
- See MSDS for Concentrations, as long as you list all applicable MSDS serial numbers in the Certification section. You should then use the form to note ranges for flashpoint, specific gravity, pH, etc.
- Underlying hazardous constituents can be added here as well.

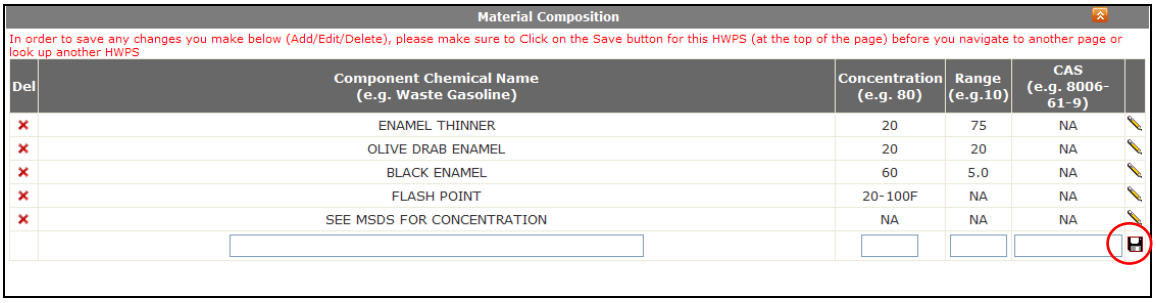
Click the **Material Composition Sub-Form** button.

1. Use the **Component Chemical Name** column to note the name of the item.
2. Use the **Concentration** column for constituents of concern which do not exceed 10,000 ppm (1%). Indicate the concentration level in ppm or mg/L.
3. Use the **Range** column for components comprising greater than or equal to 1% of the total waste stream, estimate the range (in percent) in which the component is present. The total maximum values of the components must be greater than, or equal to 100%, including chemical and material components. Entering a number in the Range column indicates the estimated concentration of the component in percent.
4. **CAS** is the Chemical Abstract System number, usually found on the MSDS for each constituent in the product.

For this mixture example and rather than describing each constituent in each part of the mixture, we will describe the percentage of each type of paint or thinner in the mixture. Also we will note the MSDS numbers on the certification form. Our mixture is 20 percent Enamel Thinner, 20 percent Olive Drab Enamel, and 60 percent Black Enamel. We will

also note a flashpoint range from the lowest to the highest (20°F to 100°F). Note that the range field must contain at least two (2) characters.

Enter the data from the following completed screenshot and click **Save** to return to the **HWPS**.



Material Composition

In order to save any changes you make below (Add/Edit/Delete), please make sure to Click on the Save button for this HWPS (at the top of the page) before you navigate to another page or look up another HWPS

Del	Component Chemical Name (e.g. Waste Gasoline)	Concentration (e.g. 80)	Range (e.g.10)	CAS (e.g. 8006-61-9)	
✕	ENAMEL THINNER	20	75	NA	
✕	OLIVE DRAB ENAMEL	20	20	NA	
✕	BLACK ENAMEL	60	5.0	NA	
✕	FLASH POINT	20-100F	NA	NA	
✕	SEE MSDS FOR CONCENTRATION	NA	NA	NA	

*You must select **Add** to add additional data to the HWPS Material Sub-Form. If you select **Continue** without selecting **Add**, the data on that line will not be saved.*
*Also, the data can be changed or deleted by clicking on the **Edit** icon or delete by clicking on the "**x**".*

Shipping Section

The **Shipping Section** is used to provide information regarding the DOT shipping information. In this section we will provide information such as, but not limited to, the Proper Shipping Name (PSN), Hazard Class, UN or NA Number, and Packing Group.

1. Scroll down to the **Shipping** section. This is where the user will use the Hazardous Materials Table (49 CFR Part 172.101) and the Emergency Response Guide (ERG). As the user, you can find web links to both of these references and the **Proper Shipping Name** within the **Shipping** section.
    - Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Reportable Quantity (40 CFR Part 302.4) http://www.epa.gov/superfund/programs/er/triggers/haztrigs/rqover.htm 2008 ERG: http://hazmat.dot.gov/pubs/erg/gydebook.htm
    - PSN (49 CFR Part 172.101) http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title49/49cfr172_main_02.tpl
2. All HWs, with the exception of some universal wastes and waste generated by a CESQGs, are hazardous materials by definition. When dealing with HW generated by a small or large quantity generator or waste that meets the definition of 1 or more of the 9 DOT hazard classes, check the **DOT Hazardous Material** box.
3. The MSDS can often help you find the DOT **Proper Shipping Name**. Remember that the MSDS provides the shipping name for the virgin product and not the shipping name for the product as waste. If you are writing the shipping name for a HW generated by a small or large quantity generator, add the word "Waste" at the

beginning of the description. If you cannot find the shipping name on the MSDS or you think the shipping name doesn't fully represent the waste, use 49 CFR Part 172.101 HMT. This is also where you will find and enter the **UN** or **NA Number,** **Hazard Class,** and the **Packing Group**. For this course example, The PSN is **RQ, Waste Paint Related Material** and select **UN1263** for the UN Number, Hazard Class **3,** and **II** from the Packing Group drop-down menu.

4. **Method of Shipment*:*** From the drop-down menu choose from:
   - Bulk
   - Drum
   - Other

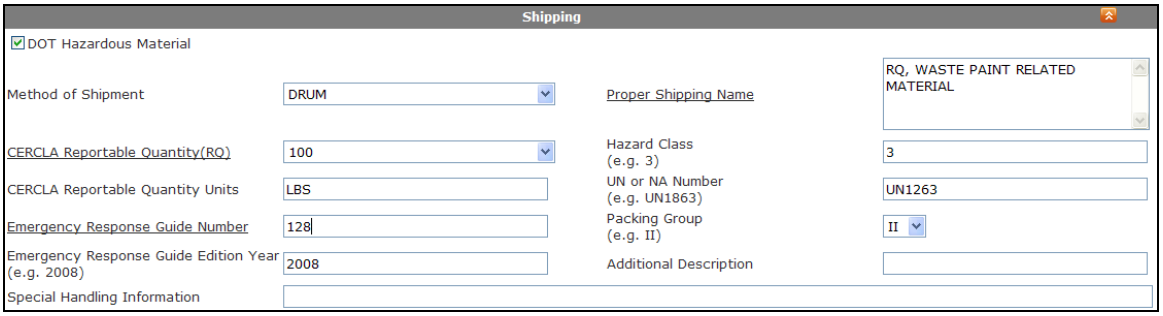
   Choose Bulk if you have a single container larger than 119 gallons. For our course example, pick **Drum**.
5. **CERCLA Reportable Quantity (RQ):** Look for RQ in 49 CFR Part 172.101, Table 1 to Appendix A (Hazardous Substances other than Radionuclides). You must enter RQ data when you ship a quantity greater than the RQ. All HWs have a RQ. Determine the RQ for each of the HW number(s) you assign to the waste. Choose the lowest quantity and determine if the total weight of the container exceeds this quantity. Always use pounds for RQ units. If your shipment exceeds the RQ, add the letters "RQ" to the front of the PSN. For our example, we have 460 pounds of paint-related material poured into one (1) drum. The RQ is **100 LBS**, so we add **"RQ"** to the beginning of the proper shipping name. Characteristic (listed) HWs, which exhibit toxicity (D004-D043), have RQs for the contaminant on which the characteristic of toxicity is based. If a mixture or solution is in a concentration by weight which equals or exceeds the concentration corresponding to the RQ of the material as shown in the following table then it is a RQ. This rule does not apply to radionuclides.

RQ pounds (kilograms)	Concentration by weight	
	Percent	PPM
5,000 (2270)	10	100,000
1,000 (454)	2	20,000
100 (45.4)	0.2	2,000
10 (4.54)	0.02	200
1 (0.454)	0.002	20

   Choose one of the following in the drop-down menu:
   - 1
   - 10
   - 100
   - 1,000
   - 5,000

6. Use the **Additional Description** field to provide additional waste description information, if necessary. When disposing of universal waste, always enter the words "Universal Waste" into the Additional Description field.
7. DRMS guidance requires that you enter the **Emergency Response Guide Number** not the ERG Number page number, on the bottom of the page. As the user you will find the ERG number at the top of the orange section of the ERG. You should be using the **2008** version. If not readily available, a hyperlink to the 2008 version is available in this section. Click on the Emergency Response Guide Number hyperlink.

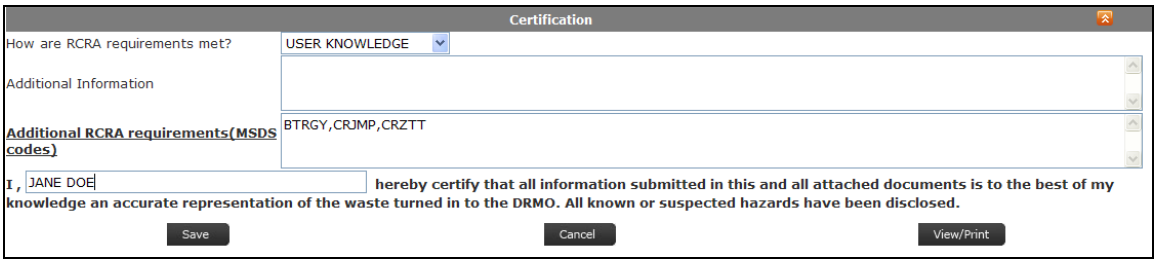
8. Use the **Special Handling Information** field to describe any immediate precautions that workers should take when handling the waste.
9. Compare your screen to the example below.



Certification Section

The **Certification Section** is the section where the generator will certify that all of the previous information that has been given in the HWPS is correct to the best of their knowledge.

1. Scroll down to the **Certification** section.
2. WASTE has automatically completed most of the screen from the Default Data entered previously. For **"How are RCRA Requirements Met?"** you relied on user knowledge, not laboratory analyses, to complete this HWPS. Therefore, ensure **User Knowledge** is selected.
3. If necessary, describe any **Additional Information** you the user might have used to characterize the waste such as a sample identification number.
4. Always enter all of the applicable MSDS serial numbers for chemical products in the waste into the Additional RCRA requirements field. For this course example, enter **BTRGY**, **CRJMP**, and **CRZTT**.
5. Compare your screen to the following example.



6. Scroll to the top of the HWPS page and review the data for accuracy. Click **Save** to save your HWPS data. From now on, this facility profile is available to the user by clicking on the profile lookup screens located both in this section and in the DTID section.

> *The user must click on **Save** to save the HWPS data before the **View/Print** function should be completed. If the user selects **View/Print** without saving, data will not transfer over to the View/Print form.*

7. Now click the **View/Print** button in the bottom right corner of the form. From this screen the user can export the file to Adobe PDF format or Microsoft Excel. The file is then printable from the file type you have chosen.

DON'T FORGET TO CLICK THE SAVE BUTTON AT THE BOTTOM OF THE SCREEN BEFORE EXITING!

Completing the DTID

Defining the DTID

The next step is to create the DTID. You must create a DTID to turn in waste to the DRMO. The DTID is actually a DD Form 1348-1A, a government property-transfer document. Government agencies use the form to transfer property from one agency to another. They also use the form as a supply requisition document and for transferring waste to the DRMO. When a DRMO is not involved you will usually not use a DD Form 1348-1A to transfer waste to a commercial waste disposal contractor.

DTID Instructions

The DRMS has created detailed instructions for using the DTID to manage waste. You can find their instructions online at http://www.drms.dla.mil/newenv/turn-in_services.html . The WASTE version of the DTID complies with DRMS regulations.

The DTID Number

Although WASTE provides a great deal of default information for the DTID, you must enter waste-specific information. The first the user must enter is the DTID Number.

The DTID Number contains three (3) parts:

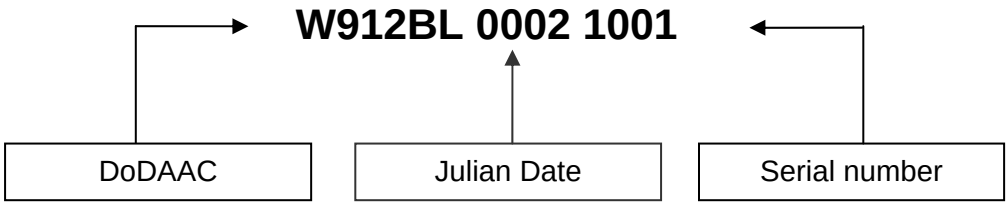
- (DoDAAC for the unit sending the DTID
- Four-digit Julian date of document preparation

- Document serial number

The following DLA website (https://www.daas.dla.mil/daasing/dodaac.asp) can be used for DoDAAC verification purposes. The Defense Automatic Addressing System Center (DAASC) INQuiry System provides information on DODAACs, Military Assistance Program Address Codes (MAPAC), National Item Identification Number (NIIN), and RICs.

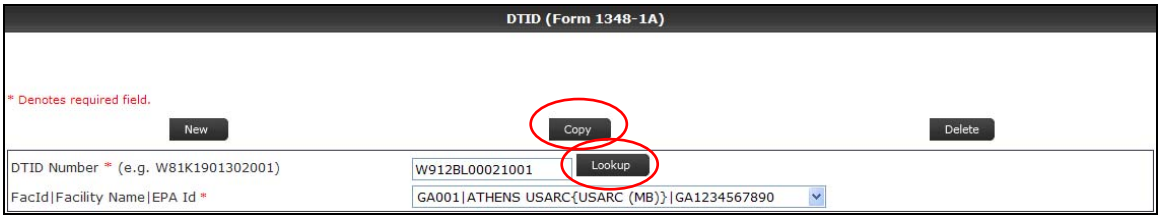
DoD has mandated that all personnel who access DoD systems must use Public Key Infrastructure (PKI) for all private web-enabled applications. By 9 June 2008, you will be required to have a DoD-approved PKI or External Certificate Authority (ECA) certificate to access this site.

The DTID Number usually comes from the expendable document register or the unit/activity generating the waste. The unit will typically provide a block of numbers for waste disposal. **Use only the numbers they provide. If you use any other numbers, you may adversely affect the accounting system. The following figure shows an example DTID Number.**



Before You Begin

Check WASTE to determine if a DTID already exists for your waste by using the DTID **Lookup** button. The user can utilize the **Copy** button located at the top of the DTID 1348-1A from and only have to make a few turn-in specific modifications.



The NSN/LSN DTID

The NSN and LSN are utilized to assign identifiers to waste stream, and are combination of the Federal Supply Class (FSC) and NIIN or LIIN, respectively. A complete list of FSCs can be found at http://www.drms.dla.mil/asset/fsclist.html or http://www.dlis.dla.mil/H2/. The NSN is a number originally designed to identify materials procured through the supply system. The FSC is a category classification.

For example: FSC for paint products is 8010**.**

The NIIN (National Item Identification Number) is the 9-digit identification number for a specific product and container size. The NSN for a specific size container of High Solids Enamel Flat White Spray paint is 8010-01-331-6106. The FSC (8010) identifies the product as paint and the NIIN (01-331-6106) identifies the

specific paint type and container size. The first two digits of the NIIN identify the NATO country code; e.g., 00 and 01 are assigned to the United States.

The LIIN (Local Item Identification Number) is the 9-digit identification number created to describe the waste the stream in support of trending waste streams.

The DRMO uses the NSN as the primary identifier for materials and wastes transferred to and from the DRMO. There are two (2) types of WASTE DTIDS:

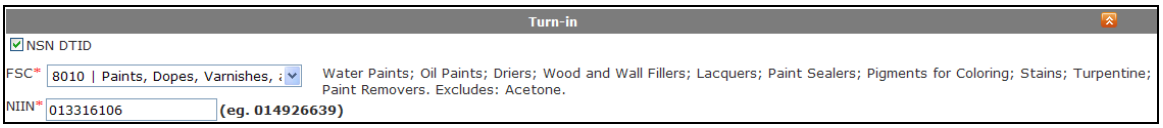
- DTID using the NSN
- DTID using the LSN using the FSC-LIIN drop-down menu

NSN DTID - You can turn-in only unopened/unused items or batteries with the full NSN (FSC/NIIN). When turning-in waste using the NSN, WASTE does not require the use of a HWPS based on the DRMS-WASTE system interface design agreements. However, since the shipping information is not electronically transferred to DRMO when a HWPS is not associated with the DTID, it is recommended (not mandated) that a HWPS be associated with a NSN DTID. The user must check the **NSN DTID** box and ensure the following WASTE fields contain the correct information:

- **Qty -** The number of containers representing the NSN to be turned in
- **U/I -** The unit of issue on Fed Log, the MSDS, or from DLSC-Customer Assistance Handbook
- **Disposal Weight or Volume -** The total weight of waste to be turned in
- **Weight Code -** P for pounds
- **Container Type -** The type of container the DRMO contractor will pickup
- **Container Count -** The number of containers the DRMO contractor will pickup
- **MSDS Serial number -** The serial number on the MSDS

It is not always feasible to create a separate DTID for each NSN. To reduce paperwork, DRMS allows the use of LSNs to replace the NIIN portion of the NSN.

LSN DTID – Use a pre-determined LSN (FSC-LIIN) to turn-in all other types of waste. Batteries can be turned in with either the NSN or a LSN. Use the FSC-LIIN drop-down menu to group multiple waste stream types on one HWPS for turn-in. Please ensure that the HWPS is associated with a LSN DTID. When turning in waste using this method, the user must uncheck the **NSN DTID** box, associate a HWPS with the DTID, and ensure the following WASTE fields contain the correct information:



- **Qty -** The total weight (in pounds) of the waste being turned-in
- **U/I -** The units used in the Qty field, use LBS for pounds
- **Disposal Weight or Volume -** Same as Qty
- **Weight or Volume Code -** P for pounds

- **Container Type -** The type of container the DRMO or Non-DRMO contractor will pickup
- **Container Count -** The number of containers the DRMO or Non-DRMO contractor will pickup
- **Waste Profile Number -** The number assigned on the HWPS

The Local Stock Numbers went to a standardized approach by FSC and LIIN to provide better accounting and tracking of waste streams along with their costs and weights. This standard approach allows Headquarters and the RSCs to identify important trends in waste disposal to allow leadership to make more informed decisions.
If you purchase an item locally and it does not have an NSN, assign the FSC that best fits using the FSC-LIIN matrix provided in this course material (Appendix C). DRMS has also developed the following guidance for assigning a LSN. The following guidance is found in DRMS-I 6050.1 B 3 b (11).

Below is an excerpt from the FSC-LIIN matrix for the FSC 8010 Paint, Dopes Varnishes and Related Products and the corresponding LIIN drop-down menu choices for the user to use in the WASTE application. The full list of FSC-LIIN details and description can be found in Appendix C of the WASTE User Training Manual.

FSC	Heading	
8010	Paints, Dopes, Varnishes, and Related Products	
FSC	LIIN	LIIN Description
8010	00CRCPNT	Includes all solvent based CARC paint to include primers
8010	00LEADPNT	Includes containerized waste from abatement operation of lead based paint to include disposal of lead based paint surface coating
8010	00LTXPNT	Includes all latex based paints
8010	00OILPNT	Include all oil based surface coatings, including paints, driers, wood and wall fillers, lacquers, paint sealers, pigments for coloring, stains
8010	00PNTDEB	Includes filters, sandblast media, floor coverings, paint brushes, masks, gloves
8010	00PNTREM	Includes all paint removers to include turpentine, thinner, MEK, etc.
8010	00PRVCMP	Corrosion preventive compound including fire resistant compounds, water resistant compounds, weather resistant compounds, belt dressing; anti-seize compounds, calking and glazing compounds, putties, alodine, sealant compounds
8010	00SRFPREP	Filler, dent, metal surface, bondo
8010	00WBCRCPT	Includes all water based CARC surface coating and primers

CLIN/HIN

The **CLIN/HIN** is a six-character identifier used by the DRMO to associate a cost with a service. The first four (4) characters are standard nationwide. The last two (2) characters may be specific to individual DRMO offices. Contractors negotiate waste disposal costs with the ARNG and with a DRMO. The contract includes a list of CLIN/HIN, one for every type of waste addressed in the contract. Costs vary by location, distance to the disposal site, quantity of waste generated, and the size of the container.

You can use a CLIN/HIN for many services, including:

- Laboratory Analysis
- Expedited Removal
- Tank Services
- Waste Disposal

> ***IMPORTANT!*** ***Some older DRMO contracts might use a four-digit CLIN/HIN. WASTE allows you to use a six-digit CLIN/HIN. When using a four-digit CLIN/HIN, add 00 to the end to create a six-digit number. Refer to your DRMO contract for accuracy.***

For waste disposal, the first two (2) characters in the CLIN/HIN describe the waste category:

- **91#### - Flammable D001**
- **92#### - Corrosive D002**
- **93#### - Reactive D003**
- **94#### - Toxic D004-D043**
- **95#### - Spent Solvents F001-F039**
- **96#### - Acutely Toxic P001-P205**
- **97#### - Toxic Waste U001-U396**
- **98#### - State Regulated Hazardous Waste**
- **99#### - Non-RCRA/ Non-State Regulated Waste**

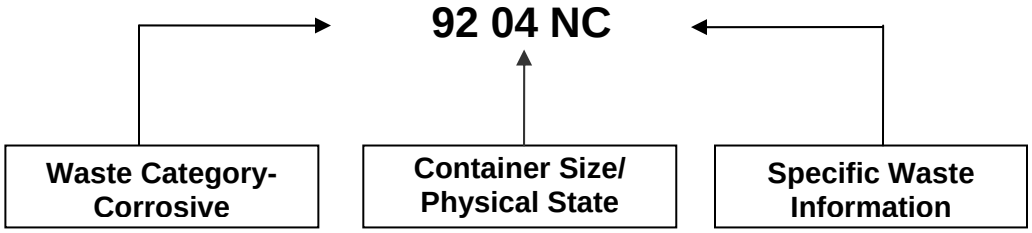
The second two (2) characters represent the smallest waste container in the complete packaging and the physical state. When assigning these characters, always use the code for the smallest container involved:

- **##01## - Small Containers** — The Small Container designation is valid for liquid and solid wastes. The definition of “small” varies from contract to contract. Usually, anything that holds fewer than five (5) gallons is a small container. Small containers are more expensive to manage and dispose of than large containers.
- **##02## - Containerized Liquids/Multi-Phase** — The Containerized Liquids/Multi-Phase designation is for all liquids in a container larger than a small container. You would use this identifier for multiple five-gallon containers packed in a 55-gallon drum or liquids poured into a container with less than 119-gallon capacity.
- **##03## - Not Represented**
- **##04## - Containerized Solids** — Use 04 for solids in a container larger than a small container, but smaller than 119 gallons.
- **##05## - Aerosols**
- **##06## - Bulk Liquids (pumpable)** — Use 06 for liquids that are removable by pumping and are in a tank larger than 119 gallons.

- **##07## - Bulk Solids** Use 07 for solids in containers larger than 119 gallons

The last two (2) characters of the CLIN/HIN represent specific wastes. If your CLIN/HIN contains only four (4) characters, add 00 to the end.

Example CLIN/HIN
9204NC - Containerized Solids, Nickel Cadmium Batteries



Follow these steps to identify the proper CLIN/HIN:

1. Characterize the waste and identify applicable EPA waste numbers. Remember, listed waste takes priority over characteristic waste.
2. Identify the smallest container described on the DTID. Consider containers that are over-packed.
3. Locate the proper waste category in the disposal contract (first two characters).
4. Find the CLIN/HIN that matches the smallest container size for your waste (second two characters).
5. Determine if the item falls within any of the specialized CLIN/HIN on the disposal contract (last two characters).

CLIN Selection Criteria

The bid schedule for most DRMO contracts is broken into three (3) primary categories:

- RCRA REGULATED WASTE
- STATE REGULATED HAZARDOUS WASTE
- NON-RCRA and NON-STATE REGULATED HAZARDOUS WASTE

CLIN selection will be determined in accordance with the following criteria.

1. **RCRA REGULATED WASTE:** Wastes regulated by RCRA are identified according to the EPA waste number listed in 40 CFR Part 261 (referenced included with the CLIN headings). Use the waste number to determine the specific category **(e.g., IGNITABLE WASTE [40 CFR 261.21] D001).**

If a waste exhibits more than one (1) characteristic (more than one "D" waste number) the following hierarchy will apply to select the proper category:

a. Reactivity (D003)
b. Ignitability (D001)
c. Corrosivity (D002)
d. Toxicity (D004-D043)

If the waste is a combination of more than one (1) listed waste with different waste numbers, the following hierarchy will apply to select the proper category:

a. Acutely Hazardous (P-Listed)
b. Leachate (F039)
c. Electroplating Related (F006-F012, F019)
d. Spent Solvent (F001-F005)
e. Toxics (U-Listed)
f. Industrial Process (K-Listed)

When a waste includes combinations of listed and characteristic waste numbers, the category will be selected based upon the listed waste number(s).

2. **STATE REGULATED HAZARDOUS WASTE:** Wastes that are State Regulated as HW in the State where the waste is generated will be assigned the appropriate CLIN listed under the heading STATE REGULATED HAZARDOUS WASTE. All wastes generated in the state of Texas classified as TWC Class I non HW will be assigned a CLIN in this category.

3. **NON RCRA, NON STATE REGULATED HAZARDOUS WASTE:** Waste that is not regulated by RCRA nor regulated by the state of generation as hazardous waste will be assigned the appropriate CLIN listed under the heading NON RCRA, NON STATE REGULATED HAZARDOUS WATE. All wastes generated in the state of Texas classified as TWC Class II or Class III non-hazardous waste will be assigned a CLIN in this category.

CLIN selection within a waste category shall be accomplished as follows:

- If material is an aerosol, select the “AEROSOL” CLIN. The “AEROSOL” CLINs found in most categories of the contract bid schedule are to be used only for small pressurized containers (including, but not limited to, paints, pesticides, lubricants, engine starting canisters, etc.). Compressed gas cylinders as defined in Defense Logistics Agency Regulation (DLAR 4145.25, Storage and Handling of Compressed Gases and Liquids in Cylinders, and of Cylinders, are to be ordered on the appropriate gas cylinder CLIN.

REGARDLESS OF SIZE – AEROSOLS WILL BE ORDERED UNDER THE AEROSOL CLIN (i.e., not the small container CLIN).

- If material is in a small container (less than 5 gallons), select the "SMALL CONTAINER" CLIN;

- If the material is in bulk (in a container having a capacity greater than 119 gallons, or any size non-removable container*, or not containerized), select the appropriate "BULK" CLIN;

- If containerized material contains any free liquids**, select the "CONTAINERIZED LIQUIDS / MULTI-PHASE" CLIN; (see **)

- If you are certain the material contains no free liquids, select the "CONTAINERIZED SOLID CLIN".

**"Non-removable container" means any container, as designated by the Government, that is not to be removed by the contractor during the pickup process (e.g., a 55-gal drum which the Government wants emptied and left at the generator site).*

*** Physical state based on test method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes Physical/Chemical Methods", EPA Publication No. SW-846.*

NOTES:

BATTERIES: All batteries may be ordered under the "CONTAINERIZED SOLID" CLIN in the appropriate category; however, if there are suffixed CLINs on the contract for NiCad, Lead Acid, Mercury or other batteries, the suffixed CLINs **must** be used.

EMPTY CONTAINERS: EMPTY CONTAINERS (as defined in 40 CFR): STATE REGULATED HAZARDOUS WASTE and NON-RCRA, NON-STATE REGULATED HAZARDOUS WASTE empty containers (excluding aerosols) will be ordered under the "BULK SOLID" CLIN.

PCB CONTAMINATED WASTE:

RCRA REGULATED or STATE REGULATED WASTE contaminated with PCBs will be ordered under the appropriate "RCRA" OR "STATE REGULATED HAZARDOUS WASTE" CLIN. If the PCB concentration is at or above regulated levels, the applicable CLIN shall be suffixed with a "PP" or "P" in the fifth and/or sixth positions and the following verbiage added to the description, **"*contaminated with PCBs at or above regulated levels*".**

NON-RCRA, NON-STATE REGULATED WASTE contaminated with PCBs at or above state or federally regulated levels will be ordered under the appropriate 7000 series CLIN.

NON-RCRA, NON-STATE REGULATED, NON-TSCA REGULATED WASTE contaminated with PCBs below state or federally regulated levels will be ordered under the appropriate NON-RCRA, NON-STATE REGULATED WASTE series CLIN.

COMPRESSED GAS CYLINDERS: Compressed gas cylinders shall be assigned CLINs as follows:

Determine the appropriate category (e.g., Poison, Refrigerant, flammable, etc.). If a cylinder can be placed into more than one category, selection will be performed utilizing the following hierarchy:

1. **Poison:** Any gas classified as a poison by DOT (49 CFR 173.115)
2. **Silane/Pyrophoric:** Any mixture with greater than 5% silane or any which will spontaneously ignite/combust at 1300 F. A silane is silicon tetrahydride or compounds that contain a Si_nH_{2n+2} group.
3. **Flammable:** Any gas with a DOT flammable classification (a gas that is ignitable at atmospheric pressure when in a mixture of 13% or less by volume in air, or a gas with a flammable range at atmospheric pressure with air of at least 12% regardless of the lower limit).
4. **Oxidizer:** Any gas which meets the DOT definition of oxidizer (49 CFR 173.127). A gas that causes or enhances combustion, usually by yielding oxygen.
5. **Corrosive:** Any gas with a DOT corrosive classification or an EPA waste code of D002.
6. **Refrigerant:** Halocarbons or refrigerants. Any gas containing greater than 30% halogens.
7. **Non-Flammable:** Any gas which will not burn or support combustion. Usually having less than 10% hydrocarbon or 20% oxygen.
8. **Inert:** A compressed gas that is not flammable, corrosive, oxidizable, or poisonous and is essentially chemically inactive. Gases such as helium, neon, argon, and nitrogen are considered inert. Basically, any gas which is not regulated when vented directly to the atmosphere.

Select the CLIN within the category by the size of the cylinder:

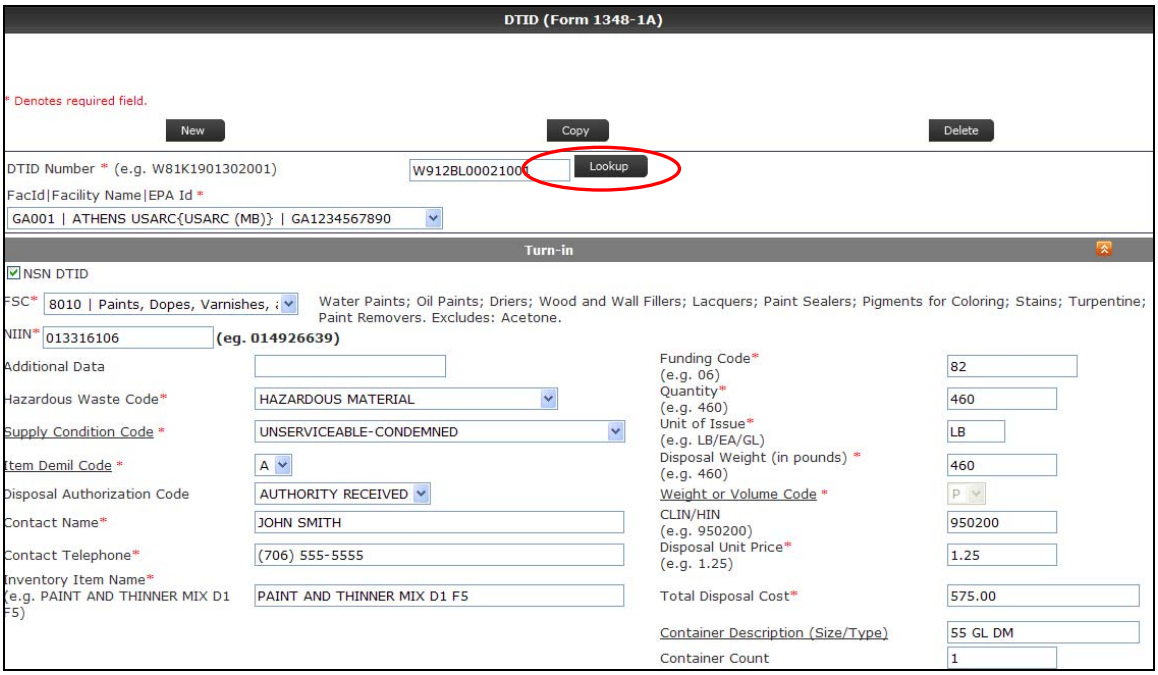
a. Small Cylinder (includes lecture bottles and cartridges) – not to exceed 4” in diameter and/or 16” in length.
b. Medium Cylinder – not to exceed 12” in diameter and/or 36” in length.
c. Large Cylinder – not to exceed 20” in diameter and/or 72” in length.

Valve will not be included in determining length of cylinder.

UNIVERSAL WASTE: Universal Waste will be ordered under the appropriate CLIN in the “UNIVERSAL WASTE” (9800) category.

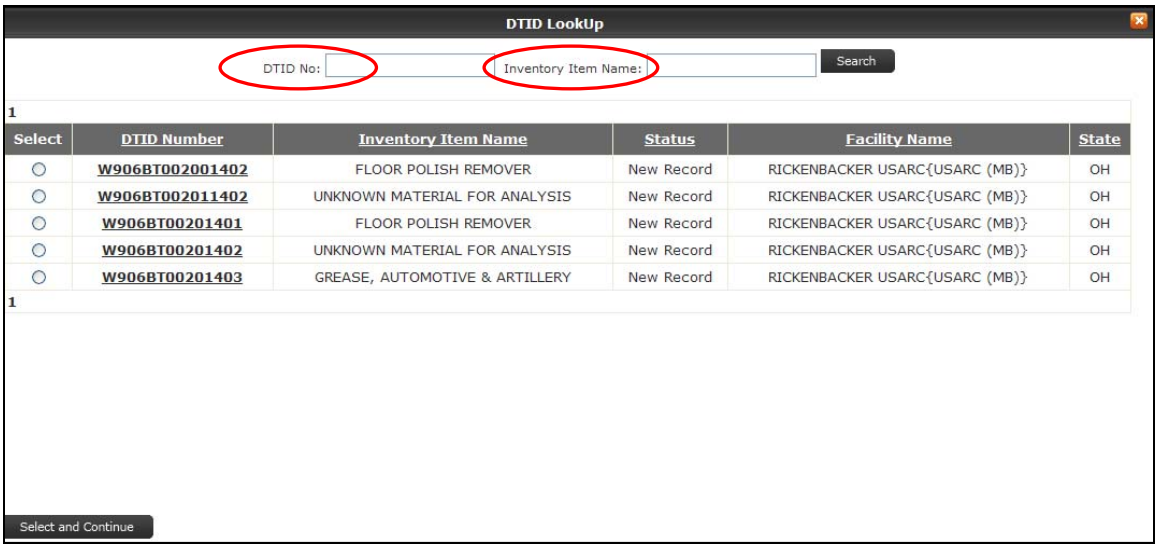
DTID Section

There are a couple of different ways to navigate to the DTID section. You can access this section from the **Main Landing Page** within the **Data Entry** tab or by clicking on the link in the top right corner on **HWPS**.



When you open the DTID screen you will see the DTID that comes first according to your numbering sequence. Because we have not yet created a DTID, you should see a blank screen with some areas pre-filled from your default data. If you do have existing DTIDs you can select them for viewing by clicking the **Lookup** button. Once again every part of your DTID is on this screen. As with the same functionality with the HWPS, click **New** at the top of the screen to create a new DTID. The user will notice there are fields that are auto-populated by WASTE from the Default Data.

> *New DTID Search Criterion has been added in WASTE Version 4.1 to include the following features:*
> *In the DTID **Lookup**, the users will be able to narrow down the available list of DTIDs either using the DTID Number (prompting after enter a few characters) or Inventory Item Name (keywords) by using the **Search** button.*



Anytime the user uses the **Copy** button at the top of the screen, the user must change information specific to the turn-in (i.e., dates, weights, etc.). As a new enhancement in the tracking section of the DTID, the Base Operation Support System (BOSS) Document Number, Delivery Order Number, and Delivery Order Line Item Number do not carry over when making a copy of a DTID.

We will create a DTID for our course example Paint and Thinner Mix waste using the information provided throughout the course text.

1. Enter **DTID number (W912BL00021001)** for this course example. Press the Tab function twice or use your mouse to click into the **FacId|Facility Name|EPA Id** screen.
2. Click the drop-down **FacId|Facility Name|EPA Id** list and select **ATHENS USARC {USARC (MB)}**. After you make this selection, WASTE will automatically fill in the generator information.

For any Non-DRMO or recycled material that is being tracked with WASTE use the following format:

- State abbreviation/NONDRMO/Julian Date/three-digit sequential number (e.g. GANONDRMO0002001)
- Examples of potentially recyclable materials are:
  - Used oil
  - Used antifreeze
  - Lead-acid batteries
  - Paper
  - Cardboard
  - Aluminum cans (and any other recycled metals)
  - Brass

Turn-in Section

1. Choose the **FSC** **(8010)** from the FSC drop-down menu and enter the **NIIN** **(013316106)** as required for NSN DTID Turn-in process. You can use the **Additional Data** box to add two (2) additional characters to provide more detail. If you are turning in an unopened expired paint product, you would use the original NSN and check in the **NSN DTID** box.

> *In the event this is not a NSN DTID, make sure to un-check **NSN DTID** box and select the appropriate FSC and LIIN from drop-down menu. See Appendix C for the master list of FSC-LIIN details and descriptions.*

2. Tab to or click in the **Funding Code** field. WASTE should have completed this field automatically.
3. Tab or click in the **Hazardous Waste Code** field. For our course example we will choose **"Hazardous."** The drop-down menu will display the following:
   - Hazardous or Non-Regulated Waste
   - Hazardous Material
   - Normal Material
4. The **Supply Condition Code** field is defaulted to **Unserviceable Condemned**. Depending on what is being turned in there are nine (9) different supply condition codes to choose from. They are listed below.

Supply Condition Code	Definition
A - Serviceable - Issuable without Qualification	New, used, repaired, or reconditioned material which is serviceable and issuable to all customers without limitation or restrictions. Includes material with more than 6 months shelf-life remaining.
B - Serviceable - Issuable with Qualification	New, used, repaired, or reconditioned material which is serviceable and issuable for its intended purpose but which is restricted from issue to specific units, activities, or geographical areas by reason of its limited usefulness or short service life expectancy. Includes material with 3 through 6 months shelf-life.
C - Serviceable - Priority Issue	Items which are serviceable and issuable to selected customers, but which must be issued before Condition A and B material to avoid loss as a usable asset. Includes material with less than three (3) months shelf-life remaining.
D - Serviceable - Test/Modification	Serviceable material which requires test, alteration, modification, conversion, or disassembly. This does not include items which must be inspected or tested immediately prior to issue.
E - Unserviceable - Limited Restoration	Material which involves only limited expense or effort to restore to serviceable condition and which is accomplished in the storage activity where the stock is located.

Supply Condition Code	Definition
F - Unserviceable - Reparable	Economically reparable material which requires repair, overhaul, or reconditioning. Includes reparable items which are radioactivity contaminated.
G - Unserviceable - Incomplete	Material requiring additional parts or components to complete the end item prior to issue.
H - Unserviceable - Condemned	Material which has been determined to be unserviceable and does not meet repair criteria; includes condemned items which are radioactivity contaminated, Type I shelf-life material that has passed the expiration date, and Type II shelf-life material that has passed the expiration date and cannot be extended. NOTE: Classify obsolete and excess material to its proper condition before consigning to the DRMO. DO NOT classify material in supply condition H unless it is truly unserviceable and does not meet repair criteria.

5. The **Item Demil Code** field has several choices. For our purposes we will choose **"A."** The definition of these codes can be found in the table below and by clicking on the hyperlink in WASTE**:**

Item Demil Code	Definition
A Non-MLI/Non-CCLI	Demilitarization not required.
B MLI (Non-SME)	Demilitarization not required. Trade Security Controls (TSCs) required at disposition.
C MLI (SME)	Remove and/or demilitarize installed key point(s), as prescribed in this manual or lethal parts, components and accessories.
D MLI (SME)	Total destruction of item and components so as to preclude restoration or repair to a usable condition by melting, cutting, tearing, scratching, crushing, breaking, punching, neutralizing, etc. (As an alternate, burial or deep water dumping may be used when approved by the DoD Demilitarization Program Office.)
E MLI (Non-SME)	Additional critical items/material determined to require demilitarization, either key point or total destruction. Demilitarization instructions *are* furnished by the DoD Demilitarization Program Office and contained in DoD 4160.21-M-1, Appendix 4.
F MLI (SME)	Demilitarization instructions to be furnished by the Item/Technical Manager.
G MLI (SME)	Demilitarization required-ammunition, explosives, and dangerous articles (AEDA). Demilitarization will be accomplished and the material rendered explosive free/inert prior to physical transfer to a DRMO or release from DoD control. This code will be used for all unclassified AEDA items.
P MLI (SME)	Security Classified Item-Declassification and demilitarization and removal of any sensitive markings or information will be accomplished prior to accountability or physical transfer to a DRMO or release from DoD control. This code will also be assigned to classified AEDA items.

Item Demil Code	Definition
Q CCLI	Commerce Control List Item (CCLI)-Demilitarization not required. CCLIs are dual use (military, commercial, and other strategic uses) items under the jurisdiction of the Bureau of Export Administration, U.S. Department of Commerce, through the Export Administration Regulations. The types of items under the CCLI are commodities (i.e., equipment, materials, electronics, etc.), software, and technology. The CCLI does not include those items exclusively controlled by another department or agency of the U.S. government. (See DoD 4160.21-M-1, Chapter III and Appendix 5).

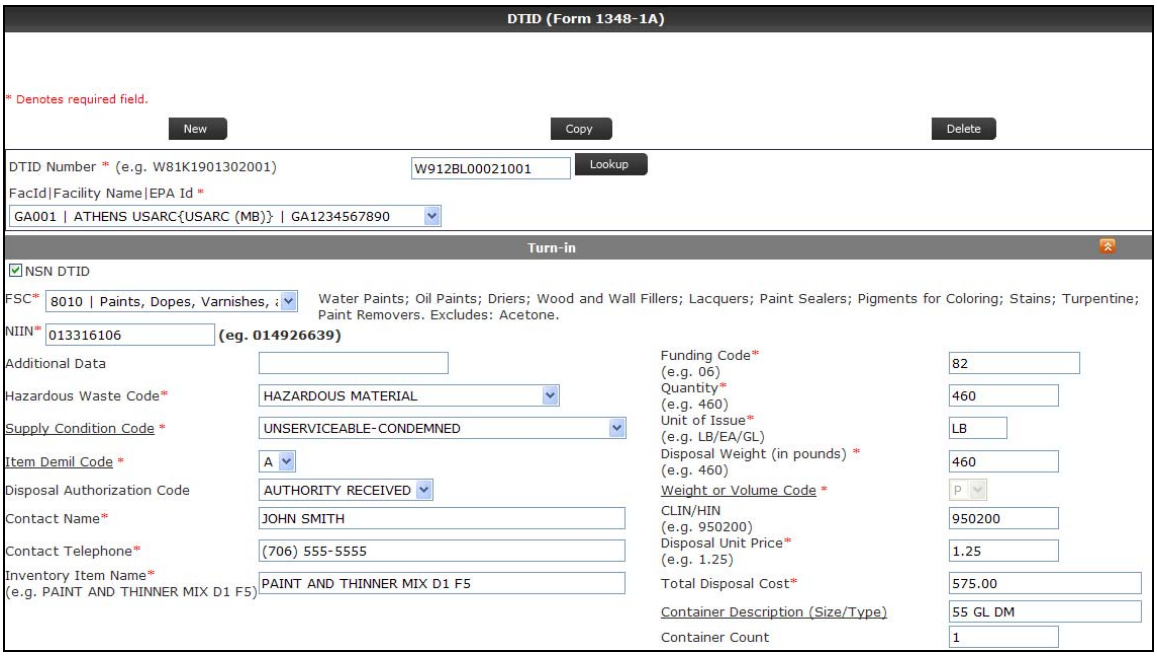
6. In **Disposal Authorization Code** field choose from the following:
   - Authority Received (default)
   - Approved
   - Not Required
7. Tab to or click in the **Inventory Item Name** field. This field should match the Waste Stream Name in the Waste General Section of the HWPS. This should describe the waste. Type the words **PAINT AND THINNER MIX D1 F5. Ensure this name matches the name on the corresponding HWPS. Do not enter any special characters into this field (!, @, #, $, %, etc.).**
8. Tab to or click in the **Quantity** field. This is where you enter the weight of waste in pounds. Remember that you pay for waste disposal by weight. Your CLIN/HIN list provides disposal cost per pound for every waste with a CLIN/HIN.
9. Type **460** into the weight field and press Tab. In the **Unit of Issue** field, **LB is the** default selection. To be consistent with tracking and reporting purposes, all entries must in be in a standardized unit of issue (LB/EA/GL).

   Note the **Weight or Volume Code** field and the code **P** is grayed out so that users use the standardized weight code description, Pounds. DRMO expects the disposal weight to be submitted in pounds and hence there is a unit restriction for the user to submit the disposal weight only in pounds.
10. Enter t**he CLIN/HIN for the w**aste. For our course example, type **950200** into the CLIN field**.**
11. The next field is **Disposal Unit Price.** For our example, type **$1.25** for the disposal unit price. After you enter the price, press Tab to see WASTE calculate the **Total Disposal Cost.** The calculation of the Total Disposal Cost in the DTID keys off of the Disposal Weight or Volume field and the Disposal Unit Price field.
12. Tab to the **Container Type** field. The **Container Type** field represents the type of container the DRMO contractor will be picking up. Always try to enter the number of gallons and the container description found in the table below. The code for a typical 55-gallon steel drum is 55 GL DM. Refer to the table below or the hyperlink on the screen for a list of Container Type codes. Always enter the volume followed by the code (e.g., 55 GL DM for a 55-gallon drum).

Abbreviation	Container Description
DM	Metal Drum, Barrel, Kegs
DW	Wooden Drum, Barrel, or Keg

Abbreviation	Container Description
DF	Fiberboard or Plastic Drum, Barrel, or Keg
TP	Tanks Portable
TT	Cargo Tanks (Tank Trucks)
TC	Tank Car
DT	Dump Truck
CY	Cylinders
CM	Metal Boxes, Cartons, or Cases (including roll-off containers)
CN	Can or Bucket
CW	Wooden Boxes, Cartons or Cases
CF	Fiber or Plastic Boxes, Cartons or Cases
BA	Burlap, Cloth, Paper, or Plastic Bags
VARIES	Multiple Container Types

13. The last field in this section is **Container Count**. Press Tab and enter the number of containers. The field default is set to 1. For this example, we have only one (**1**) drum.
14. When you have finished data entry, the screen should look like the screen displayed below.



You have completed the Turn-in section. Now you are ready to complete the Tracking section.

Tracking Section

1. Scroll down to the **Tracking Section.**

WASTE has placed the computer-system date (current date registered on the computer) into the **Date Entered Current Status** field (mm/dd/yyyy), and the **Warehouse Receipt Date** field. Use the calendar icon function to change or input dates.

Normally these dates are not the same and you must manually change them. For example, assume the AMSA has a satellite accumulation site set up for spot painting or aerosol spray paint liquids. The accumulation start date (ASD) begins when the drum is full, but the AMSA has 72 hours (including weekends and holidays) after the drum is full to move it into the Hazardous Waste Accumulation Area.

WASTE sets the DTID status to **New Record.** The status portion is an excellent management tool. The user can track waste throughout the turn-in process to final disposal by using information from the following fields:

- **Earliest Accumulation Start Date** - WASTE will not enter the current date as the default date during data entry. The user will be prompted to enter an ASD for Non-Hazardous Waste and HWs.
- DRMO Receipt Date - Populated by DRMO Feedback
- Pickup Date - Populated by DRMO Feedback
- Pickup Manifest Number - Populated by DRMO Feedback

> *When the user copies a DTID, the Earliest ASD will be copied from the previous DTID.*
> *When a new DTID is created, the Earliest ASD will not be defaulted to the system's date. However, the field is a mandatory field.*
> *The user will be prompted to enter a date if the Earliest ASD is left blank.*

The Earliest ASD given for the ASD field of the Drum Sub-Form of the DTID overrides the Earliest ASD in the Tracking Section of the DTID.

You will find the following 11 status codes for each DTID under the DTID Status drop-down menu.

- **New Record**
- **Hold**
- **Shipment File Created**
- **Shipment File Sent**
- **File Receipt Confirmed**
- **Scheduled for Pick-Up**
- **Partial Pick-Up**
- **Pick-Up Completed**
- **Pick-Up Manifest Returned**
- **Disposal Completed**
- **Non-DRMO Turn-In for Disposal**

Each status code is crucial to your operation. You must track the status codes for each DTID to ensure that your information is always accurate. Using an incorrect

status code can cause records to be or not be turned in, false warnings, and incorrect reports.

A **New Record** is any newly created DTID (created or copies) and is automatically associated with this status code and is not associated with a turn-in file.

The **Hold** status is used when a generator starts a record, but then realizes all the data is not available to finish the record. By selecting the **Hold** status, the generator can continue working and send other records to DRMO for disposal. Records in **Hold** status are not sent to DRMO. Only records in **New Record** status are sent to DRMO. A Level 4 user can utilize the **Hold** status to allow a Level 2 user to approve and send a record.

A **Shipment File Created** status code indicates that the DTID is part of a turn-in that has not yet been sent to the DRMO for processing. This status will automatically change to Shipment File Sent when the turn-in that this DTID is associated with is sent to the DRMO.

The **Shipment File Sent** status code indicates that the DTID is sent to the DRMO as part of turn-in. This status will automatically change to Shipment File Sent when the turn-in that this DTID is associated with is sent to the DRMO.

The **File Receipt Confirmed** status code indicates that the DRMO has acknowledged the receipt of this DTID. WASTE automatically updates the status of the DTID to this status when it receives information from DRMO as a part of the feedback files.

The **Scheduled for Pick-Up** status code indicates that the DRMO has scheduled for a pick-up of the waste associated with this DTID as a part of the feedback files.

A **Partial Pick-Up** indicates that the DRMO has partially picked up the waste associated with this DTID. WASTE will automatically update the status of the DTID to Partial Pick-Up status when the waste associated with the DTID is partially picked up as a part of the feedback files.

The **Pick-Up Completed** status code indicates that the DRMO has picked up the waste associated with this DTID. This status code automatically updates the status of the DTID when WASTE receives information from the DRMO that the waste associated with the DTID has been picked up as part of the feedback files.

The **Pick-Up Manifest Returned** status code indicates that the generator received the returned manifest from the TSDF. The generator will have to manually change the status of the DTID from Pick-Up Completed status since the system automates the status codes up to that point.

As the disposal process is completed, the generator will manually need to change the status of the DTID to **Disposal Completed**, typically from Pick-Up Manifest Returned to Disposal Completed.

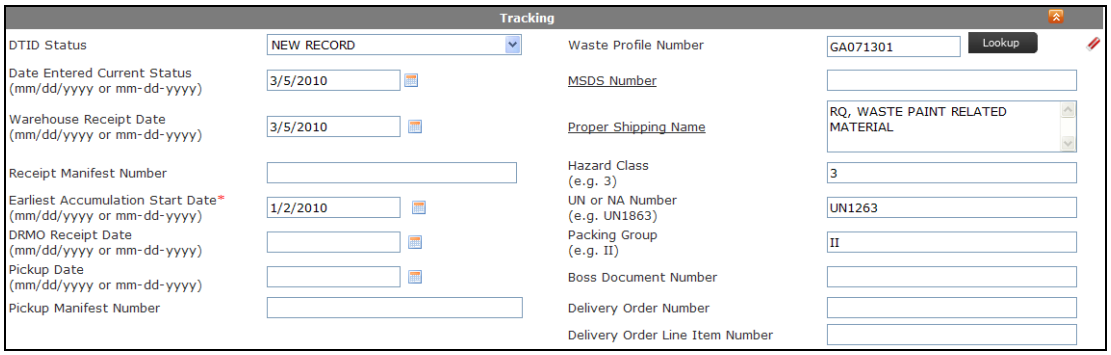
The **Non-DRMO Turn-In for Disposal** status code indicates that the waste associated with the DTID is disposed using a Non-DRMO contractor. The generator can enter their **Non-DRMO Turn-In for Disposal** records and track the waste or recyclable materials turned in for disposal (e.g. used oil, paper, cardboard, scrap metal, brass, and etc.). The records for a **Non-DRMO Turn-In**

for Disposal are not electronically transferred to DRMO but the user can create reports with this valuable recycling or non-hazardous waste information.

Ensure that if the user has a Non-DRMO Turn-In, utilize the Non-DRMO naming convention (e.g. State Abbreviation/NONDRMO/Julian Date/three digit sequential number), the status code is changed to **Non-DRMO Turn-In for Disposal,** and the **Ship to Address** is changed to **Non-DRMO Disposal DRMO**.

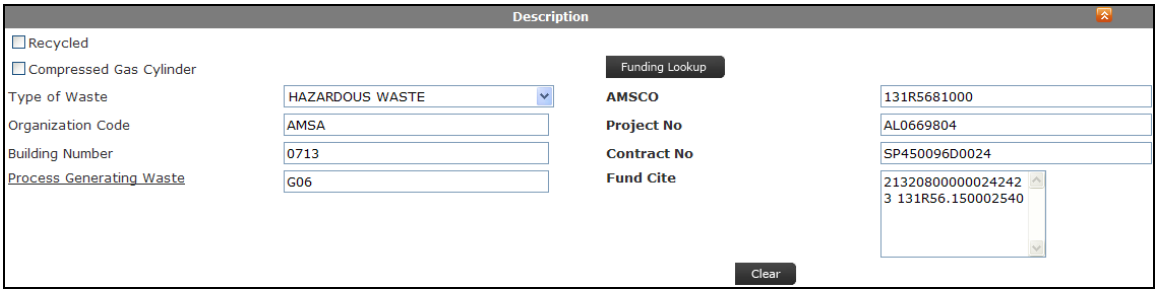
2. Turn your attention back to the DTID. The generator will complete the **Receipt Manifest Number** field only if the waste arrives at your waste management site with a shipping manifest. This field is not updated by feedback files but by the generator.
3. The **DRMO Receipt Date** field is the date that the DRMO accepts ownership of the property. **The Pickup Manifest Number** field is for the manifest used to ship the waste from your site. These fields will be completed by the DRMO Feedback function.
4. Press the Tab key until you come to the **Waste Profile Number** field.
5. Press the **Lookup** button. When you press this key, you will see the list of facility waste profiles in the system. You are able to search list of profiles with waste profile numbers or name of waste.
6. Select the waste profile number **GA071301** and click **OK.**
7. After you select the waste profile, WASTE automatically populates specific fields on this screen.

If a HWPS is not attached, the shipping information is not sent to DRMO.



Description Section

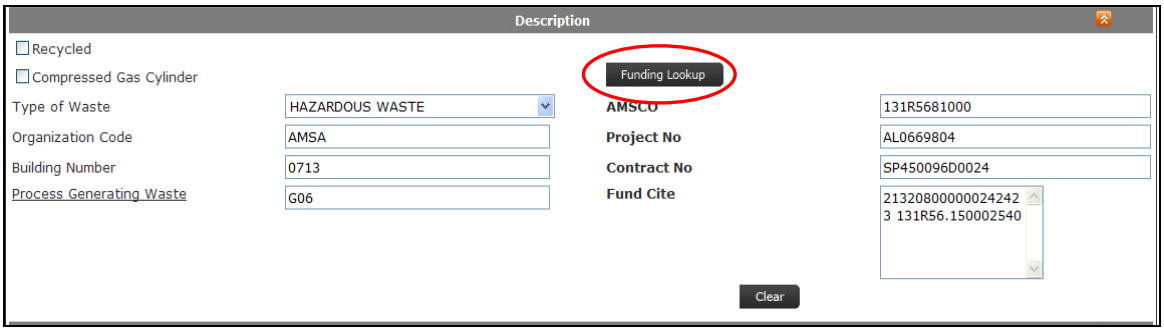
This screen allows you to describe the waste in detail for future reference.



1. Scroll down to the **Description** section. You can see that WASTE automatically entered information from the Waste Profile and the default data. You can modify this information if you wish. For this course example, this is not necessary.
2. First, the user must tell WASTE if the waste is a **Recycled.** If yes, click the button. Our example waste is not a recycled waste.
3. Then, you must select if the waste is in a **Compressed Gas Cylinder.**
4. Next, for **Type of Waste** select whether it is:
    - Hazardous Waste
    - Non-Hazardous
    - Universal
    - Used Oil
    - TSCA Waste
    - Non-RCRA
    - State Specific Waste

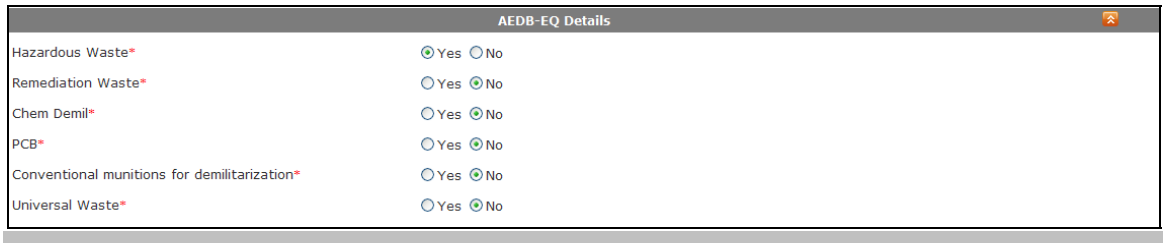
By default WASTE is set to display HW. Our example is a **Hazardous Waste.**

5. Press Tab or click in the **Organization Code** field. This field describes the organization where the disposal contractor will remove the waste (e.g. FACID, OMS, AMSA, or ECS). For our example, use **AMSA** for the Organization Code. This is an optional field but it can be useful. Many installations use organization codes to distinguish between facilities and locations.
6. Now Tab to the **Building Number** field. For our example, use the mock data and enter building number **0713**. This should be the building from where DRMO will remove the waste.
7. The **Process Generating Waste** field should be pre-populated from the HWPS.
8. WASTE can store multiple funding methods. Click the **Lookup** button to choose your funding information. You will see the following screen where you can change funding information by selecting a different project. We will use **81st RSC-ANNISTON**, and click **Select and Continue.**



AEDB-EQ Section

This section is an enhancement in WASTE Version 4.1 that enables to user to input and track Army Environmental Database - Environmental Quality (AEDB-EQ) details to assist with data calls.



Answer **Yes** or **No** to the list under the AEDB-EQ section based on the information used to fill out the DTID.

For this course example choose **YES** radio button for Hazardous Waste. The waste is not a Remediation Waste, Chemical Demilitarization, PCB, Conventional munitions for demilitarization, or an Universal Waste so the user must select **No** for these radio buttons.

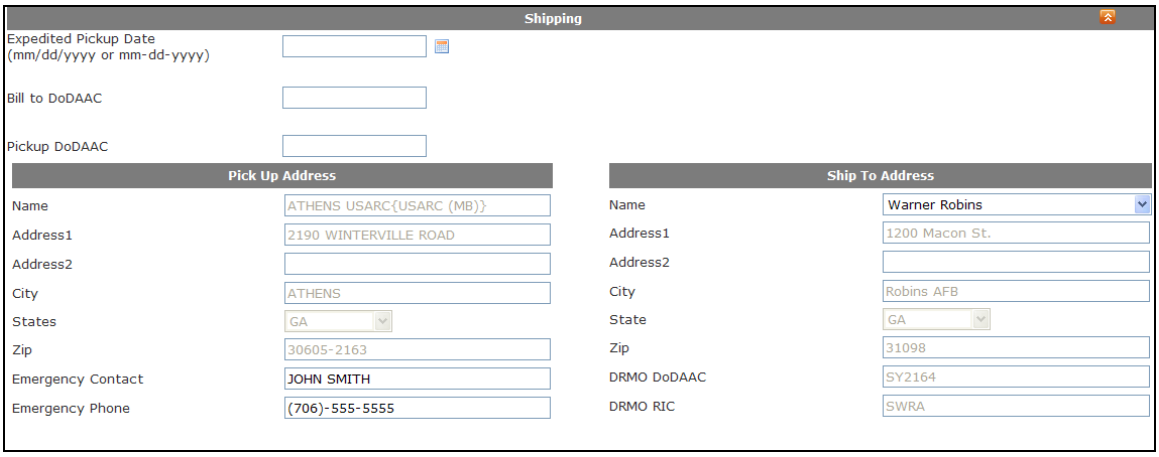
For more details about the AEDB-EQ and how the WASTE data is captured and interfaced for EQ reporting, see Module 4, Utilities tab.

Shipping Section

Scroll down to the shipping screen. As the user, you will see that WASTE has already entered all of the information except the **Expedited Pickup Date.** Use that field only when you use this expedited CLIN/HIN found in your DRMO contract.

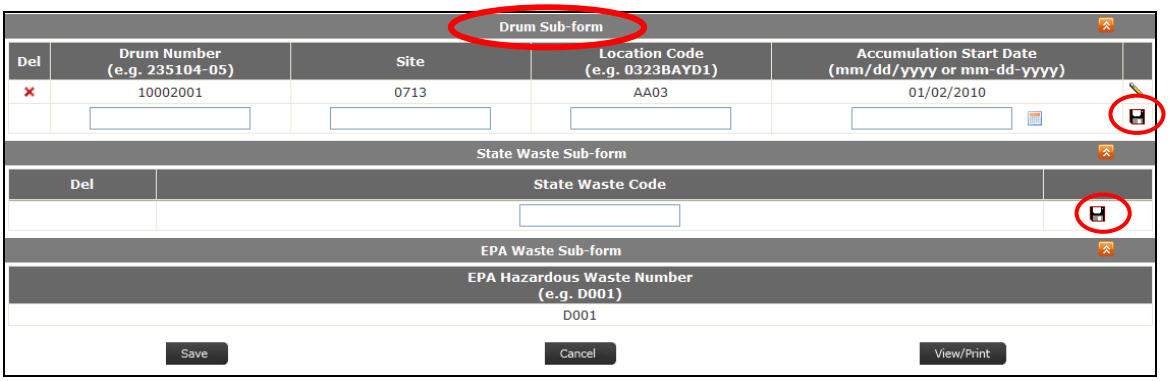
To ensure that if the user has a Non-DRMO Turn-In, the user should utilize the Non-DRMO naming convention (e.g. State Abbreviation/NONDRMO/Julian Date/three digit sequential number), the status code should be changed to **Non-DRMO Turn-In for Disposal,** and the **Ship to Address** changed to **Non-DRMO Disposal DRMO**.

To designate that the user has a Non-DRMO Turn-In, use the drop-down field under **Ship to Address** and change to **Non-DRMO Disposal DRMO.** This is the only time the Ship to Address can be edited.



Sub-Form Section

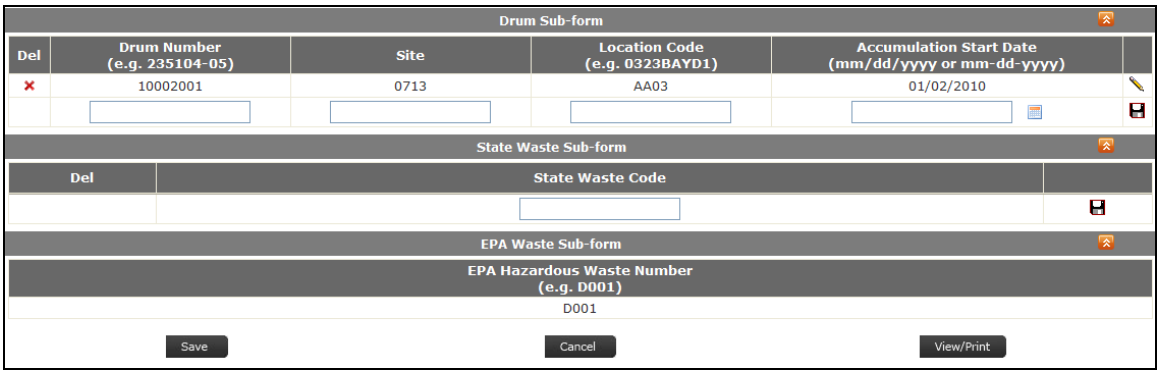
1. Scroll down to the **Sub-Form** sections. These are the final sections for the DTID. You will verify information from your profile and enter information for your Location Order Listing (Floor Plan).



2. Now click on **Drum Sub-Form**. Most facilities have an existing system for numbering containers and accumulation locations. For our example, enter **Drum Number 10002001** (DRMO requires four or more characters), **Site 0713, Location Code AA03,** and **today's date for Accumulation Start Date.**

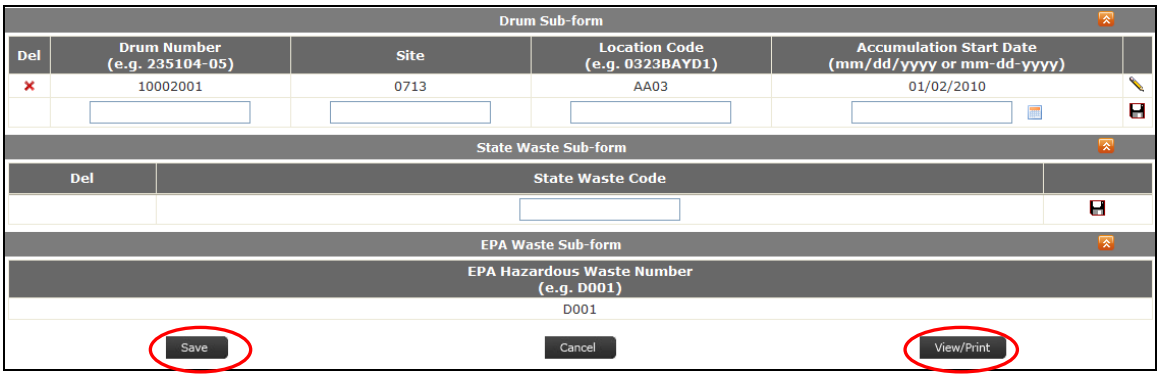
   Note: You must click the **Add** button before **Saving** or the information will be not be added to the DTID.

3. Click on the **State Waste Sub-Form** (our example has no state waste codes).



4. Click on the **EPA Waste Sub-Form** and the **EPA Hazardous Waste Number Sub-Form**. The Sub-Form data (**D001 and F005**) was transferred from the HWPS (GA071301) automatically.

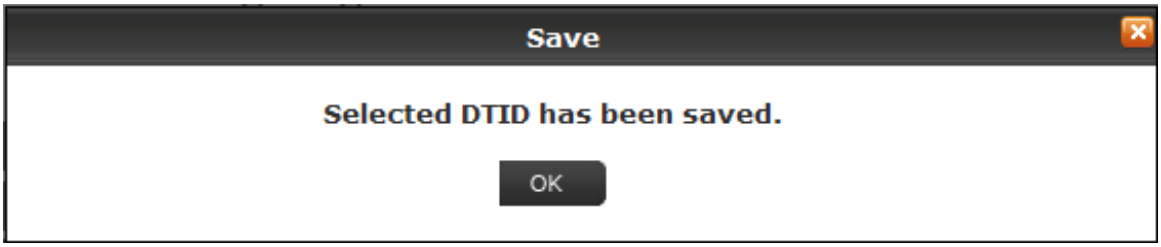
   Note: You must click the **Add** button before clicking on **Save** or the information will be not be added to the DTID.



5. Click on the **Save** button to save your DTID data.

> *The user must click on **Save** to save the DTID data before the **View/Print** function should be completed. If the user selects **View/Print** without saving, data will not transfer over to the View/Print form.*

6. Now click on the **View/Print** button in the bottom right corner of the DTID. From that screen the user can export the file to Adobe PDF format or Microsoft Excel. The file is then printable from the file type you have chosen. From now on, this profile is available to you by clicking on the profile lookup screens located both in this section and in the DTID section.
7. Click **Save** to save and pop up confirmation like the one pictured on the following page will appear. Return to the **Main Landing Page** by using the tabs located at the top of the page.



Congratulations! Your DTID is complete!

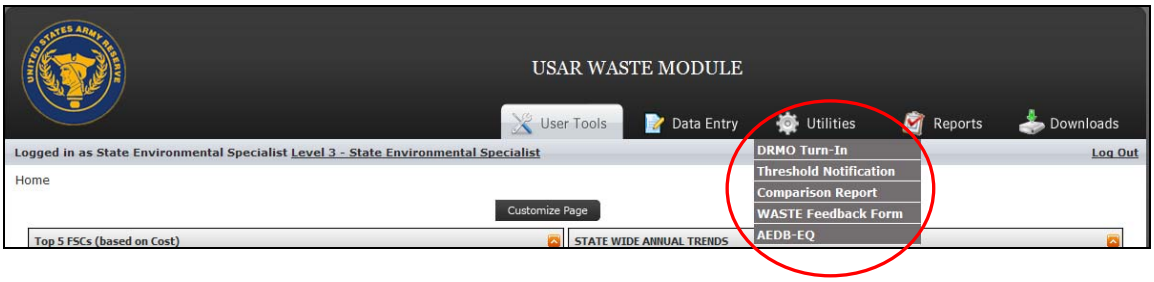
Table of Contents

This page intentionally left blank.

Module 4 — Utilities

Background

The purpose of this module is to generate **DRMO Turn-Ins, Threshold Notifications, Comparison Reports, WASTE Feedback Forms and AEDB-EQ reporting.** This information can be found by looking under the **Utilities** section of the Main Menu.



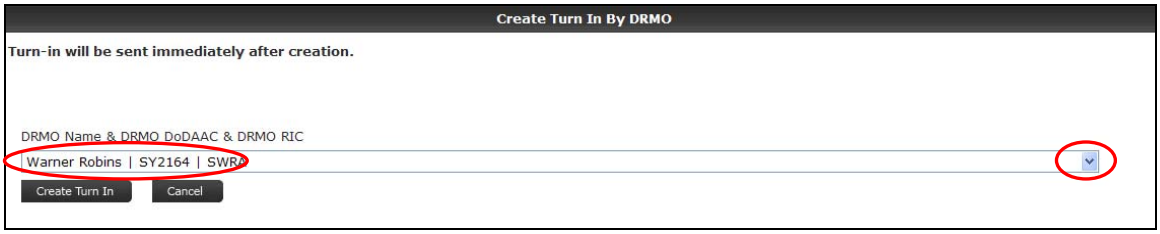
DRMO Turn-In

The DRMO Turn-In option allows a user to generate a turn-in report for a selected DRMO.

DRMO turn-ins will be based off of the U.S. Army Reserve internal DoDAAC. This means that all turn-in information will be sent and received through DRMO under one DoDAAC internally.

To generate a turn-in for a selected DRMO, you must first click on the **DRMO Turn-In** hyperlink under the **Utilities** section. Once you click this hyperlink you must then select **Create Turn-In by DRMO** button.

On the next screen select the **DRMO Name,** select **Warner Robins** for this course example from the drop-down menu that you would like to create a turn-in for, and click **Create Turn-In** button.



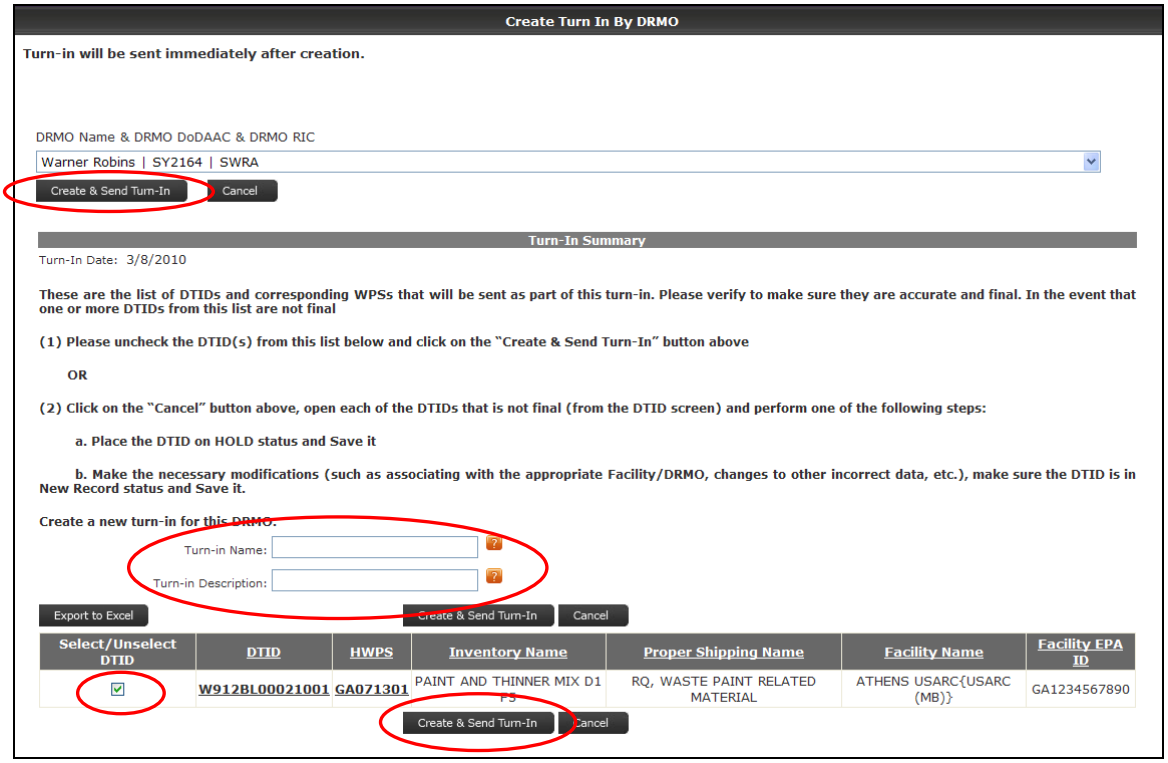
A new screen will open verifying that your turn-in information stating the following information on the next page.

These are the list of DTIDs and corresponding HWPSs that will be sent as part of this turn in. Please verify to make sure they are accurate and final.

In the event that one or more DTIDs from this list are not final, do the following:

1. Please uncheck the DTID(s) from the list and click on the **Create & Send Turn-In** button; or
2. Click on the **Cancel** button, open each of the DTIDs that are not final (from the DTID screen) and perform one of the following steps:

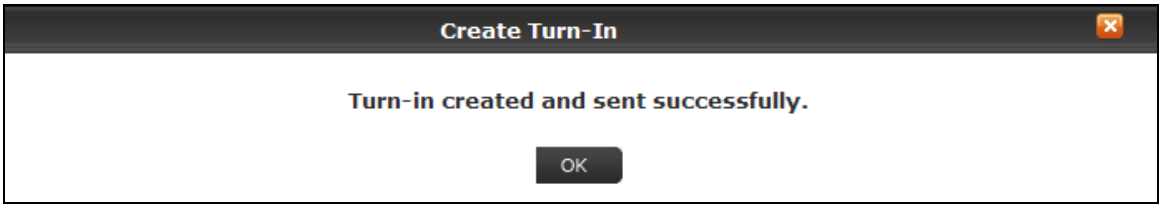
    a. Place the DTID on **Hold** Status and **Save.**
    b. Make the necessary modifications (such as associating with the appropriate Facility/DRMO, changes to other incorrect data, etc) and make sure the DTID is in **New Record** status and **Save**.
    c. Create a new turn-in for this DRMO.



The user can create a custom Turn-in Name and Turn-in Description that can be used to search based on name and description. This is the only place that this can be entered once the Create and Send Turn-in button is clicked. The user can not go back and add this information after the Turn-in is created and sent. A custom Turn-in name and Turn-in Description is optional information and if no data is entered into the fields the data will be blank.

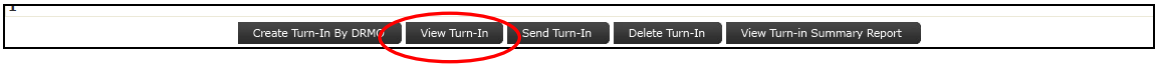
After reviewing the list of DTIDs and corresponding HWPSs that will be sent as part of this turn-in, click on **Create and Send Turn-In** button.

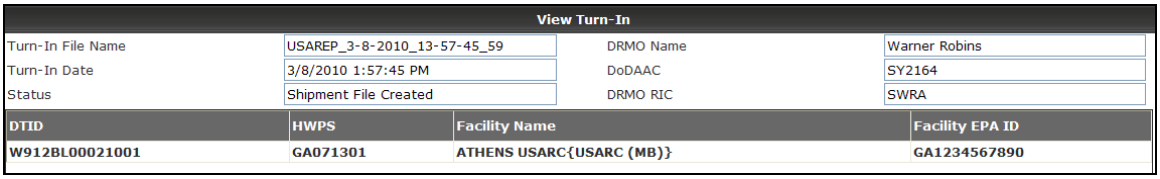
A pop-up will open to ensure that you want to send the turn-in and you should click "**OK**". Also another pop-up will open up to let you know your turn in was created and sent successfully. Click the "**OK**" hyperlink to return to the **Main Menu.**



Notice that under the Status Column in the Active DRMO Turn-In listing, it displays your file as **Shipment File Created**. If the user had created a custom Turn-in name or Turn-in Description it would show up in the two center columns of the screen shot below. The Turn-in Name and Turn-In Description helps the user to understand what the turn-in is by looking at the turn-in name and description. Also, there is a search functionality that assists the user search based on DTID number, Turn-in name and Turn-in description. This is a new functionality of WASTE Version 4.1.

To view the turn-in before or after the submission, select the Turn-in file and click the **View Turn-In** button to verify that your turn-in has the correct information. Once you have verified your data, click **Cancel**.





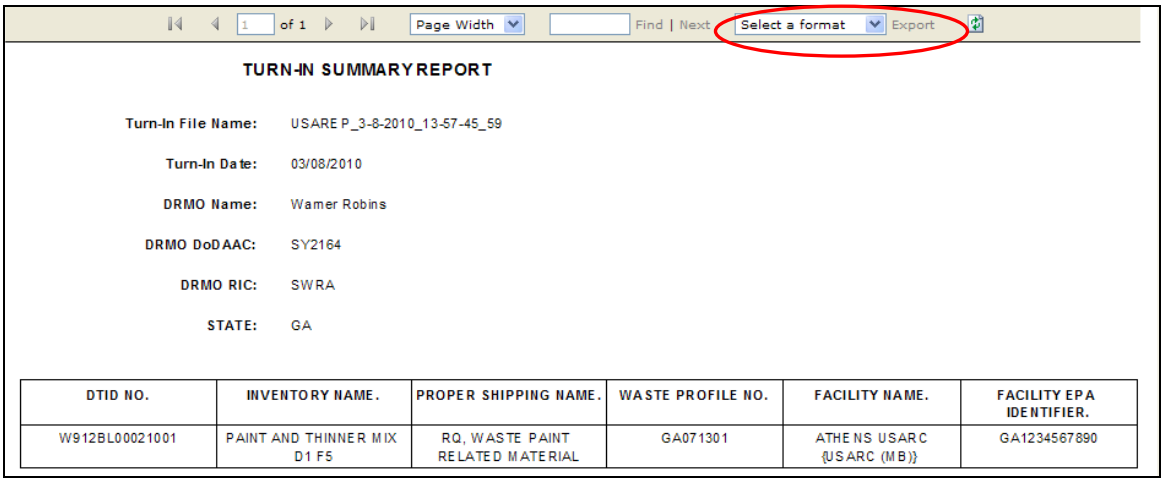
Once you have sent a turn-in file, the HWPS attached to the turn-in can no longer be edited. If the HWPS needs to be edited at a later date, a new HWPS must be created.

Another option in the Active DRMO Turn-In Listing Page is the **View Turn-In Summary Report**. Click on the **View Turn-In Summary Report** button in the bottom right corner of the Active DRMO Turn-In Listing page.

At the top of each report screen there will be an option to export the report into another format. The formats include:

- Acrobat (PDF) File
- Excel

Choose the selected format and click **Export**. The WASTE application will then ask the user to Open, Save or Cancel the file.



If the user at a later time wants to send the turn-in file after reviewing for accuracy, the user will click the **Send Turn-In** button. A confirmation screen will prompt the user if they want to send the selected turn-in. If yes, click **OK** or **Cancel** if the user is unsure.

If the user wants to delete the turn-in file, the user will click the **Delete Turn-In** button. A confirmation screen will prompt the user to click **OK** to delete the selected turn-in file.

Threshold Notification

Threshold Notification

Every time you logon to WASTE the Threshold Notification screen will automatically open when you log into WASTE, if you have selected **YES** under the **User Preference** tab within the User Tools tab. If you selected **NO** under **User Preference**, the user can access this notification by clicking on the **Threshold Notification** hyperlink in the Utilities tab.

This screen alerts the user to any records which are out of date. If there are no records out of date the screen will look like the following screen.

Threshold Notification

1 2 3 4 5 6 7 8

DTID Number	Inventory Item Name	Notice of Violation Flag	Disposal Status Description	Accumulation Start Date	DRMO Receipt Date	Pick-up Date	Facility Name	Pick-up Warning Limit	Pick-up NOV Limit	Manifest not Returned Limit	Manifest NOV Limit

However, if there are records which are out of date the screen will look similar to the example below. A Red Flag will indicate an issue with an Accumulation Start Date (ASD) and a Blue Flag will notify the user of a Manifest Return Date compliance issue.

Threshold Notification

1 2 3 4 5 6 7 8

DTID Number	Inventory Item Name	Notice of Violation Flag	Disposal Status Description	Accumulation Start Date	DRMO Receipt Date	Pick-up Date	Facility Name	Pick-up Warning Limit	Pick-up NOV Limit	Manifest not Returned Limit	Manifest NOV Limit
W31BP683570001	UNKNOWN FOR SAMPLE ID		Shipment File Sent	12/22/2008			AMSA #151 (G) {AMSA (G)}	365	365	365	365
W31BP692170001	UNKNOWN FOR SAMPLE ID		New Record	12/22/2008			AMSA #151 (G) {AMSA (G)}	365	365	365	365
W31MD592170001	UNKNOWN FOR SAMPLE ID		Shipment File Sent	12/22/2008			WILLIAM W EVANS USARC {OMS (MB)}	365	365	365	365
W31MF482190001	LINDANE POWDER		Shipment File Sent	08/06/2008			ANDREW LESLIE JACKSON USARC {OMS (MB)}	365	365	365	365
W31MF482190002	DIAZINON POWDER		Shipment File Sent	08/06/2008			ANDREW LESLIE JACKSON USARC {OMS (MB)}	365	365	365	365
W31MF482190003	HYDRAULIC FLUID		Shipment File Sent	08/06/2008			ANDREW LESLIE JACKSON USARC {OMS (MB)}	365	365	365	365
W31MF482190004	TOLUENE		Shipment File Sent	08/06/2008			ANDREW LESLIE JACKSON USARC {OMS (MB)}	365	365	365	365
W31MF482190005	LUBE OIL		Shipment File Sent	08/06/2008			ANDREW LESLIE JACKSON USARC {OMS (MB)}	365	365	365	365
W31MF482520007	ENAMEL PAINT		Shipment File Sent	06/19/2008			ANDREW LESLIE JACKSON USARC {OMS (MB)}	365	365	365	365
W31MF482520009	ANTIFREEZE		Shipment File Sent	06/19/2008			ANDREW LESLIE JACKSON USARC {OMS (MB)}	365	365	365	365

Comparison Report

The comparison report enables the user to compare some of the DTID cost related critical data (such as Quantity, CLIN, Total Disposal Quantity, Disposal Unit Price, etc.) that is submitted by the WASTE user with the corresponding data claimed by the DRMO (retrieved from the feedback loop).

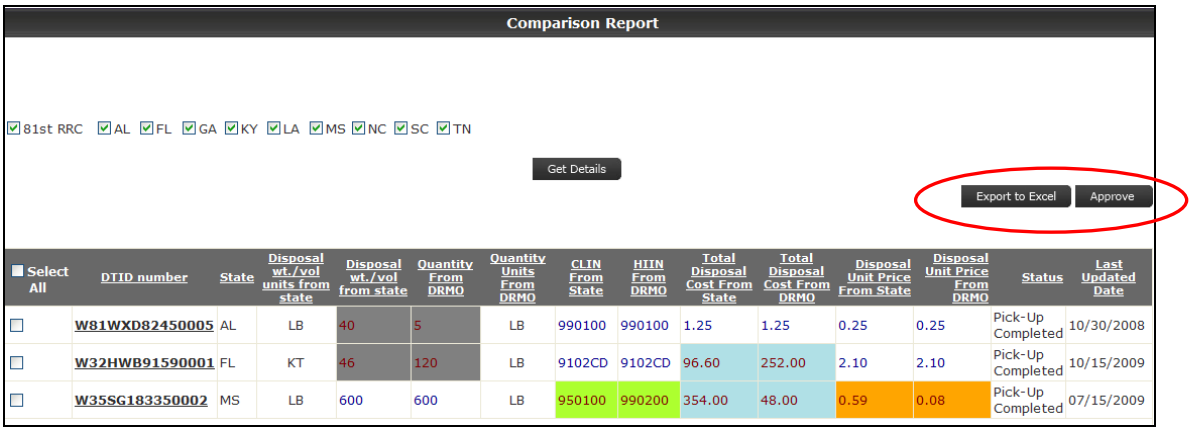
This gives the user a snapshot of the pricing differences for any DTID that user has access to. The user has the ability to accept the updated information sent by the DRMO by clicking on the **Approve** button. This would delete the line item from the comparison report. An action must be taken to clear the line item from the Comparison Report.

In the event that the user finds discrepancies with pricing information on some DTIDs, the user would contact the DRMO representative to obtain clarification on the differences before accepting the updates sent by the DRMO for those DTIDs in the comparison report.

This report can also be exported to Excel by clicking on the **Export To Excel** button.

Only those DTIDs will be displayed for which the pricing differences DOES NOT follow the criterion below:

* Cost difference is < 25% AND * Cost difference is < $100



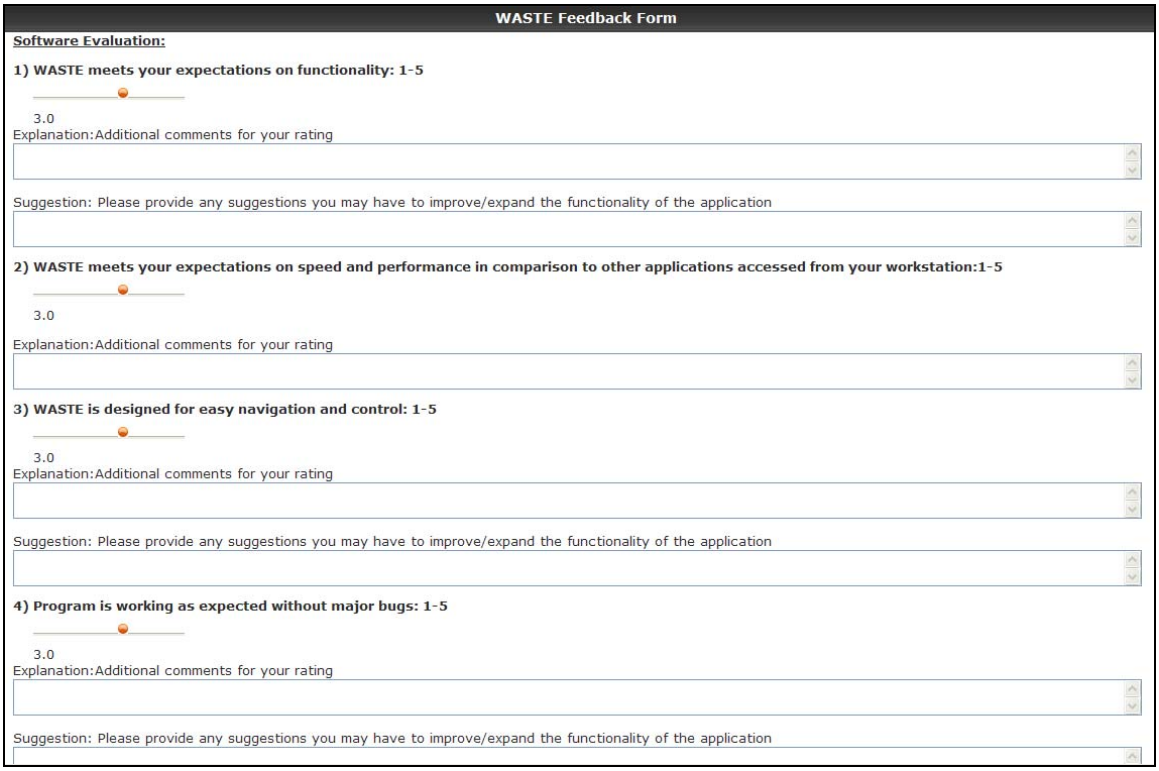
Select All	DTID number	State	Disposal wt./vol units from state	Disposal wt./vol from state	Quantity From DRMO	Quantity Units From DRMO	CLIN From State	HIIN From DRMO	Total Disposal Cost From State	Total Disposal Cost From DRMO	Disposal Unit Price From State	Disposal Unit Price From DRMO	Status	Last Updated Date
☐	W81WXD82450005	AL	LB	40	5	LB	990100	990100	1.25	1.25	0.25	0.25	Pick-Up Completed	10/30/2008
☐	W32HWB91590001	FL	KT	46	120	LB	9102CD	9102CD	96.60	252.00	2.10	2.10	Pick-Up Completed	10/15/2009
☐	W35SG183350002	MS	LB	600	600	LB	950100	990200	354.00	48.00	0.59	0.08	Pick-Up Completed	07/15/2009

WASTE Feedback Form

The feedback form enables the user to communicate the usefulness of the applications. The user is able to provide comments on the various modules and related features, in addition to providing enhancement suggestions.

Rate each question using the slide bar with the rating system from 1-5. Slide the orange button to correspond to the desired rating for each statement. Within the various statements about the WASTE application, the user is prompted to provide an explanation of their rating in the comment section. Also, it provides the user the opportunity to make suggestions to further improve/expand the functionality of the application.

Click within the entry boxes to document suggestions or comments and click the **Submit** button when completed. All responses will be electronically forwarded and reviewed by the Environmental Compliance Manager for HW. A screenshot is provided as an example of the WASTE Feedback Form.



AEDB-EQ Data Call Submissions

The AEBD-EQ system commonly referred to as the EQ module, is a reporting module of the Army Environmental Database. Headquarters, Department of the Army (HQDA) uses the EQ module for ad hoc reporting of notices of violation as well as quarterly submission of metrics related to the Army's compliance, conservation and pollution prevention programs.

WASTE will provide an interface which allows the users to seamlessly enter the numbers for AEDB-EQ reporting. Advantages include saving time for the user resulting in increased efficiency and productivity, logging and archiving information, and also the flexibility to generate reports based on the data.

Level 1, 2, and 3 users have access to this AEDB-EQ feature. The AEDB-EQ reporting will be based on states. Every state will submit one report for the previous calendar year and will be reviewed by the Level 1 user.

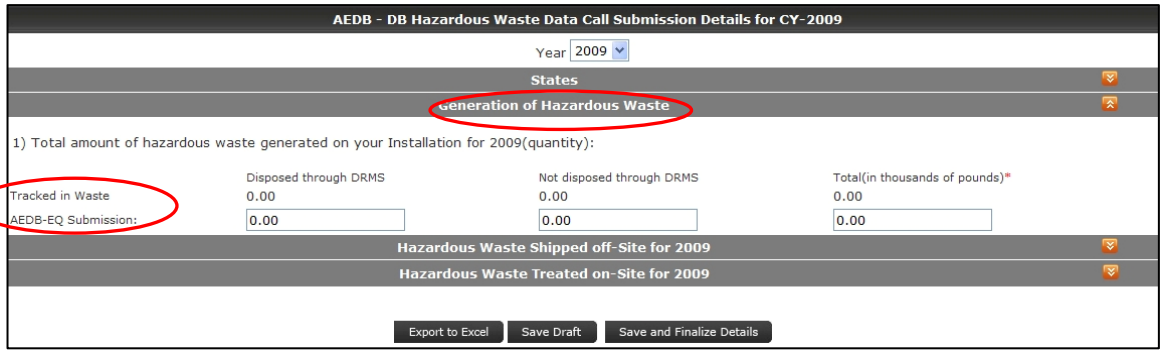
A Level 2 user will see all the states within the particular region in a checkbox format. If the Level 2 user selects a single state, he/she will see the data submitted by the user (Level 3) associated with that state. The Level 2 user can change the data submitted by the Level 3 user and **Save Draft**, **Export to Excel** and **Save and Finalize Details**.

States

This section involves tracking the data entered into WASTE and generation by state. Lever 3 users are not able to see the State portion of the AEDB-EQ section, because the report is tied specifically to their associated State(s).

Generation of Hazardous Waste

The next section of AEDB-EQ is the Generation of Hazardous Waste. This section shows the user the amount of Hazardous Waste generated by the installation. The total amount of waste is broken down into three categories by disposal through DRMS or not disposed through DRMS and total disposal (in thousands of pounds).



The following are the three categories in which the types of data are presented to the user:

- Disposed through DRMS: This column shows the quantity of waste (applicable to each question) disposed through the DRMS during the CY (i.e. 2009)
- Not Disposed through DRMS: This column shows the quantity of waste (applicable to each question) not disposed through the DRMS during the CY (i.e. 2009). This included all the DTIDs whose Earliest Accumulation Start Date is in 2009 and is associated with the status “Non-DRMO Turn-in for Disposal”.
- Total: This column shows the quantity of waste (applicable to each question) disposed through the DRMS and not through DRMS during the CY (i.e. 2009).

The following are types of data are presented to the user:

- Tracked in WASTE: This field shows the quantity (applicable to each question) tracked in WASTE and falls in the appropriate category. This field is

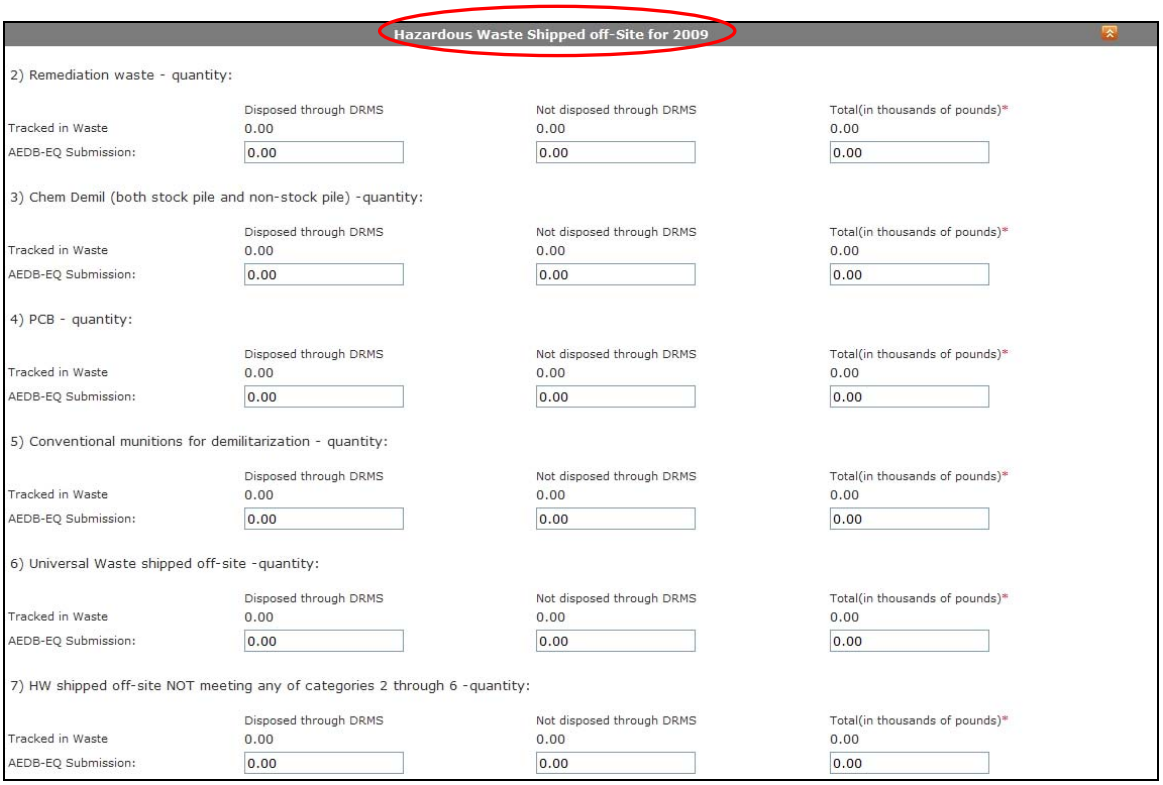
non-editable and is updated dynamically based on the data input into WASTE.

- AEDB-EQ Submission: This field is defaulted to the value from the "Tracked in Waste" (for each question) but is **editable**. The user may update this field to the actual quantity based on the user's records. Once saved the updated value will be used to fill in this field during subsequent visits from any user for this state's AEDB-EQ submission report for the CY (i.e. 2009).

Hazardous Waste Shipped Off-Site for CY

The next section of AEDB-EQ is the amount of Hazardous Waste Shipped Off-Site for the past year. The total amount of waste is broken down by disposal through DRMS or not disposed through DRMS and total disposal (in thousands of pounds) in the following categories:

- Remediation Waste
- Chem Demil
- PCBa
- Conventional Munitions for demilitarization
- Universal Waste Shipped Off-Site
- HW Shipped Off-Site not meeting categories 2 through 6

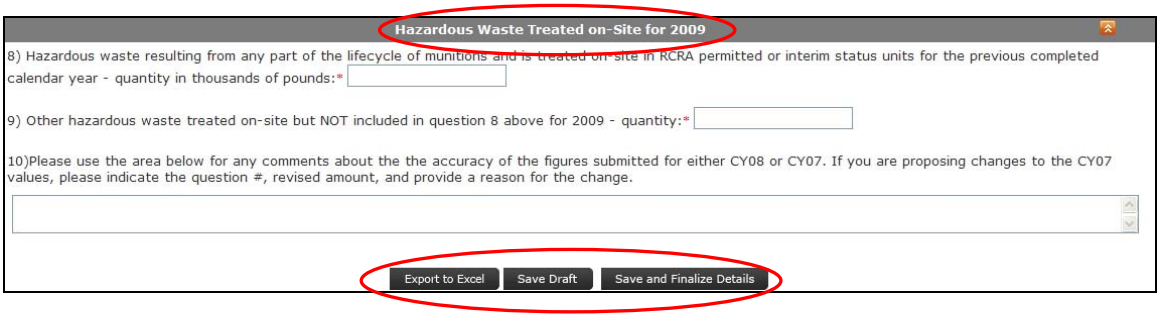


Hazardous Waste Treated On-Site for CY

The last section of the AEDB-EQ shows the user the amounts of Hazardous Waste Treated on-Site for the past year for the following categories:

- HW resulting from any part of the lifecycle of munitions and is treated on-site in a RCRA permitted or interim status units for the previous completed CY
- Other HW treated on-site but NOT included in following category for CY
- Comments sections about the accuracy of the figures submitted for previous CY

All the information in these sections can be exported to excel by clicking the **Export to Excel** button.



The user can fill out the values and **Save Draft**. Once the **Save Draft** button is clicked, the user will see the updated and saved values during the subsequent visits to this page. Also the user can **Save and Finalize Details** and this will save the current details in this page as answers to each of the questions in the AEDB-EQ section, submit the values to the HQ (Level 1) for verification, and will lock the form from further updates.

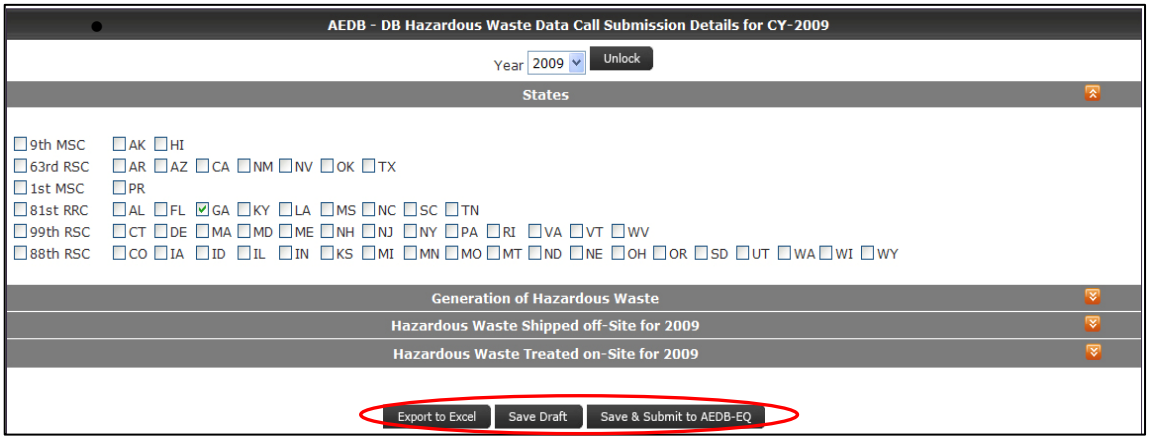
> *A Level 1 user may unlock the form upon request from a Level 2 or 3 user, to allow updates to the quantities submitted in this form by the Level 2 or 3 user.*

All the information in these sections can be exported to Excel by the user by clicking the **Export to Excel** button. This will export the values saved by the user into an Excel sheet in a format stipulated with EQ.

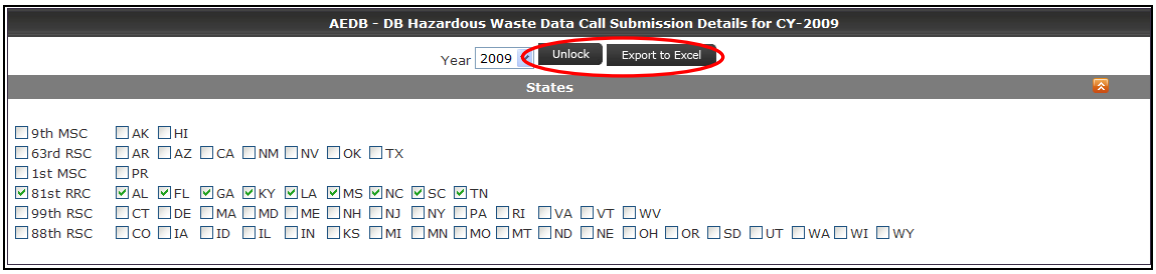
Functionality of Level 1 User using AEDB-EQ

The following are the functionalities of the Level 1 user using AEDB-EQ:

- A Level 1 user will see all the states in a checkbox format.
- **Unlock** is a unique feature to the Level 1 user and may be used at the request of Level 2 or Level 3 user to edit their data.
- If a Level 1 user selects a single state, he/she will see the data submitted by the Level 2 or 3 users. The Level 1 user can change the data submitted by the Level 2 or 3 and has the ability to **Export to Excel**, **Save Draft**, and/or **Save & Submit to AEDB-EQ.**
- If the Level 1 user chooses to **Save Draft** then the corresponding Level 2 or 3 users can only see the changes made by the Level 1 user and can make any further changes to the data.
- If the Level 1 user chooses to **Save and Submit to AEDB-EQ** then the corresponding Level 2 or 3 users can only see the changes made by the Level 1 user and can make any further changes to the data.



- If a Level 1 selects multiple states and exports them to Excel, he/she will see the values of all states that have been selected and will only see the buttons **Unlock** and **Export to Excel**.



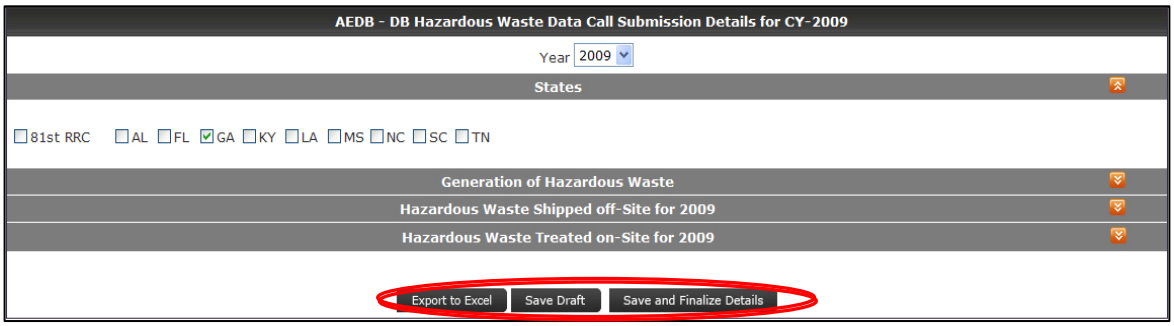
Functionality of Level 2 User using AEDB-EQ

The following are the functionalities of the Level 2 user using AEDB-EQ:

- A Level 2 user will see all the states within the particular region in a checkbox format.
- If a Level 2 user selects a single state, he/she will see the data submitted by the Level 3 user. The Level 2 user can change the data submitted by the

Level 3 and has the ability to **Export to Excel**, **Save Draft** and/or **Save and Finalize Details.**

- If the Level 2 user chooses to **Save and Finalize Details** then the corresponding Level 3 user can only see the changes made by the Level 2 user and he/she cannot make any further changes to the data.
- If a Level 2 selects multiple states and exports them to Excel, he/she will see the values of all states that have been selected.



- If a Level 2 selects multiple states and exports them to Excel, he/she will see the values of all states that have been selected and will only see the buttons **Export to Excel**.

Table of Contents

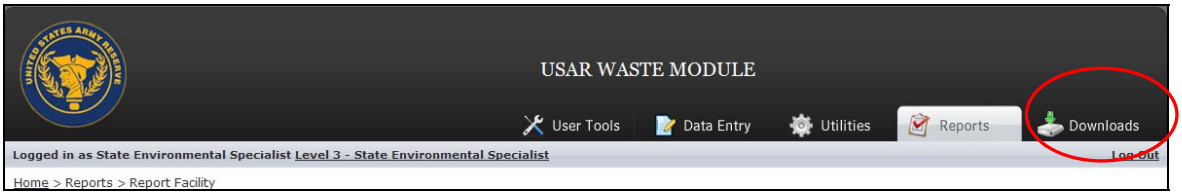
This page intentionally left blank.

Module 5 — Reports and Downloads

Background

The purpose of this module tab is to generate WASTE **Reports**. This information can be found by looking under the **Report** section of the Main Menu.

The WASTE **Download**s module tab provides copies of documents that support the WASTE application and Program Management resources.



Reports

Reports that can be generated using WASTE can be accessed by clicking the **Reports** module tab of the **Main Menu**. All the report options are listed below:

- Aging plan
- Fund Allocation
- Hazardous Waste Log
- Location Order Listing (Floor Plan)
- Trends Report

At the top of each report screen there will be an option to export the report into another format. The formats include:

- Acrobat (PDF) File
- Excel

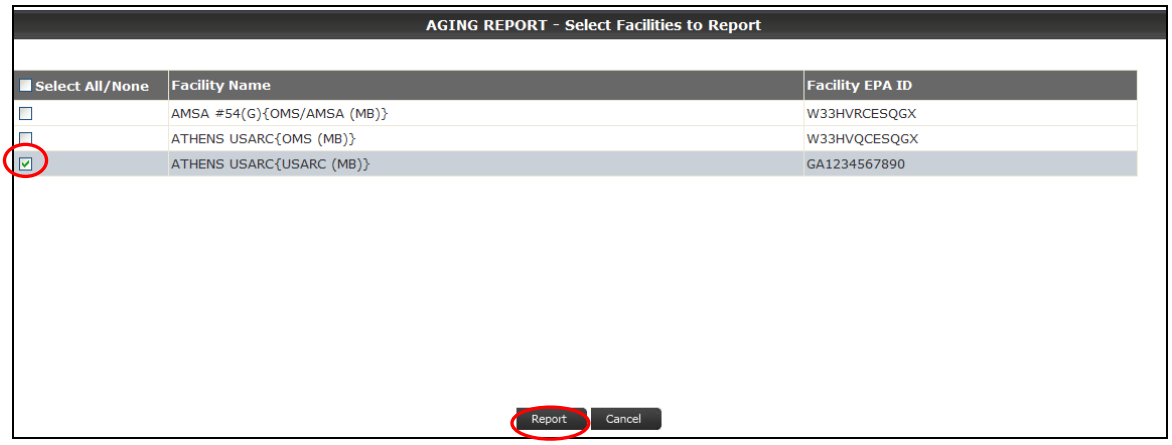
The software for these formats is housed on the WASTE server. The user does not need the software on the computer that the user is using to view the reports in the selected format.

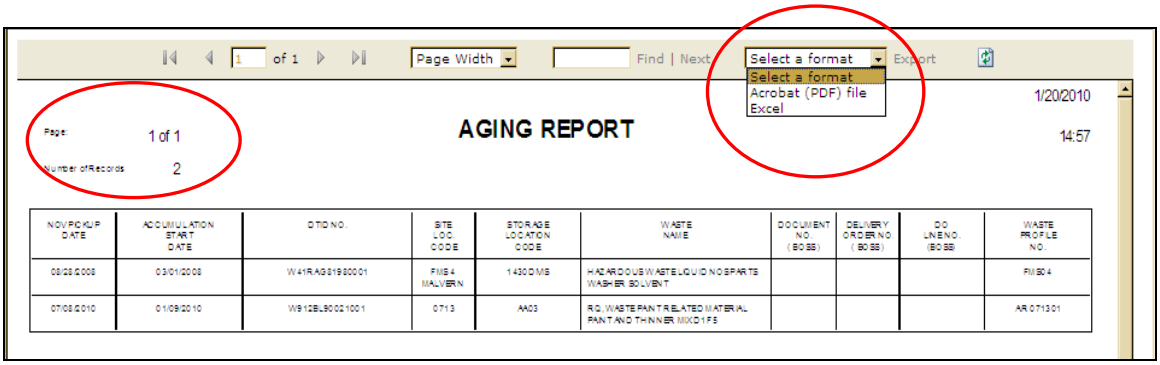
Choose the selected format and click **Export**. The WASTE application will then ask the user to Open, Save or Cancel the file.

Aging Plan

The first report is the **Aging Plan**. The Aging Plan Report is useful for the HW manager. The report tells you when a waste container will exceed the accumulation time limit. Use the following procedures to create the Aging Plan:

1. Click on **Aging Plan.**
2. Select the facility you want the report for and click **Report.**
3. A new window will open showing the report for the facility that you selected.





You should see 10 columns on this report. They are, from left to right:

- NOV Pickup Date
- Accumulation Start Date
- DTID Number
- Site Location Code
- Storage Location Code
- Waste Name
- Document Number

- Delivery Order Number
- DO Line Number
- Waste Profile Number

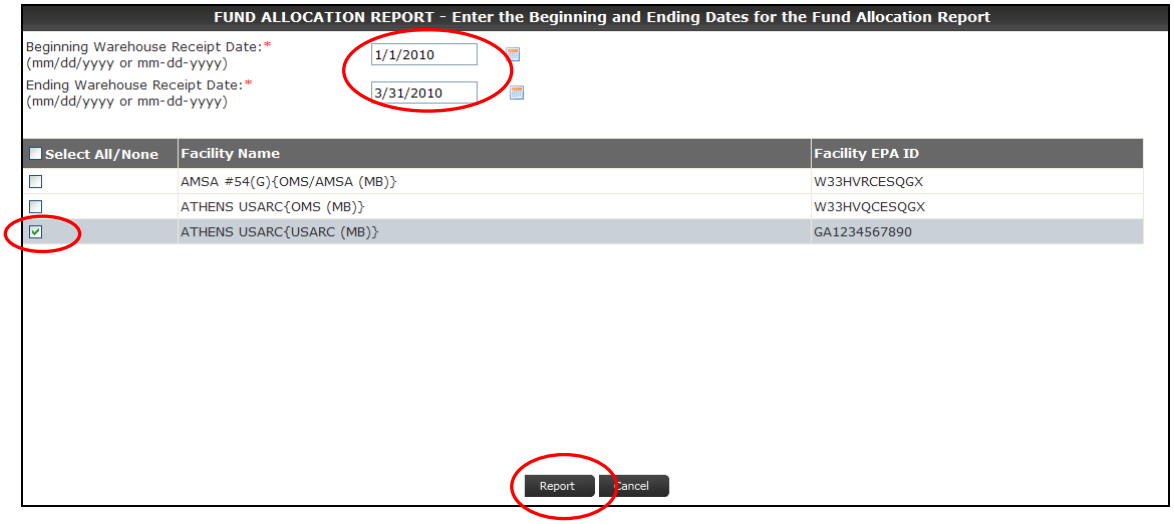
Read the report headings. The heading also tells the user the number of pages and the number of records in the report. WASTE sorts the entries from oldest to newest.

Fund Allocation

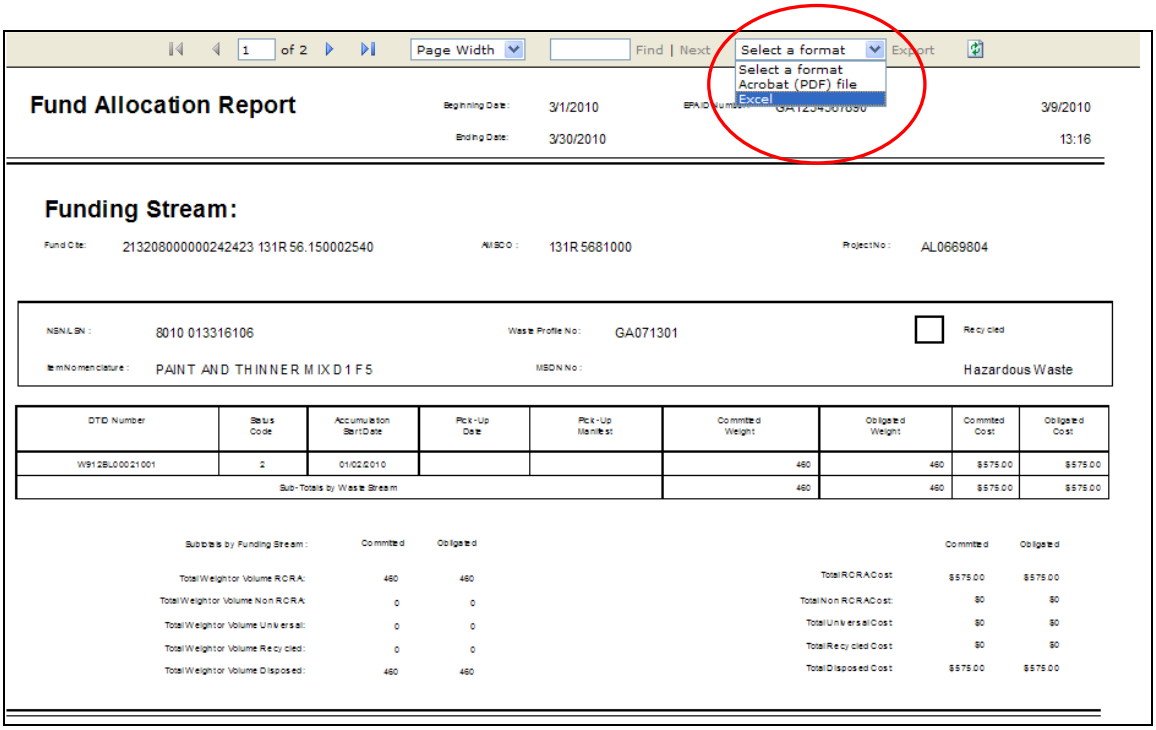
The Fund Allocation report provides a summary of the total disposal cost for HW and non-hazardous waste. The report also lists the costs for items recycled versus those which are disposed.

The Fund Allocation Report can tell you more than the amount of money spent (committed versus obligated) on disposal. The report is a great way to be sure that you do not have three or four NSNs or HWPS numbers for the same item. The Fund Allocation Report is specific to a selected date range.

1. Click on the **Fund Allocation** in the **Reports** module tab.
2. Enter the **Beginning and Ending Warehouse Receipt Dates** for the selected data range. A calendar icon has been included for users to select dates.
3. Select Facility.
4. Click **Report.**



A new window will open with the report.

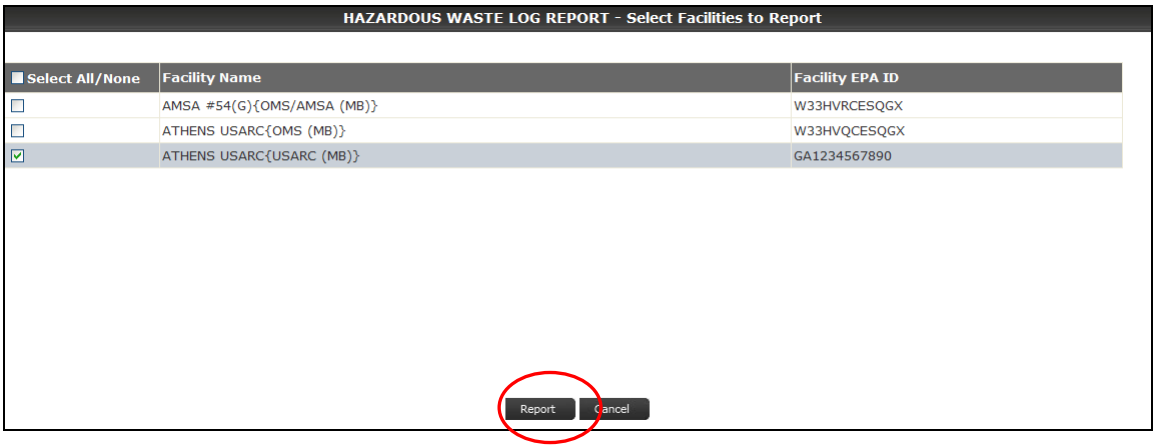


Hazardous Waste Log

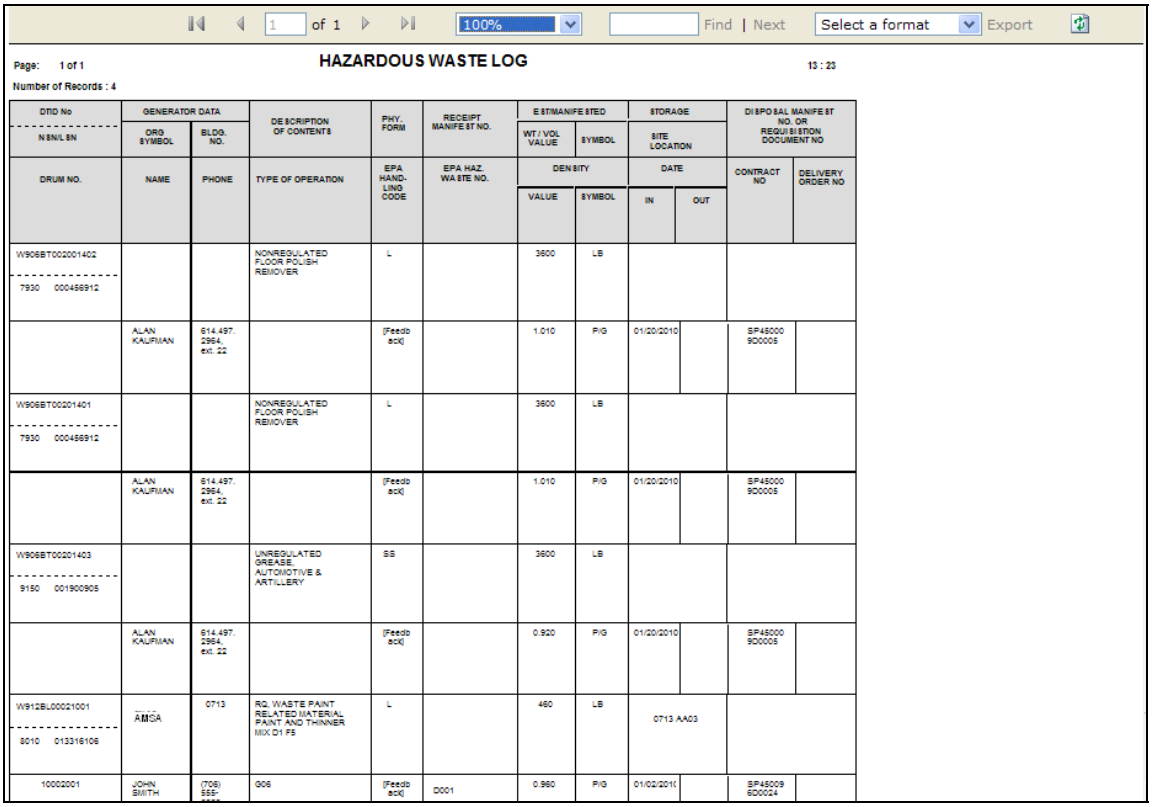
Many state regulatory agencies require waste generators to maintain a log or record of the HW generated at their sites. The WASTE Hazardous Waste Log will meet this requirement.

The WASTE log has a time/date stamp from the minute you prepare the DTID. WASTE verifies the log several times, reducing chances for error. The user can send the log offsite for review without changing record books or starting a new one.

After selecting **Hazardous Waste Log** under **Reports** module tab, the user must select the facility to generate a report for and select **Report**.



An example Hazardous Waste Log is shown below.



1 of 1 | 100% | Find | Next | Select a format | Export

Page: 1 of 1

HAZARDOUS WASTE LOG

13 : 23

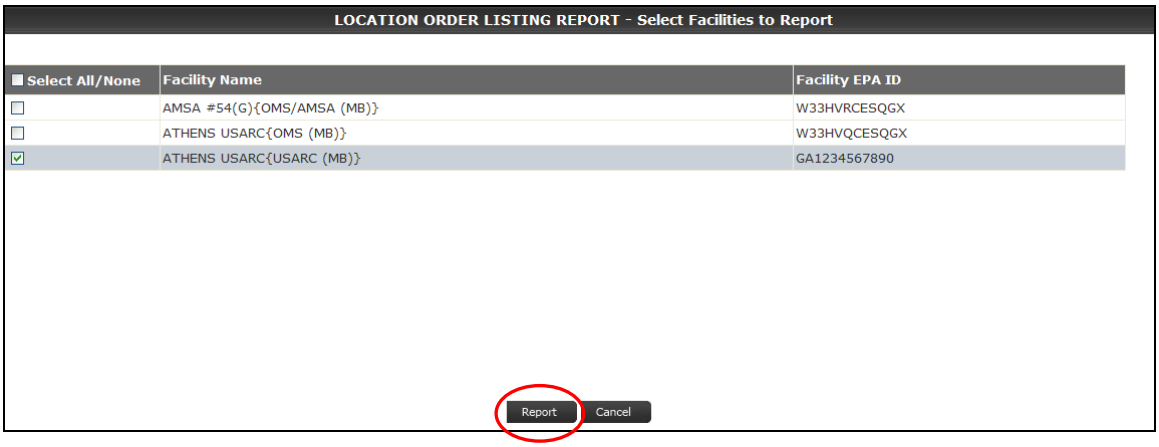
Number of Records : 4

DTID No / NSN/LSN	GENERATOR DATA: ORG SYMBOL	GENERATOR DATA: BLDG. NO.	DESCRIPTION OF CONTENTS	PHY. FORM	RECEIPT MANIFEST NO.	ESTIMATED: WT / VOL VALUE	ESTIMATED: SYMBOL	STORAGE: SITE LOCATION	DISPOSAL MANIFEST NO. OR REQUISITION DOCUMENT NO
DRUM NO.	NAME	PHONE	TYPE OF OPERATION	EPA HAND-LING CODE	EPA HAZ. WASTE NO.	DENSITY: VALUE	DENSITY: SYMBOL	DATE: IN	DATE: OUT / CONTRACT NO / DELIVERY ORDER NO
W906BT002001402 / 7930 000456912			NONREGULATED FLOOR POLISH REMOVER	L		3600	LB		
	ALAN KAUFMAN	614.497.2964, ext. 22		[Feedback]		1.010	P/G	01/20/2010	SP45000 9D0005
W906BT00201401 / 7930 000456912			NONREGULATED FLOOR POLISH REMOVER	L		3600	LB		
	ALAN KAUFMAN	614.497.2964, ext. 22		[Feedback]		1.010	P/G	01/20/2010	SP45000 9D0005
W906BT00201403 / 9150 001900905			UNREGULATED GREASE, AUTOMOTIVE & ARTILLERY	SS		3600	LB		
	ALAN KAUFMAN	614.497.2964, ext. 22		[Feedback]		0.920	P/G	01/20/2010	SP45000 9D0005
W912BL00021001 / 8010 013316106	AMSA	0713	RQ, WASTE PAINT RELATED MATERIAL PAINT AND THINNER MIX D1 F5	L		460	LB	0713 AA03	
10002001	JOHN SMITH	(706) 555-	G06	[Feedback]	D001	0.960	P/G	01/02/2010	SP45009 6D0024

Location Order Listing (Floor Plan)

The **Location Order Listing** is also called the Floor Plan. It is an excellent tool to help the user maintain an accurate waste inventory. The report lists items first by **Site Location Code**, then by **Storage Location Code**, and finally by **Waste Description**. This is particularly helpful for managers of multiple locations.

To access the Location Order Listing, the user must click on the **Reports** module tab, select the facility, and select **Report**.

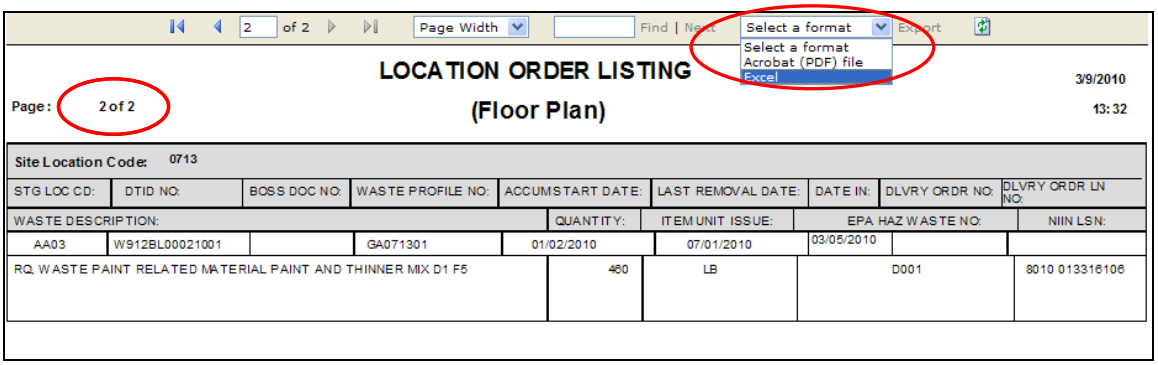


LOCATION ORDER LISTING REPORT - Select Facilities to Report

Select All/None	Facility Name	Facility EPA ID
☐	AMSA #54{G}{OMS/AMSA (MB)}	W33HVRCESQGX
☐	ATHENS USARC{OMS (MB)}	W33HVQCESQGX
☑	ATHENS USARC{USARC (MB)}	GA1234567890

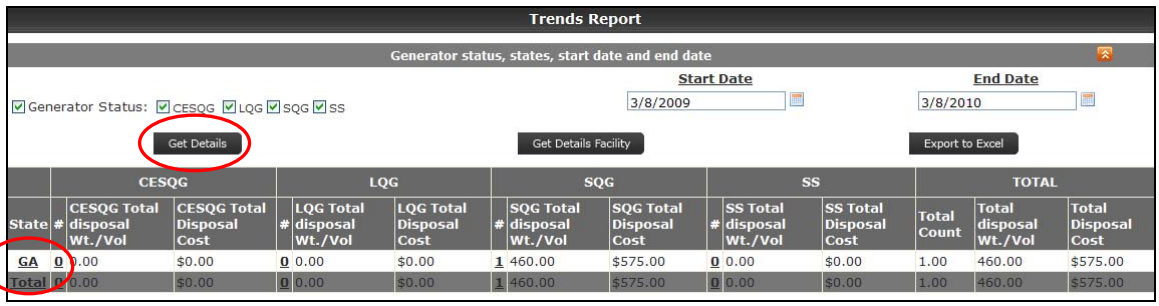
Report Cancel

An example Location Order Listing is shown below.



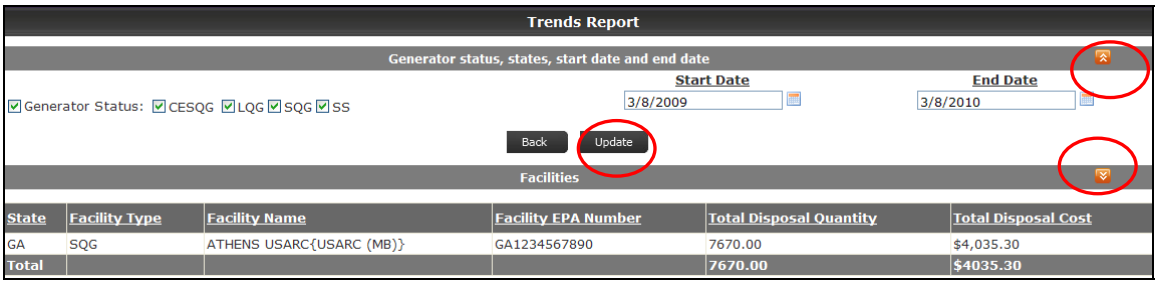
Trends Report

The Trends Report provides a historical summary of the data within WASTE. The user is able to select a specific time frame to create reports pertaining to the disposal cost and quantity for hazardous and non-hazardous waste, during selected time frames. Reports are created based on generator status or one or more facility(s).



The user can click on the State (**GA**) or **Get Details** button to view Facility Type, Facility Name, Facility EPA Number, Total Disposal Quantity, and Total Disposal Cost.

The user is now able to view **Get Details Facility** and select related information, based on generator status and selected timeframe.

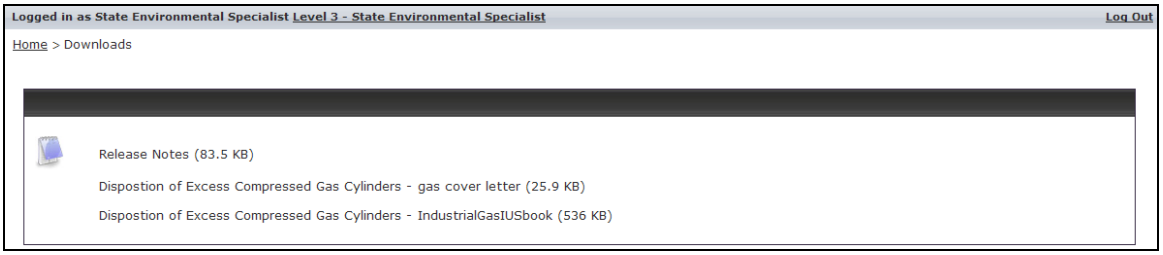


> Whenever users see the expand and collapse buttons, this indicates that data fields can be expanded or collapsed to view details on the page.

Choose the selected format and click **Export**. The WASTE application will then ask the user to Open, Save or Cancel the file. If the user wants to update their choices in the Trends report, the user should click the **Update** button to refresh the information.

Downloads

The purpose of this module tab is to assist the user with downloading information placed on the WASTE application by the Environmental Program Manager for HQ USARC. Available resources would include WASTE application enhancements release notes, current WASTE User Training Manual, newsletter (whenever available), policy, guidance, and other management support resources.



This page intentionally left blank.

Table of Contents

This page intentionally left blank.

Module 6 — Characterizing Hazardous Waste

Characterizing Hazardous Waste

A material must first be classified as a solid waste before it can be classified as a hazardous waste. 40 CFR Section 261.2 defines a solid waste as follows:

- Paragraph (a) – Any discarded material not excluded by §261.4(a) or that is not excluded by a variance granted under §§260. 30 and 260.31 or that is not excluded by a non-waste determination under §§260.30 and 260.34.
    - Discarded is any material which is abandoned, recycled, considered inherently waste-like or a military munitions identified as a solid waste.
    - A hazardous secondary material is not discarded if it is generated and reclaimed under the control of the generator as defined in §260.10, it is not speculatively accumulated as defined in §261.1(c)(8), it is handled only in non-land-based units and is contained in such units, it is generated and reclaimed within the United States and its territories, it is not otherwise subject to material-specific management conditions under §261.4(a) when reclaimed, it is not a spent lead acid battery (see §266.80 and §273.2), it does not meet the listing description for K171 or K172 in §261.32, and the reclamation of the material is legitimate, as specified under §260.43.
- Paragraph (b) – Abandoned by being disposed of, burned or incinerated or accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by disposed of, burned, or incinerated.
- Paragraph (c) – Materials are solid waste if they are recycled, accumulated, stored, or treated before recycling.
    - Used in a manner constituting disposal
    - Burning for energy recovery
    - Reclaimed
    - Accumulatively speculatively
- Paragraph (d) – Inherently waste-like materials are solid waste when they are recycled in any manner.
- Paragraph (e) – Provides exclusions for materials that are recycled in specific manners by being:
    - Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed.
    - Used or reused as effective substitutes for commercial products.
    - Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials.

- Paragraph (f) – Documentation of claims that materials are not solid wastes or are conditionally exempt from the regulation.
    - Claim must be made to demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion.
    - Documentation must be provided to demonstrate that the material is not a waste or is exempt from the regulation.
    - In addition, owners/operators claiming that they are recycling materials must show that they have the necessary equipment to do so.

A solid waste becomes a HW if it exhibits any of the characteristics described in the following sections of 40 CFR Subsection C – Characteristics of Hazardous Waste:

- §261.21 Characteristic of ignitability (D001)
- §261.22 Characteristic of corrosivity (D002)
- §261.23 Characteristic of reactivity (D003)
- §261.24 Toxicity characteristic (D004-D043)

A solid waste also becomes a HW if it is listed as such in the following sections of 40 CFR Subsection D – Lists of Hazardous Wastes:

- §261.31 HWs from non-specific sources (“F” wastes)
- §261.32 HWs from specific sources (“K” wastes)
- §261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof (“P” and “U” wastes)

There are some exclusions for HW. These exclusions are listed in 40 CFR 261.4(b).

Refer directly to 40 CFR Sections 260 and 261, for more detailed information on HW characterization.

There are two (2) methods for characterizing HW:

1. Applying generator knowledge of the waste characteristics by knowing the materials or the processes which generated the waste
2. Analytical (laboratory) testing

Generator Knowledge of Hazardous Waste

The first attempt to characterize waste should always be to demonstrate generator knowledge utilizing the systematic guidance detailed in the following table. Use supporting data from the original container labeling, MSDSs, the National Institute of Occupational Safety and Health (NIOSH) Pocket Guide, etc. Always use generator knowledge for new unopened items with the supporting MSDS. However, if the waste is from a process (not unused materials), generator knowledge may only be used to determine if a waste stream is hazardous. Laboratory analysis is needed to demonstrate

it is not hazardous. Laboratory analysis is also necessary under the following circumstances:

- The generation process is unknown
- The generation process changes
- The waste constituents are known, but their concentrations are not known

Additionally, annual sampling and analysis is required by the waste disposal contractor to confirm waste characterization.

Characterizing Hazardous Waste Using Generator's Knowledge

Begin	Question	Definition
STEP 1.	Is it a discarded commercial chemical product, off-spec chemical product, or container/spill residue of a U- or P-listed source? 40 CFR Section 261.33(a)-(e)	• It must be a commercial chemical product, an off-specification chemical product, a container with residue from one of the listed chemicals, or any residue or debris resulting from the cleanup of a spill of one of the listed chemicals. • It must be made up of 100% of the listed chemical or the only active ingredient must be a U- or P-listed waste. • It must be a virgin (unused) chemical product. • It cannot be a chemical mixture from the U or P lists.

If yes, assign proper U or P number and skip to Step 4.

If no, ⇩

Begin	Question	Definition
Step 2	Is it from a specific K-listed source? 40 CFR Section 261.32	• It must be generated from a specific industry listed in 40 CFR Section 261.32. • U.S. Army Reserve does not typically generate K-listed wastes. • The entire listing description must apply exactly (word for word) to the waste being characterized, or the waste code does not apply.
If yes, assign proper K number and skip to Step 4.		

If no, ⇩

Begin	Question	Definition
Step 3	Is it from a non-specific F-listed source? 40 CFR Section 261.31(a)	• It must be spent (used) material, typically solvents, no longer suitable for its original intended purpose, and it must meet other specific criteria listed in 40 CFR Section 261.31. If the waste is not spent material, go to Step 4. • F001 The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T) • F002 The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichloro-fluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T) • F003 The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (I)* • F004 The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T) • F005 The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (I,T)

If the waste being characterized cannot be found on any of the previous lists (F, K, P, or U), determine if the waste exhibits one or more of the following characteristics achieved through waste-specific analytical testing. Used chemicals (waste) usually do not exhibit the same chemical or physical properties as those chemicals in their virgin or unused state.

If yes or no, 

Begin	Question	Definition
Step 4	Does the waste exhibit hazardous characteristics? 40 CFR Section 261.20	• Ignitable-D001 (40 CFR Section 261.21) – Liquid with a flashpoint < 140°F. – Non-liquid capable of spontaneous and sustained combustion under standard temperature and pressure. – DOT-defined ignitable compressed gas or oxidizer. – A waste that meets any or all of the above is a D001 ignitable HW. • Corrosive-D002 (40 CFR Section 261.22) – Aqueous waste with pH ≤ 2 (acid) or ≥ 12.5 (base), or a liquid that corrodes steel at a rate greater than ¼ inch per year at a temperature of 130°F. – A waste meeting either of the above is a D002 corrosive hazardous waste. • Reactive-D003 (40 CFR Section 261.23) – Normally unstable and reacts violently without detonating. – Reacts violently or forms explosive mixture with water. – Generates toxic gas, vapor, or fumes with water. – Contains cyanide or sulfide and generates toxic gas, vapor, or fumes at pH between 2 and 12.5. (> 10 ppm HCN or > 500 ppm HS) – Capable of detonation if heated under confinement or subjected to a strong initiating source. – Capable of detonation at standard temperature and pressure. – Listed by DOT as a Class A or Class B explosive. • Toxicity-D004-043 (40 CFR Section 261.24) – Leaches one or more of the constituents at the concentrations listed in Table 1 of 40 CFR Section 261.24.

If no, 

Begin	Question	Definition
Step 5	When must a generator conduct sampling using the following waste analysis procedures?	• If HW characterization could not be determined using the above four steps. • If the generating process is unknown, changes, or if the presence of the constituents is known but their concentrations are unknown. • To periodically confirm characterization.

DOT – Department of Transportation

Laboratory Analysis Characterization

STEP 1. The type of sample and analysis parameters needs to be determined.

STEP 2. Conduct the sampling, prepare a chain of custody, and deliver the samples to the laboratory.

Ensure that if waste is pending analysis it is labeled as "Hazardous Waste Pending Analysis" and marked with the ASD!

STEP 3. Review the laboratory results. Unless an expedited turnaround time is requested, it may take the laboratory over two (2) weeks to provide laboratory results. When reviewing results, go to Step 4 of the previous table to determine appropriate waste numbers.

Assigning the Proper DOT Shipping Information

Introduction to the Hazardous Material Table:

The key to compliance with the hazardous material regulations is systematically working through the HMT. This table is found in 49 CFR 172.101.

The table lists and classifies materials considered by the DOT to be hazardous in transportation. Materials are listed in alphabetical order by PSNs (Column 2). The HMT provides information on labeling, packaging requirements, quantity limitations for cargo and passenger carrying aircraft or passenger railcars, and stowage requirements for ships.

To systematically work through the HMT, you must follow the numbered sequence at the top of each column. This section will discuss the purpose and scope of the HMT, and provide an overview of the table.

§ 172.101 HAZARDOUS MATERIALS TABLE

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions	(8) Packaging (§173.***) Exceptions	(8) Packaging (§173.***) Non-bulk	(8) Packaging (§173.***) Bulk	(9) Quantity limitations Passenger aircraft/rail	(9) Quantity limitations Cargo aircraft only	(10) Vessel stowage Location	(10) Vessel stowage Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Accellerene, see p-Nitrosodimethylaniline.	.....			.....		.....	.....	.....	.....	.....		
	Accumulators, electric, see Batteries, wet *etc.*	.....			.....		.....	.....	.....	.....	.....		
D	Accumulators, pressurized, pneumatic *or* hydraulic (*containing non-flammable gas*).	2.2	NA1956		2.2		306	306	None ..	No limit	No limit	A	
	Acetal	3	UN1088	II	3	T7	150	202	242	5 L	60 L	E	
	Acetaldehyde	3	UN1089	I	3	A3, B16, T20, T26, T29	None	201	243	Forbidden	30 L	E	
A	Acetaldehyde ammonia	9	UN1841	III	9		155	204	240	200 kg	200 kg	A	34
	Acetaldehyde oxime	3	UN2332	III	3	B1, T8	150	203	242	60 L	220 L	A	
	Acetic acid, glacial *or* Acetic acid solution, *with more than 80 percent acid, by mass.*	8	UN2789	II	8, 3	A3, A6, A7, A10 B2, T8	154	202	243	1 L	30 L	A	
	Acetic acid solution, *not less than 50 percent but not more than 80 percent acid, by mass.*	8	UN2790	II	8	A3, A6, A7, A10, B2, T8	154	202	242	1 L	30 L	A	
	Acetic acid solution, *with more than 10 percent and less than 50 percent acid, by mass.*	8	UN2790	III	8	T8	154	203	242	5 L	60 L	A	
	Acetic anhydride	8	UN1715	II	8, 3	A3, A6, A7, A10, B2, T8	154	202	243	1 L	30 L	A	40
	Acetone	3	UN1090	II	3	T8	150	202	242	5 L	60 L	B	
	Acetone cyanohydrin, stabilized	6.1	UN1541	I	6.1	2, A3, B9, B14, B32, B76, B77, N34, T38, T43, T45	None	227	244	Forbidden	30 L	D	25, 40, 49
	Acetone oils	3	UN1091	II	3	T7, T30	150	202	242	5 L	60 L	B	
	Acetonitrile	3	UN1648	II	3	T14	150	202	242	5L	60L	B	40
	Acetyl acetone peroxide with more than 9 percent by mass active oxygen.	Forbidden			.....		.....	.....	.....	.....	.....		
	Acetyl benzoyl peroxide, solid, or with more than 40 percent in solution.	Forbidden			.....		.....	.....	.....	.....	.....		
	Acetyl bromide	8	UN1716	II	8	B2, T12, T26	154	202	242	1 L	30 L	C	40

Column 1: Symbols

Column 1 provides symbols describing how the corresponding material is regulated. These symbols include a "+, A, D, G, I, and W" and are defined in 49 CFR 172.101(b). Materials with no symbol in Column 1 are regulated regardless of the mode of transportation. Some of the commonly used symbols are:

- “+” indicates the material is known to pose a risk to humans.
- “A” indicates the material is regulated by air
- “D” indicates the material may only be shipped domestically
- “G” indicates that one or more of the technical names must be entered in parenthesis in association with the proper shipping name.
- “I” identifies PSN for shipping internationally

Hazardous Substances

DOT defines a hazardous substance as a material which is listed in Appendix A of the HMT and contains an amount in one package, which is equal to, or more than the reportable quantity (RQ) in one package. The RQs are listed in Appendix A of the HMT in 49 CFR 172.101. Table 1 is a list of hazardous substances other than radionuclides, and Table 2 contains a list of RQs for radionuclides.

The hazardous substances are listed in alphabetical order in the left hand column, with the corresponding RQ in both pounds and kilograms in the right hand column. If a single package contains more than the RQ for one of the materials listed in Appendix A, it is defined as a hazardous substance.

The letters RQ must be included either before or after the PSN. The easiest way is to always add them immediately before the PSN. The PSN must also include the name of the hazardous substance.

Column 2: Proper Shipping Names

Column 2 lists hazard material descriptions and proper shipping names. Selecting the most appropriate proper shipping name is the key to compliance with the hazardous material regulations. The table provides technical names (Acetone), general names or usage names (paint), and generic names or "not otherwise specified" (flammable liquid, not otherwise specified (n.o.s.)). Proper shipping names are limited to the part in roman type, not *italics*. 49 CFR 172.101(c) provides further details on PSNs.

Column 3: Hazard Class

Before a hazardous material may be transported in commerce, the shipper must classify the material into one of the nine hazard classes. For some materials this simply means finding the PSN and reading the hazard class from Column 3.

To do this, the material must be technically pure and the technical name must be listed in the table. For most materials though, the hazard class is needed in order to find the appropriate shipping name. In these instances, the shipper must compare the material's properties to the hazard class definitions in 49 CFR 173. 49 CFR 172.101(d) provides more details on Column 3.

Some entries have the word "forbidden" listed in Column 3. This indicates that the corresponding material may not be transported. Forbidden materials are typically produced and used at the same location.

Column 4: Identification Numbers

Each PSN is assigned a unique identification number. This number is helpful in identifying the material or gaining additional information about the material, such as from the Emergency Response Guidebook. The prefix United Nations (UN) or North American (NA) precedes the identification number. UN numbers correspond to proper shipping names that may be used both domestically and internationally. NA descriptions may only be used for domestic (North America) transportation.

Column 5: Packing Groups

Packing groups tell us the relative degree of hazard the material presents. Packing Group I (PG I) indicates the material presents a great degree of danger. Likewise, PG II indicates a medium degree of danger, and PG III indicates a minor degree of danger. 49 CFR 172.101(f) provides further information on packing groups.

As an example, the table below lists the packing group assignments for Class 3 flammable liquids. Flammable liquids with a low boiling point are the most dangerous, and are therefore assigned as PG I.

Packing Group	Flash Point (Closed Cup)	Initial Boiling Point
I		≤ 95°F (35°C)
II	< 73°F (23°C)	> 95°F (35°C)
III	≥73°F (23°C) but ≤ 141°F (60.5°C)	> 95°F (35°C)

Column 6: Labels

Column 6 specifies one or more hazard warning labels that must be displayed on the outside of the hazardous material package. If more than one hazard class is listed, the first entry is the primary hazard. All other entries represent subsidiary hazards. Once you know the label code from Column 6, refer to the table in 49 CFR 172.101(g) to find the label name.

Markings and labels both communicate the hazards associated with a package of hazardous materials. The main difference between the two is that the regulations are very specific about a label's size, color, and shape. Marking regulations on the other hand, are not as specific.

Three (3) things must be marked on the outside of a nonbulk package:

- Proper shipping name
- Identification number
- Consignee's or consignor's name and address

Further marking requirements for liquid hazardous materials, poisonous materials, explosives, and marine pollutants are listed in 49 CFR 172.300 Subpart D.

The hazard warning labels specified in Column 6 of the HMT must be displayed on the outside of each package containing hazardous materials. The label should be on the same surface, and near the PSN marking. Materials meeting the definition of more than one hazard class must have a subsidiary hazard label. Subsidiary labels look just like a primary label, except they do not have the hazard class in the bottom corner.

Column 7: Special Provisions

Column 7 contains special provision codes that apply to the material. The codes are defined in 49 CFR 172.102. Special provisions are dependent on the mode of transportation and size of package. For example, special provision codes beginning with an "A" apply only to transportation by aircraft. Codes consisting of only numbers apply to all modes of transportation and to both bulk and nonbulk packages. Special provisions 1 through 6 indicate the material is poisonous by inhalation. Refer to 49 CFR 172.102 for further information on special provisions.

Column 8: Packaging Authorizations

Column 8 is divided into three (3) subcolumns. Column 8A specifies any exceptions which may apply to the listed material, 8B references the authorized nonbulk packaging, and 8C references the authorized bulk packaging. 49 CFR 173 precedes all entries in Column 8.

For example, to find the nonbulk packaging requirements for gasoline, gasoline would first be found in the HMT, look under Column 8B to find 202, then refer to 49 CFR 173.202 to see a list of acceptable packagings. Selecting the proper packaging will be covered in further detail later in this section.

Column 9: Quantity Limitations

Column 9 specifies the maximum quantity, per package, of hazardous materials which may be shipped by aircraft or passenger railcar. Column 9A lists a maximum quantity allowed on passenger carrying aircraft or passenger carrying railcar. Column 9B specifies the maximum quantity allowed on a cargo aircraft. The word "Forbidden" in either column means the material may not be transported by that mode. 49 CFR 172.101(j) contains further information on Column 9.

Column 10: Vessel Stowage Requirements

Column 10 specifies the stowage location and specific storage codes for shipments by water. 49 CFR 172.101(k) provides further details on Column 10.

Selecting the Proper Shipping Name

The key to working with the HMT is deciding where to look, or more specifically, finding the correct PSN. The PSN tells you which line to use in the HMT. The PSN must be marked on the outside of the package and listed on the shipping papers. Selecting the most appropriate PSN is critical to compliance.

PSNs are listed alphabetically in Column 2 of the HMT. The PSN is limited to roman type, not *italics.* Many entries will contain additional information to further describe the entry. The hazard class and packing group entries corresponding to the PSN you choose must meet the properties of the material you are shipping.

Finding the most appropriate PSN is generally a three (3) step process. The following order of operation will detail this process.

STEP 1: Always check appropriate hazardous class to determine if the material is a hazardous material or not.

For example, a drum of soil and debris from a spill cleanup of pure, unused acetone would probably not meet any of the hazard class definitions. However, because the soil is a listed HW (U002), the drum is regulated as a hazardous material. The most appropriate PSN would be hazardous waste solid, n.o.s.

STEP 2: Is your material a technically pure material listed in the HMT? If yes, continue. If no, proceed to STEP 3.

If a material is listed in the HMT by its chemical or technical name, that name is the PSN. This is only applicable if the material is technically pure.

Examples:

Acetone is listed in the HMT. Therefore, if you are shipping pure acetone, the PSN is acetone.

Chlorine is listed in the HMT. Therefore, if you are shipping pure chlorine, the PSN is chlorine.

STEP 3: Is your materials usage listed or generic chemical name provided? If yes, continue. If no, proceed to STEP 4.

If a material or mixture is not listed by name, or if it is not pure, look for a PSN which describes how the material is used or a generic chemical name. Examples of such PSNs include alcohol, n.o.s.; compounds, cleaning liquid; paint; and paint related material. Always look under multiple methods of usage. For example, a chemical used for degreasing may be shipped out as a cleaning compound.

Examples: A mixture of acetone, xylene, and toluene used as paint thinner. The PSN could not be acetone because it is not pure. The most appropriate PSN would be paint related material.

A mixture of MOGAS and water turned in for disposal. The PSN could not be gasoline alone. The most appropriate PSN would be gasoline (mixed with water).

STEP 4: If your material is not addressed in the previous steps, continue.

If the material is not listed by its technical name, or by how it is used, or by generic chemical name, and if it is a hazardous material according to the hazard class definitions, it must be identified by the most appropriate general hazard class entry. Most hazard classes have a generic entry such as flammable liquid, n.o.s., corrosive liquid, n.o.s., and hazardous waste liquid, n.o.s.

Proper Shipping Name Rules

Technical Name Rule

The letters n.o.s. following many generic PSNs stand for "not otherwise specified". If the PSN entry contains the abbreviation n.o.s., the technical name of the material causing it to be regulated may be included in parenthesis immediately following the PSN. If the more than one (1) material causes it to be regulated, include only the two (2) materials most contributing the most to the hazard. HWs described by an n.o.s. description may include either the technical name or the waste code.

The full PSN for the previous example of soil resulting from a spill of pure acetone would be hazardous waste solid, n.o.s. (U002).

The Mixture Rule

For a mixture of a regulated hazardous material listed in the HMT and a non-regulated material, use the PSN of the regulated material with the addition of the word "mixture" or "solution", whichever is appropriate. However, the mixture must still exhibit the characteristics of the pure material.

For example, consider a drum of pure acetone that has been contaminated with water. Test data reveals that the drum still exhibits the characteristics of acetone (Hazard Class 3, PG II). The PSN would be acetone mixture.

Hazardous Waste Rule

49 CFR 172.101 (c) (9) tells us the word Waste must be included with the PSN for a shipment of HW. For example, the PSN for a shipment of HW acetone would be waste acetone.

Table of Contents

This page intentionally left blank.

Module 7 — Scenarios and Tasks

Background

This module has all of the information you need to complete the supplied exercises. The information includes:

- An example CLIN/HIN list
- Detailed information about several wastes

The waste information is in tabular form. Look at the tables provided with each scenario for information on each waste.

As you work through each scenario and task, continue to use the same Hazardous Waste Profile Numbering system as you did in the Module 3 mock example (**GA071301**) for each site. Increase the sequential number by one (1) with the creation of each new HWPS.

Continue to use the same DTID numbering system as in the Module 3 mock example (**W912BL00021001**). Increase the last digit by one (1) number with the creation of each new DTID. To keep it simple, use the same DoDAAC (**W912BL**) for the facility in Module 3.

Continue to use the same container numbering system as in the Module 3 mock example (**10002001**). The first two (2) digits are the last two (2) digits of the year. The next three (3) digits are the Julian date and the last two (2) digits make up the sequential number. Increase the sequential number by one (1) with each new container number. For these exercises, continue to use **0002** as the Julian date.

Instructions

Read each scenario and its associated tasks. The information you will need to complete each task is provided in a table which has been included at the end of each scenario. Then use WASTE to complete the task.

CONTRACT LINE ITEM LIST

9100-9199 Ignitable Wastes (40 CFR 261.21) D001					
CLIN/HIN	**Description**	**Est Qty**	**Unit**	**Unit Price**	**Amount**
910100	Small Containers < 5 Gallons	14,303	lbs	$1.50	$12,157.55
9101RR	Small Containers (Fuels blending)	150	lbs	$1.30	$375.00
910200	Containerized Liquids/Multi Phase	327,908	lbs	$0.80	$157,395.84
9102CR	200 lbs picked up every Thursday from XXXXXXX AMC	5,100	lbs	$0.75	$2,805.00
9102RR	Containerized Liquids/Multi Phase (Fuels Blending)	60	lbs	$1.19	$180.00
910400	Containerized Solids	17,143	lbs	$1.50	$14,571.55
910500	Aerosols	1,788	lbs	$3.50	$1,788.00
9200-9299 Corrosive Wastes (40 CFR 261.22) D002					
CLIN/HIN	**Description**	**Est Qty**	**Unit**	**Unit Price**	**Amount**
920100	Small Containers	11,245	lbs	$1.65	$7,309.25
920200	Containerized Liquids/Multi Phase	82,639	lbs	$0.75	$39,666.22
920400	Containerized Solids	19,976	lbs	$1.50	$9,588.48
9204NC	Containerized Solids (NiCd Batteries)	14,248	lbs	$2.00	$11,535.60
920500	Aerosols	30	lbs	$5.00	$150.00
9300-9399 Reactive Wastes (40 CFR 261.23) D003					
CLIN/HIN	**Description**	**Est Qty**	**Unit**	**Unit Price**	**Amount**
930100	Small Containers	10,333	lbs	$2.25	$10,333.00
9301NN	OBA Canisters	18,356	lbs	$1.05	$19,273.80
930200	Containerized Liquids/Multi Phase	3,773	lbs	$1.00	$3,773.00
930400	Containerized Solids	25,256	lbs	$2.00	$23,993.20
9304LS	Containerized Solids (Lithium Sulfide Batteries)	165	lbs	$3.00	$732.60
9400-9499 Toxic Wastes (40 CFR 261.24) D004 – D043					
CLIN/HIN	**Description**	**Est Qty**	**Unit**	**Unit Price**	**Amount**
940100	Small Containers	81,075	lbs	$1.05	$52,698.75
940200	Containerized Liquids/Multi Phase	202,686	lbs	$1.00	$111,477.30
9402MM	Containerized Liquids/Multi Phase Hi level Mercury	499	lbs	$8.65	$2,215.56
940400	Containerized Solids	298,362	lbs	$2.05	$164,099.10
9404FC	Containerized Solids (crushed fluorescent bulbs)	15,000	lbs	$1.25	$18,750.00
9404FL	Containerized Solids (fluorescent bulbs)	12,062	lbs	$0.85	$10,525.70
940500	Aerosols	57	lbs	$5.00	$285.00
9500-9529 Spent Solvent Wastes (40 CFR 261.31) F001 – F006					
CLIN/HIN	**Description**	**Est Qty**	**Unit**	**Unit Price**	**Amount**
950100	Small Containers	309	lbs	$3.00	$927.00
950200	Containerized Liquids/Multi Phase	74,352	lbs	$1.25	$48,328.80
950400	Containerized Solids	4,729	lbs	$2.00	$4,729.00
9800 Universal Wastes					
CLIN/HIN	**Description**	**Est Qty**	**Unit**	**Unit Price**	**Amount**
9800UB	Universal Waste – Batteries	3,400	lbs	$0.95	$3,230.00
9800UC	Universal Waste – Mercury Batteries	500	lbs	$5.50	$2,750.00
9800UG	Universal Waste – Magnesium Batteries	1,000	lbs	$2.70	$2,700.00
9800UL	Universal Waste – Lamps	7,200	lbs	$1.02	$7,344.00
9800UM	Universal Waste – NICAD Batteries	2,350	lbs	$1.16	$2,726.00

9800 Universal Wastes					
CLIN/HIN	**Description**	**Est Qty**	**Unit**	**Unit Price**	**Amount**
9800UN	Universal Waste – Mercury Thermostats	500	lbs	$6.55	$3,275.00
9800UU	Universal Waste – Universal Waste	1,500	lbs	$2.70	$4,050.00
9900-9999 Non-RCRA Regulated Wastes					
CLIN/HIN	**Description**	**Est Qty**	**Unit**	**Unit Price**	**Amount**
990100	Small Containers	19,776	lbs	$0.50	$9,888.00
990200	Containerized Liquids/Multi Phase	757,114	lbs	$0.25	$189,278.50
990400	Containerized Solids	821,973	lbs	$0.22	$180,834.06
990500	Aerosols	987	lbs	$1.50	$1,480.50

Scenario #1

You are at AMSA and one of the outlying reserve centers in your region must begin to turn in waste for the first time. The data for the new facility needs to be entered into WASTE in order to process any outgoing waste. Since we are using multiple user logons, we did not provide a specific state facility name to add. Please pick one of the state facility names from the drop-down menu.

Task

As a Level 3 user (State Environmental Specialist), use the Data Entry menu to add your facility and all of its information to the WASTE application.

1. Add a new facility (your choice) and enter the default information for the new facility.

Facility Information	**Facility 1**
Facility Name/FACNO	Enter your course example facility name from drop-down menu
EPA ID	State Abbreviation + 9 digit number
Turn In DRMO	Enter a DRMO
Generator Status	LQG
DEFAULT HWPS	
Contact Title	Environmental Area Specialist
Technical Contact	Sheldon Cooper
Contact Phone	(555) 456-1234
RCRA Requirements	User Knowledge
Signature Field	Mr. Howard Wolowitz
DEFAULT DTID	
Funding Code	10
Contact Name	Sheldon Cooper
Contact Phone	(555) 725-9965
Bill to DoDAAC	W56K89
PickUp DoDAAC	W93B67
Emergency Contact	Staff Duty Officer
Emergency Phone	(555) 555-1111
Funding Lookup	Use previous funding example from course manual

Scenario #2

As a Level 3 User (State Environmental Specialist), there are many **User Tools** available to you. In this scenario you will change a user's information.

Task

All tasks for this scenario will be performed under the **User Tools** menu:

Level 3 User:

1. Change your personal user information.

Name	WASTE Level 3 User
Telephone	Enter telephone number (Open to your discretion)
Organization	Enter your RSC information
Title	Environmental Specialist
Address 1	2012 Wimpy Mill Rd
Address 2	
City	Dahlonega
Zip	30597
Password	Enter the password of your example state (waste)
Confirm Password	Enter the password of your example state (waste)

Scenario #3

As a Level 3 user (State Environmental Specialist), utilize the Global Defaults menu to change the generator status and the DRMO of the facilities you have previously added.

Task

1. Change the DRMO (open to your discretion) for previously added facilities.
2. Change the Funding information for the selected facility.

Scenario #4

Now that you have successfully entered the data for the previous scenario and you understand the Level 3 functionality, you should be able to create a Level 4 user. After creating a Level 4 user, associate he/she with an added facility

Task

Add a Level 4 user and associate with a previously added facility.

Scenario #5

Upon arriving at the AMSA this morning, you notice that someone has dropped off waste at the front door. The waste includes antifreeze recycling sludge and two (2) cases of Super Trump Liquid Cleaner.

- The antifreeze recycling sludge has been sampled in the past (Sample No. FY100912). Results show the test failed for lead (150 mg/L), cadmium (5 mg/L) and the pH is 11.1. The sludge is in a 5-gallon can and weighs 43 lbs.
    - The antifreeze recycling sludge passes the paint filter test.

- The unopened case of Super Trump Liquid Cleaner is in the original shipping container. Each container weighs approximately 5 pounds and each case contains 6 containers. The projected annual volume is 200 pounds.

Task

Create the disposal documentation necessary to transfer the waste to a DRMO of your choice.

> **TIP**: Remember to use the following order of precedence for HW documentation:

- Identification (Knowledge of Process, MSDS, Chemical Analysis)
- Hazardous Waste Profile Sheet (HWPS Form 1930)(including numbering)
- Disposal Turn-in Document (DTID), also known as DD Form 1348-1A

1. Create HWPSs for the waste.
2. Create DTIDs for the waste.

MSDS Number	Item Name	FSC-LIIN (Appendix C)	EPA Waste Numbers		
NA	Antifreeze Recycling Sludge	6850-00ANTIFRZ	D006	D008	NA

Proper Shipping Name				Guide		Container		Total Weight (lbs)
General Description	Hazard Class	UN or NA	Packing Group	Number	Year	Count	Size	
Hazardous Waste Solid n.o.s (Lead, Cadmium,)	9	NA3077	III	171	2008	1	5 Gal	43 lbs

MSDS Number	Item Name	NSN	EPA Waste Numbers		
BALHF	Super Trump Liquid Cleaner	6810-01-133-4124	D001	D002	NA

Proper Shipping Name				Guide		Container		Total Weight (lbs)
General Description	Hazard Class	UN or NA	Packing Group	Number	Year	Count	Size	
Sodium Hydroxide Solution	8	UN1824	II	154	2008	12	5 Gal	60 lbs

Scenario #6

You have already created the DRMO documentation (HWPS/DTID) in Scenario 5. It is now time to create and send the turn-in.

Task

Turn-in waste from Scenario #5 to DRMO.

1. Select **DRMO Turn-In** from the Main Menu.
2. Create Turn-In by DRMO and review HWPS/DTID information for accuracy.
3. **Create** and **Send** Turn-in.

Scenario #7

Some of the waste streams are the same throughout your region/state (e.g. lithium batteries and mercury-containing lamps). You must be logged in as a Level 3 User (State Environmental Specialist).

Task

Create a State Level profile for lithium batteries.

1. Click on the **HWPS** link under the Data Entry section of the Main Menu.
2. Check the **State Level Profile** button above the Facility Name and EPA Identifier (this will display information for a dummy facility).
3. Insert your State Level profile number (e.g. GAUW001)
4. Utilizing the information below, complete the HWPS.

MSDS Number	Item Name	NSN	EPA Waste Numbers		
NA	Lithium Battery	6135-01-301-8776	D001	D003	NA

Proper Shipping Name				ERG		Container		Total Weight (lbs)
General Description	Hazard Class	UN or NA	Packing Group	Number	Year	Count	Size	
Lithium Battery (Universal Waste)	9	UN3090	II	138	2008	1	Box	15

Scenario #8

Some of the waste streams coming to your facility are recycled through a Non-DRMO contractor. WASTE can be the repository of these records for your organization.

Task

Create a HWPS/DTID for Used Oil as a Level 3 User (State Environmental Specialist).

1. Click on the **HWPS** hyperlink under the Data Entry tab of the Main Menu.
2. Enter the appropriate data for the HWPS.
3. Create a DTID for the Non-DRMO Turn-In contractor.

Scenario #9

You have a user from the field that is trying to use the WASTE application to figure out the FSC-LIIN for his waste streams. His first example is weapons cleaning rags that you stated were hazardous for lead. What would be the appropriate FSC-LIIN for this waste stream?

Below, the following waste streams are provided and you as the Level 3 (State Environmental Specialist) need to assist the user on the accurate FSC-LIIN for his/her turn-in document.

HINT: Use Appendix C for reference.

Task

Use the FSC-LIIN matrix to determine what FSC-LIIN you would use in the WASTE application.

WASTE STREAM	FSC	LIIN
Weapons Cleaning Rags (HW)		
Weapons Cleaning Rags (NHW)		
BULK MRE Heaters		
Absorbents contaminated with POL		
Absorbents contaminated with JP-8		
Solvent from Parts Washer		
Office Ink		
Scrap Metal		
Universal Waste Lamps		
Latex Paint		
Lithium Batteries		

Glossary of Terms and Acronyms

Term or Acronym	Definition
AEDA	ammunition, explosives, and dangerous articles
AEDB-EQ	Army Environmental Database - Environmental Quality
AEPS	Area Environmental Protection Specialist
AKO	Army Knowledge Online
AMSCO	Army Management Structure Code, issued by the activity responsible for waste disposal costs
AMSA	Area Maintenance Support Activity
AR	Army Regulation
ASD	Accumulation Start Date
BOSS	Base Operating Supply System
BTU	British Thermal Units, a measurement of heat content
CAC	Common Access Card
CAS	Chemical Abstract System
CCLI	Commercial Control List Item
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act, a federal environmental law
CESQG	Conditionally Exempt Small Quantity Generator of hazardous waste
CFR	Code of Federal Regulations
CLIN	Contract Line Item Number- A number unique to each line of delivery order
Ctrl	The Control key on your computer keyboard
CY	Calendar Year
DAISY	DRMO Automated Information System
Default data	Information specific to your location. After you enter the default data one time, WASTE will use the default data to automatically complete many of the fields required in WASTE documents
DLAR	Defense Logistics Agency Regulation
DLIS	Defense Logistics Information Service
DoD	Department of Defense
DoDAAC	Department of Defense Activity Address Code
DOIM	Directorate of Information Management
DOT	Department of Transportation
DRMO	Defense Reutilization Marketing Office
DRMOGen	DRMO Generator
DRMS	Defense Reutilization Marketing Service
DTID (DD Form 1348-1A)	Disposal Turn-In Document, also known as Form DD1348-1A
ECS	Equipment Concentration Site
EMAAR	Engineer Management Automation Army Reserve
EPA	Environmental Protection Agency

Term or Acronym	Definition
EPA Identification Code	An alpha-numeric code issued by the EPA to hazardous waste generating facilities, also know as EPA ID Number
EPA Waste Number	An alphanumeric identifier used by EPA to identify various characteristically hazardous wastes (i.e., the EPA waste number for ignitable hazardous waste is D001)
ERG	Emergency Response Guide
FACID	Facility Identification Number
Flashpoint	A physical material property, usually measured at a chemical laboratory. Flashpoint is the temperature at which vapors will ignite given an ignition source
FSC	Federal Supply Class
Fund Cite	An accounting identifier for individual accounts issued by the activity responsible for waste disposal costs
gal.	Gallon
GenComm	Generator Communication, the WASTE electronic data transfer procedure
GKO	Guard Knowledge Online
Hazardous Waste Profile Sheet	A WASTE document required for each waste stream destined for turn-in to DRMO
HIN	Hazardous Item Number- A number unique to your DRMO Disposal Contract. Every type of waste has a least one HIN. Some have several HINs, one for each size of container. The HIN is specific to the contract, the type of waste, and the container size.
HMEI	Hazardous Materials Examiner and Identifier
HMIRS	Hazardous Materials Information Resource System
HMT	Hazardous Materials Table
HQ	Headquarters
HW	Hazardous Waste
HWPS	Hazardous Waste Profile Sheet
IFS	Integrated Facilities System
KPI	Key Performance Indicators
LAN	Local Area Network
lb	Pound
LDR	Land Disposal Restriction
LQG	Large Quantity Generator of hazardous waste
LIIN	Local Item Identification Number
LSN	Locally-assigned Stock Numbers
MAMSCO	Modified Army Management Structure Codes
MSDS	Material Safety Data Sheet
NIIN	National Item Identification Number
n.o.s.	Not otherwise specified
NOV	Notice of Violation
NSN	National Stock Number
OMS	Organizational Maintenance Shop
PC	Personal Computer
PIN	Personal Identification Number
PKI	Public Key Infrastructure

Term or Acronym	Definition
POC	Point of Contact
ppm	Parts Per Million
PSN	Proper Shipping Name
RCRA	Resource Conservation and Recovery Act, a federal law regulating hazardous waste management
Record	The WASTE documents associated with one DTID
RIC	Routing Identifier Code
RQ	Reportable quantity
RSC	Regional Support Command
SG	Specific Gravity
SHIP	Single Hazardous Input Program
SEC	State Environmental Coordinator
SEM	State Environmental Manager
SQG	Small Quantity Generator of hazardous waste
SS	State Specific
TCLP	Toxicity Characteristic Leaching Procedure, a method used by laboratory analysts to characterize hazardous waste
TOC	Total Organic Carbon
TSDF	A commercial waste Treatment, Storage, or Disposal Facility
TSS	Total Suspended Solids
VOC	Volatile Organic Compounds
WASTE	Web Application System for Turn-In Execution
WEBCASS	Web Compliance Assessment and Sustainment System
WPSNO	Waste Profile Sheet Number

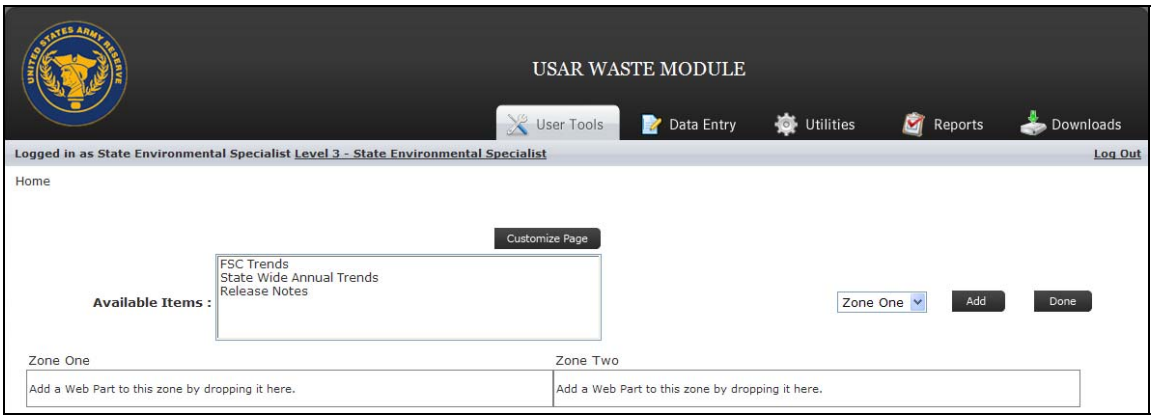
This page intentionally left blank.

Key Performance Indicators (KPI) Webparts and Other Trends Reports

Key Performance Indicators (KPI) Webparts

Key Performance Indicators (KPI) have been added to the Main Landing Page for the Environmental Program Manager for HQ USARC and the Region/State WASTE user to customize and create trends reports based upon the data entered into WASTE. These KPIs are data elements that provide a way to measure how an organization is doing in different aspects that attribute to the organizational goals. These indicators are used to measure and compare real and related data pertaining to certain aspects and understand and quantify progress toward set goals.

On the WASTE Main Landing Page users are able to customize the report views based upon selection criterion such as start and end dates, Region/State and/or generator status (depending on Role Level permissions).



The following two (2) KPI Webparts, Federal Stock Class (FSC) Trends and State Wide Annual Trends Reports are customizable by the user.

The FSC Trends Report provides a comparison chart (visual) for the top (5-50) customizable FSCs and can provide the following information:

- Provides the weight comparison with the cost comparison charts for the top FSCs
- Based on role levels for access to data

The State Wide Annual Trends provides users with the ability to create trends reports based on the data with the following information:

- Provides a comparison of the weight or cost of all the waste disposed from a state broken annually into a given date range
- Based on role levels for access to data

FSC Trends Report

This KPI provides the user the ability to identify the top N (N is customizable number; example 5/10/25/50) FSCs disposed in the state based on weight or cost during a selected date range. This data element also provides a graphical presentation of the following:

- The cost percentages and value of the top N FSCs (if KPI is retrieved for the top N FSCs disposal cost data) during this period and the corresponding weight percentages and value of the top N FSCs (by disposal cost) during this period
- The weight percentages and value of the top N FSCs (if KPI is retrieved for the top N FSCs disposal cost data) during this period and the corresponding cost percentages and value of the top N FSCs (by weight) during this period

The user may use this KPI to analyze the disposal trends based on waste streams to understand which waste streams are disposed the most or which waste streams cost the region/state(s) the most and use this data to plan for alternatives or changes to policies or procurement plans or P2 plans if necessary. The user may also use this KPI to find the top waste streams during multiple time periods (ex: 2007, 2008, 2009 separately, or 2007 through 2009 together) to analyze the common top waste streams to plan accordingly for the future.

Figure 1 shows the top five (5) waste streams disposed for a Region during 10/1/2008 through 9/30/2009 retrieved based on cost. The 2-D chart represents the cost percentages and values for these top 5 expensive waste streams for this Region during 10/1/2008 through 9/30/2009, while the 3-D chart at the top represents the corresponding weight percentages and values for the above top 5 waste streams during 10/1/2008 through 9/30/2009. The legend at the bottom provides information about the waste stream (in the descending order of disposal cost for this period).

FIGURE 1 (FSC Trends)

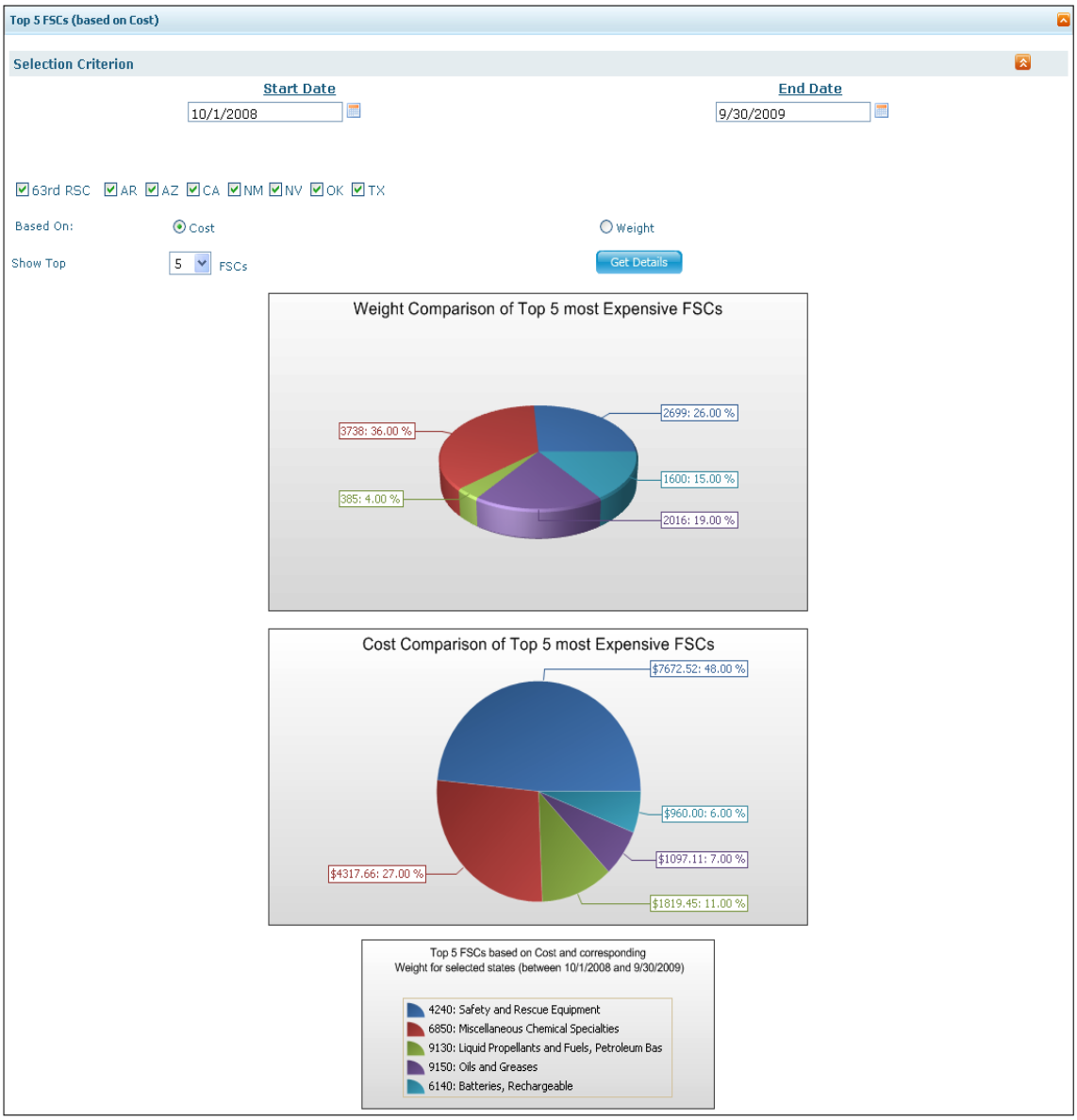


Figure 2 shows the top 5 waste streams retrieved based on the disposal weight (in the 3-D chart and the corresponding costs in the 2-D chart) during the period 10/1/2008 through 09/30/2009 to a Level 2 user for all the facilities across the state.

FIGURE 2 (FSC Trends)

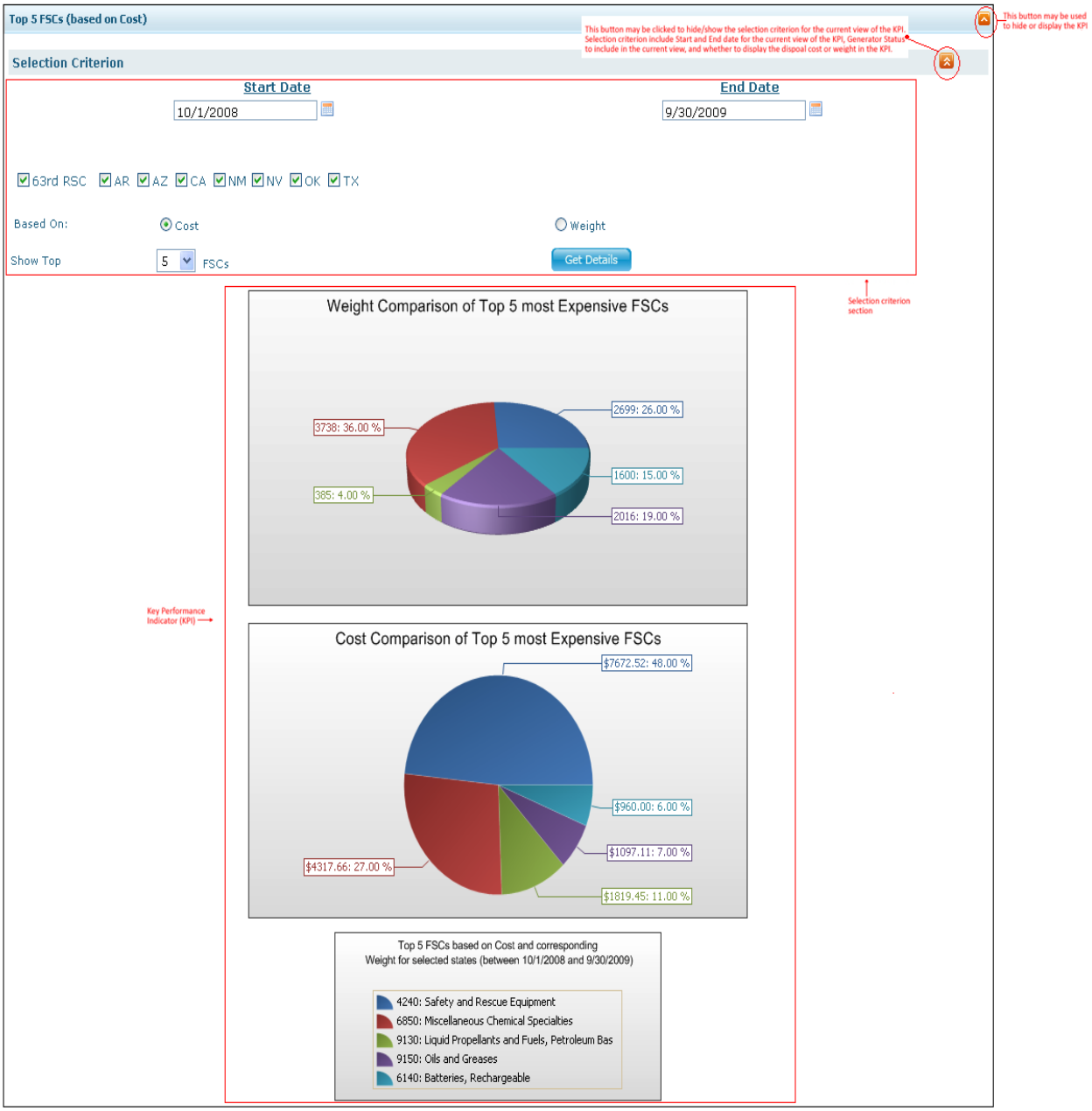


Figure 2 provides more detail on what each element in the web-part means to the user.

- The user may choose to hide or display the KPI in the Main Landing Page (after adding the KPI through the "Customize Page" feature) by clicking on the button of the KPI.
- If the user wishes to view the top 10 waste streams based on disposal cost during this period, the user would have to select the radio button corresponding to the Cost instead of Weight, and update the count to 10 instead of 5
- The user may choose to hide or display the data selection criterion section of the KPI (to maximize the KPI view and concentrate only on the KPI) by clicking on the button of the KPI.
- The user needs to provide the following to update the KPI:
  - Start date: Date range the user wants to retrieve the disposal data
  - End date: Date range the user wants to retrieve the disposal data
  - Cost/Weight Radio button: Selecting the Cost radio button will update the KPI with the top N waste streams data retrieved based on the disposal cost during the provided date range while selecting the Weight radio button will update the KPI with the top N waste streams data retrieved based on the disposal weight during the provided date range.
  - Number of waste streams to be retrieved: The user will have to select whether to retrieve the top N (5/10/25/50) waste streams to update the KPI. By default, this data is set to 5.
- Please note the states for which the user (among the states the user has access) wants to retrieve the disposal.
  - In case of a Level 2 (Region) user, he/she will be able to choose all the states in his/her region.
  - In case of a Level 3 (State) user with access to multiple states, he/she will be able to choose all the states in his/her associated states.
  - In case of a Level 3 (State) user with access to one state or a facility level user, there will be no states to choose from. By default, the report will only be applicable for the Level 3 user and the associated state.
- Note that the data sensitivity is based on the facilities associated with the user accessing this KPI. A Level 2 (Region) user can view and compare data for all states within the region, a Level 3 (State) user can view and compare the data for all facilities across he/her state(s) while a facility level user can only view/compare the data for the facility/facilities he/she is associated with.

State Wide Annual Trends Reports

This KPI provides the user the ability to graphically compare the weight or cost of all the waste disposed from his/her state(s) broken down annually (calendar year or fiscal year). The user may compare the disposal data spanning across multiple years by providing the appropriate date range. The user may further compare the disposal data across multiple years by Calendar year or Fiscal year depending on the user's needs to analyze the data. The user may use this KPI to analyze the disposal trends in the past for future planning (ex: Organization goals, Disposal cost/quantity projections for next year, funding requests, whether or not the state is meeting sustainability goals, etc.).

> *Please note that the cost/weight statistics produced by the KPI are based on the Earliest Accumulation Start Date associated with the DTIDs and not the turn-in date of the DTID.*

FIGURE 3 (State Wide Annual Trends)

Figure 3 above shows the comparison of disposal costs since 1/1/2008 through 12/31/2009 for a particular state.

FIGURE 4 (State Wide Annual Trends)

Figure 4 provides details on what each element in the web-part means to the user.

- The user may choose to hide or display the KPI in the Main Landing Page (after adding the KPI through the "Customize Page" feature) by clicking on the button of the KPI.
- The user may choose to hide or display the data selection criterion section of the KPI (to maximize the KPI view and concentrate only on the KPI) by clicking on the button of the KPI.
- The user needs to provide the following to update his/her KPI:
  - Start date: Date from which the user wants to retrieve the disposal data for comparison
  - End date: Date until which the user wants to retrieve the disposal data for comparison

- Generator Status Checkboxes: This field provides the user to filter the data retrieval for the KPI for a selected generator status.
  - If the user wishes to compare the data across all the facilities in the user's state, the boxes corresponding to CESQG, LQG, SQG and SS have to be checked.
  - If the user wishes only to compare the data across all the LQG facilities in the user's state, the box corresponding to LQG has to be checked and the boxes corresponding to CESQG, SQG and SS have to be unchecked.
  - Note if none of the boxes are checked, there will be no facilities to report on and hence the graph will have no reflected data.
- Cost/Weight Radio button: Selecting the Cost radio button will update the KPI with the disposal cost comparison for the different years in the provided date range while selecting the Weight radio button will update the KPI with the disposal weight comparison for the different years in the provided date range.
- State checkboxes: The user can select from the state(s) he/she has access for reporting and KPI.

- Note that the data sensitivity is based on the facilities associated with the user accessing this KPI. A Level 2 (Region) user can view and compare data for all states within the region, a Level 3 (State) can view and compare the data for all facilities across he/her state(s) while a facility level user can only view/compare the data for the facility/facilities he/she is associated with.
- Figure 4 shows the disposal cost comparison to a Level 2 user for all the facilities across his/her state broken down by calendar year between 1/1/2008 and 12/31/2009.
  - If the user wishes to view the disposal weight data instead of the disposal cost for the above criterion, the user would have to select the radio button corresponding to the Weight instead of Cost.
  - The user can also select only the states he/she wants to be reported or displayed.

FSC-LIIN MATRIX 2010

FSC	LIIN	Heading	Description
1000		Services	Includes: Expedited pickups, analytical, additional surcharges (Mercury)
	00ANLYTCL		Includes: All analytical services requested of DRMO
	00EXPEDTE		Includes: All expedite services
	00OVRPACK		Includes: All over pack request services to include lab pack
	00SRCHRGE		Includes: All additional surcharges
1305		Ammunition, through 30mm	Includes: Components
	00AMMO		Properly demilitarized ammunition up to 30mm
1310		Ammunition, over 30mm up to 75mm	Includes: Components, except Fuzes and primers; Chemical Warfare Cartridges.Excludes: Fuzes and Primers
	00AMMO		Properly demilitarized ammunition over 30mm to 75mm
1315		Ammunition, 75 mm through 125 mm	Includes: Components, except fuzes and primers; Pyrotechnic cartridges and projectiles; Chemical warfare cartridges and projectiles.Excludes: Fuzes and primers
	00AMMO		Properly demilitarized ammunition 75mm to 125mm
1365		Military Chemical Agents	Includes: War gases; Screening smokes; Incendiary and thickening agents; Signaling smokes Excludes: Ammunition containing military chemical agents
	00CHEMAGT		All properly demilitarized chemical agents, incendiary devices, and smoke signals
2530		Vehicular Brake, Steering, Axle, Wheel, and Track Components	Includes: Turrent Brakes; Clutch Brakes, Tank Turret
	00ASBESTO		Includes: All brake shoes, linings, gaskets, clutches, etc. containing asbestos
2910		Engine Fuel System Components, Nonaircraft	Includes: Carburetors; Fuel Pumps; Engine Fuel Filters; Fuel Tanks; Components for all engines except Aircraft and Guided Missile Prime Moving
	00ASBESTO		All fuel system gaskets containing asbestos
	00FLTFUEL		All fuel filters for all grades and types of fuel
2940		Engine Air and Oil Filters Strainers, and Cleaners, Nonaircraft	Includes: Components for all Engines except Aircraft and Guided Missile Prime Moving. Excludes: Air and Oil Filters (FSC 4310, 4330), Strainers (FSC 4730) and Cleaners (FSC 4310) not specifically designed for use with engines
	00FLTFUEL		All fuel filters used on non aircraft engines
	00FLTOIL		All oil filters used on non aircraft engines
3439		Miscellaneous Welding, Soldering, and Brazing Supplies and Accessories	Includes: Soldering Irons; Welding Electrodes and Rods; Brazing Fluxes; Soldering Fluxes; Solder
	00PBSLDER		Includes: Lead solder
4230		Decontaminating and Impregnating Equipment	Excludes: production type equipment designed for impregnation of metal castings and electronic components, processing of leather and textiles, and for similar industrial processing operations
	00DECON		Includes M13, M17A2, M258, M258A1, M280, M291E, M3, and DS-2 (including cylinders used in the DS-2 M11 apparatus)
4240		Safety and Rescue Equipment	Includes: Portable Fire Escapes; Safety Nets, Nonbuoyant.Excludes: Divers Suits; Fixed Fire Escapes
	00FLTMSK		All NBC mask filters including C2A1 canisters, M13A2, M19
6135		Batteries, Non Rechargeable	Includes: Cells and Dry Batteries
	00BATALK		Alkaline batteries
	00BATCAD		Nicad batteries
	00BATLDAC		Lead acid batteries
	00BATLITH		Lithium batteries
	00BATMAG		Waste magnesium batteries
	00BATMERC		All mercury containing batteries
	00BATNIHY		Nickel metal hydride batteries
	00BATZN		Zinc batteries

FSC-LIIN MATRIX 2010

FSC	LIIN	Heading	Description
6140		Batteries, Rechargeable	Includes: Rechargeable Cells and Batteries
	00BATALK		Alkaline batteries
	00BATCAD		Nicad batteries
	00BATLDAC		Lead acid batteries
	00BATLITH		Lithium batteries
	00BATMAG		Waste magnesium batteries
	00BATMERC		All mercury containing batteries
	00BATNIHY		Nickel metal hydride batteries
	00BATZN		Zinc batteries
6240		Electric Lamps	Includes: Fluorescent Lamps; Incandescent Lamps, Large and Miniature; Mercury Lamps; Sodium Lamps
	00UWLAMPS		All spent lamps regardless of type
6250		Ballasts, Lampholders, and Starters	Includes: Ballasts, transformers, lampholders, and starters.
	00NPCBLST		All Non PCB light ballasts
	00PCBBLST		Includes: Ballasts, lampholders, starters, and capacitors
6505		Drugs and Biologicals	Includes: All drugs, medicinal grade chemicals, and biologicals subject to the Federal Food, Drug and Cosmetic Act, Department of Agriculture (Veterinary Drugs and Biologicals), listed in the Monograph Section of the U.S. Pharmacopeia or the National Formulary or covered by the United States Adopted Names (USAN).Excludes: medicated cosmetics and toiletries classifiable in FSC 6508 and in vitro diagnostic substances and reagents classifiable in FSC 6550
	00MEDWST		All drugs and medical grade chemicals and kits
6525		X-ray Equipment and Supplies: Medical, Dental, Veterinary	Includes: Medical X-ray Film; Medical X-Ray Film Viewing Equipment; Medical X-Ray Film Processing and Finishing Equipment and Supplies; X-Ray Tubes.Excludes: Industrial X-Ray Equipment
	00XRAY		All chemicals related to producing X-Rays
6630		Chemical Analysis Instruments	Includes: Acidity (pH) Meters; Gas Analyzers; Alakalinity Measuring Instruments; Colorimeters
	00CAINSTR		Includes: All FSC 6630 Chemical Analysis Instruments
6665		Hazard-Detecting Instruments and Apparatus	Includes: Radiac Equipment; Gas Detecting Equipment; Land Mine Detecting Equipment.Excludes: Manual Gas Alarms (FSC 6350)
	00NBCDET		All NBC detection including M256, M256A1, M18A2, M15A2A, M15A2N, M43, M43A1, M273, M8 paper, M229, M33, M30A1, M19, M34, M2, M3 food test, M272, and blue band kits
6685		Pressure, Temperature, and Humidity Measuring and Controlling Instruments	Includes: Thermometers,including Engine Thermometers; Pressure Gages; Thermocouple Leads; Resistance Bulbs. Excludes Clinical Thermometers; (FSC 6515); Thermostatic and Differential Pressure Switches (FSC 5930); and Meteorological Instruments (FSC 6660)
	00HGTHMMT		Mercury Thermometers
	00HGTHMST		Mercury Thermostats
6750		Photographic Supplies	Includes: Sensitized Photographic Paper; Special Purpose Photographic Chemicals; Unprocessed Film; Photoflash Lamps. Excludes: X-Ray Film (Medical Class 6525 or Industrial Class 6635); Electrographic (Facsimile) Paper for direct electrostatic printing or copying (FSC 7530)
	00PHOTO		All 6750 Items used in the Photograph process
6810		Chemicals	Includes: Naphtha Solvents; Water Softening Compunds; Tanning Materials; Natural or Synthetic; Extrines and Starches; Inedible Gelating; Acetone; Propellant Chemicals; Bulk; Not Specialized Solely for Guided Missile Use.Excludes: Medicinal Chemicals; Gases; Foundry Dextrines; Radiographic and Photographic Chemicals; In Vitro Diagnostic Substances and Reagents
	00OTHER		Other chemicals which do not fit into the other FSC categories
	00PRTWSHR		Solvent from part washers, including filter and sludge
	00SOLVENT		All petroleum based solvents
	00SPILLAB		Absorbent material contaminated with 6810 chemicals
6830		Gases: Compressed and Liquefied	Includes: Fuel Gases.Excludes: Military Chemical Gases; Medical Gases; Empty Gas Cylinders and their caps, valves, and valve spare parts
	00COMPGAS		Includes: Acetylene, diesel start
	00ODCGAS		Includes: All ODC/ODS compressed or liquified gases

FSC-LIIN MATRIX 2010

FSC	LIIN	Heading	Description
6840		Pest Control Agents and Disinfectants	Includes: Insect Repellents; Fungicides; Insecticides; Rodenticides; Weed Killers.Excludes: Personal Deodorants
	00PSTCONT		Includes: Insect Repellents, Fungicides, Insecticides, Rodenticides, Weed Killers
6850		Miscellaneous Chemical Specialties	Includes: Antifogging Compounds; Wetting Agents; Etching and Fountain Solutions for Lithographing; Blanket Repair Solutions for Lithographing; Antifreeze
	00ANTIFRZ		Used antifreeze, filters and sludge from recycling
	00BEADBLA		MTU bead blast sand
	00CONTWTR		Contaminated water from paint booth recycler
	00FILTERS		Paint booth filters
	00METAL		Floor covering form paint booth
	00MSCCHEM		All other 6850 FSC miscellaneous chemicals, includes STB
	00PRTWSH		Waste from all parts washers, including solvent, filters, and sludge
	00SNDBLST		Sandblast media
	00SPRYPWD		Uncoated spray powder
	00WSTLEAD		Includes: All waste from lead related abatement, includes indoor firing range containerized waste
	00WTRPURE		Includes: All 6850 chemicals related to ROWPU operations or other water purification, including chlorination kit, calcium hypochlorite (water purification)
6910		Training Aids	Includes: Mockups; Cutaway Models; Scale Models; Training Films; Training Aid Maps; Navigational Training Aids; Flight Instrument Training Aids; Aircraft Instrument Training Aids; Vehicle Training Aids; Engine Instrument Training Aids; Hydraulic System Training Aids; Cutaway, Mockup, or Sectionalized Ammunition only; Training Equipment normally used in classroom training.Excludes: Drill, Dummy, Exercise, Practice, or Simulated Ammunition and Weapons
	00DCNTRKT		Includes: M58A1,M58, or M280 decon training kits
7510		Office Supplies	Includes: Crayons; Erasers; File Holders; Writing Ink; Printing Ink; Paper Fasteners; Pencils; Penholders and Pen Points; Rulers, Office Type; Art Supplies; Tape, Pressure Sensitive Adhesive Excludes: Office Devices; Fountain Pens; Artist Brushes; Paper Stationery; Record Forms; Mechanical Pencils
	00OFICWST		Office waste being disposed of, including toner, printer ink, white out, etc.
7930		Cleaning and Polishing Compounds and Preparations	Includes: Scouring Powders; Washing Compounds; Detergents; Nontoilet Soaps; Automobile and Household Polishes and Waxes.Excludes: Shaving Soap; Toilet Soap; Abrasive Polishing Compounds; Metal Finishing Abrasives; Surgical Detergents
	00CLNCMP		All 7930 cleaning compounds to include scouring powders; washing compounds; detergents; nontoilet soaps; automobile and household polishes and waxes, polishers, simple green, multipurpose cleaning solutions
8010		Paints, Dopes, Varnishes, and Related Products	Includes: Water Paints; Oil Paints; Driers; Wood and Wall Fillers; Lacquers; Paint Sealers; Pigments for Coloring; Stains; Turpentine; Paint Removers. Excludes: Acetone
	00CRCPNT		Includes: All solvent based CARC paint to include primers
	00LEADPNT		Includes: Containerized waste from abatement operation of lead based paint to include disposal of lead based paint surface coating
	00LTXPNT		Includes: All latex based paints
	00OILPNT		Includes: All oil based surface coatings, including paints, driers, wood and wall fillers, lacquers, paint sealers, pigments for coloring, stains
	00PNTDEB		Includes: Filters, sandblast media, floor coverings, paint brushes, masks, gloves
	00PNTREM		Includes: All paint removers to include turpentine, thinner, MEK, etc.
	00PRVCMP		Corrosion preventive compound including fire resistant compounds, water resistant compounds, weather resistant compounds, belt dressing; antiseize compounds, calking and glazing compounds, putties, alodine, sealant compounds
	00SRFPREP		Filler, dent, metal surface, bondo
	00WBCRCPT		Includes: All water based carc surface coating and primers
8030		Preservative and Sealing Compounds	Includes: Fire Resistant Compounds; Water Resistant Compounds; Weather Resistant Compounds; Belt Dressing; Antiseize Compounds; Caulking and Glazing Compounds; Putties. Excludes: Food Preservative Compounds
	00PRVCMP		Corrosion preventive compounds; includes fire resistant compounds, water resistant compounds, weather resistant compounds, belt dressing; antiseize compounds, caulking and glazing compounds, putties, alodine, sealent compounds
8040		Adhesives	Includes: Glue; Mucilage; Sizes; Adhesive Cements
	00ADHESIV		Includes: All FSC 8040 adhesives
8340		Tents and Tarpaulins	Includes: Multiple purpose covers of woven or unwoven fabrics, not for permanent installation.Excludes: Tent poles, frames, doors, ropes, pegs, and other non-fabric items

FSC-LIIN MATRIX 2010

FSC	LIIN	Heading	Description
	00HAZTENT		Tents containing BondCote Canvas including tent floors, sections, flys, liners, covers, roofs, and other miscellaneous tent components composed of canvas fabric
8970		Composite Food Packages	Includes: Ration Packs and Emergency Rations; Care Packages
	00FRHMRE		Flameless ration heaters
9110		Fuels, Solid	Includes: Ration Heating Tablets; Cordwood; Charcoal; Briquettes; Coke
	00FLSLD		Ration heating tablets, includes gel burners; cordwood; charcoal; briquettes; coke and trioxane
9130		Liquid Propellants and Fuels, Petroleum Bas	This class includes liquid propellants with more than 50 percent or higher petroleum content
	00FUEL		Includes: All FSC 9130 fuels to include, JP-8, Mogas, Gas, & Diesel
	00SPILLAB		Absorbent contaminated with JP-8, Mogas, Gas, & Diesel
	00SPLSOIL		Soil/earth contaminated with JP-8, Mogas, Gas, & Diesel
9140		Fuel Oils	Includes: Light Burner Fuels; Diesel Fuels; Kerosene; Military Specification Type Residuals; Special and Heavy Grade Turbine Vessel Propulsion Fuels; Federal Specification Heavy Burner Fuels; Bunker "C" Commercial Grade Fuel; Heavy Fuel and other Black (Boiler Type) Fuels; Illuminating Oils. NOTE: This Class Includes Liquid Propellants With More Than 50% Or Higher Petroleum Content
	00DIESEL		Diesel fuel contaminated soil
	00DIESRCY		Off spec fuel
	00FUEL		Used oil for rerefining
	00HOSPILL		Heating oil spill material - Flammable - D001
	00JP8SPIL		Spill absorbents with JP-8 - Flammable - D001
	00MIXTURE		Diesel fuel/water/soil mixture
	00USEDOIL		Used oil
9150		Oils and Greases	Cutting, Lubricating, and Hydraulic. Includes: Petrolatum, except USP. Excludes: Rust Preventive Compounds; Antiseizing Compounds
	00BRKEFLU		Used synthetic, non-synthetic brake fluid
	00CLP		Cleaner, Lubricant and Protectant
	00FLTOIL		Synthetic & non-synthetic oil filters
	00OWSWSTE		Oil water separator cleanout
	00WPNCLN		Includes: Weapons cleaning patches and rags contaminated that are designated as hazardous waste
	00SPILLAB		Absorbent with synthetic & non-synthetic POLs
	00SPLSOIL		Soil/earth contaminated with synthetic & non-synthetic POLs
	00USEDGRS		Used synthetic, non-synthetic grease
	00USEDOIL		Used synthetic, non-synthetic, mineral, hydraulic oil, oil sludge
9999		Miscellaneous Items	Includes: Non-hazardous solid wastes; paper, scrap metal, cardboard and plastic
	00BLGEWTR		Waste Bilge water from boats to include all bilge water from any water fairing vessel
	00CNCASPH		Road bed, Building rubble to include concrete and or asphlat being recycled/disposed
	00CRDBRD		Cardboard Being Recycled
	00ELECTRN		Electronics being recycled, including computers, CRTs, televisions, etc.
	00GARBAGE		Non-Hazardous Solid Waste (Trash) Disposal
	00PAPER		Paper Being Recycled
	00PLASTIC		Plastic Being Recycled
	00SCRPMTL		Scrap Metal Being Recycled