



**DESCHUTES COUNTY
HOUSEHOLD HAZARDOUS
WASTE FACILITY
OPERATIONS PLAN**

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I. INTRODUCTION

Deschutes County Solid Waste (DCSW) has developed this operations plan for the Household Hazardous Waste (HHW) Facility located at DCSW's Knott Landfill Recycling and Transfer Facility (RTF). A site plan for the Knott RTF is included as Figure 1. The RTF is a recycling and material processing facility operated by DCSW, at 61050 SE 27th Street, Bend, Oregon. Features within the RTF include the HHW facility, scale facilities, Solid Waste administration offices, recycling center, solid waste transfer station and a maintenance shop. This plan outlines the policies and procedures for the management and operation of the HHW Facility at the Knott RTF.

The HHW Facility offers Deschutes County residents a convenient option for safe disposal of HHW such as paint and related products, garden products, automotive products, cleaning products and other common items. Only wastes exempted from federal hazardous waste standards (as provided in 40 CFR 261) are accepted at the facility. This includes both HHW and waste generated by Conditionally Exempt Small Quantity Generators (CEGs).

In addition to these wastes, the facility manages hazardous wastes removed from the waste stream through the prohibited waste screening program at the transfer station, landfill and recycling center. On occasion, hazardous wastes may be abandoned at one of DCSW's solid waste receiving, transfer or disposal facilities or may be found in the normal course of facility operations. This waste is commingled with HHW for packaging and shipping purposes and handling procedures are the same as those specified for HHW.

Day-to-day operation of the HHW Facility is contracted to qualified firms specializing in the management of hazardous waste. The contractor procurement process includes submittal and evaluation of appropriate contractor credentials and qualifications for providing the HHW facility operating services including staffing and training requirements for contractor personnel, hazardous waste transportation services and ultimate management of collected wastes through fully authorized Treatment, Storage and Disposal Facilities (TSDFs).

II. FACILITY DESCRIPTION

1. Facility Layout

Figure 2 shows the site plan for the HHW Facility. The facility consists of a 37' x 54' metal pole barn structure enclosed with a chain link fence and gates. Inside the enclosure is an 18' x 28' modular HHW building. The modular building provides for the storage of supplies and segregated storage areas for hazardous waste.

The HHW Facility is surfaced with a concrete slab that is sloped to internal containment sumps for collection of spills or other surface liquids that are encountered within the facility. The concrete surface and sumps are sealed with a chemical-resistant epoxy coating. The containment sumps are a self-contained reinforced concrete pits with no outlet (i.e.: blind sumps). Procedures for the management of liquids that enter the sumps are addressed in Section IV – Emergency Prevention and Response Plan.

1.1 Receiving Area

The northerly half of the HHW Facility is designated as the receiving area. The covered receiving area is used for all customer vehicle traffic entering and exiting the facility. All vehicles delivering hazardous waste to the facility are unloaded in this area. Wheeled carts are used to transport waste from vehicles over to areas for identification, segregation, packaging and storage. Customers coming to the facility are confined to the receiving area and required to remain in their vehicles. A containment sump collects any surface liquids, including spills that may occur in this area.

1.2 Covered Storage Area

The southerly half of the covered area is used for storage of drums and supplies as well as packaged wastes. This area has a drum storage capacity of up to eighty (80) double-stacked 55-gallon drums and has a separate containment sump for the management of surface liquids, including spills.

1.3 Modular HHW Building

The modular HHW building is a 525± sq. ft. prefabricated steel structure which used for storage of supplies and segregated hazardous wastes. It is located in the southeasterly quadrant of the facility. The building includes the following features:

- Chemical resistant epoxy coated sumps and walls
- Three individual storage compartments with separate sumps for each compartment
- Factory installed, self-contained automatic dry-chemical fire suppression system
- Factory installed powered ventilation system
- Explosion-proof appliances (lighting and electrical system)
- Explosion relief design
- Fire rated exterior and interior walls
- Factory Mutual approval

The HHW building has three (3) separate and segregated storage compartments to maintain appropriate segregation for hazardous wastes such as acids, bases, reactives, flammables, etc. The modular building is a completely self-contained structure. Any spills within the building are drained to individual chemical-resistant, epoxy-coated sumps beneath the working floor in each compartment. In the event of a spill, the sumps will be cleaned, the spilled material packaged into an appropriate container, and the material appropriately managed at TSDFs.

The HHW modular building is equipped with a dry chemical ABC rated automatic fire suppression system. The system is equipped with an alarm bell and a remote monitoring panel at the DCSW office which sounds when the system is activated. The fire system is monitored 24 hours/day by a private security monitoring service which will notify 911 and DCSW's emergency response coordinators in the event of an alarm.

1.4 Outdoor Storage Area

The southwesterly quadrant of the facility is used as an outdoor storage area for drums and supplies.

The flow of most wastes received is from the receiving area, to the processing area, then to storage inside and outside the modular building, and finally off-site to approved TSDFs. The HHW Facility has been designed to accommodate an AASHTO W-67 truck for transporting wastes to off-site facilities.

2. Secondary Containment Capacities

In accordance with DEQ requirements, secondary containment features must have a minimum capacity of 10% of the total anticipated storage capacity in individual storage areas. The maximum storage capacity of this facility is planned for a waste volume of 4,980 gallons, with an eighty (80) barrel (2,200 gallon) capacity in outdoor storage and 36 barrel storage capacity (1,980 gallons) in the modular building. All storage areas at the HHW Facility provide for and exceed secondary containment capacities as follows:

2.1. Outdoor Storage Area

- Waste storage capacity: 4,400 gallons (eighty (80) 55-gal barrels)
- Minimum required containment capacity: *440 gallons*
- Actual containment capacity: *2,203 gallons*
 - Outdoor storage area containment trench capacity: 1,199 gal
(20 ft x 2 ft x 4 ft x 7.48 gal/ft³ = 1,199 gal)
 - Unloading and segregation area containment capacity: 600 gal
(18.5 ft x 52 ft x .25 ft/3 x 7.48 gal/ft³ = 600 gal)
 - Unloading/Segregation area containment sump capacity: 404 gal
(3 ft x 3 ft x 6 ft x 7.48 gal/ft³ = 404 gal)

2.2. Modular HHW Building

- Base compartment waste storage capacity: 495 gallons (nine (9) 55-gal barrels)
 - Minimum required containment capacity: *50 gal*
 - Actual containment capacity: *982 gal*
(175 ft² x .75 ft X 7.48 gal/ft³ = 982 gal)
- Acid compartment waste storage capacity: 660 gallons (twelve (12) 55-gal barrels)
 - Minimum required containment capacity: *66 gal*
 - Actual containment capacity: *982 gal*
(175 ft² x .75 ft X 7.48 gal/ft³ = 982 gal)
- Flammables compartment waste storage capacity: 825 gallons (fifteen (15) 55-gal barrels)
 - Minimum required containment capacity: *83 gal*
 - Actual containment capacity: *982 gal*
(175 ft² x .75 ft X 7.48 gal/ft³ = 982 gal)

3. Security

The HHW Facility is secured as follows:

- Locking doors on each compartment of the modular HHW building
- Chain link fencing and locking gates around the perimeter of the facility
- Chain link fencing and locking gates surrounding the entire Knott RTS

The building and gates at the HHW Facility entrance are locked whenever the facility is unattended. No unauthorized persons are permitted to enter the facility. A “NOX box” at the entrance to the Knott RTF facilitates emergency access for fire department personnel.

4. Communications Equipment

Communication equipment consists of a land line telephone at the HHW Facility and cellular telephones. Additional land line telephones are also located within 100 feet of the facility at the Recycling Center. Two-way radios are also available for communications at the DCSW offices and in all DCSW vehicles.

5. Signage

Signage at the Knott RTF and HHW Facility includes the following:

- Directional signs
- Facility identification, hours, phone numbers for emergencies and general information
- No Smoking prohibition
- Hazardous waste storage placards and NFPA markings

6. Stormwater Management

The pavement and approaches to the HHW Facility are graded away from the facility to prevent run-on of stormwater. Stormwater collected outside the HHW Facility is routed to bioswales throughout the Knott RTF. In the event of a release outside the HHW Facility, the adjacent catch basins and bioswale will be isolated to keep the release on the pavement and out of the stormwater management system. Inside the HHW Facility (within the HHW building and under the covered areas), there are secondary containment sumps to capture and hold any spilled wastes or other liquids.

III. TRAINING AND SAFETY

1. Staff Training.

Minimum staffing for the HHW Facility specifies one site supervisor, one chemist and one hazardous waste technician. The number of staff persons may be adjusted based on recommendations from the facility contractor as well as operating experience and circumstances.

1.1. Site Supervisor

The site supervisor is responsible for the coordination and direction of the facility staff for the management and execution of facility operations. Minimum qualifications for this position include two or more years of direct supervision of HHW collection program operations including planning, scheduling, HHW facility operations, health and safety, regulatory compliance, emergency response and spill clean-up and manifest preparation. The site

supervisor shall have and maintain 29 CFR 1910.120 (p) (also referred to as 24-hour OSHA hazardous waste operations training) and US Department of Transportation (DOT) hazardous materials shipping certifications.

1.2. Chemist

The chemist will be responsible for evaluating unknowns, making compatibility, packaging and storage determinations for received wastes, making translations of technical information and regulatory requirements. Minimum qualifications for the chemist include three or more years experience conducting physical and chemical analyses of hazardous materials in a field setting. The chemist is required to have and maintain 24-hour OSHA and US DOT hazardous materials shipping certifications.

1.3. Hazardous Waste Technician

The hazardous waste technician performs waste unloading, segregating, packaging, and documenting (completing drum inventories, labeling, manifesting, etc.). Minimum qualifications for the hazardous waste technician include one or more years experience performing similar job duties. The hazardous waste technicians shall have and maintain 24-hour OSHA and US DOT hazardous materials shipping certifications.

All persons working at the HHW Facility are trained on emergency response and evacuation procedures, regardless of the level of waste handling they are performing. Additional training such as Personal Protective Equipment (PPE) selection and use, respirator fit testing, Emergency/Spill Response Procedures, field HazCat procedures, etc. will be required for specific job categories and tasks individual personnel are performing.

Training records for all HHW Facility staff are maintained by the contractor operating the facility.

2. Personal Protection Equipment (PPE)

PPE is required whenever there is a potential for exposure to any hazardous or unknown chemicals or risk of injury. The required PPE is selected according to the tasks being performed. Under the direction of the site supervisor and chemist, each employee is responsible for evaluating the hazards which may be encountered and for selecting the appropriate PPE. The following indicates the minimum PPE required; however, due to the number of potential chemical hazards, not all cases can be evaluated in advance. When doubt exists, staff will always choose a higher level of protection.

The HHW facility contractor brings most PPE supplies to the facility in their support vehicles. Some PPE may be maintained in an inventory at the facility as well.

2.1. PPE for General Waste Handling

Eye protection: Goggles, face shield, or safety glasses with side shields shall be worn when handling waste. Employees wearing contact lenses shall wear safety glasses or goggles at all times while in the facility or unloading area.

Hand/lower arm protection: Chemical resistant gloves shall be worn at all times when handling waste containers. When handling poisons, workers will wear an inner nitrile exam glove under a suitable outer glove. In all applications, gloves will be selected on the basis of their resistance to the chemical hazard.

Body protection: Coveralls, chemical aprons or chemical resistant suits shall be worn when handling hazardous waste. Coveralls contaminated with hazardous substances are to be changed immediately; exceptions may include paint or other substances which would not under normal conditions pose a health threat to the employee. In most cases coveralls will be protected by splash aprons or similar PPE worn over the coveralls.

Foot protection: Chemical resistant boots, or other impermeable footwear or boot covers are worn while bulking, testing waste, moving containers, or packing waste.

Respiratory protection: Half-face respirators equipped with cartridges approved for the applicable contaminant will be minimum protection for workers bulking flammable liquids. Workers may at any time choose a higher level of protection, such as a full-face respirator.

2.1. PPE for Spill Response

The following PPE should be worn when dealing with a large spill of hazardous material that can be safely and competently managed by facility staff based on their training and knowledge of the spilled material:

- Chemical resistant suit and gloves, as appropriate to the material spilled;
- Chemical resistant boots, or other impermeable footwear or boot covers;
- Full-face respirator with appropriate cartridges .

2.3. Decontamination and Reuse of PPE

All PPE must be maintained in a sanitary and reliable condition. Safety glasses and goggles with pitted or scratched lenses shall be replaced immediately. Gloves, protective suits and respirator cartridges shall be replaced regularly.

HHW staff engaged in unloading, sorting, segregation and processing of waste will always evaluate the suitability of their PPE before changing tasks so as to avoid cross-contamination and the possibility of equipment failure due to chemical incompatibility. It is the responsibility of each staff member to evaluate the condition of durable items, such as respirator cartridges, tyvek coveralls and aprons, faceshields and gloves, and to replace them as needed. Cotton coveralls may be reused if uncontaminated, but are to be laundered at least weekly. Other items, such as thin exam gloves, are considered disposable and are not to be reused or decontaminated.

Items which are heavily contaminated or contaminated with acutely hazardous or very reactive wastes are not to be decontaminated and reused, but packaged for appropriate disposal.

When changing tasks, staff shall evaluate the adequacy of PPE for the new task, as well as, the potential for cross-contamination. When doubt exists as to the suitability of PPE, staff will take off the questionable PPE and, if clean, place it in storage, and don more suitable PPE for the new task. When the new task will involve contact with contaminants which are incompatible with those handled previously, staff will replace the contaminated PPE with appropriate PPE for the anticipated chemical hazard.

HHW Facility personnel are required to remove and properly store or dispose of PPE and wash off any remaining contaminants before leaving the HHW Facility.

3. Safety Equipment

2.1. Eyewash/Shower Station

An eyewash/shower station with a minimum 15 minute drenching capacity is located in the HHW Facility. The eyewash/safety shower station drains into the secondary containment system sump for the outdoor storage area, which has a design capacity of 2,203 gallons.

2.2. Fire Extinguishers

The HHW modular building is equipped with a dry chemical ABC rated automatic fire suppression system. The system is equipped with an alarm bell and a remote panel at the DCSW office which sounds when the system is activated. The fire system is monitored 24 hours/day by a private security monitoring service which will notify 911 and the emergency response coordinators in the event of an alarm.

Dry chemical ABC rated fire extinguishers are located in the HHW Facility. These fire extinguishers are hand portable units meeting NFPA standards.

2.3. First Aid Kits

The HHW facility contractor provides first aid kits for facility personnel.

4. Spill Response Supplies

Spill response supplies including absorbent materials, shovels, brooms, tarps and absorbent pads are available for quick response to incidental spills which can be safely managed by staff. An inventory of spill supplies is maintained by the facility contractor. Additional equipment and supplies are available in the contractor's support vehicle. Spill response supplies include:

- General supplies: Provide general purpose absorbents, pads and tools for spills such as flammable and combustible liquids, poisons, paints, etc.
- Corrosives (acid and base) spill supplies: Provides acid neutralizing/absorbing compounds.
- Mercury spill kit: Provides mercury absorbing compound and spill cleanup tools and containers.

5. Emergency Notification List

Depending on the nature of any incidents or emergencies, notifications to DCSW staff, emergency responders or regulatory agencies may be required. A copy of the emergency contact list for the Knott RTF is included as Appendix 1.

IV. FACILITY OPERATING PROCEDURES

1. Operating Schedule.

The HHW Facility is open on the second and fourth Friday and Saturday each month from January through October. During the months of November and December, the facility is open on the second Friday and Saturday of the month. The facility is open for waste acceptance from 9:00 am to 3:00 pm.

2. Traffic Control.

User traffic accesses the HHW Facility through the main entrance to the Knott RTF. Signage posted along the roads direct traffic to the HHW Facility as well as other on-site operations. There is room at the HHW Facility to queue about 9 cars without impacting traffic for the recycling center. Emergency instructions and phone numbers are posted in the receiving area and the staff break shack.

3. Waste Handling and Processing

3.1 Accepted Wastes

Household and CEG Hazardous Waste: The HHW facility accepts a wide variety of household and CEG generated hazardous wastes. Typical wastes received include paints and stains, garden products (pesticides, herbicides, fertilizers, etc), automotive fluids (lubricants, brake fluid, fuel, etc), flammable liquids (fuels, solvents, etc), cleaning products, propane cylinders and tanks (up to 5-gallons in capacity). A list of common HHW categories is included in Table 1.

Home-generated Medical Sharps: While not managed by the HHW Facility contractor directly, the facility will accept home-generated medical sharps, provided they are in an appropriate container (leak-proof, sealed and labelled). Sharps received at the HHW facility are removed by DCSW staff for disposal at Knott Landfill.

Ammunition and Fireworks: Although explosives are not generally accepted at the facility, some relatively innocuous materials may be accepted, including small arms ammunition and their components, and fireworks. The HHW facility contractor will accept these items and store them temporarily. At the earliest opportunity, DCSW staff will relocate the items to a designated storage area at the facility equipment shop. These items are then managed through the Oregon State Police. If any other kinds of explosive materials arrive at the site, 911 will be called for assistance and staff will not unload or otherwise handle these materials.

3.2. Prohibited Wastes

Prohibited wastes include certain commercial hazardous wastes, explosives or other unstable wastes, asbestos, infectious waste, radioactive waste and non-hazardous waste.

Commercial Waste: The HHW Facility will accept waste from CEGs in accordance with the procedures detailed in the CEG section of this plan. Business hazardous wastes will not be accepted from small quantity hazardous waste generators (SQGs) or large quantity hazardous waste generators (LQGs). Customers arriving during public collection hours who are suspected of being commercial generators shall be referred to the CEG program where appropriate.

Wastes will be suspected of being commercial in origin (CEG, SQG, or LQG) if they are:

- Delivered in a commercially marked vehicle, or a type of vehicle which is typically used by commercial entities
- Received in quantities not usually found in households or in containers over 5-gallons in capacity
- Items not normally sold for residential use

If waste is suspected of being of commercial origin, staff will follow these guidelines:

- Contact DCSW for guidance. If available, DCSW staff may contact the generator for further information
- Provided the nature of the business and the quantity of the waste is at a CEG level, explain that the waste must be handled through the CEG Program and provide the customer CEG program literature. If conditions warrant, the waste may be accepted at that time as a CEG waste

Explosives and Unstable Chemicals: With the exception of small arms ammunition and components, other explosives are not accepted at the HHW Facility.

Unstable materials include substances that are capable of rapidly undergoing chemical changes or decomposition, including violent explosions. Items of particular concern include diethyl ether, ethyl ether, picric acid, tetrahydrofuran (THF), some organic nitrates and certain oxidizers. Staff will contact 911 for assistance if/when these materials show up at the HHW Facility. HHW Facility personnel are instructed not to touch, handle or unload these materials.

Asbestos: Asbestos is not accepted at the HHW Facility. Customers with asbestos will be referred to DCSW for proper disposal at Knott Landfill.

Infectious Waste: With the exception of home-generated medical sharps, infectious waste is not accepted at the HHW Facility.

Radioactive Waste: Radioactive waste is not accepted at the HHW Facility under any circumstances. Customers delivering radioactive waste will be instructed to call the Oregon Department of Health for instructions on disposal.

Household smoke detectors are exempt from regulation and customers with those devices will be given the option of disposing of those devices as solid waste at the Knott RTF or returning the detectors to the manufacturer.

Non-hazardous Waste: The HHW facility will not accept non-hazardous waste, including empty containers, ordinary garbage and food products. Hardened paint will not be accepted unless it

is likely to contain lead, cadmium or other hazardous metal compounds. Customers with non-hazardous waste will be directed to the Knott RTF for proper disposal.

3.3 Unloading

HHW and CEG hazardous waste will be unloaded only in the covered receiving area during public operating hours (9am-3pm). HHW staff question customers regarding the type and quantity of waste to determine that it is of household origin. If waste is suspected of being of commercial origin, staff will refer to procedures outlined in Section 3.2, above. Customers will be restricted to their vehicles while in the unloading area.

HHW staff will visually inspect the load for prohibited materials and leaking, bulging, or contaminated containers including the integrity of the boxes or bags in which the containers are placed. If prohibited wastes are noted, staff will inform the customer which wastes cannot be accepted and offer recommendations for alternate disposal. If necessary, additional packing material may be offered to provide more secure packaging for customer transportation of the prohibited waste.

Before unloading, if there appears to be unlabeled containers or containers with labels that do not appear to match the contents, the customer will be queried to find out as much as possible about the contents of the container. The information about the waste supplied by the customer will be marked on the container or a tag attached to the container. Leaking or unsound containers will be immediately overpacked into a leak proof container or sealed in a plastic bag. Staff will use caution when unloading so as to avoid damaging the customer's vehicle through contact with equipment, waste, or contaminated PPE.

Unloaded waste is placed on carts and taken to a sorting/segregation/packing area for further processing.

Drums, when accepted, are to be unloaded using a forklift equipped with drum lifting apparatus. Although drums are accepted primarily from CEGs, some may be accepted from residential customers with prior approval from DCSW staff.

3.4 Sorting/Segregation

Sorting is only performed by qualified and trained staff. The sorting area consists of tables and bins for temporary holding of items received. Containers are sorted by inspection of their labels or markings, unless the appearance or other characteristic of the waste seems to indicate that the labeling is inaccurate. In this case, the container would be considered an unknown substance and is set aside for testing, along with unlabeled containers. Customer waste packaging and any empty containers would, at this point, be placed in a designated bin for eventual recycling or disposal. In general, wastes are initially sorted and segregated by the following waste or hazard classes:

- Latex Paint and Oil-based Paint (managed by DEQ's paint recycling contractor)
- Aerosols
- Flammables

- Pesticides/Poisons
- Bases
- Acids
- Reactives
- Oxidizers
- Miscellaneous Known
- Miscellaneous Unknown

3.5 Packaging

Sorted waste is packaged in various ways, including lab-packing, loose-packing and bulk packaging, which are described below. The packaging method for common hazwaste categories is listed on Table 1. All shipping containers will include a completed Hazardous Waste or Non-Regulated Waste label and, if required, an appropriate DOT hazard class label. Information on the Hazardous Waste labels include generator name and address, EPA identification number, proper shipping name, UN or NA number, and hazard class and accumulation start date for the container. Shipping containers will be appropriately labeled at the time the first waste is placed in the container.

Lab-Packing: Lab-packing refers to the packaging of smaller containers into DOT approved drums along with an appropriate absorbent. Each lab-packed drum must contain enough absorbent to fully absorb the liquid contents of the shipping container. The absorbent is also used to insulate the containers so that none are touching each other or the drum wall. Absorbent material must be added to fill the drum to the top. Contents of each lab pack drum are recorded on an inventory sheet which remains with drum for transportation and management. A copy of the packing slip is retained by DCSW.

Loose-Packing: Loose-packing refers to placing containers into a shipping container without absorbent. Some loose-packed drums may contain about 6" of absorbent in the bottom to absorb small leaks or spills from broken containers. Specific listing of the contents of a loose-pack drum is not required although appropriate DOT labeling will be required. Typical wastes that are loose packed include, but are not limited to dry-cell batteries, aerosol cans and granular fertilizers/poisons.

Bulking: Bulking refers to opening of individual waste containers and pouring of the waste into a drum for consolidation. Typical bulked wastes include flammable liquids (fuels and solvents), combustible liquids (lubricants and oils) and antifreeze. All metal containers of flammable materials and drums for bulking of flammable materials will be connected to a grounding strip or post by a grounding wire while pouring. When emptied containers are determined to be empty per RCRA standard (40 CFR 261.7 (b) (ii), they are disposed of as non-hazardous waste.

Other Packing Methods: Some of the materials received at the facility will not be packaged into drums before leaving the facility. In some cases, wastes will be transported to their final destinations in boxes or tubs, on pallets or other special containers, or as is.

3.6 Testing of Unknowns

Staff will perform standard field tests, commonly referred to as HazCat testing, to characterize unknowns based on its hazard characteristics. Simple tests will be utilized to determine flammability, water reactivity, ignitibility, pH, and the presence or absence of oxidizers, peroxides and chlorinated compounds. Only staff fully trained in these field tests will perform testing of wastes.

3.7 Storage

At the end of each working day, all waste accepted into the facility is sorted and placed in the appropriate storage area. A summary of waste categories and storage locations is provided on Table 2. A general description of major waste types and storage criteria is as follows:

- All acid liquids and solids, as well as any materials that are chemically compatible with common acids will be stored in a designated compartment of the modular HHW building.
- All base liquids and solids, as well as any materials that are chemically compatible with bases are stored in a designated compartment of the modular HHW building.
- All oxidizers, including organic peroxides, certain flammable solids and other compatible reactives are stored in appropriate containers in the compartment in the modular HHW building designated for bases.
- All drums of flammable and combustible wastes, and materials that are chemically compatible with flammables such as poisons are stored in the outside drum storage area.
- All poisons, all pesticides that are not corrosive or oxidizers, and any materials chemically compatible with pesticides, poisons and flammables will be stored either the outside drum storage area or in the appropriate compartment in the modular HHW building.
- Aerosols are loose packed and stored in the outdoor storage area.
- Fluorescent lamps and other wastes which would not ordinarily pose a hazard may be stored in boxes, drums or other containers in the drum storage areas or the modular HHW building. Other miscellaneous, small quantity waste types will only be stored with chemically compatible wastes.

General requirements for container handling and storage include the following practices:

- No materials, supplies, equipment or waste containers shall be stored in areas that would impede access to or exit from any area of the facility. Exits shall be unobstructed at all times.
- Drums will be kept closed at all times except during waste packaging activities.
- All waste containing drums will be marked with the proper DOT hazard class and completed hazardous waste or other appropriate labels.
- Storage area inventories must be completed at the end of each operating day.
- Sealed, partially full lab-pack and loose-pack drums may be stored in the sorting area overnight and when the facility is unattended. Bulking drums may be stored in the bulking area, as long as they are properly sealed at the end of the working day.
- All drums will be stored in single or double rows with at least 36" of aisle space between rows and at least one side shall be accessible to facilitate inspection of drum condition and drum markings and labels.

- Full shipping containers stored in the outdoor storage areas may be stacked up to two high provided stacked drums contain compatible wastes.
- Drums will be moved using a drum dolly, pallet jack or forklift. Tub skids and other large boxes will be moved using a forklift or pallet jack.

Before leaving the facility at the end of the day, HHW staff shall ensure that all waste is secured in sealed, sound containers and stored in the appropriate storage area. Although standard procedure is that all waste is to be contained in sealed shipping containers, tub skids, or pails, other temporary storage containers may be acceptable as a short-term measure, providing that the usual precautions are taken (no storing/mixing of incompatible wastes, no uncontained leaking containers etc.). These materials will be processed the next day. No wastes will be left in temporary storage at the end of each two-day collection event.

3.8 Inventory Tracking

As a new shipping container is brought into the processing area it will be labeled, including a waste accumulation start date. Accumulation and storage time will be monitored by DCSW staff and the HHW contractor on a regular basis to ensure that the total accumulation time does not exceed 180 days for individual shipping containers. The date of off-site transport will be recorded on shipping documents. Full shipping containers are either appropriately stored or removed and transported to the appropriate TSDf after each two day collection event. The HHW Contractor completes and submits to DCSW a facility inventory of wastes stored at the facility at the end of each collection event.

3.9 Shipping

Full containers of containers are either properly stored or removed and transported to the appropriate TSDf after each two-day collection event. Additional transportation opportunities may be utilized when hazardous waste contractors are in the area on LTL (less than truckload) milk runs to other clients they serve.

Licensed hazardous waste transporters are retained under the HHW Facility operator's contract. The transporter is required to have current permits to transport hazardous wastes and meet any applicable insurance requirements. A copy of the permit and insurance certificates shall be kept in the contractor's file for a minimum of five (5) years. Transportation shall be scheduled frequently enough so that neither the allocated storage capacity for the waste stream nor the physical storage capacity of any area is exceeded.

Shipping containers are prepared for transportation in accordance with the requirements of all applicable agencies and to the specifications of the TSDf receiving the wastes. At a minimum, shipping containers must be in good condition and DOT approved for the material type and density they contain. There shall be no damaged or leaking drums offered for transportation and no waste on the outside of the drums. In the event a leaking or damaged container is encountered, the waste will either be re-packaged into a sound container or overpacked into an appropriately sized overpack drum.

All shipping containers will include a completed Hazardous Waste or Non-Regulated Waste label and the appropriate DOT hazard class label. Information on the Hazardous Waste labels shall include: generator name and address, EPA identification number, proper shipping name, UN or NA number, and hazard class.

3.10 Manifesting

Shipping papers must accompany all hazardous waste being transported to an off-site facility. A uniform hazardous waste manifest or bill of lading may be used by the carrier, depending on the type of waste being transported and its regulatory status. All hazardous waste manifests must be completed in cooperation with the transporter with drum inventory sheets as needed.

At a minimum, shipping papers shall contain the following information:

- shipper identification (name, address, telephone number, EPA ID number)
- transporter identification (name, address, telephone number, EPA ID number)
- receiving facility identification (name, address, telephone number, EPA ID number)
- package type and count
- hazardous waste description
- total quantity
- emergency response information
- shipper's certification
- signatures (shipper and transporter)

DCSW (or its designee; typically the HHW Facility contractor), each transporter, and the TSDf accepting the waste must all sign the manifest, thereby establishing a chain of custody for the waste. DCSW retains a copy of the manifest signed at the time of shipping (referred to as an open manifest). The closed manifest, signed by the receiving TSDf, shall be returned to within 35 days and be kept on file in the facility records. If the signed manifests are not returned from the TSDf within 35 days of acceptance by the transporter, inquiries shall be made by DCSW with the transporter and TSDf.

Copies of all paperwork including manifests and bills of lading, will be kept on file for at least five (5) years. Where applicable, the manifest will be filed with the corresponding drum inventory sheet attached. Summary data and records on waste managed through the HHW Facility is reported to the DEQ as required by the facility permit issued by the DEQ.

3.11 Waste Management

A summary of management strategies used for common categories of hazardous waste collected at the HHW Facility is included in Table 3.

4. CEG Hazardous Waste Collection Program

The HHW Facility contractor offers CEG hazardous waste management services as part of the contract with DCSW.

4.1 CEG Registration

To use the CEG program, generators must certify their generator status as a conditionally exempt generator each time they use the facility. A certification statement is part of the application CEGs are required to complete for each delivery of waste to the HHW Facility. A copy of the CEG program application is included as Attachment 2. Participating CEGs may use the program as often as necessary, as long as the quantities they dispose monthly and throughout the year do not exceed the regulatory limits imposed on CEGs (220 pounds of hazardous waste generated monthly, 2.2 pounds of acutely hazardous waste generated and stored, or a total of 2,200 pounds of hazardous waste stored).

Ideally, CEG program participants should pre-register prior to bringing waste to the HHW Facility. However, drop in participation can be accommodated under most circumstances. The HHW facility contractor assesses and collects disposal fees directly from the CEG program participants.

To ensure that only qualified CEGs are participating in the program, records on each participating CEG customer is maintained by DCSW.

4.2 Waste Acceptance

In general, acceptance guidelines for CEG waste will be the same as those governing HHW. Certain reactive materials, explosives, asbestos, infectious waste, radioactive materials and non-hazardous waste will not be accepted.

As universal waste (batteries, pesticides, mercury containing thermostats, fluorescent and other lamps containing mercury) generated by individual commercial generators are not counted towards hazardous waste generator status, such waste can be accepted from any generator regulated, including SQGs and LQGs. Acceptance of SQG and LQG universal waste will be evaluated for acceptance on a case-by-case basis.

4.3 CEG Waste Handling

Handling and packaging procedures for CEG waste are the same as those specified for HHW. CEG waste is stored with HHW waste but is packaged and manifested separate from HHW.

4.4 Record Keeping

Registration and manifest records for CEGs are maintained by DCSW.

5. Inspections

Facility Inspection: The HHW Facility is inspected weekly and inspection records are kept by DCSW. The HHW contractor performs the inspections on weeks they are operating the facility and DCSW performs the inspections on the alternate weeks. Inspections focus on integrity of storage containers (evidence of corrosion or bulging, secure lid, spilled or leaking materials) and housekeeping (evidence of spilled or leaking materials on the floor or collected in the building sumps, cleanliness of areas). The inspection also address safety equipment including fire suppression system(s), portable fire extinguishers, spill response equipment (if stored at

the facility), first aid supplies (if stored at the facility), and the eye wash and safety shower. Additionally, the HHW contractor completes an inventory of wastes stored at the facility when performing their inspection. Any problems will be noted and corrective actions will take place as soon as is possible and documented. A sample inspection form is included as Attachment 3.

Fire Equipment Inspection and Testing: Portable fire extinguishers are inspected by facility personnel monthly. Inspection includes gauge condition, integrity of the safety seal and overall condition. Annually, a fire extinguisher service company inspects and services each extinguisher as necessary.

The HHW building automatic fire suppression system is serviced and tested semi-annually by qualified service provider.

6. Facility Closure

DCSW does not have an estimated year of closure for the HHW Facility. The HHW Facility and the other facilities at the Knott RTF are intended to meet and provide for long-term solid waste management for Deschutes County into the foreseeable future.

However, in the event that closure for an extended or indefinite period is necessary and planned, DCSW shall notify DEQ at least 180 days in advance of the closure. If the closure is necessitated by an emergency or natural disaster, DEQ will be notified as soon as possible.

Notification to the DEQ will include an inventory of all hazardous waste currently stored at the facility, and provisions for its proper disposal. Contracted hazardous waste service providers will package and transport all hazardous wastes stored at the facility at the time of closure to licensed TSDFs for appropriate management.

If a permanent closure is planned, the notification will also include plans and schedules for assessment and, if determined necessary by the assessment, a remediation plan for complete decontamination of the facility and/or disposal of all buildings, equipment, surfaces and associated cleanup wastes. The assessment will include sampling and analysis of all hard surfaces (concrete, pavement, building components, etc.) and surrounding unpaved areas (bioswales, etc.).

All costs associated with the closure of the HHW Facility will be funded by Deschutes County.

IV. EMERGENCY PREVENTION AND RESPONSE PLAN

1. Spill Prevention and Control

Much of the focus of operational plans and procedures is to prevent the release of hazardous waste to the air, ground, or water. Prevention of releases is accomplished through the development of engineering controls (facility construction) and appropriate waste handling and spill cleanup protocols.

1.1 Facility Construction

The HHW Facility is designed to contain any spills and to prevent the release of any spills to the surrounding ground or water. The HHW building has individual containment sumps for each compartment for collection of any spills. The concrete slab for the unloading, waste processing and outdoor storage areas is covered and graded to a containment trench. There are no drains with outlets inside the facility and all containment sumps are blind (have no outlet). The concrete slabs and containment structures are sealed with chemically-resistant epoxy to contain any spilled waste and to facilitate ready clean-up. All concrete surfaces and containment structures have a 30-mil plastic vapor barrier in the subgrade which also provides additional chemical release protection.

The pavement and approaches to the HHW Facility are graded away from the facility to prevent run-on of stormwater. Stormwater collected outside the HHW Facility is routed to bioswales throughout the Knott RTF. In the event of a release outside the HHW Facility, the adjacent catch basins and bioswale will be isolated to keep the release on the pavement and out of the stormwater management system.

1.2 Pre-Opening Checks and Actions

Before opening the facility for the day, staff will inspect all containers and the containment sumps in the facility. If leaks are detected, the container will be overpacked as soon as possible. If wastes is found in a containment, the source of the waste will be immediately determined and measures taken to stop the leak if within the skills and training of the staff. Response and cleanup procedures for materials in the containment sumps is addressed below in Section 4 – Emergency Response.

1.2 Waste Handling

The following waste handling procedures are established to prevent the occurrence of spills in the facility.

Unloading: Prevention of spills begins upon receipt of waste at the facility. All waste will be received by trained personnel in the covered receiving area. Receiving area personnel will screen waste before unloading, rejecting any materials which have been identified as unacceptable. These materials include certain commercial wastes, asbestos, infectious wastes, radioactive wastes, and non-hazardous waste.

Containers holding acceptable wastes will be inspected for integrity before they are removed from the customer's vehicle. Containers which appear to be leaking or weakened will be over packed into sound containers while they are still in the customer's vehicle, if possible, or from the vehicle directly into an approved overpack container. Any container unloaded from a vehicle shall be placed directly onto a wheeled cart for transport to the sorting and packing area.

Sorting and Packaging: In the sorting and packing area, wastes are typically placed on tables, where they will be characterized, field tested as necessary and routed to the appropriate area

for packing. Loose and lab packing of some materials will be performed in this area. Bulking will only be performed in the designated bulking area.

All wastes will be segregated by hazard class once they have been characterized. Segregation of incompatible materials will prevent chemical reactions which might lead to failure of a container and subsequent release to the environment. All wastes shall at all times be either in a vehicle, on a cart or segregation table, or in an approved shipping container. Strict adherence to this policy will minimize the occurrence of spills or other releases.

Storage Area: All containers in storage areas shall be DOT approved shipping containers in good condition and properly labeled. Containers will be inspected before they are filled, before they are placed in storage, and before they are loaded for off-site transportation. Lids and bung caps shall be secured and sealed tightly and no waste will be on the exterior of shipping containers. Wastes in the storage areas shall remain segregated by hazard class, with the most reactive wastes stored separately in modular HHW building.

2. Emergency Equipment

2.1 PPE and Safety Equipment

Standard PPE (eye and face protection, respiratory protection, chemical resistant coveralls and foot ware, etc) are available at all times the HHW contractor is at the facility. The contractor provides PPE and first aid supplies as well as spill response equipment.

The HHW Facility is equipped with an eyewash/shower station for decontamination of personnel and small objects and portable fire extinguishers. The modular HHW building is equipped with a self-contained automatic fire suppression system.

The following PPE is available and should be worn when responding to a spill that can be safely and competently managed by facility staff based on their training and knowledge of the spilled material:

- Chemical resistant suit and gloves, as appropriate to the material spilled;
- Chemical resistant boots, or other impermeable footwear or boot covers;
- Full-face respirator with appropriate cartridges (organic vapor and/or acid-gas as appropriate).

2.2 Communication Equipment

Communication equipment consists of a land line telephone at the HHW Facility and cellular telephones. Additional land line telephones are also located within 100 feet of the facility at the Recycling Center. Two-way radios are available at the DCSW offices and in all DCSW vehicles.

2.3 Fire Protection Equipment

The HHW modular building is equipped with a dry chemical ABC rated automatic fire suppression system. The system is equipped with an alarm bell and a remote monitoring panel at the DCSW office which sounds when the system is activated. The fire system is monitored 24

hours/day by a private security monitoring service which will notify 911 and DCSW's emergency response coordinators in the event of an alarm.

A minimum of two 20-pound portable fire extinguishers are maintained at the HHW Facility.

2.4 Spill Containment Supplies

Spill containment supplies including absorbent materials, shovels, brooms, tarps and absorbent pads are available for quick response to incidental spills which can be safely managed by staff. An inventory of spill supplies is maintained by the HHW Facility contractor and is also available in the facility contractor's in the support vehicle. Specific spill supplies include:

- General supplies: Provide general purpose absorbents, pads and tools for spills such as flammable and combustible liquids, poisons, paints, etc.
- Corrosives (acid and base) spill supplies: Provides acid neutralizing/absorbing compounds.
- Mercury spill kit: Provides mercury absorbing compound and spill cleanup tools and containers.

2.5 Equipment Maintenance and Testing

All safety equipment is maintained as recommended by the manufacturer and tested according to any applicable regulation or manufacturer's recommendation. This includes, but is not limited to communication equipment, reusable PPE (suits, respirators, goggles, face shields, SCBA equipment, etc.), ventilation systems, emergency shower/eyewash facilities, alarm systems, etc.

Portable fire extinguishers are inspected by personnel monthly. Inspection includes gauge condition, integrity of the safety seal and overall condition. Annually, a fire extinguisher service company inspects and services each extinguisher as necessary.

The HHW building automatic fire suppression system is serviced and tested semi-annually by qualified service provider.

3. Notifications

3.1 DCSW Emergency Coordinator

The DCSW Emergency Coordinator is the ranking staff member based on immediate on-site availability according to the following hierarchy:

- Operations Manager
- Director of Solid Waste
- Engineering Technician
- Senior Equipment Operator

The Emergency Coordinator duties and responsibilities include:

- Primary responsibility for incident response
- Assessment of incident
- Implementing emergency response procedures

- Verifying the status of on-site staff
- Directing actions of department staff
- Making notifications as required in specific response procedures
- Release of restrictions placed during incident response

With the exception of the immediate 911 notifications performed at the discretion of HHW Facility personnel, the DCSW Emergency Coordinator will be responsible for notifying emergency services providers as well as any appropriate regulatory agencies. The emergency contact list is included as Attachment 1.

In the event of an incident is reported to 911 during times when the Knott RTF facilities are closed, Deschutes County 911 has the facility list for contacting DCSW Emergency Coordinators.

3.2 Emergency Management System Notifications

For working purposes, large spills are defined as spills involving more than the contents of one standard 55-gallon drum. For spill reporting purposes, large spills will be defined as those involving reportable quantities of hazardous waste as defined in 40 CFR Part 320 - Table 302.4, except as provided in OAR 340-108-0020(6). In the event of a spill meeting the notification requirements outlined in OAR 340-108-0010, the following agencies will be notified immediately, as applicable:

- | | |
|--|----------------|
| • Oregon Emergency Response System | 1-800-452-0311 |
| • National Response Center | 1-800-424-8802 |
| • Oregon Department of Environmental Quality | 1-541-388-6146 |

4. Emergency Response

4.1 Evacuation

In the event of a spill, fire or other emergency which poses an immediate threat to the safety of customers or staff, facility personnel are authorized to evacuate the facility. In the event of a general site evacuation, site personnel will notify employees and the DCSW emergency coordinator, either by phone (land line or cellular) as soon as practical.

The HHW Facility evacuation plan is shown on Figure 3. If necessary, the entire site may be evacuated with the concurrence of the DCSW emergency coordinator or other available authorized personnel. In the absence of an ability to readily communicate with authorized personnel, all facility personnel have the authority to order a site evacuation.

Emergency information including an evacuation map, directions to the nearest hospital (St. Charles Medical Center) and emergency contact numbers are posted at the facility.

4.2 Spills Response

Any spill of potentially hazardous material shall be occasion for immediate response by personnel trained in proper spill response techniques. Most spills can be managed by trained staff.

Spills will be cleaned up using a compatible absorbent or neutralizers and appropriate hand tools. Where these measures are not feasible, appropriate powered equipment may be used, as long as all equipment is compatible with the contaminant (e.g., an intrinsically safe vacuum using compatible seals and gaskets for flammable liquids). The collected wastes will be packaged in approved containers for final disposition.

The ability of HHW Facility staff to manage a spill with onsite resources spill will depend on the nature and quantity of the material that is spilled. Generally a small spill will consist of less than 10 gallons of a material that is not immediately dangerous to a person's health, or less than 1 gallon of a more dangerous material that can be safely responded to by facility staff. Acutely dangerous materials that are spilled will require the immediate notification of DCSW staff and 911.

Typical spill response would involve:

- Implementation of evacuation procedures, if deemed necessary
- Isolating the affected area
- Establishment of a safe zone
- Containing the material with an appropriate absorbing/neutralizing agent
- Absorbing/neutralizing the spill with the appropriate material
- Removing the material and placing it in an appropriate container

4.3 Spills Requiring Outside Response/Assistance

Facility staff are equipped and trained to contain and clean up many spills, but larger spills or spills involving higher hazard materials may require the assistance of specialized hazardous materials equipment or emergency response agencies.

In the event of a large spill or leak where absorbents would not be a feasible method of clean-up, the immediate effort would be to contain the spill. Under some circumstances, outside support equipment such as a vacuum tanker may be required.

In the event of incidents that require action beyond the capabilities of HHW Facility personnel, the local emergency response agency, Bend Fire Department, will be contacted via 911. Depending on the nature and magnitude of an incident, the Bend Fire Department has the authority to call in additional resources from the State Fire Marshall's Hazmat Team. Additionally, DCSW's contract with the HHW Facility contractor includes provisions for providing full hazmat incident response services as well.

4.4 Fire

In the event of a fire at the facility, staff will immediately evacuate all personnel and any customers from the facility. See Figure 3 for the HHW Facility evacuation plan.

Facility personnel will not attempt to fight or control any fire inside the facility unless the fire is very small and is contained to an area isolated from large amounts of stored flammable

materials. In this case, portable fire extinguishers maintained at the facility may be used to attempt to extinguish a fire.

In the event that a fire cannot be readily controlled, DCSW and 911 shall be immediately notified and the facility evacuated. 911 notification can be accomplished with land line or cellular telephone. As noted above, for incidents that require action beyond the capabilities of facility and site personnel, the Bend Fire Department would be the initial response agency.

4.5 Spills into Containment Sumps

The HHW Facility includes graded surfaces and containment sumps which will collect and contain leaked or spilled materials within the HHW Facility. Should liquid enter or be observed in a containment sump, the nature of the liquid will be evaluated considering a number of factors including:

- Evidence of a spill (leaking containers, trail of liquid on the ground, etc)
- A specific spill incident (spills during waste handling activities, etc.)
- Physical appearance (color, sheen, odor, etc).
- HazCat testing

Regardless of the outcome of the assessment, the liquid will be removed through the use of appropriate absorbents or with a pump system. The disposition of the removed material will be contingent on the results of the assessment. Non-hazardous material will be disposed of non-hazardous solid waste (if absorbents are used) or if the liquid is evidently stormwater, discharged to the bioswale system. If the material is deemed hazardous, it will be packaged and managed as a hazardous waste.

E. Internal Reporting and Evaluation

Any fire or other incident requiring emergency procedure implementation or an emergency response will be documented on an incident report form. A sample form is included as Attachment 4.

The incident report will document the type and amount of material involved and corrective measures taken. The incident report and response will be evaluated at the next monthly meeting of DCSW and the HHW Facility contractor.

Tables

Waste Category	Packing method	Monthly HHW Quantity ¹ (lbs)	Monthly CEG Quantity ¹ (lbs)
Paint Related Material (PaintCare)	Loosepack	31,646	
Paint Related Material (Non-conforming for PaintCare)	Loosepack	1,883	59
Flammable/Combustible Liquids (fuels,, solvents, lubricants etc)	Bulked	2,085	194
Antifreeze	Bulked	990	25
Toxic Liquids, Flammable (pesticides, herbicides, etc)	Lapack	3,602	89
Toxic Solids (pesticides, herbicides, creosote, tars, adhesives etc)	Loosepack	1,175	45
Aerosols	Loosepack	652	8
Compressed Gasses (Propane, butane, etc)	Loosepack	503	2
Corrosive Liquids, Acid	Labpack	182	13
Corrosive Liquids, Basic	Labpack	232	44
Ammonia Solutions	Labpack	46	<1
Oxidizing Solids	Loosepack	6	2
Oxidizing Liquids	Labpack	18	2
Organic Peroxides/Reactives	Labpack	9	<1
Mercury (thermometers, thermostats, etc)	Labpack	7	2
Fluorescent Tubes	Boxed	553	80
CFL/HID Bulbs	Loosepack	141	11
PCB Waste (ballasts, capacitors, etc)	Loosepack	17	6
Batteries (NiCad)	Loosepack	179	4
Batteries (Li-Ion)	Loosepack	74	3
Miscellaneous Waste	Varies	15	74

**NOTES: 1) Quantities based on waste received and managed at the HHW Facility in CY 2016
2) Household and CEG Paint Related Material not segregated for PaintCare**

Table 1. Estimated Monthly Quantities of Hazardous Waste Collected

Waste Category	Packing method	Storage Location
Paint Related Material (PaintCare)	Loosepack	Outdoor Storage Area
Paint Related Material (Non-conforming for PaintCare)	Loosepack	Outdoor Storage Area
Flammable/Combustible Liquids (fuels,, solvents, lubricants etc)	Bulked	Outdoor Storage Area
Antifreeze	Bulked	Outdoor Storage Area
Toxic Liquids, Flammable (pesticides, herbicides, etc)	Lapack	Outdoor Storage Area
Toxic Solids (pesticides, herbicides, creosote, tars, adhesives etc)	Loosepack	Outdoor Storage Area
Aerosols	Loosepack	Outdoor Storage Area
Compressed Gasses (Propane, butane, etc)	Loosepack	Outdoor Storage Area & Modular HHW Building
Corrosive Liquids, Acid	Labpack	Modular HHW Building
Corrosive Liquids, Basic	Labpack	Modular HHW Building
Ammonia Solutions	Labpack	Modular HHW Building
Oxidizing Solids	Loosepack	Modular HHW Building
Oxidizing Liquids	Labpack	Modular HHW Building
Organic Peroxides/Reactives	Labpack	Modular HHW Building
Mercury (thermometers, thermostats, etc)	Labpack	Modular HHW Building
Fluorescent Tubes	Boxed	Outdoor Storage Area & Modular HHW Building
CFL/HID Bulbs	Loosepack	Modular HHW Building
PCB Waste (ballasts, capacitors, etc)	Loosepack	Modular HHW Building
Batteries (NiCad)	Loosepack	Modular HHW Building
Batteries (Li-Ion)	Loosepack	Modular HHW Building
Miscellaneous Waste	Varies	Varies

Table 2. Packing and Storage Location Summary

Waste Category	Waste Management Strategy
Paint Related Material (PaintCare)	Recycle
Paint Related Material (Non-conforming for PaintCare)	Thermal Recovery
Flammable/Combustible Liquids (fuels,, solvents, lubricants etc)	Thermal Recovery
Antifreeze	Recycle
Toxic Liquids, Flammable (pesticides, herbicides, etc)	Destructive Incineration
Toxic Solids (pesticides, herbicides, creosote, tars, adhesives etc)	Destructive Incineration
Aerosols	Destructive Incineration
Compressed Gasses (Propane, butane, etc)	Recycle
Corrosive Liquids, Acid	Destructive Incineration
Corrosive Liquids, Basic	Destructive Incineration
Ammonia Solutions	Destructive Incineration
Oxidizing Solids	Destructive Incineration
Oxidizing Liquids	Destructive Incineration
Organic Peroxides/Reactives	Destructive Incineration
Mercury (thermometers, thermostats, etc)	Recycle
Fluorescent Tubes	Recycle
CFL/HID Bulbs	Recycle
PCB Waste (ballasts, capacitors, etc)	Destructive Incineration
Batteries (NiCad)	Recycle
Batteries (Li-Ion)	Recycle
Miscellaneous Waste	Varies

Table 3. Waste Management Strategies

Figures

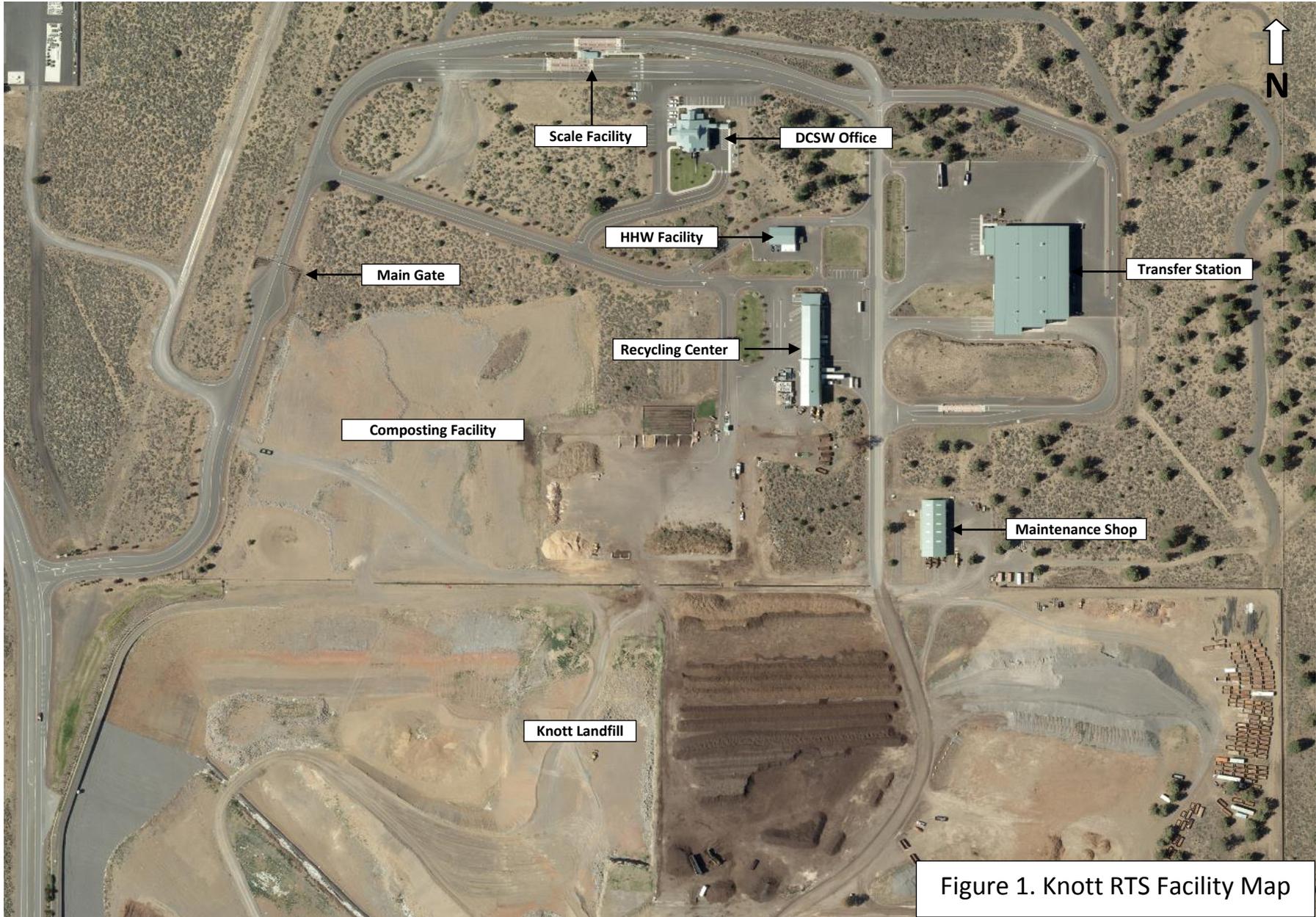


Figure 1. Knott RTS Facility Map

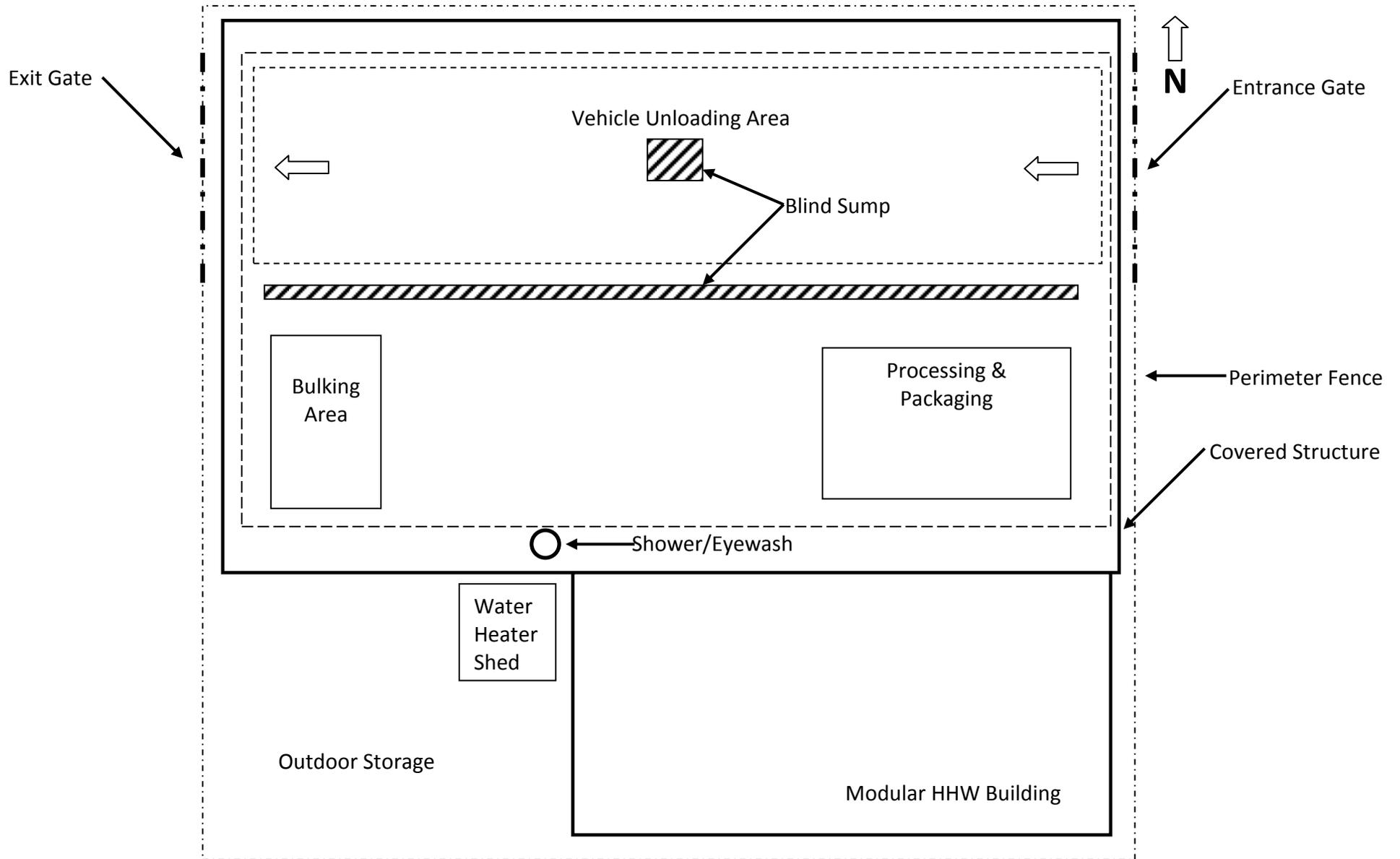


Figure 2. HHW Facility Site Plan

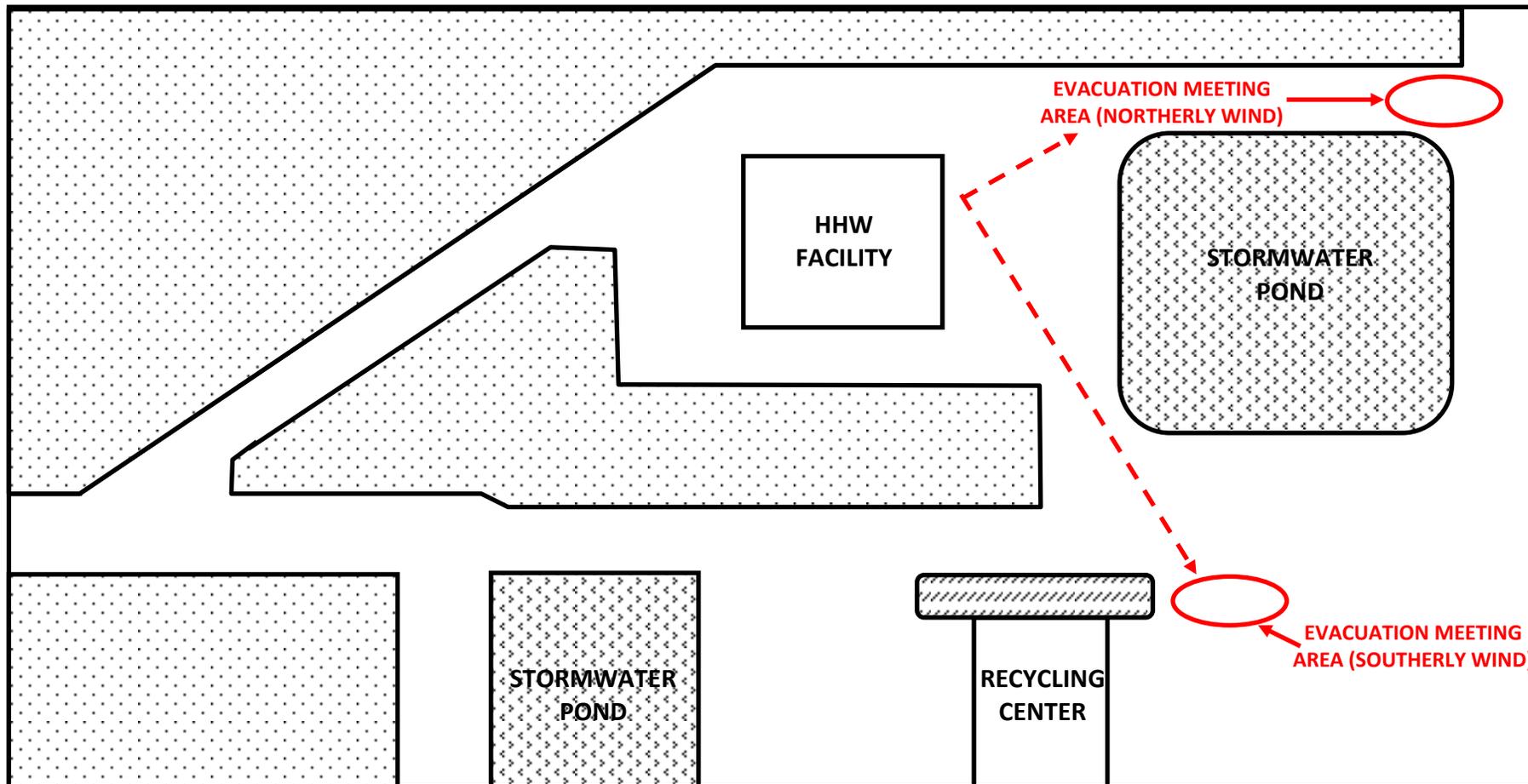


Figure 3. HHW Facility Evacuation Map

Attachment 1

Emergency Contact List

Emergency Contact List

Emergencies	911
Department of Solid Waste Administrative Office.....	541-317-3163
Department of Solid Waste Emergency Coordinators (Note: Listed in order of contact)	
Chad Centola, Operations Manager	541-322-7172 (office) 541-410-9174 (cell) 541-388-5459 (home)
Todd Sween, Operations Manager	541-317-3163 (office) 541-280-5068 (cell)
Timm Schimke, Director of Solid Waste.....	541-317-3177 (office) 541-419-3408 (cell) 541-389-5402 (home)
Jeff Merwin, Engineering Technician	541-322-7171 (office) 541-633-6203 (cell)
Deschutes County Risk Management (for employee injuries, OR OSHA Notifications)	
Ken Harms, Risk Manager	541-617-4747 (office) 541-279-1673 (cell)
911 (Non-emergency)	541-693-6911
Bend Fire Dept (non-emergency)	541-322-6300
Deschutes County Sheriff's Office (non-emergency).....	541-388-0170
Oregon DEQ Bend Office	
General	541-388-6146
Solid Waste Permit Liaison (Shari Harris-Dunning)	541-633-2010
Title V Permit Liaison (Frank Messina)	541-633-2019
<i>NOTE: 1 hour notification required for all excess emission events (flare malfunctions, fires, etc)</i>	
Oregon DEQ-Eastern Regional Manager's Office	1-541-298-7255
Oregon Emergency Response System.....	1-800-452-0311
Oregon DOHS Radiation Protection Services	1-503- 731-4014 x660
Oregon State Police (non-emergency).....	1-503-378-3720
National Response Center	1-800-424-8802

Attachment 2

CEG Registration Form



FAX Information

From: _____

Phone No. _____

Pages Sent: _____

Application Form for Conditionally Exempt Hazardous Waste Generators and Waste Pesticides

Please mail, fax, or e-mail completed application to Clean Harbors Environmental Services within 2 weeks of the scheduled event.

Clean Harbors Environmental Services
16540 SE 130th Ave
Clackamas, OR 97015
Attn.: Keo Chen

Phone: (503) 742-7107 (Direct Line)
Fax: (503) 655-3952
e-mail: chen.keo@cleanharbors.com

Waste disposal charges are due prior to collection of the waste and may be in the form of check or credit card. Any billing arrangements must be made in advance with Clean Harbors Environmental Services.

Event Location: Deschutes County Knott Landfill **Event Date** _____

1. Generator Information

Generator Name		Type of Business
Mailing Address		Site Address (if different)
City	State	Zip Code
Contact Person (First Name)	Telephone Number	Fax Number

Email Address (if applicable)

2. Inventory of wastes you want to dispose of at this collection event

Please complete the attached waste inventory sheet to list the wastes you will bring to the collection event. Make additional copies of the inventory sheet if needed. Return the completed inventory sheet(s) with this application. Instructions for completing the waste inventory sheet are on the back side of the form. Only wastes that have been pre-registered and approved by Clean Harbors Environmental Services will be accepted at the collection event. **Remember you are limited to no more than 2,200 pounds of Conditionally Exempt Generator waste at this event.** Radioactive materials, explosives, infectious medical wastes, certain poisons, very reactive wastes, and unknown wastes are not accepted at these events. **There is no quantity limit for collection of waste pesticides.**



Waste Inventory Sheet for Collection Event
(Copy and use additional sheets if needed)

Item Number	Waste Description	Quantity (lbs. or gals.)	Cost (per lb. or gal.)	Disposal Charge
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
Total Charge This Sheet				\$



3. Certification for Conditionally Exempt Generators

Note: This page must be completed and submitted with the application if you are disposing of CEG waste at this event. If you are only disposing of waste pesticides at this event, you do not need to sign and submit this page with your application.

State and federal hazardous waste regulations limit the use of CEG hazardous waste collection programs to those businesses that generate 100 kilograms (220 pounds or approximately 25 gallons) of hazardous waste **per month**. Businesses that generate more than this amount must be a licensed hazardous waste hauler to manifest and transport their waste. Therefore, we are requesting that you sign the following certification before disposing of your waste at the collection event:

I certify the business that I am representing is a Conditionally Exempt Hazardous Waste Generator who generates less than 220 pounds of hazardous waste and 2.2 pounds of acutely hazardous waste per month. I also certify that I have not accumulated more than 2,200 pounds of hazardous waste (2.2 pounds of acutely hazardous waste) at this time. I understand that I must pre register and pay the disposal cost before I can drop off my wastes at the collection event. I also understand that only the types and quantities of wastes listed on the Inventory Sheet(s) in Section 2 have been approved by Clean Harbors Environmental Services for disposal at the collection event. Finally, I understand that the state, local government or Clean Harbors Environmental Services does not assume liability for my wastes, and that future liability remains with my business.

Company Representative (print or type)

Generator (Company) Name

Signature of Company Representative

Date



Instructions for Completing Waste Inventory Sheet

1. **Item Number:** Number each item (or category group of items) you want to dispose of at the collection event. Each item should have an individual number on its container as reference. The container number should correspond to the completed inventory sheet(s) submitted to Clean Harbors Environmental Services.
2. **Waste Description:** Describe, in as much detail as possible, wastes that you want to dispose of at the collection event. The description should include the chemical and trade name, how you use the material, physical state (i.e., liquid, solid, sludge, gas), chemical characteristics (e.g., flammable/ignitable), and chemical constituents and percentages from the label or material safety data sheet (MSDS). For pesticides (e.g., herbicides, fungicides, rodenticides, etc.), please include trade name and percent concentration. When listing waste quantities, be as accurate as possible. **DO NOT** include wastes you do not want to dispose of at the collection event, nor containers of unknown waste substances. Please avoid mixing your wastes together.
3. **Quantity:** List the quantity of waste you want to dispose of at the collection event. As a rule, list liquids in gallons and solids and sludges in pounds.
4. **Cost of Waste Disposal:** Refer to waste disposal costs below. For wastes not listed on the Inventory Price Sheet, please call Clean Harbors Environmental Services at the numbers on page 1.
5. **Disposal Charge:** Quantity of waste multiplied by the unit cost will determine the disposal charge for each waste. Regardless of quantity, each item on the Inventory Sheet will receive a minimum charge for container size. For example, a gallon container of solvent $\frac{1}{4}$ full will have a disposal cost for one gallon of solvent.
6. **Total Charge this Sheet:** This box is the Disposal Charges column added together for each Inventory Sheet. For a business with multiple Inventory Sheets, the last Inventory Sheet should also list the sum of for all of the "Total Charge This Sheet" boxes from each Inventory Sheet. For questions, please contact Clean Harbors Environmental Services.

Once **Clean Harbors Environmental Services** has received and reviewed your application, you will receive a telephone call acknowledging acceptance of your application. The acknowledgment letter and/or call will provide you with the total estimated cost for disposal of your waste, an appointment time for bringing in your waste, and any changes to the collection event site.



Waste Pricing

Waste Category	Price	Unit	Comments
Aerosols	\$2.00	Each	Flammable, Corrosive, Poison – Aerosols
Antifreeze, Oil	\$3.00	Gallon	
Batteries	\$.90	Pound	Alkaline, Lead Acid, NiCad, etc.
Batteries – Lithium	\$10.00	Pound	\$10.00 min.
Chlorinated Solvents	\$9.00	Gallon	
Corrosives	\$15.00	Gallon	
Metallic Mercury & Mercury in Articles	\$14.00	Pound	Switches, Thermometers, Blood Pressure Cups, etc. Elemental
Mercury Compounds/Solutions	\$14.00	Pound	
Mercury-Containing Lamps	\$.25	Per Foot	Fluorescent straight tubes
	\$1.00	Each	Compact fluorescent & U-tubes
Non Chlorinated Solvents	\$7.50	Gallon	
Pesticides/Poison Solids	\$1.50	Pound	Pesticides, Herbicides, Rodenticides, Fungicides, Lab Chemicals, etc.
Pesticides/Poisons Liquids	\$15.00	Gallon	Pesticides, Herbicides, Rodenticides, Fungicides, Lab Chemicals, etc.
Propane Cylinders	\$3.00	Pound	Other Cylinders Case by Case Pricing
Reactives	\$7.50	Pound	Flam Solids, Organic Peroxides, DWW
PCB Waste	\$3.00	Pound	Debris, Oil, Ballasts
Non PCB Ballasts	\$.50	Pound	
Other Wastes			Case by Case

Attachment 3

HHW Facility Inspection and Inventory Report Form

Inspected by: _____

LOCATION/ITEM	DATE: ✓ if OK	DATE: ✓ if OK	COMMENTS
Facility Exterior <ul style="list-style-type: none"> • General housekeeping (clean, no debris, etc) • Security (fencing, gates, locks) • Pavement • Signage 			
Outdoor Storage Area <ul style="list-style-type: none"> • General housekeeping (clean, no debris, etc) • Storage Containers (proper container type, fully labeled, no leaking/damaged containers, etc) • Surfaces in good condition • Sumps clean • Portable fire extinguishers (Pins intact, charged, serviced) • Eyewash/shower operational (flow, temp, etc) • Phone system operational • Lighting system operational 			
Storage Building-Exterior <ul style="list-style-type: none"> • Fire suppression system charged Service due date: _____ • Signage 			
Storage Lockers-Interior <ul style="list-style-type: none"> • General housekeeping (clean, no debris, etc) • Storage Containers (proper container type, fully labeled, no leaking/damaged containers, etc) • Ventilation system operational • Sumps (clean, dry) 			
General <ul style="list-style-type: none"> • Current waste inventory available (See reverse side) 			

Attachment 3

HHW Facility Incident Report Form

**Deschutes County Department of Solid Waste
Household Hazardous Waste Facility**

Incident Report Form

Date _____ Time _____

Type of incident (Abandoned waste, regulated generator, vehicle accident, equipment failure, spill, fire, injury, etc.)

Identity and Quantity of material(s) involved

Extent of injuries, if any

Describe incident and response activities, including corrective actions, cleanup procedures and authorities or emergency response personnel contacted:

Prepared by (Name and title):
