USAG Humphreys
Hazardous Waste
Accumulation Point (HWAP)
Standard Operating Procedure (SOP)

Environmental Division
Directorate of Public Works

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1. Introduction

Hazardous wastes (HWs) are generated throughout USAG Humphreys. Handling/storage of wastes at unit Hazardous Waste Accumulation Point (HWAP) is regulated by USFK Regulation 201-1, Environmental Governing Standards (EGS).

This Standard Operating Procedure (SOP) must be followed to maintain compliance with regulations. EGS regulations applicable to HWAPs are found in Chapter 6. This SOP is intended for use by all hazardous waste generators at USAG Humphreys and is especially helpful to the following:

- Environmental Officers (EOs)
- Shop Supervisors/Foremen
- Motor Pool Officers
- Unit leaders/managers whose functions include the management of HW

2. Definitions: The following definitions will assist HW generators using this SOP.

a. Hazardous Waste Accumulation Point (HWAP): A shop, site, or other work center where HWs are accumulated until removed to a Hazardous Waste Storage Area (HWSA) or shipped for treatment or disposal. A HWAP may be used to accumulate no more than 55 gallons of HW, or one quart of acute HW, from each waste stream. The HWAP must be at or near the point of generation and under the control of the operator.

b. Hazardous Waste Storage Area (HWSA): A location on a USFK installation where HW is collected prior to shipment for treatment or disposal. A HWSA may store more than 55 gallons of a hazardous waste stream and more than one quart of an acute hazardous waste stream.

c. Hazardous Waste (HW): A discarded material that may be solid, semi-solid, liquid, or gaseous and exhibits either characteristic of HW or is listed as HW.

(1) Listed HW: More than 500 substances are specified as HW and listed in USFK Reg 201-1, Appendix B, Table B-3 and Table B-4. These HWs are annotated F, K, P, or U as the first character in the USEPA HW #.

(2) Characteristic HW: Some wastes are not “listed HW” but are HW because they are ignitable, corrosive, reactive, or toxic. These HWs are annotated D as the first character in the USEPA HW #.

- Ignitable (D001): Liquid with flash point less than 140^{o}F (e.g., mogas, paint thinners, or solvents such as methyl ethyl ketone (MEK), toluene, or xylene)
- Corrosive (D002): pH ≤2 or ≥12.5 (e.g., battery acid)
- Reactive (D003): Readily undergoes violent chemical change or reacts with water to produce toxic fumes (e.g., lithium batteries, sodium metal, or white and yellow phosphorus)
- Toxic (D004-D043): Contains one of 40 toxic substances above allowable leachable level (e.g., paints with lead or chromium or pesticides)

3. Regulatory Requirements: A HWAP has to meet certain requirements to maintain compliance with USFK Reg 201-1. These requirements are as follows:

a. Quantity: Only 55 gallons per waste stream may be held in a HWAP at any time. For acute HWs, the amount that can be stored is limited to 1 quart per waste stream. Wastes used for recycling or energy recovery (e.g., used oil or antifreeze) are exempt from 55 gallons/1 quart volume accumulation limits.

b. Storage period: HW and acute HW can be stored until 55 gallons/1 quart limits are reached. Used oil and antifreeze have to be shipped out of a HWAP within one year.

c. Container condition: Containers used for storage of HW must be in good condition, free from severe rusting, bulging or structural defects.

d. Container/HW compatibility: Containers, including over pack containers, must be compatible with the HW being stored.

e. Closed containers: A container holding HW must always be closed during storage, except when it is necessary to add or remove waste. Closed means sealed – ring closures locked and bungs in place.

f. Segregation: A HWAP must be operated to provide appropriate segregation for different waste streams, including those that are chemically incompatible.

g. Marking containers: A HW container must be marked to indicate contents as well as the accumulation start and end dates.

h. Labeling containers: A HW container must be labeled to indicate the hazard class of the HW contained (i.e., flammable, corrosive, etc.).

i. Secondary containment: A HWAP must have a secondary containment system which has sufficient capacity to contain 10% of the volume of stored containers, or the volume of the largest container, whichever is greater.

j. Grounding: Containers of flammable liquids must be grounded when transferring flammable liquids from one container to the other and at other times whenever practical.

k. Signs: A HWAP must have warning signs (FILLED National Fire Protection Association or appropriate international sign) appropriate for the waste being accumulated at the site.

l. Record keeping: Following records must be maintained at a HWAP.

- DD Form 1348-1A (also serves as a manifest) must be maintained for 3 years.
- Supporting documents (MSDS/SDS and laboratory reports) must be retained for 3 years after closure of the HWAP.
- Hazardous Waste and Used Anti-freeze Accumulation Log
- Unit spill contingency plan must be maintained at a HWAP and should be available in both English and Korean.

4. Operating Procedures

The DPW-Environmental Division developed procedures for operation of a HWAP. Adherence to these procedures is necessary to maintain compliance with regulations. Procedures for setup and operation of a HWAP are detailed below:

a. Compile copies MSDS/SDS and laboratory reports for all wastes generated and place these documents in a location accessible to all personnel in the area. These documents may be used in determining if a waste is hazardous.

b. Designate a HWAP close to the point of waste generation. The designated location should meet the following criteria:

- Location is secure and under control of the operator generating the waste
- Away from ignition sources
- Located on pavement and on a secondary containment system
- Not adjacent to open drains, sewer inlets, or ditches

c. Ensure that all personnel who work at a HWAP receive Hazardous Material/Hazardous Waste (HM/HW) Handler Training. To register for a course, contact Ms. Sheri Castro at DSN 753-7090 for information about EO and HM/HW Handler training.

d. Ensure that all personnel who work at a HWAP read this SOP.

e. A HWAP must have FILLED National Fire Protection Association or appropriate international sign appropriate for the waste being accumulated at the site.

f. Any facility that has a HWAP must have the following equipment available:

- A charged and operable fire extinguisher with a current inspection date
- Basic spill response/control equipment (i.e., personal protective equipment, absorbents, and over pack drums)

Note: Only trained personnel may respond to spills of hazardous substances.

g. Place a 55-gallon drum or other container for each waste stream at a HWAP. Smaller containers may be used. However, the maximum volume per waste stream is 55 gallons. The drum or container must conform to specific requirements for Performance-Oriented Packaging Standards (POPS) related to the waste being stored. See Figure 1 for HW Turn-in Flowchart from HWAP to HWSA.

h. Visibly mark the drum to indicate contents stored (e.g., “Used Fuel Filters” for a drum used to accumulate fuel filters).

i. Make sure the container is kept closed except when waste is being added or removed.

j. Accumulation of wastes should be stopped when the container is 80 percent full or 4-6 inches from the top.

k. Good housekeeping of a HWAP is essential. Ground area around the HWAP must be kept free of weeds, trash, or other unnecessary combustible materials. A HWAP shall only be used for accumulation of wastes.

l. Dry absorbent or absorbent material should be kept close at hand when liquids are transferred, so spills can be quickly absorbed. Any contaminated spill materials (i.e., pads and rags) or dry sweep should be collected and stored inside the HWAP clearly marked as “Used Dry Sweep” or “Used Spill Materials.”

m. The accumulation start date and end date shall be clearly marked on each container for all wastes.

n. A secondary containment system (i.e., polyethylene pallet or drip pan) shall be placed in each HWAP.

o. Inspect each HWAP as necessary to verify that requirements are being met.

p. A HWAP must maintain Hazardous Waste and Used Antifreeze Accumulation Log (see Figure 2).

5. Turn-in Procedures

a. Initiate turn-in when containers are at 80% capacity or when waste is within 4-6 inches from the top of the drum.

b. For used oil/fuel, contact Mr. Kim, Tae On at Environmental Division at 753-6048 to arrange pick-up by the used oil contractor.

c. For used antifreeze, contact the HWSA at 753-7710 for a turn-in appointment.

d. For HW such as used paint, adhesives, solvents, etc., contact the HWSA at 753-7710 for a turn-in appointment. The unit will provide the HWSA with the following information by generating a DD Form 1348-1A (see Figure 3):

- Unit of Issue
- Quantity
- Ship From: Unit/Organization Name
- Ship To: HWSA
- Generating Unit/Organization DODAAC (Department of Defense Activity Address Code)
- Document date (Julian Date)
- National Stock Number (NSN)
- Item Nomenclature
- Type of Container
- Number of Container(s)
- Point of Contact (POC) Name and Phone Number
- A copy of MSDS/SDS or laboratory report (Note: A copy of SDS is required only if:
  -- Shelf life expired HM is not a Mil-Spec NSN, e.g., local or GPC purchased HM
  -- SDS is not loaded in the Enterprise Environmental, Safety and Occupational Health-Management Information System (EESOH-MIS)

e. Provide the HWSA with the EESOH-MIS barcodes when turning-in shelf life expired HM via Excel spreadsheet, hand-written document, or by placing the barcode labels on a sheet of paper.

f. If waste analysis is required, contact Mr. Kim, Tae On at Environmental Division at 753-6048 to arrange sampling.

6. Spill Response

In the event of a spill, please follow the appropriate spill response procedures in place at your specific location. As for reporting, notify the Fire Department immediately at 911 if:

- The spill is 25 gallons or more
- The spill occurred off post
- The spill flows off post
- The spill flows into a storm drain

When you contact the Fire Department, be sure to give your name and building number. You must also contact Environmental Division at 753-7090 or your unit's assigned Environmental Division liaison.

7. Waste Disposal POC and Information

Item	Requirement	POC	Action	Telephone
Used Oil/Fuel	Accumulate used oil/fuel for energy recovery contract	Env. Division, Mr. Kim, Tae On	Contact POC to arrange pick-up by the used oil contractor	753-6048
Lightly Contaminated Used Rags	Collect lightly contaminated rags in a plastic bag and take them to LRC Laundry Shop at Bldg 1018	LRC Laundry Shop Mr. Pak, Sok Yun	Bring the lightly contaminated used rags to LRC Laundry Shop	753-6500
Used Dry Sweep/Used Spill Materials (pads & rags)	Collect used dry sweep/used spill materials such as pads and heavily contaminated rags in a clearly identified container for turn-in	HWSA Mr. Kim / Ms. Stephenson	Contact POC to schedule a turn-in appointment	753-7710
Used Paint/ Solvent/Chemicals	Accumulate in a container to turn into HWSA	HWSA Mr. Kim / Ms. Stephenson	Contact POC to schedule a turn-in appointment	753-7710
Used Oil Cans	Accumulate in a container to turn into HWSA	HWSA Mr. Kim / Ms. Stephenson	Contact POC to schedule a turn-in appointment	753-7710
Used Oil/Fuel Filters	Accumulate used oil/fuel filters to turn into HWSA	HWSA Mr. Kim / Ms. Stephenson	Contact POC to schedule a turn-in appointment	753-7710
Lead Acid Batteries	Accumulate lead acid batteries including UPS batteries for DLA DS to sell them as recycling materials	HWSA Mr. Kim / Ms. Stephenson	Contact POC to schedule a turn-in appointment	753-7710
Lithium Batteries	Accumulate lithium batteries to turn into HWSA	HWSA Mr. Kim / Ms. Stephenson	Contact POC to schedule a turn-in appointment	753-7710
Used Antifreeze	Accumulate used antifreeze for recycling	HWSA Mr. Kim / Ms. Stephenson	Contact POC to schedule a turn-in appointment	753-7710
Fire Extinguishers	All fire extinguishers can be turned into the Fire Department. Only building fire extinguishers will be replaced by the Fire Department	Fire Department Mr. Turner / Mr. Chong, Myong Chol	Contact POC to schedule a turn-in appointment	753-9082
Compressed Gas Cylinders including small propane gas cans	Turn them into HWSA whether they are empty, partially full, or full	HWSA Mr. Kim / Ms. Stephenson	Contact POC to schedule a turn-in appointment	753-7710
Used Fluorescent Bulbs	If new bulbs are needed, exchange the used bulbs with new ones. If new bulbs are not needed, accumulate them to turn into HWSA	Self Help Center, Mr. Yi, Ki Yong / HWSA, Mr. Kim / Mr. Bukle	Take bulbs to Self Help or HWSA	753-7410 753-7710

Figure 1. HW Turn-in Flowchart from HWAP to HWSA

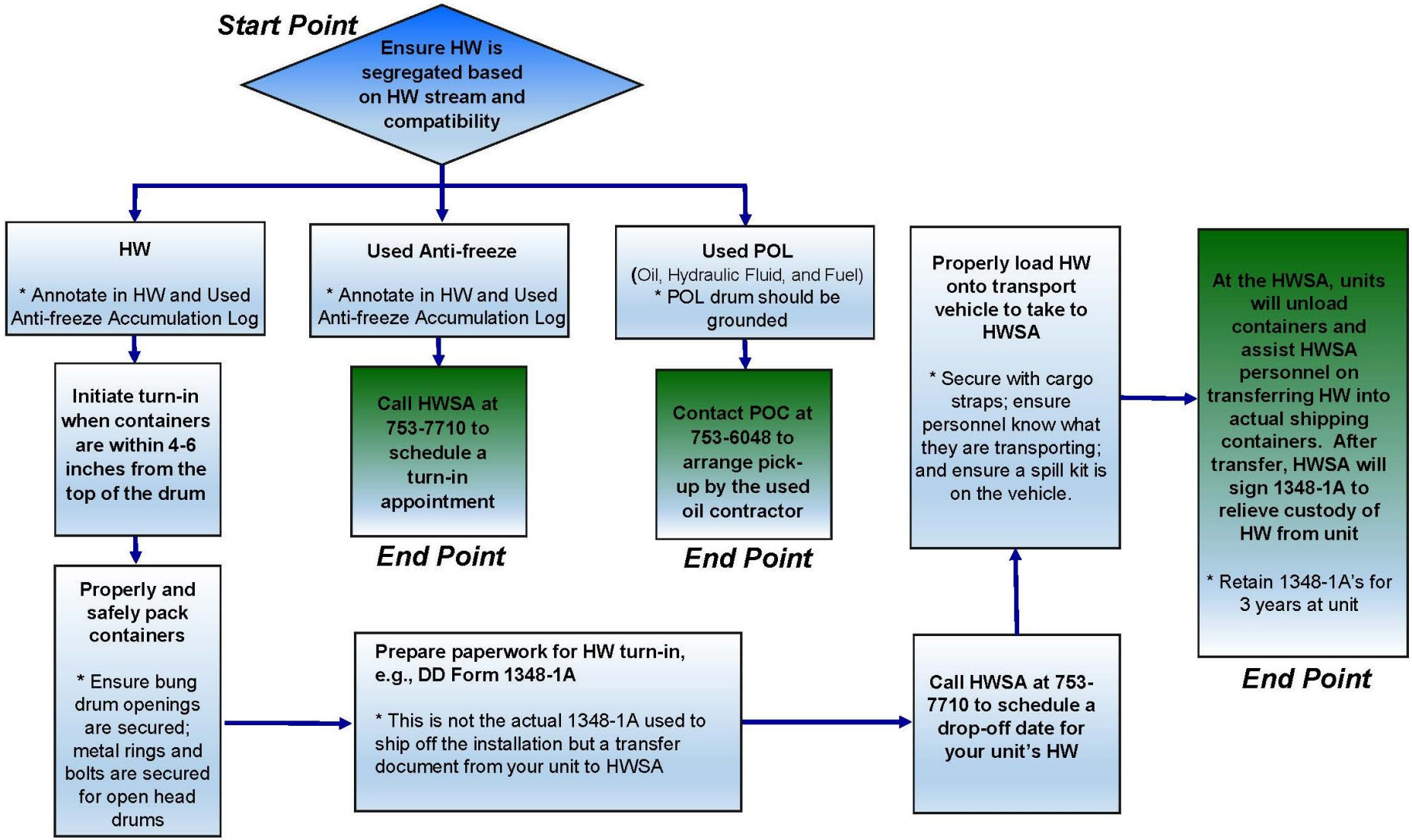

Figure 2. Hazardous Waste and Used Anti-freeze Accumulation Log

HAZARDOUS WASTE AND USED ANTIFREEZE ACCUMULATION LOG

CHECK THE APPROPRIATE BLOCK:

☐ HAZARDOUS WASTE ACCUMULATION LOG ☐ USED ANTIFREEZE LOG

HAZARDOUS WASTE NOMENCLATURE, NSN, AND EPA ID NUMBER

DATE HW OR USED ANTIFREEZE ACCUMULATION BEGAN

DATE	QUANTITY ADDED	NSN *(IF USED ANTIFREEZE)*	INITIALS

DATE HW OR USED ANTIFREEZE ACCUMULATION COMPLETED	DATE HW TRANSFERRED TO HWSA *(OR USED POL REMOVED BY CONTRACTOR)*
INSTALLATION	UNIT
POINT OF CONTACT	PHONE NUMBER

Figure 3. DD Form 1348-1A, Issue Release/Receipt Document