Waste Management/Hazardous Waste SOP 1.0 Generation and Generator Accumulation

OPS-SOP-0263
Version 2

September 2016

Risk Factor: 2

This document applies to the following locations:

ARL ☐	CHC ☐	DEN ☐	LMG ☒	McM ☒	NBP ☒	PAL ☒	PTH ☐	PUQ ☐	SP ☒

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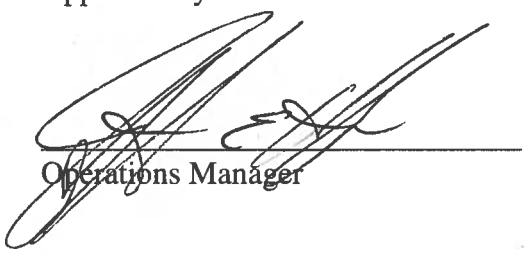
The document library holds the most recent versions of all documents.

Approved by:



Operations Manager

10/03/16

Date

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1. Purpose

This Standard Operating Procedure (SOP) provides guidance for generators of hazardous waste on:

- Required hazardous waste orientation
- Identification of hazardous wastes
- Segregation of hazardous wastes
- Accumulation of hazardous wastes
- Hazardous waste documentation including identification sheets (HWIS) and Field Camp Drum Tags

This SOP contains procedures required for compliance with the Antarctic Conservation Act regulations (45 CFR 671), including maintenance of hazardous waste accumulation areas and generator training.

2. Risk Factor

This document is assigned a risk factor of 2. Failure to follow this procedure may result in damage to equipment, vehicles, or structures, and/or injury or death, and/or major contract repercussions.

3. Applicability

This procedure applies to all USAP personnel, stations, field camps, and vessels. Procedural differences specific to individual stations, field camps, and vessels are identified in Appendix 1.

4. Responsibilities

4.1. Hazardous Waste Generators

Hazardous Waste Generators are responsible for the proper segregation and accumulation of hazardous wastes; accurate characterization and documentation of hazardous wastes; management of hazardous waste accumulation areas; corrective action for rejected wastes.

4.2. Hazardous Waste Department Personnel

Hazardous Waste Department Personnel are responsible for providing orientations and assistance to hazardous waste generators as necessary and as required by this procedure.

4.3. Designated Hazardous Waste Point of Contact

Hazardous Waste Department personnel, as referenced in this SOP include designated personnel from departments other than Waste Management with specific responsibilities for hazardous waste management activities. These personnel may include, but are not limited to Environmental Technicians, work center supervisors, certain Science Support and laboratory personnel on vessels and at Palmer Station, Field Camp Managers, and cargo personnel.

5. Procedures

5.1. Hazardous Waste Generation Overview

1. All USAP participants receive the required USAP Waste Management Briefing prior to deployment. This briefing includes a basic overview of hazardous waste management requirements.
2. Hazardous waste generators receive individualized briefing on hazardous waste management procedures after arrival on-station as described in Section 1.1 – Hazardous Waste Generator Orientation.
3. Generators identify and segregate hazardous wastes resulting from research activities or operations using guidance and procedures described in Section 1.2 – Hazardous Waste Identification and Segregation. Generators include ALL USAP program participants regardless of organizational affiliation.
4. Generators accumulate hazardous wastes according Section 1.3 – Hazardous Waste Accumulation. This procedure is required for compliance with Antarctic Conservation Act regulations (45 CFR 671).
5. Hazardous wastes are documented using the Hazardous Waste Identification Sheet (HWIS) as described in Section 1.4 – Hazardous Waste Identification Sheets. Hazardous wastes from field camps are documented using the Hazardous Waste Identification Tag as described in Section 1.5 – Hazardous Waste Identification Tags.

5.2. Hazardous Waste Generator Orientation

All personnel generating hazardous waste must receive the following orientation. Orientation is designed to last approximately 20-30 minutes and must be provided to each generator/work center within the first 2-3 weeks of each operational season or after arrival on-station.

Table 1: Hazardous Waste Orientation Outline

Topic	Orientation Goals	Discussion Items
Waste Identification and Segregation	• Basic identification of hazardous wastes under ACA regulations. • Segregation and accumulation requirements • Safety and handling considerations • Disposal Considerations	Provide copy of HWSOP 1.0 to Work Center Review Section 1.2 and Table 2 Provide generator specific guidance
Waste Accumulation	• Accumulation area requirements • Container requirements • Labeling requirements • Accessories and housekeeping • Spill response materials • Weekly Inspection	Review Section 1.3 and Table 3 Provide generator specific guidance

Topic	Orientation Goals	Discussion Items
Documentation	• Hazardous Waste Identification Sheet Completion • Container marking requirements	Review Section 1.4 and Table 4 Provide generator specific guidance
Hazardous Waste Acceptance	• Waste submittal criteria • Quality Assurance/Quality Control criteria • Generator Corrective Action	Discuss document review and waste inspection Discuss generator corrective action for rejected wastes
Radioactive Waste	• Special Waste Management Procedures • Separate HWSOP • Special briefing required	Contact Hazardous Waste Management if this waste will be generated.
Spill Response	• Spill definition • Discovery actions • Reporting	All spills released to the environment, regardless of size, must be reported Reporting and response procedures

5.3. Hazardous Waste Identification and Segregation

1. Consult **Table 2** - Hazardous Waste Segregation, and Accumulation Guidance, prior to generating waste to determine segregation requirements.
2. Accumulate hazardous waste in appropriate containers as it is generated according to guidance provided in **Table 2**.
3. Store accumulation containers in a centralized area according to procedures described in Section 1.3 - Hazardous Waste Accumulation.
4. Accumulate hazardous wastes until container(s) are 90% full.
5. Complete a HWIS for each full container of hazardous waste according to procedures described in Section 1.4. Instructions are also provided on page 2 of the electronic version of the HWIS form found on the Master List.
6. Notify Hazardous Waste Department that container(s) are full and ready for pickup and processing.
7. Hazardous Waste Department personnel will conduct quality assurance/quality control review of all documentation and inspect all wastes prior to acceptance. Generators must conduct all corrective actions for wastes rejected by Hazardous Waste Department.

Table 2: Hazardous Waste Identification, Segregation, and Accumulation Guidance

Hazardous Waste Identification, Segregation, and Accumulation Guidance				
Hazardous Waste Definitions	• Does not qualify under solid waste categories and descriptions • Listed as DESIGNATED POLLUTANT or HAZARDOUS MATERIAL in Maximo or on Product Label • Previously identified as a Hazardous Waste by Waste Management Personnel • Contains any material considered a health or environmental hazard as designated by Hazardous Waste personnel • Any waste containing a material listed in any US environmental regulation			
Segregation	• Collect liquid wastes in bung type drums only unless otherwise approved by Hazardous Waste personnel • Segregate liquids and solids into separate containers, e.g., do not put waste oil and rags in the same drum • Containers are only considered empty if drip dry and have no hazard associated with the original constituents • Flammables, oxidizers, acids, and bases must be segregated from one another for safety reasons. If unsure of the hazard class, check the MSDS or contact Hazardous Waste Management			
Category	**Sub categories**	**Containers**	**Examples**	**Notes**
Absorbents	Varies with contaminant	Generally metal open top drum	Floor Sweep Solid-a-Sorb kitty litter	SEE FLOOR SWEEP/ABSORBENT
Acids	Organic Inorganic	Generally original product container or poly bung drum	pH <4 Acids Corrosives	SEE CORROSIVES
Aerosol Cans	Flammable Non-Flammable Corrosive Chlorinated	Metal Drum Poly Drum Plastic Bag	Spray Paint Dust Off Oven cleaner	Sort by Sub-Category. Remove plastic spray tip. Spray tip should be disposed as PLASTIC.
Alkaline (Bases)	Varies with constituents	Generally original product container or metal bung drum	pH >11 Hydroxides Bases Corrosives	SEE CORROSIVES
Asbestos	Friable Non-Friable	Generally metal drum, double lined DOT triwall, or other special packaging	Floor Tiles Insulation Gaskets Doors Mastic	Contact Hazardous Waste Management for guidance on segregation and accumulation containers
Batteries	Lead Acid Alkaline NiCad Gel Cell Lithium	Battery Box Poly Drum Pallet	Vehicle Household camcorder Rechargeable	Sort by type Intact, non-leaking vehicle batteries can be palletized. Broken lead acid batteries must be in an approved Battery Box.

Hazardous Waste Identification, Segregation, and Accumulation Guidance				
Category	**Sub categories**	**Containers**	**Examples**	**Notes**
Biohazardous Waste	Medical Dormitory Bio Sharps Carcasses	Red Bag Metal Drum Poly Drum	Bandages Medicines Tampons Condoms Needles Scalpels Blood Body fluids	Bio waste should be collected in red biohazardous bags. Sharps must be collected in special sharps containers for worker safety.
Chemicals, Other	Varies with constituent hazard class	Varies with hazard class and volume. Generally original product container or other similar container.	Lab chemicals Cleaners Solvents Industrial Chems Off-Spec Chems Outdated Chems	Contact Hazardous Waste Management for guidance on segregation and accumulation containers
Cleaning Compounds	Varies with chemical constituents	Generally metal drum or poly drum	Alcohols Solvents Degreasers Parts Cleaners Household Cleaners	SEE CHEMICALS, OTHER
Compressed Gas Cylinders	Varies with type of gas	Generally cylinders are specially crated	Oxygen Carbon Dioxide Nitrogen Freon	Contact Hazardous Waste Management for guidance on segregation and accumulation containers.
Corrosives	Acids Bases Organic Inorganic	Varies with acid or base	pH <4 pH >10 Acids/Bases Hydroxides Alkaline Corrosives	Segregate all acids and bases. Some acids are incompatible with other acids. Do not neutralize without Waste Management approval. Contact Hazardous Waste Management for segregation and accumulation containers.
Debris, Hazardous	Asbestos Metals Contaminated Debris	Generally lined DOT triwall, metal drum	Fuel/Oil Debris Asbestos Debris Painted Debris	Some Hazardous Debris requires special packaging. Contact Hazardous Waste Management for segregation and accumulation containers and/or special packaging.
Empty Containers	Metal Plastic Drums	Metal Drum Poly Drum Lined DOT Triwall Plastic Bag	Any empty hazardous material Container	Segregate metal, plastic and glass containers. Drain as much as possible before disposing
Floor Sweep/ Absorbent	Varies with contaminants	Metal Drum	Floor Dry Solid-a-Sorb Kitty Litter	Generally does not need to be segregated by contaminant, except when saturated.

Hazardous Waste Identification, Segregation, and Accumulation Guidance				
Category	**Sub categories**	**Containers**	**Examples**	**Notes**
Fluorescent Light Tubes	None	Original Box Crate Loose Load	All Fluorescent Light Tubes	DO NOT CRUSH OR BREAK.
Fuel Wastes	JP-8 Mogas White Gas Kerosene	Metal Bung Drum	Contaminated Fuel Mixtures	Liquid wastes must be accumulated in a bung top drum. Do not mix with other oil or fuel wastes.
Glycol Wastes	Ethylene Glycol Propylene Glycol	Metal or Poly Bung Drum	Contaminated Glycol Mixtures	Segregate Ethylene and Propylene Glycol. Do not mix with fuel or oil wastes.
Household (Dormitory) Hazardous Wastes	Batteries Aerosols Biohazardous Cleaning Compounds Other	Generally metal drum	Batteries Shaving Cream Hair Spray Biohazardous Cleaners Fingernail Polish	Containers for each subcategory are provided in dormitories
Laboratory Chemicals	Varies with constituents	Varies with hazard class and volume, often original product container	Methanol Acetone Acids Poisons Lab Reagents Off-Spec Chems	SEE CHEMICALS, OTHER
Light Bulbs	Incandescent Fluorescent	Original Box Crate Loose Load	Reg. Light Bulbs Fluorescent Tubes	DO NOT BREAK OR CRUSH Regular light bulbs should be disposed as Construction Debris
Mercury Articles	None	Metal Drum	Thermometers Thermostats Waste with Metallic Mercury	Contain items in plastic bag or other container to prevent further leakage. Avoid skin contact with metallic mercury.
Oil and Other Lubricants	Lube Oil Hydraulic Oil Mineral Oil	Metal Bung Drum	Engine Oil Hydraulic Fluid Transmission Fluid Mixtures	Segregate by subcategory. Do not mix with other oil/fuel
PCB	None	Poly Drum	Light Ballasts Transformers Transformer Oil	Contact Hazardous Waste Management for information on transformers that indicate the presence of PCB's.
Paints, Thinners, and Related Wastes	Latex Paint Enamel Thinner Paint Contaminated Debris	Original Paint Cans Metal Bung Drum Lined DOT Triwall	Paint/Varnish Polyurethane Used Thinner Drop Clothes Brushes/Rags	Segregate latex, enamel, and thinner. Do not consolidate unusable paint into drums, unless directed by Hazardous Waste Management.

Hazardous Waste Identification, Segregation, and Accumulation Guidance				
Category	**Sub categories**	**Containers**	**Examples**	**Notes**
Poisons	Varies with constituents	Metal Drum Poly Drum	Generally indicated on container	SEE CHEMICALS, OTHER
Printer Cartridges	None	DOT Triwall Plastic Bag Loose	Printer Cartridges Toner Bottles	Contact Hazardous Waste Management to determine hazard.
Radioactive Waste	Liquid Mixed Liquid Scintillation Vials Dry Debris Carcasses Articles and Instruments	Special Packaging for each subcategory	All waste from activities utilizing radioisotopes Smoke Detectors Exit Signs Spark Tubes Static Dissipaters	Contact Hazardous Waste Management BEFORE generating any radioactive wastes.
Rags	None	Metal Drum DOT Triwall	Contaminated Shop Rags	
Solvents	Varies with constituents	Original Container Metal Drum	Parts Cleaners Alcohols Cleaning Compounds	Segregate all solvents, particularly chlorinated compounds (i.e., containing the phrase “chloro”, “fluoro”, “bromo”, in constituents)
Spill Cleanup Waste	Varies with constituents	Generally metal drums	Contaminated Soil Contaminated Snow Absorbent Pads	Segregate contaminated soil/snow/water from absorbent materials
Toner, Copier	None	Original Container Metal Drum Plastic Bag	Copying Machine Toner, Dry or Liquid	Contact Hazardous Waste Management to determine hazard.
Unused Product	Varies with constituents	Generally original container, unless damaged	Off Spec, Out of Date, or Other Products that are no longer used or needed	SEE CHEMICALS, OTHER

5.4. Hazardous Waste Accumulation Areas

Accumulation of hazardous waste is regulated under Antarctic Conservation Act Regulations (45 CFR 671). The following steps must be followed for compliance.

1. Generators must establish a hazardous waste accumulation area according to the requirements described in Table 3. Hazardous Waste Department personnel will provide assistance and materials as needed.
2. Hazardous waste accumulation areas must be inspected weekly and inspection results documented according to one of the following procedures:
    - Generator Inspection – Generators may conduct weekly inspections of hazardous waste accumulation area in their work centers using the **GENERATOR WEEKLY INSPECTION FORM** following this section. The completed form must be forwarded to Hazardous Waste Management by close of business on Saturday each week.
    - Hazardous Waste Management, at some stations, may conduct these inspections for the generator using the **HAZARDOUS WASTE MANAGEMENT WEEKLY INSPECTION FORM** following these sections.
3. Discrepancies and non-compliance noted during weekly inspections will be reviewed with the work center supervisor and must be corrected prior to the next weekly inspection.
4. Hazardous Waste Management will maintain weekly inspection documentation for hazardous waste accumulation area inspections for reporting, as requested by the National Science Foundation.
5. Hazardous Waste Management personnel will conduct random audits of work centers inspected by the generator a minimum of 2 times per season (summer and winter). The results of these audits will be reviewed with the work center supervisor to identify any non-compliance issues and subsequent corrective action needed.

Table 3: Hazardous Waste Accumulation Area Guidance

Requirement	Guidance
Accumulation Area	• Located in an area with free access and not subject to traffic that could damage or knock over containers. • Clearly marked and identified with a sign indicating "DANGER - HAZARDOUS WASTE ACCUMULATION AREA". • Be maintained using standard good housekeeping practices, i.e., free of trash, debris, and free of obstructions.
Container Condition	• Containers must be in good condition, i.e., no major dents, damage, or deterioration (rust, wear, etc). • Containers must be properly sized for the volume of waste being accumulated, i.e., large enough to hold no more than 1-2 weeks accumulation. • Containers must be compatible with the waste being accumulated. Consult Table 1.1, *Hazardous Waste Segregation* for to determine proper container type. • Containers should be closed at all times, unless waste is being added to them. • Containers for flammable wastes must be grounded to prevent ignition from static sparks. • Containers of incompatible hazardous wastes (e.g., flammable and oxidizers) should be separated as much as possible.
Container Labeling	• All containers must be labeled "HAZARDOUS WASTE" • All containers must be labeled with the specific contents, i.e., the name of the waste. • All containers must be labeled identifying the date on which wastes began to accumulate, i.e., the "ACCUMULATION DATE". • Do not use EPA hazardous waste labels (yellow/red EPA or white/red Washington State labels) to comply with ACA labeling requirements.
Spill Prevention and Response	• Filling accessories designed to prevent spills, such as funnels and drip pans, should be used when accumulating liquids. • All spills, leaks, and drips must be cleaned up immediately. Report all spills to the appropriate on-station authority, even if the spill has been cleaned up by work center personnel. • Basic spill cleanup materials or "mini-spill kits" should be available at the accumulation area. Hazardous Waste Personnel can assist in identifying and providing the materials appropriate for a given accumulation area.

Figure 1: Generator Weekly Inspection Form

STATION:_____WEEK ENDING:_____WORK CENTER:__

_____

SECTION I - HAZARDOUS WASTE INFORMATION

HAZARDOUS WASTES BEING ACCUMULATED (LIST NAMES ON ALL CURRENT CONTAINERS):

_____

_____

_____

SECTION II - INSPECTION CHECKLIST

ACCUMULATION AREA REQUIREMENTS:

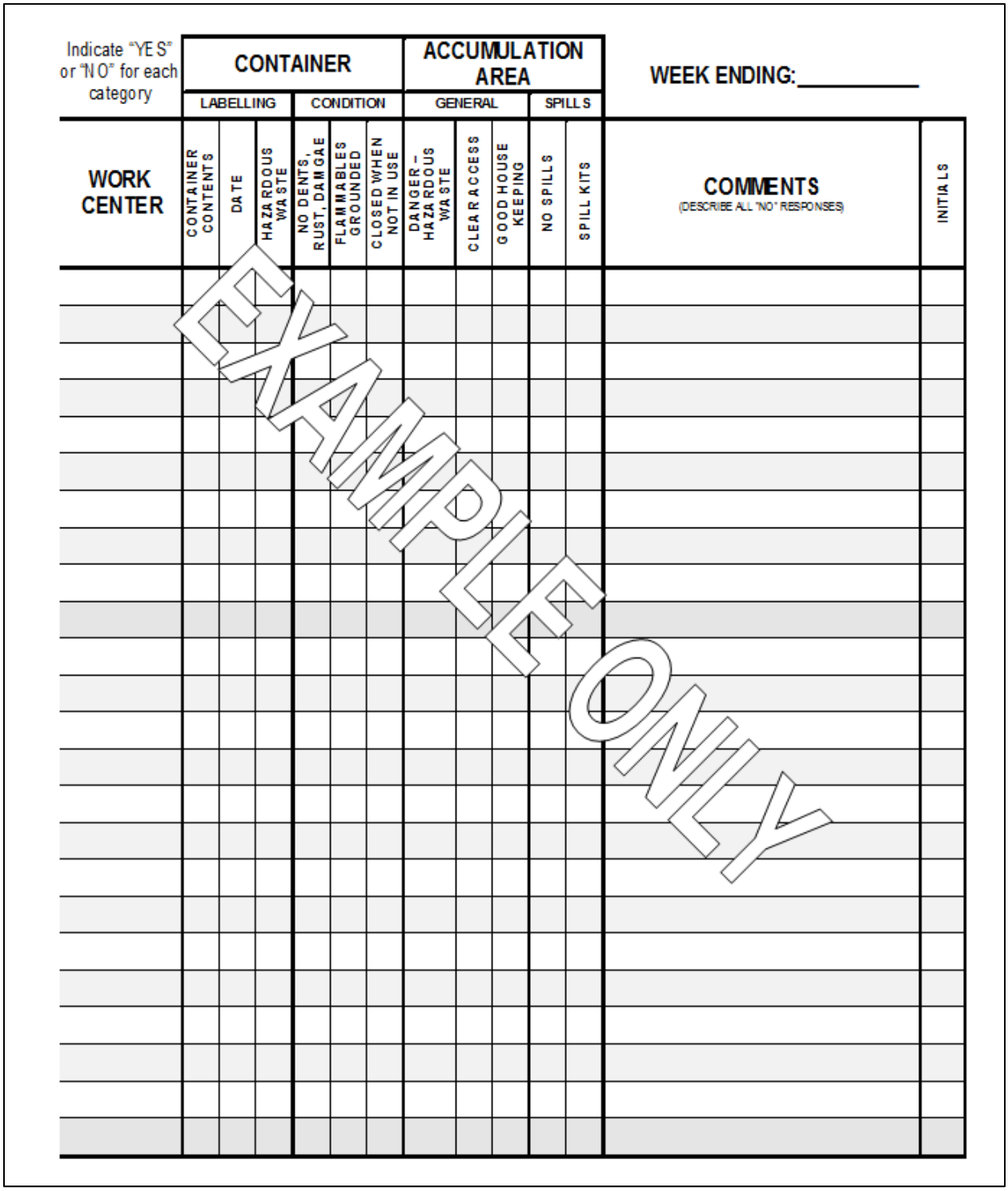
1. Located in PROTECTED AREA with LIMITED ACCESS?..... **NO**
   - .....
   - ..... **YES**
2. "HAZARDOUS WASTE" sign clearly visible?..... **NO**
   - .....
   - ..... **YES**

CONTAINER REQUIREMENTS:

3. Red/White "HAZARDOUS WASTE" label?..... **NO**
   - .....
   - ..... **YES**
4. SPECIFIC CONTENTS (name of waste) listed on label?..... **NO**
   - .....
   - ..... **YES**
5. ACCUMULATION START DATE listed on label?..... **NO**
   - .....

EXAMPLE ONLY

Figure 2: Hazardous Waste Management Weekly Inspection Form



5.5. Hazardous Waste Identification Sheets (HWIS)

Generators must complete an HWIS for each container of waste prior to submittal for processing and disposal. In certain circumstances noted below, a single HWIS can be used for multiple containers of identical waste. The Hazardous Waste Department will provide generators with pre-numbered HWIS forms as necessary.

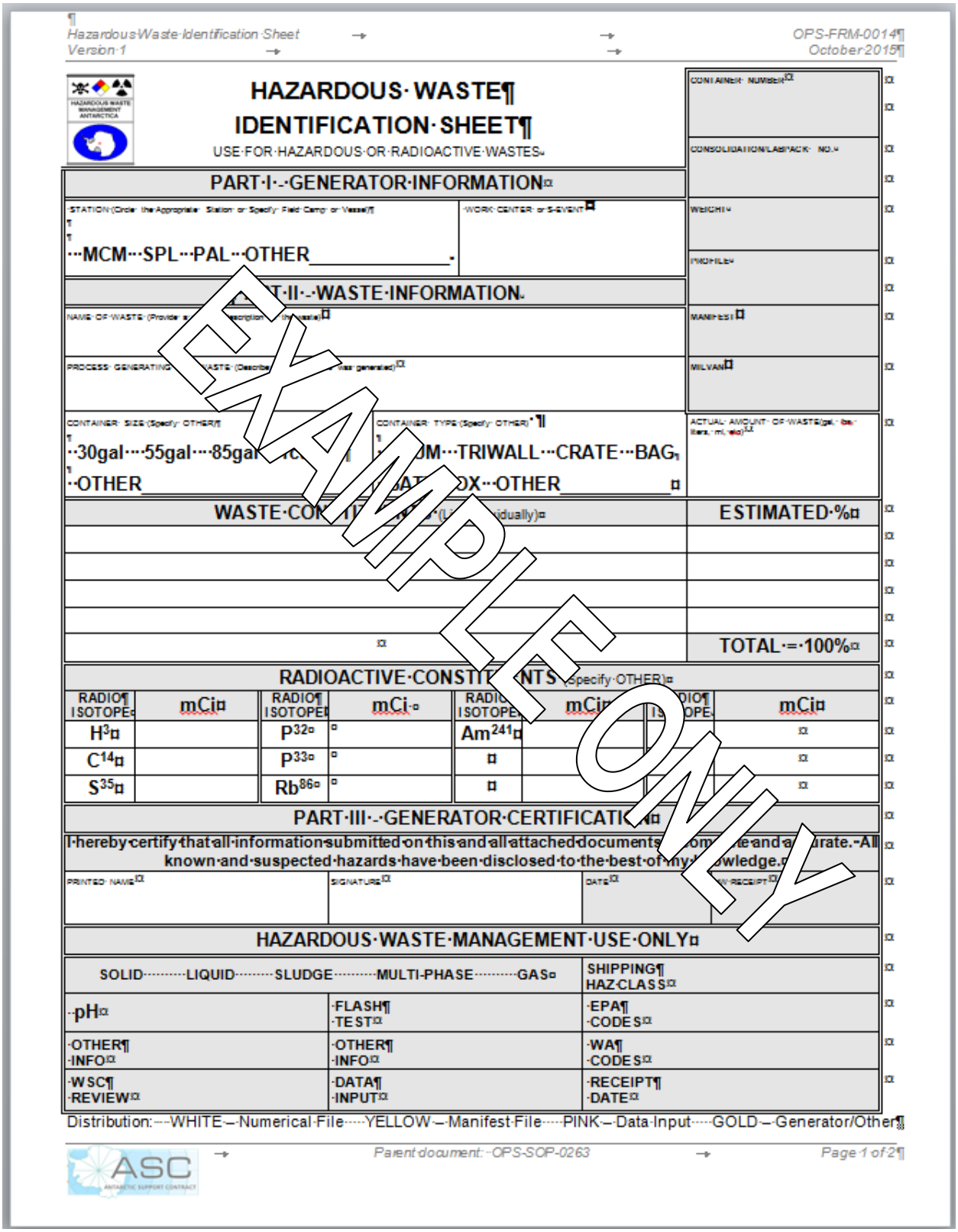
1. An HWIS must be completed for each individual container of waste. Multiple containers of the same hazardous waste may, under certain circumstances, be consolidated onto a single HWIS, if:
    - Identical wastes in all containers
    - Maximum 4 containers
    - HWIS number on each container must be differentiated with and alphabetic character (i.e., “A”, “B”, “C”, etc)
2. Only the pre-printed, uniquely numbered, HWIS form may be used to document hazardous wastes. An example of the form is shown in **Figure 3**.
3. Complete all non-shaded blocks of the HWIS according to the instructions provided in **Table 4**.
4. The modified HWIS number must be written on both the top and side of the waste container of waste or on a tag attached to the container.
5. Contact Hazardous Waste Department for waste pickup.
6. Hazardous Waste Department personnel will conduct document review and visually inspect the waste prior to acceptance. Acceptance of the waste by Hazardous Waste Department will be documented by entering the DATE and initialing the HW RECEIPT blocks in Part III (Generator Certification) of the HWIS.

Figure 3: Hazardous Waste Identification Sheet Instructions

HAZARDOUS WASTE IDENTIFICATION SHEET INSTRUCTIONS

HWIS BLOCK	INFORMATION REQUIRED	REMARKS
Container Number (Shaded)	Modified with last digit of current calendar year	EXAMPLE: Current Year: 2013 Pre-Printed No.: 1234 HWIS/Container No.: **71234**
Consolidation Number/Weight Profile/Manifest/Milvan (Shaded)	For Waste Management Use Only	
PART I – GENERATOR INFORMATION		
Station	Circle the name of the Station where the waste is generated	Enter the Field Camp or Vessel and Cruise name after *OTHER*
Work Center Or S-Event	Enter Work Center name or Event number generating the waste	Clearly indicate generator. Do not list multiple work centers or Event numbers
PART II – WASTE INFORMATION		
Name Of Waste	Enter a descriptive generic name of the waste	Name of Waste should answer the question "What is this waste?"
Process Generating Waste	Enter information describing how the waste was generated.	Generally, a brief description of the process resulting in the waste is sufficient
Container Size/Type	Circle the appropriate container size and type or indicate in the spaces provided	
Actual Amount Of Waste	Enter the actual volume of waste in the indicated container type and size	*DO NOT* enter container size and type.
Waste Constituents	List all constituents of the waste and their respective estimated percentages. Percentages must equal 100%.	*DO NOT* list radioisotopes in this section *DO NOT* use "trace" or "<" (less than symbol)
Radioactive Constituents	**REFER TO (IO-SOP-0269) - HWSOP 7.0 FOR HWIS INSTRUCTIONS FOR RADIOACTIVE WASTES**	
PART III – GENERATOR CERTIFICATION		
Printed Name And Signature	Enter name and signature of the person submitting waste for disposal	
Date And HW Receipt	Completed by Waste Management at the time of Waste Acceptance	
HAZARDOUS WASTE MANAGEMENT USE ONLY		
All Blocks	*For Waste Management Use Only*	

Figure 4: Example Hazardous Waste Identification Sheet



Hazardous Waste Identification Sheet OPS-FRM-0014
Version 1 October 2015

HAZARDOUS WASTE
IDENTIFICATION SHEET
USE FOR HAZARDOUS OR RADIOACTIVE WASTES

CONTAINER NUMBER
CONSOLIDATION/LABPACK NO.
WEIGHT
PROFILE
MANIFEST
MILVAN

PART I - GENERATOR INFORMATION

STATION (Circle the Appropriate Station or Specify Field Camp or Vessel)
MCM SPL PAL OTHER
WORK CENTER or S-EVENT

PART II - WASTE INFORMATION

NAME OF WASTE (Provide a description of the waste)
PROCESS GENERATING WASTE (Describe ... was generated)
CONTAINER SIZE (Specify OTHER)
30gal 55gal 85gal ... OTHER
CONTAINER TYPE (Specify OTHER)
...UM TRIWALL CRATE BAG ... OTHER
ACTUAL AMOUNT OF WASTE (gal, lbs, liters, ml, etc)

WASTE CONSTITUENTS (Limit individually)	ESTIMATED %
	TOTAL = 100%

RADIOACTIVE CONSTITUENTS (Specify OTHER)

RADIO ISOTOPE	mCi	RADIO ISOTOPE	mCi	RADIO ISOTOPE	mCi	RADIO ISOTOPE	mCi
H^3		P^{32}		Am^{241}			
C^{14}		P^{33}					
S^{35}		Rb^{86}					

PART III - GENERATOR CERTIFICATION

I hereby certify that all information submitted on this and all attached documents is complete and accurate. All known and suspected hazards have been disclosed to the best of my knowledge.

PRINTED NAME SIGNATURE DATE RECEIPT

HAZARDOUS WASTE MANAGEMENT USE ONLY

SOLID LIQUID SLUDGE MULTI-PHASE GAS		SHIPPING HAZ CLASS
pH	FLASH TEST	EPA CODES
OTHER INFO	OTHER INFO	WA CODES
WSC REVIEW	DATA INPUT	RECEIPT DATE

Distribution: WHITE – Numerical File YELLOW – Manifest File PINK – Data Input GOLD – Generator/Other

ASC ANTARCTIC SUPPORT CONTRACT
Parent document: OPS-SOP-0263 Page 1 of 2

5.6. Hazardous Waste Identification Tags

Generators must complete an HWIT (OPS-FRM-0015) for each container of waste prior to submittal for processing and disposal. Hazardous Waste Department will provide generators with pre-numbered HWIT's as necessary.

1. An HWIT must be completed for each individual container of waste. If a container's contents differ from the material originally contained, old labels must be obliterated and a note must be made on the HWIT.
2. Only the pre-printed, uniquely numbered HWIT form may be used to document hazardous wastes at Field Camps. An example of the form is shown in Figure 4
3. Complete all non-shaded blocks of the HWIS according to the instructions provided in **Table 5**.
4. The HWIT Number must be modified to reflect the calendar year it was submitted. For instance, a container sent to a Station using HWIT number "F_0001" in CY03 must be modified to be "F30001".
5. The modified HWIT number must be clearly written on the container.
6. The Camp Name and Event Number (or Work Center Name) must be clearly written on each container.
7. Refer to USAP Cargo and Science Support SOPs for requirements and instructions regarding transportation of containers to Stations via aircraft.
8. Hazardous Waste Department personnel will conduct document review and visually inspect the waste prior to acceptance. Acceptance of the waste by Hazardous Waste Management will be documented by entering the DATE and initialing the HW RECEIPT blocks in Part III (Generator Certification) of the HWIT.
9. Hazardous Waste Department personnel will staple each completed HWIT to a blank HWIS, and re-number the blank HWIS with the HWIT number.
10. Corrective Action for containers received at a Station that do not have adequate markings or documentation will be handled on a case-by-case basis with Work Centers, and all Grantee non-conformances will reported to the NSF Representative.

Figure 5: Example Hazardous Waste Identification Tag

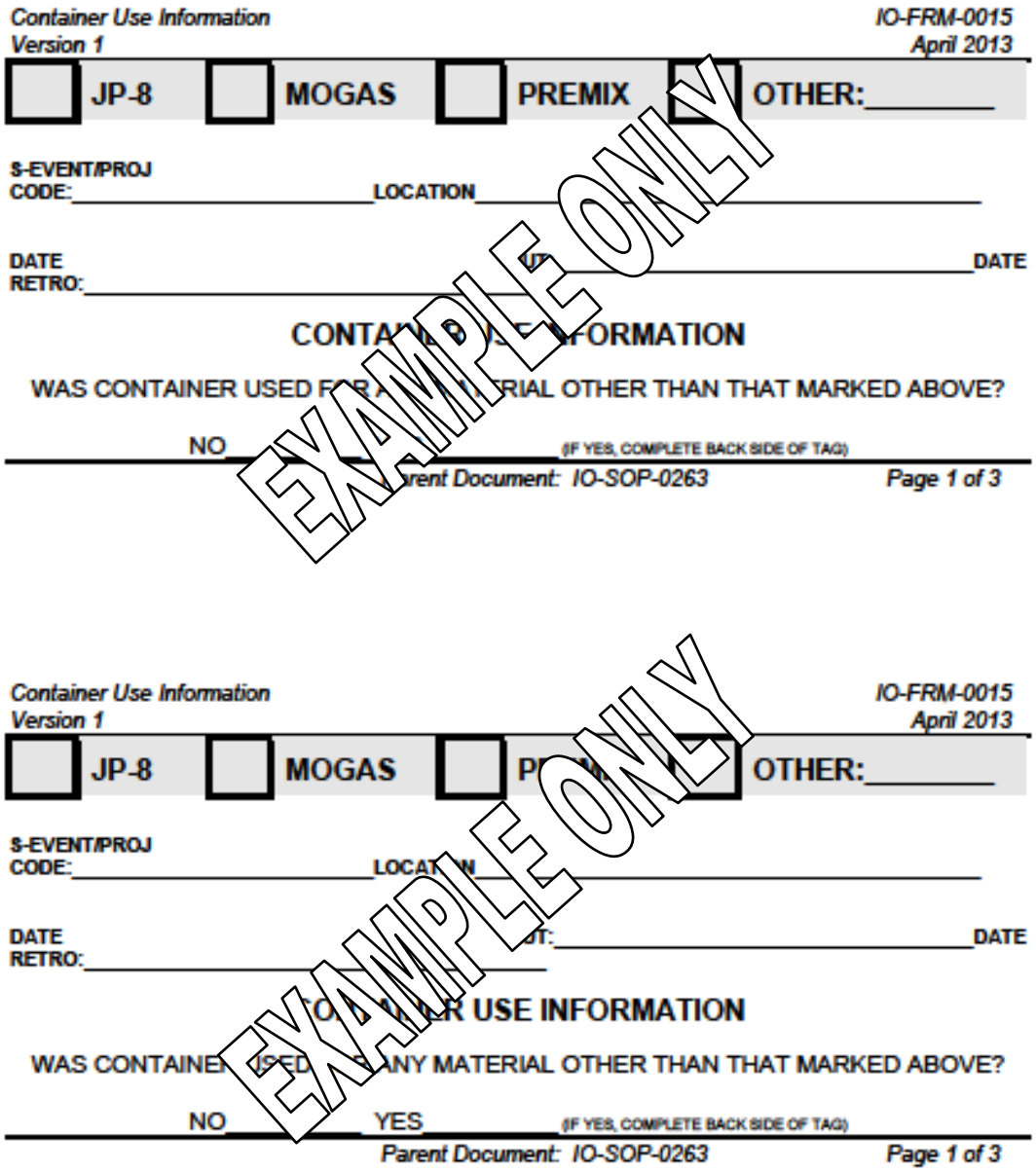


Figure 6: Example Hazardous Waste Identification Tag Instructions

FUEL DRUM/FIELD CAMP HAZARDOUS WASTE DRUM TAG INSTRUCTIONS

ALL DRUMS RETURNING FROM FIELD CAMPS AND SOUTH POLE REQUIRE THIS TAG - AIRCRAFT WILL NOT ACCEPT DRUMS UNLESS TAGGED

NOTE: USE ONLY PERMANENT INK (I.E., SHARPIE) FOR COMPLETING TAGS.

EMPTY, PARTIAL, OR FULL FUEL DRUMS (RED TAG FOR MOGAS, WHITE TAG TO JP-8, YELLOW TAG FOR PREMIX)

1. Indicate the date the drum is returned to McMurdo in the space provided on the appropriately colored tag.
2. In the CONTAINER USE section, check "FUEL ONLY" and indicate which fuel the drum contains or contained. If the drum was reused in the field for a fuel other than that originally contained in the drum, please indicate so. *Accurate container use information is CRITICAL, as drums may be reused at other field camps or for aircraft refueling!!* If the fuel in the drum is or was not one of those listed, follow the procedure for HAZARDOUS WASTE AND OTHER DRUMS AND USE A PURPLE TAG.
3. Print your name, sign and date the tag in the space provided. Your signature is certification that the information on the tag is accurate, to the best of your knowledge.

HAZARDOUS WASTE AND OTHER DRUMS (PURPLE TAG)

1. Indicate the date returned to McMurdo Station in the space provided on the purple tag.
2. In the CONTAINER USE section, check "OTHER" and indicate what the drum contains in the space provided. *Checking "OTHER" requires that the reverse side of the tag be completed. This takes the place of the Hazardous Waste Identification Sheet.*
3. Print your name, sign and date the tag in the space provided. Your signature is certification that the information on the tag is accurate, to the best of your knowledge.

NOTE: Shaded areas are for Waste Management Use only.

4. On the reverse side of the tag, indicate the NAME OF THE WASTE in the space provided. This name should correspond to the description on the front and be descriptive in nature (i.e., waste oil contaminated with JP-8, etc).
5. Indicate the PROCESS GENERATING WASTE in the space provided. This should be a description of how the waste was generated (i.e., vehicle maintenance, oil change, etc).
6. In the constituent table, list all constituents of the waste and their respective percentages (i.e., waste oil 95%, JP-8 5%). Percentages should add up to 100%. *This information is extremely important for proper characterization and disposal of the waste.*
7. Print your name, sign and date in the space provided. This certifies that the information provided is accurate to the best of your knowledge.

DRUM TAGS ARE FOR FUEL DRUM AND HAZ WASTE FROM FIELD CAMPS ONLY.. OTHER LOCATIONS REQUIRE HAZARDOUS WASTE IDENTIFICATION SHEET.

IF YOU ARE GENERATING RADIOACTIVE WASTES REFER TO THE RADIOACTIVE WASTE MANAGEMENT SOP FOR ADDITIONAL DOCUMENTATION REQUIREMENTS - AND ASK FOR GUIDANCE FROM RPSC HAZARDOUS WASTE MANAGEMENT

6. Quality Documents

6.1. Documentation, Tracking, and Reporting

6.1.1. Documents Generated

6.1.1.1. Hazardous Waste Identification Sheet (HWIS)

Hazardous Waste Identification Sheets (HWIS) characterize and document the generation of hazardous wastes and must be completed by the generator each time hazardous wastes are submitted to Waste Management for disposal. These forms are pre-printed with unique identification numbers for tracking purposes.

6.1.1.2. Hazardous Waste Weekly Inspection Forms

Hazardous Waste Weekly Inspection Forms are used to track compliance with regulatory requirements for hazardous waste accumulation areas.

Field Camp Drum Tags – Field Camp Drum Tags function as simplified Hazardous Waste Identification Sheets designed for use by field camp personnel only.

6.1.2. Tracking

Hazardous wastes are tracked using the unique identification numbers on the preprinted HWIS and Field Camp Drum Tags. Identification numbers are written on hazardous waste containers and subsequently entered in the Waste Management Database system.

6.1.3. Reporting

Hazardous Waste Container information recorded on HWIS and Drum Tags and entered in the Waste Management Database System is summarized for weekly, monthly, and annual waste volume reporting purposes.

6.2. Quality Control

Quality control for this procedure is provided by generator orientation customized for each work center and continuing assistance from Hazardous Waste Department personnel. Weekly inspection of hazardous waste accumulation areas ensures regulatory compliance for waste accumulation.

7. References

45 CFR 671 – Antarctic Conservation Act Waste Management Regulations.

8. Records

There are no records associated with this document.

9. Appendices

9.1. Appendix 1: Station Specific Procedural Variances

Field Camps

Hazardous waste generators at field camps may substitute Hazardous Waste Drum Tags (Figure 4) for the HWIS when documenting waste.

Procedure 1.5 is for field camp use only. All other generators must use Procedure 1.4.

10. Glossary

Development of this section is pending.