



COLUMBIA COUNTY HOUSEHOLD HAZARDOUS WASTE COLLECTION FACILITY OPERATIONS PLAN

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I. INTRODUCTION

Columbia County Land Development Services – Solid Waste Department developed this operations plan for the Household Hazardous Waste Collection Facility located at the Columbia County Transfer Station in St. Helens. In 2020 Columbia County Public Works Department updated this plan. The Columbia County Hazardous Waste Collection Facility is operated by Columbia County contractors. The workers at the facility will ultimately be accountable to Columbia County for safe and efficient operations. This plan outlines the policies and procedures for the management and operation of the facility.

The Columbia County Transfer Station is operated as a refuse recycling and solid waste transfer site for residential and commercial customers in Columbia County. The facility is located in St. Helens at 1601 Railroad Ave. between Milton Way and 3rd Street. The transfer station receives solid waste and source separated recyclables from the general public. Operation of the Columbia County Hazardous Waste Collection Facility (HWCF) provides a complimentary service to the solid waste and recycling operation by accepting HHW on periodic schedule, currently four times per year, from Columbia County residents.

In addition to these operational services, the solid waste transfer building manages the collection of used oil, auto batteries, fluorescent lamps, paint collected under the PaintCare program, electronics mandated by Oregon E-Cycle program, medical sharps and antifreeze. After collection, these hazardous wastes will be collected or stored at the HWCF. However, friable asbestos will not be accepted at the HWCF.

The facility is intended to offer Columbia County residents a convenient option for safe disposal of hazardous wastes such as pesticides, cleaning products and other common hazardous products used in the home. Only wastes exempted from federal hazardous waste standards (as provided in 40 CFR 261) will be accepted at the facility. This includes both household hazardous waste. In addition wastes which have been abandoned at the transfer station site, or wastes found in the course of random load checks, when the generator of such waste cannot be immediately determined will be processed and store at the facility in appropriate leak proof containers.

The hazardous waste collection facility (HWCF) will be open to the public approximately periodically, currently four times per year on pre-announced dates. The frequency may increase if there is sufficient public demand and available funds.

Contingent upon adequate funding from DEQ, Columbia County accepts household hazardous waste from outside of the defined service area. The list of possible waste types brought to the Columbia County HWCF will be the same whether brought directly to the facility by individual residents or brought from an outlying area from a collection event. Consequently, the waste management methods for these wastes will be the same.

The site is not located within the 100-year floodplain as identified on FEMA maps. Some wetland sensitive areas within the property boundary of the transfer station site have been identified and addressed by a wetland mitigation and monitoring plan approved by the Army Corps of Engineers and permitted by Columbia County.

II. GENERAL PROCEDURES

A. Operating Days, Visitor Control, and Staff Training

Operating Frequency

The facility will be open four times per year. This schedule may be modified to accommodate public demand and use patterns. During scheduled Saturday events, the HWCF is open to the public from 8am to 2pm. This schedule is subject to review and change. If the four events per year do not meet the public demand and there is available budget, additional days may be added. This policy is intended to improve the level of service offered to residents by providing the flexibility needed to adapt to fluctuations in the level of use. In addition to these regular operating hours, facility staff will perform some duties on days when the facility is closed, and before and after hours on days when the facility is open. An example of these off-hours duties would be performing a truck loading or unloading task and bulking of flammable liquids into a drum while there are no customers on-site.

Visitors

Visitor tours will be given by prior approval and arrangement with the Columbia County Solid Waste Administrator. Visitors are required to observe any applicable policies regarding use of personal protective equipment (PPE), restricted areas and activities, etc. Upon approval, visitors may be allowed in working areas of the facility (bulking and loose/lab packing areas) when those areas are not in use.

Staff Training

All personnel in active working areas must be trained in hazardous waste operations; 24 hours of training designed to meet requirements of 29 CFR 1910.120(p) shall be considered minimum training prior to taking lead responsibility in working at the facility, and all staff will attend annual 8-hour hazardous materials refresher training. Persons handling only non-hazardous wastes, such as latex paint, may be exempted from this requirement with approval from the facility supervisors. Anyone responsible for the preparation of hazardous materials for shipment shall have the appropriate US Department of Transportation (DOT) hazardous materials shipping training. Each person who is required to be DOT hazardous materials trained must also complete a refresher DOT hazardous materials training at least every 3 years. Training records for HWCF facility employees will be maintained in the HHW office and at the Columbia County Department of Land Development Services. The HWCF contractor will be required to provide documentation of the same training for contract employees. Position types and minimum training topics are as follows:

Position type: Chemist/Lead worker

24 Hour Training

Respirator Fit Testing

Facility Emergency/Spill Procedures

DOT Shipping

Position type: Waste Handling Specialist

24 Hour Training

Facility Emergency/Spill Procedures

Respirator Fit Testing

B. Site and Facility Layout

Figure 1 shows the Columbia County Hazardous Waste Collection Facility site layout. Stormwater will be managed to prevent run-off into the facility by the designed surface slopes away from the perimeter of the HWCF. Under the covered areas of the HWCF, there are engineered secondary containment structures to capture and hold any spilled materials until cleaned up. This should eliminate the likelihood of any spill entering the stormwater system. The capacity and design of the secondary containment system is described at the end of this section.

Security and Emergency Contacts/Access

The Columbia County Transfer Station is fully fenced. In addition the HWCF is secured with a chain link fence, lockable gates, or solid walls around its entire perimeter. The doors of the hazardous waste facility are locked except when open or shipping activities occur. No unauthorized persons are to enter the facility. An emergency access key is kept by the Columbia County Site Supervisor.

In the event of an emergency involving the facility which occurs when facility staff are not present, the Columbia County Site Supervisor will be the first person notified, as reflected on the emergency contact list maintained at the facility office and Transfer Station attendant office. If the Columbia County Site Supervisor is not available, the Columbia County Solid Waste Administrator would be called. The facility also has a manual emergency call button that, when actuated, calls the fire department directly for assistance. In addition there is a fixed heat detector which will also summon the fire department automatically in case of fire.

Traffic Control

Traffic will come to the Columbia County HHW Collection facility through the main entrance to the Columbia County Transfer Station. Facility traffic will turn left from the main entrance and will be directed by signs and pavement markings to enter the building under the customer service canopy. Customers will exit by going slightly to the left and rejoining the main access road. Signs will direct traffic and provide instructions on how to use the facility. There is room on the site and in the turn lane for significant queuing of traffic, about 25 cars, within the facility and alternate queuing lines. Signs will advise participants of potential hazards, direct traffic flow, and instruct participants to remain in their vehicles. Emergency instructions and phone numbers will be posted in the receiving area.

Figure 2 shows the HWCF floor plan. The contractor will remove all collected materials (except for items specified by the County) from the household collection event. Based on 4 events per year, an average number of participants would be about 200 participants per event. However, participation at collection facilities is always higher in the warmer months. So it is reasonable to plan for a higher than average participation rate.

The facility consists of an open 37' X 52' area, for customer service, processing and storage. Separation from the processing and storage area is provided by an internal fence inside the metal building. The facility building contains waste processing, packaging and storage areas, as well as some storage area for supplies and materials. The flow of most wastes received will be from the customer drive-through receiving area, to the sorting area, to the storage area, and finally off-site to the contractor's HW facility for further packing or processing prior to final disposition.

Figure 1

supplies and materials. The flow of most wastes received will be from the customer drive-through receiving area, to the sorting area, to the storage area, and finally off-site to the contractor's HW facility for further packing or processing prior to final disposition.

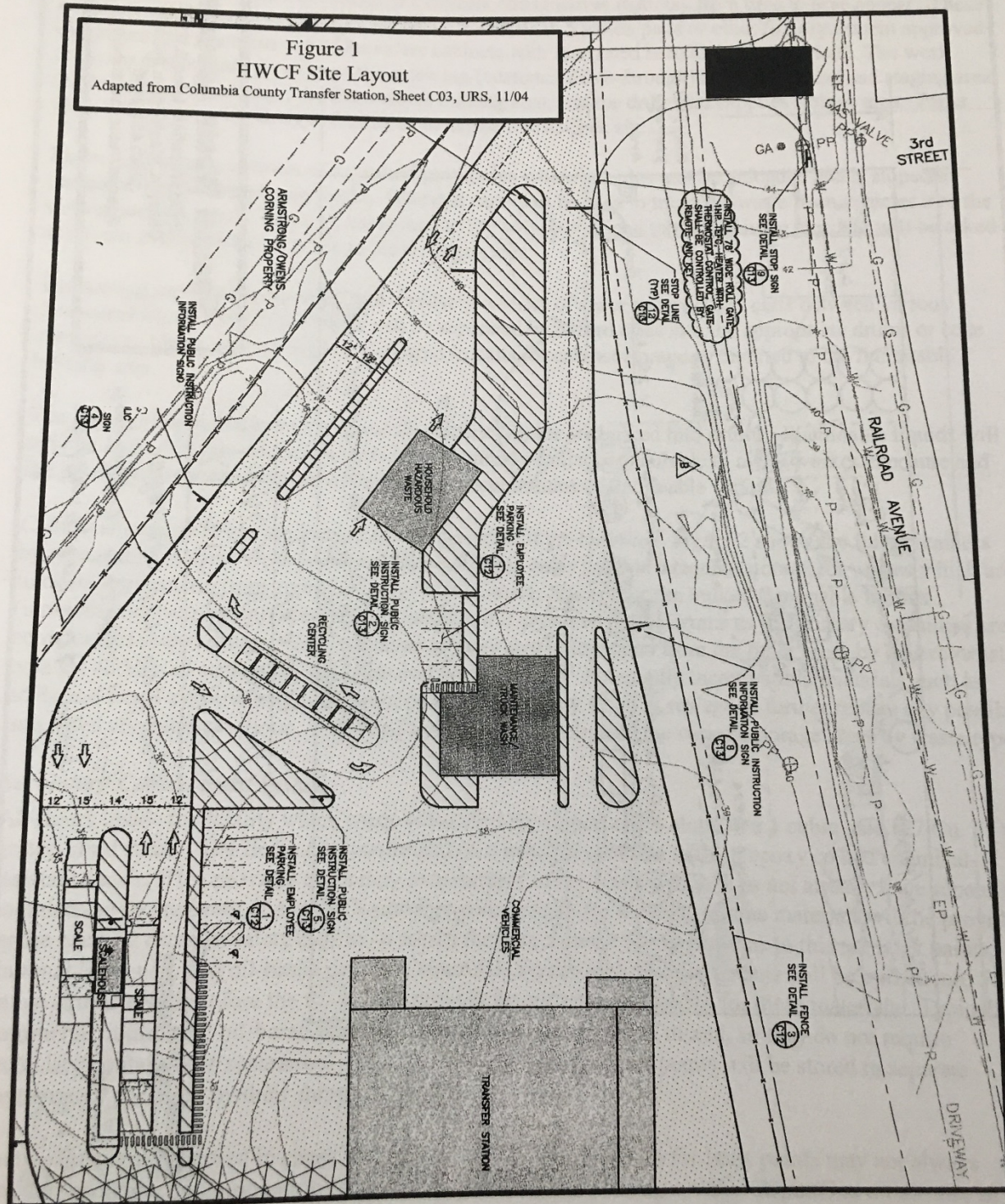


Exhibit D – Operations Plan 2020



Work Areas and Requirements

The building includes partial physical and separation by distance between most work areas. The work areas are divided into four types: the receiving (customer drive-through) area, the sorting and staging area (including some packing), the flammables bulking area, and the drum and supplies storage area. Paper work will be completed at the HWCF or in adjacent offices on site.

The *receiving area* consists of a covered paved area where vehicles will be unloaded and is sloped to contain any spills which may occur. Wheeled carts will be used to transport waste from vehicles into the sorting packing area. Customers using the facility will be confined to the receiving area and will be asked to remain in their vehicles while in the receiving area.

The *sorting and packaging area*, will consist of a series of space to maneuver carts between various containers where most of the waste will be separated by hazard class into the appropriate drums or cage containers. Other material will be packaged in pails for cabinet storage or diverted to the flammable bulking area.

The *flammables bulking area* is where flammable liquids are bulked into drums. Flammable liquids will only be bulked in this area when there is mechanical ventilation available to avoid worker exposure and the potential for accumulations of explosive concentrations of flammable vapors.

Secondary Containment System

All floors inside the facility where waste is handled are sloped at 2% slope to a 1 cubic yard (27 Cu. Ft.) grated blind sump. The floors are constructed of reinforced concrete with an epoxy coated chemical-resistant finish. This provides secondary containment of the waste which does not already have secondary containment in the event of a spill. Secondary containment for most hazardous materials will be provided by the packing drum or safety cabinet in which they are stored. The exceptions to this are flammable liquids, and paint not accepted in the PaintCare program. Flammable liquids will be bulked into 55 gallon drums and therefore the floor must provide secondary containment for these materials. Typically flammable liquids and oil-based paints are chemically compatible if mixed, so they do not require secondary containment separation. All other materials except paints collected by PaintCare will be stored in separate containment provided by their shipping container or safety cabinets.

All paints collected for PaintCare will be stored in containers provided by PaintCare. Collection and storage of materials collected in the PaintCare program are handled by the contracted Transfer Station Operator.

It has been estimated that the secondary containment volume provided by the sloped floor is 161 cubic feet and the blind sump adds another 27 cubic feet for a total secondary containment capacity of about 188 cubic feet or 1406 gallons.

C. Safety and Training

This is a summary of health and safety measures to be implemented at the Columbia County Hazardous Waste Collection Facility (HWCF).

Staffing

HWCF staff will consist of:

1. Eight to ten Transfer Station operations staff whose responsibilities include unloading vehicles of nonhazardous materials (motor oil, paint, antifreeze) and traffic control.
2. Seven to nine contractor staff, whose responsibilities will include unloading vehicles of hazardous materials, sorting, packing, identifying, storing, manifesting and shipping wastes, in addition to administrative and record keeping duties.
3. Two to three County Solid Waste program staff persons will supervise the event operations, assist with traffic control and greet customers. As the demand for services changes, this staff might be augmented by other employees to participate in this program on a part-time basis. These employees must first receive appropriate 24-hour hazardous waste operations “HAZWOPER” training, DOT training, (and subsequent refresher training), plus additional in-house training to understand facility policies and perform according to approved procedures. Periodically, temporary help may be obtained to augment facility staff as required to assist in the operation of the facility; any such temporary help will be subject to the same training requirements as full-time staff, if their duties involve handling hazardous waste.

When needed, volunteers or other temporary help will be recruited for traffic control or other non-hazardous tasks. These traffic control only employees will not require the hazardous waste nor DOT training.

Training

24-hour OSHA hazardous waste operations training, with 8-hour annual refresher training, will be considered minimum for temporary and permanent facility staff that manage or handle hazardous waste. Traffic control help, when applicable, need not comply with these requirements. In addition to this general training, site-specific emergency/spill control training will be provided to all staff working inside the facility. Training will be provided by the contractor and the contractor will provide a training plan for the facility prior to commencement of operations. Training records for all staff, either permanent or temporary, who handle waste will be maintained by Columbia County for County employees or the Contractor for their employees while on site.

Personal Protective Equipment

Personal protective equipment (PPE) is required whenever there is a potential for exposure to any hazardous or unknown chemicals or risk of injury. The required PPE will be selected according to the tasks being performed; each employee is responsible for evaluating the hazards which may be encountered and for selecting the appropriate protective equipment. 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. PPE inventory will be stored in cabinets located in the work areas to be convenient for use and in a manner that does not degrade the safe use of the equipment. Staff will maintain personal storage space for extra coveralls, gloves and respirators in separate marked areas cabinets located within the HWCF, so that they can maintain their reusable equipment and replace as necessary.

A. Minimum safety equipment for unloading, sorting, and packaging:

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

2. 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.

3. Body protection: Coveralls, chemical aprons or chemical resistant suits shall be worn whenever handling waste containers. 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.

4. Foot protection: Chemical resistant steel toe rubber boots, or other impermeable footwear or boot covers are to be worn while bulking, testing waste, moving containers, or packing waste.

5. Respiratory protection: Exhaust ventilation should be used to remove most airborne contaminants from the workers breathing zones. In addition, masks and respirators provide an additional level of personal respiratory protection. Dust masks should be worn when pouring dry absorbents into waste containers. Half-face negative pressure respirators equipped with cartridges approved for the applicable contaminant will be minimum protection for workers bulking flammable liquids and lab packing poisons. Workers may at any time choose a higher level of protection, such as a full-face respirator.

B. The following clothing should be worn when dealing with a 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;
- Steel toe rubber boots;
- Full-face respirator with appropriate cartridges (such as organic vapor or acid-gas)

Equipment 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 to ensure that PPE is in proper working order and in accordance with manufacturer's recommendations.

Decontamination and Reuse of PPE

Employees engaged in unloading, sorting, 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 the employee to evaluate the condition of durable items, such as respirator cartridges, face pieces, and heavy 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 inner 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. These heavily contaminated PPE will typically be placed in an appropriate container and treated as HW.

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 (see map), 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, the employee will replace the contaminated PPE with appropriate PPE for the anticipated

chemical hazard.

Employees will remove and properly store or dispose of PPE and wash off any remaining contaminants before leaving the facility site and whenever going into the office/break room in adjacent buildings on site.

Safety Equipment

An *eyewash/shower* with a minimum 15 minute drenching capacity is located inside the facility as shown on Figure 2.

Fire extinguishers are located throughout the facility. Fire extinguishers are dry-chemical, hand portable units meeting NFPA standards and requirements of the fire department. The facility is not equipped with an automatic fire suppression system inside the building as allowed by Columbia County Fire and Rescue.

First aid kit is located in the processing area.

Spill containment supplies including absorbent materials, shovels, brooms, tarps and absorbent pads will be available in the supply storage area. Spill drums will also be located in various processing areas of the facility. The spill drums will contain absorbent material appropriate to and chemically compatible with the particular hazards and materials in the area for quick response to incidental spills which can be safely managed by staff.

Communications equipment consisting of a telephone is maintained inside the facility. Two-way radios are available for backup emergency communications at the transfer station.

All safety equipment will be inspected monthly and maintained in working condition prior to the scheduled collection day; inspection records will be maintained by Columbia County or its contractor. See Appendix 2 for inspection form.

Safety and Hazard Review

Monthly safety meetings will be conducted to provide the results of inspections, review hazards identified, solicit safety and health working condition issues from staff, and answer safety-related questions from the staff. These meetings will be documented and records maintained by Columbia County or its contractor.

D. Waste Identification and Acceptance

Types and quantities

Columbia County residents and out of County residents are eligible to participate in this program. All household hazardous waste, **except** explosives or other unstable wastes, asbestos, radioactive waste, will be accepted. This included used oil, auto batteries, fluorescent lamps, and antifreeze which will be managed at the transfer station building and medical sharps in appropriate containers. Clients with medical sharps are required to drop them off Monday thru Saturday during regular Transfer Station hours at the scale house rather than do so at HHW events. Arrangements have been made for Transfer Station operations staff to handle medical sharps in order to provide more convenient and timely service to these clients. Accounting for the materials diverted from the HWCF, there will still be about 77 pounds of HHW per participant. Based on Columbia County's 2019 DEQ Household Hazardous Waste collection report, Columbia County expects to receive the following distribution of HHW materials. This is based on data from 2019, we serviced 661 participants at the St Helens facility.

**Table 1 – Columbia County HHW
Collection Analysis**

Facility Information						
Operating Schedule - Days and Hours: Varies according to yearly schedule. 3 events at TS/3 Remote						
Supplemental HHW Events? Please Describe: One each in Rainier, Clatskanie and Vernonia						
Number of Private Vehicles Delivering Waste Each Year: 916				661 at the three events in St Helens		
Waste Collected during Report Period						
Storage Area	Number of Drums	Total Lbs. Collected	Total Lbs. Start of Calendar Year	Total Lbs. End of Calendar Year	Total Lbs. Shipped in Calendar Year	
St. Helens	257	51,057			51,057	
Vernonia	26	4,536			4,536	
Rainier	45	6,885			6,885	
Clatskanie	27	5,608			5,608	
Waste Type		Total Lbs.	Disposal Method			Contractor
Acids		1,004.00	Incineration			CHES
Bases		1,517.00	Incineration			CHES
Oxidizers		284.00	Incineration			CHES
Reactives		6.00	Incineration			CHES
Elemental Mercury				38.00	Reclaim/Recycle	CHES
Other Mercury Containing Waste		12.00	Reclaim/Recycle			CHES
PCB Containing Waste		460.00	Incineration			CHES
Pesticides and Poisons		6,061.00	Incineration			CHES
Flammables		37,099.00	Incineration			CHES
Latex Paint						Paint Care
Oil-Based Paint						Paint Care
Fluorescent Tubes		6,218.00	Reclaim/Recycle			CHES
Other-Aerosols		4,016.00	Incineration			CHES
Other-Antifreeze		272.00	Reclaim/Recycle			CHES
Other-Paint NON PaintCare		11,045.00	Incineration			CHES
Other-Cylinders						
		Total		68,032.00		

Figure 2 shows the HWCF floor plan and typical storage arrangement after a 144 customer collection day. Assuming four events per year at an average of 150 participants per event, there would be a total of 600 participants per year. However, participation at collection facilities is always higher in the warmer months. So it is reasonable to plan for a higher than average participation rate in that time of year. The solid waste transfer station building will accept automotive lead-acid batteries, fluorescent lamps, used oil, antifreeze, non-hazardous paints, and medical sharps. Those materials dropped off on collection day will be moved to the transfer station building in appropriate containers for further sorting and transport.

Prohibited Material

Types of wastes that are not permitted at the hazardous waste facility include commercially-generated waste from fully regulated generators, non-hazardous waste, infectious waste except medical sharps in appropriate containers, asbestos, explosives except small arms ammunition, unstable chemicals, and radioactive material.

1. Commercial Waste

The hazardous waste facility will accept waste from CEG generators only by prior appointments with the HHW contractor. When CEG wastes are taken in it will be in accordance with the procedures detailed in the CEG section of this plan. Business hazardous wastes cannot be accepted from Large Quantity or Small Quantity Generators. Customers arriving during public collection hours who are suspected of being commercial generators shall be referred to the CEG program and asked to make prior appointments with the HHW contractor. Wastes shall be suspected of being commercial if they are:

- Delivered in a commercially marked vehicle, or a type of vehicle which is typically used by commercial entities (e.g., a large flatbed, box van, truck larger than one ton);
- Received in quantities not usually found in households, generally most containers over 5-gallons;
- Items not normally sold for residential use.

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

- Record business name (if known), license plate number, and/or any other available information on the log;
- Explain that the waste must be handled through the CEG Program and give the customer CEG program literature;
- Record the questionable material on the log and note that the materials were not accepted.

2. Explosives, and Critically Unstable Chemicals

Although explosives are not generally accepted at the facility, some relatively innocuous materials may be accepted in small quantities, including small arms ammunition and their components, and fireworks. These can be managed by either a hazardous waste treatment or disposal facility or by the County Sheriff. If any other kinds of explosive materials arrive at the site, the State Patrol will be called for assistance and staff will not unload or otherwise handle these materials.

Unstable materials are capable of rapidly undergoing chemical changes or decomposition, including violent explosions. Items of particular concern are: diethyl ether, ethyl ether, tetrahydrofuran (THF), some organic nitrates and certain oxidizers. Staff will call the hazardous materials response contractor for assistance if/when these materials are delivered. These materials will only be handled by the response contractor. Employees are instructed not to touch, handle or unload these materials.

3. Radioactive waste will not be accepted under any circumstances.

Customers delivering radioactive waste will be instructed to call the State Health Division Radiation Control Program (on the Emergency Contact List) for instructions on disposal.

Household smoke detectors are exempt from regulations and will be accepted as trash. Customers will be given the option of returning the detectors to the manufacturer.

4. Non-hazardous Waste

The hazardous waste 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.

5. Infectious Waste/Sharps

Sharps are accepted during regular business hours at the Transfer Station. Sharps, such as diabetic insulin needles, will be accepted if in a proper container and approved containers are available for sale at cost at the Transfer Station during regular business hours. Other infectious waste will not be accepted at the facility.

6. Asbestos

Customers will be referred to the Hillsboro Landfill for proper disposal of asbestos.

E. CEG Hazardous Waste Collection Program

Generators using the CEG program must:

- Verify their generator status as conditionally exempt generators before accepting waste
- Make prior appointments with the HHW contractor
- Pay fees established by the HHW contractor subject to approval by the County.

Waste Acceptance

In general, acceptance guidelines for CEG waste will be the same as those governing household hazardous waste. Asbestos, radioactive materials, explosives, certain very reactive materials, and in addition, certain acutely hazardous wastes cannot be accepted. Generators wishing to use this program must certify that they are not regulated Small or Large Quantity Generators. Generators whose CEG status has been verified may use the program as often as necessary, as long as the quantities they dispose monthly and throughout the year do not exceed the generation and storage limits imposed on CEGs (220 pounds of hazardous waste generated per calendar month, 2.2 pounds of acutely hazardous waste generated per calendar month, and no more than 2200 pounds of hazardous waste or 2.2 pounds of acutely hazardous waste stored at any one time). Participants in the CEG program will be tracked to insure that they do not dispose of amounts in excess of 2640 pounds per year, within any twelve-month period. All participants must sign a statement verifying their conditionally exempt status when registering for an appointment to use the program. Within these limits, CEGs may deliver no more than 2,200 pounds of waste per visit.

Universal Wastes

Universal Wastes (batteries, pesticides, fluorescent and other lamps containing mercury) will be accepted from any generator regulated as a Small or Large Quantity Generator. CEG wastes collected which meet the criteria established for universal wastes will be managed as universal waste.

Customer Registration

The CEG will complete and sign an application/profile form provided by the HHW contractor. The form will be created by the operations contractor and will require from the CEG a listing of wastes proposed for disposal and a certification that the company generates less than 220 pounds of hazardous waste and less than 2.2 pounds of acutely hazardous waste per month and has not accumulated more than 2200 pounds (or 2.2 pounds of acutely hazardous waste) in storage at any one time. All generators shall profile waste material to the maximum extent practicable using labels, analysis (lab or approved tests) and/or MSDS's.

Once the profile form has been received and approved, staff shall contact the generator and schedule an appointment for delivery of the wastes. The generator will be advised to properly label, number, package, and load the material for transport. Additional information and/or technical assistance may be offered if it is requested by the generator. This could consist of assistance with obtaining proper information for labeling the materials or properly filling out the label, or other assistance as may be needed. At the time of delivery of waste to the facility, the load will be inspected to ensure that the delivered materials correspond with the approved inventory. If the delivered materials do not correspond with the approved inventory, the missing materials will be removed from the form, or additional

materials will be added to the form if they are acceptable materials.

Waste prices and profile/application forms shall be updated as needed.

Staff shall contact DEQ regional hazardous waste program office in the Portland office if their generator status is questionable to assure that the customer has not registered as a Small or Large Quantity Generator of hazardous waste. Because generator status may change from month to month, the presence of a generator on the DEQ list does not necessarily disqualify a business from using the facility as a legitimate CEG.

CEG Waste Handling

CEG waste will be commingled with household hazardous waste by the HHW contractor for storage and shipping purposes and handling procedures will be the same as those specified for household hazardous waste.

Record keeping

The HHW contractor will maintain a CEG file. Summary data on participation and wastes received will be forwarded to Columbia County and DEQ annually or as requested. At a minimum the data shall include:

- Name of the HWCF
- Amount of total hazardous waste collected from each generator per year
- Total amount of CEG wastes collected by the HWCF
- Types of CEG wastes collected by the HWCF.

Other Commercial Wastes

On occasion, hazardous wastes may be abandoned at the transfer site or may be found in the normal course of business. When possible, facility staff will assist in determining the source of the waste, drawing upon the resources of the St. Helens Police or Sheriff when needed. Receipt of the waste will be logged on an incident report form. If the generator can be identified, the generator will be billed for the proper disposal of the waste if it can be identified and DEQ's Regional Hazardous Waste Program office will be notified immediately. When the generator of such waste cannot be identified, the waste will be processed as household hazardous waste, unless the weight of the abandoned waste totals more than 220 pounds, in which case it will be managed as regulated waste. When regulated quantities of hazardous waste are found abandoned or in a load, staff will notify DEQ's Region Hazardous Waste Program immediately to discuss the incident (503-229-5263). If staff cannot identify the generator of the waste, the staff assigned to illegal dumping will be called upon to help with the investigation. Incidental and small quantities of hazardous waste found in the main transfer station will be moved to the secured locked area in HHWF on approved spill proof carts and placed on the sorting table. Inspection of the HHWF will be conducted daily and if abandoned small HHW are discovered along or around the building, the items will be placed inside the locked area on the sorting table until the next monthly collection event.

When regulated quantities of hazardous waste are received from an unknown generator, facility staff will seek authorization from DEQ's Northwest Region office to manage the waste as abandoned waste, that is, that the waste would not count against waste generation totals for the purpose of determining generator status. Waste will be managed according to DEQ's abandoned hazardous waste policy.

F. Waste Handling and Processing

Unloading Wastes

Hazardous waste will be unloaded only in the covered receiving area during open hours. Staff shall question residential 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

listed under Section D – Waste Identification and Acceptance. Customers will be restricted to their vehicles while in the unloading area. Special arrangements with the County will be need to be made for the acceptance of waste in 55-gallon containers. Customers will be required to contact the County prior to delivering any waste in 55-gallon containers. Customers will be queried regarding size of waste containers when making disposal appointment.

Customers may be asked to complete a receiving/survey form. Facility staff shall review forms for minimum completion before customers leave the facility.

Unloading 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.

Before unloading, if there appears to be unlabeled containers, unreadable labels, or containers with labels that do not appear to match the contents, the customer will be asked questions 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 with the information provided. Leaking or unsound containers will be immediately over-packed 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.

Waste will be unloaded onto carts and taken directly into the sorting area inside the facility. Full carts will not be left in the receiving area.

Should any waste item need to be rejected and sent away with a customer, staff shall make a record of the waste type, quantity, and vehicle license plate of the customer.

Waste Sorting/Segregation

Sorting will be done only by qualified and trained staff. Once unloaded and placed in the sorting area, waste is segregated by DOT hazard class directly into drums for either loose-/lab-packed drums or cages or remain on carts for transport to the flammable bulking area. 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.

The classes of materials to be sorted will initially be:

- Flammable
- Pesticide/Poison
- Bases
- Acids
- Reactives
- Oxidizers
- Miscellaneous Unknown

Paint

All paint received at the HHW facility will be screened for hazardous materials (lead, mercury, and PCBs) by inspection of the label on the can. If this inspection reveals hazardous materials in the paint, the can will be sorted into the proper sort station at the facility, for treatment or disposal.

The latex and oil based paint is accepted by the Transfer Station during regular business hours and is stored and transported in containers provided by PaintCare for transport to the PaintCare program under a PaintCare program subcontract with the Transfer Station operator.

HHW participants are discouraged from bringing non-hazardous paints to the HHW events.

Unknowns

Testing Methods - Staff will perform simple field tests in an area with mechanical ventilation and protective plastic shield to characterize a material. This will be based on the qualifications of the contractor's staff. Simple tests will be available to determine water reactivity, ignitability, pH, and the presence or absence of oxidizers, peroxides and chlorinated compounds. Only staff who are fully-trained in these field tests will perform testing of wastes. No other tests shall be performed by site staff. Chemical consultants are available to come in and perform more extensive testing under contract if needed.

Segregation and Storage of Unknown/Unlabeled Waste

Any material which remains unidentified after field testing will be stored until a chemical consultant can categorize the unknown wastes. In order to prevent any reaction from incompatible materials, such waste will be segregated by placing the container in an unknowns area and stored inside a tub or bucket to prevent interaction with other unknowns. These tubs or buckets will be stored in a safety storage cabinet until chemical identification is performed.

Waste Consolidation/Bulking

Some wastes will be consolidated on-site to reduce shipping costs and minimize the required storage area. These wastes include flammable liquids and oil-based paints.

Flammable Liquids Bulking

Flammable liquids are solvents, fuels, and other high-BTU value materials that can be consolidated by bulking the contents of small containers into 55-gallon drums before shipping off-site, typically for energy recovery by a fuel blender.

Flammable liquids will be taken to the flammables bulking area for consolidation into drums. The flammable liquids can be poured into the drum manually or with various special crushing machines. The flammable liquid bulking area has mechanical ventilation which must be used to its maximum effect to prevent significant exposure to the bulking staff or accumulation of dangerous concentrations of explosive vapors. Based on studies at facilities with adequate ventilation elsewhere, respirators are not expected to be required due to health and safety legal limits. Nonetheless, to provide an additional level of staff exposure protection ½-face or full-face respirators will be required for staff while bulking flammable liquids.

Waste Packaging

Sorted waste is packaged in various ways, including lab-packing, loose-packing and bulk packaging. The packaging method for each category or waste is indicated in the chart found in Part IV of this manual, Waste Categories and Management. In all cases, drums will be labeled with the appropriate DOT hazardous waste label containing the generator name (Columbia County), EPA I.D. number, etc. as well as the applicable DOT hazard class label. A general description of each packaging method follows.

"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 drum. The absorbent is also used to insulate the containers so that none are touching each other or the drum. Absorbent must be added to fill the drum to the top. All lab-packed waste types require a plastic liner in the drum. Each drum is labeled with the appropriate DOT hazard class sticker while being filled.

"Loose-packing" refers to placing containers into a drum or transportable box without absorbent, for short-term transportation purposes. 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.

"Bulking": After sorting, the liquid flammable wastes to be bulked are placed on carts and taken to the bulking area. Containers are not opened until they are in the bulking area. Individual containers shall be opened and poured into drums; in the future the facility may elect to use container-crushing equipment to bulk flammable liquids into drums. All metal containers of flammable materials and drums for pour-off of flammable materials will be connected to a grounding strip or post by a grounding wire while pouring. When containers are determined to be empty per RCRA standard (40 CFR 261.7 (b) ii), they are either to be disposed of as non-hazardous trash, or recycled when possible.

Aerosols

Aerosols that do not contain poisons, pesticides, or caustics, will be loose-packed in drums or boxes. Aerosol cans that contain poisons, pesticides, or caustics will be lab-packed into drums.

Other Packaging: Some of the materials brought to the facility will not be packaged into drums before leaving the facility. In some cases they will be referred to the transfer station building for collection (lead-acid batteries, motor oil, antifreeze, fluorescent lamps, etc.), and in some cases they will be transported to their final destinations in boxes. In most cases lab-pack and bulk drums will have a capacity of 55 gallons. Loose packing may be in 55-gallon drums (metal or fiber) or shipping boxes (usually cubic meter or cubic yard sized) or wire cages. Some categories of waste are received in small quantities, such as oxidizers and reactives, and will be packed in pails or drums smaller than 55-gallons. See Part IV of this document for packaging methods common to each waste category.

Storage, Inventory, and Standard Materials and Container Handling Practices

By the end of each working day, all waste accepted into the facility will be sorted and placed either into the appropriate partially-full drum, the unknowns area for identification, the bulking area for later pour-off, or the drum storage area. Before leaving the facility at the end of the day, staff shall ensure that all waste is secured in sealed, sound containers. Although standard procedure is that all waste is to be contained in sealed shipping containers (drums and boxes), tubskids, pails, or other temporary storage may be acceptable as a short-term measure, providing that the usual precautions are taken (no mixing of incompatible wastes, no leaking containers etc.). These remaining materials will be processed the next day.

- All drums and containers in the storage areas 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.
- Drums and other large containers will be transported as they become full using a drum dolly or forklift to the proper storage area based on their hazard class.
- 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. As a matter of policy, full drums or containers should not be stored in the bulking or sorting areas but instead be stored in the storage areas.
- Drums will be transported using appropriate equipment such as a drum dolly or forklift. Tubskids, boxes and cages, when used, will be moved using a forklift or pallet jacks.
- No materials shall be stored in aisles 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 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.
- Drums containing waste will not be stacked at any time.

Because wastes will be removed within a day or two of collection the likelihood of freezing liquids is unlikely. If it were cold enough to freeze some latex paints, they might become un-recyclable.

Because latex paint is typically formulated with ethylene glycol, it freezes at very low temperatures, uncommon at St. Helens. There are no other HHW wastes that are likely to be adversely affected in freezing weather.

Storage Area Capacities:

All drums shall be segregated and stored in the storage areas. The maximum capacity of each storage area is estimated in Table 2. If needed, additional storage capacity may be captured by moving empty drums and/or supplies outside and adjacent to the HWCF. Aisle space of 36" will be maintained between rows of drums to facilitate inspections as well as access during spill and emergency response actions.

Flammable All full drums of flammable and combustible liquids, and materials that are chemically compatible with flammables will be stored in the large drum storage area next to the flammable bulking area.

**Pesticide/
Poison** All poisons, all pesticides that are not corrosive or oxidizers, and any materials chemically compatible with pesticides and poisons will be stored in the large drum storage room.

Bases All corrosive liquids and solids that are alkaline, as well as any materials that are chemically compatible with bases will be stored in the bases storage area.

Acids All corrosive liquids and solids that are acidic, will be stored in the acids area. There are acids which are exceptions to this, such as high-strength hydrofluoric and nitric acids which should be stored in the safety cabinets.

**Reactives/
Oxidizers** All oxidizers including organic peroxides, certain flammable solids and other reactives will be stored in safety cabinets. The safety cabinets are units with the capacity to store a number of smaller containers for each of the material types as indicated in Table 1. The materials will most likely be stored in the containers they arrive in inside the cabinets, unless damaged, and packed into pails when a shipment for disposal is to be made.

Table 2 – HWCF Estimated Maximum Storage Capacity

Waste Type	Container type	Number of Containers	Storage Area
Flammable Liquids & Oil-based Paint	55 gal. drum	1	Flam.
Pesticides/Poisons	55 gal. drum	9	Poisons
Acids/Bases	55 gal. drum	2	Acids or Bases
Aerosols (non-pesticide/poison)	55 gal. drum	1	Flam.
Oxidizers & Reactives	Pails in cabinet	10	Cabinets
Aerosols (pesticide/poison)	55 gal. drum	1	Poisons
Latex Paints (may be stacked 2 high)	Metal cages	10	Cages
Alkaline Batteries	55 gal. drum	1	Open area
Flammable Solids	55 gal. drum	1	Open area

Shipping

Generally, wastes will be shipped the same day as the monthly collection or within a few days after depending on desired processing and availability of transportation. In any event, it will be at the earliest feasible opportunity. Any partial containers of materials will be stored onsite for a maximum of 180 days.

Licensed hazardous waste transporters have been retained to remove containers of hazardous wastes from the storage areas. Other transporters may be used to transport non-hazardous materials, such as latex paints, under a bill of lading. The transporter must have a current permit to transport these materials and meet any applicable insurance requirement(s). A copy of the permit and insurance certificates shall be kept in the contractor's file for a minimum of five (5) years. Pick-ups shall be scheduled so that neither the approved storage capacity nor the physical storage capacity of any area is exceeded. All hazardous waste labels and manifests must be completed in cooperation with the transporter, including drum logs as needed. All manifests shall be retained in a short-term file until the final disposal sends a signed-off copy, to insure that the waste has been properly disposed. Permanent records of disposal will be kept on file for at least three (3) years.

Waste Shipment Preparation

Drums will be prepared for shipping in accordance with the requirements of all applicable agencies and to the specifications of the hazardous waste management company receiving the wastes. At a minimum, drums and other containers must be in good condition and DOT approved for the material type and density they contain. There shall be no leaking of drums offered for transportation and no waste on the outside of the drums.

All hazardous materials containers to be shipped will include a completed "Hazardous Waste" label or "Non-Regulated Waste" label, appropriate DOT hazard class labels and "up" arrows marked on opposite sides on the upper one-third of the drum. Information on the "Hazardous Waste" labels should include: generator name and address, EPA identification number, proper shipping name, UN or NA number, and hazard class.

Waste Shipment Manifesting/Notification

Shipping papers must accompany all material being transported to an off-site facility. A standard 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 logs as needed. At a minimum, shipping papers shall contain: Shipper, transporter and receiver identification, package type and count, hazardous material description, total quantity, emergency response information, shipper's certification, and a signature. Each manifest shall bear the facility's EPA I.D. number (number filled in when applied for and issued by DEQ). Columbia County, each transporter, and TSD accepting the waste all sign the manifest, thereby establishing a chain of custody for the waste. The manifest shall be returned to the County signed by the TSD facility within 35 days and be kept on file in the facility records. If the signed manifests are not returned from the TSD within 35 days of acceptance by the transporter, inquiries shall be made with the transporter and TSD. If completed manifests for the waste are not returned within 45 days, the DEQ shall be notified and an exception report filed with DEQ.

All manifests shall be retained in a short-term file until the disposal facility sends a signed-off copy and certificates of disposal, to ensure that the waste has been properly disposed. Copies of all paperwork 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. Records for wastes collected but not sent off with a hazardous waste manifest will be kept on file for at least five years. Aggregate quantities of all wastes collected by waste type will be reported annually or as requested by DEQ.

G. Mobile Collection System

The contractor may operate a mobile household hazardous waste collection system based out of the HWCF to serve various sites in outlying areas of Columbia County. Mobile collections will be supervised and staffed by trained employees. The wastes collected at those sites may be brought to the HWCF for further sorting, identification, packaging, and/or bulking. A separate plan will be developed and submitted for approval before any mobile collections are held.

H. Inspections

The facility will be inspected prior to scheduled HHW collection events and inspection records kept by Columbia County. Inspections will 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), but will also address all safety equipment, portable fire extinguishers, spill response equipment, first aid supplies, eye wash and safety shower units, ventilation, and PPE supplies. Additionally, inspections will record compliance with regulations and policies regarding waste storage.

I. Facility Closure

Columbia County does not foresee circumstances which would necessitate closure of the facility. However, in the event that closure for an extended or indefinite period is necessary, the County shall notify DEQ at least 30 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. The closure plan submitted to DEQ at the time of closure notification shall include an inventory of all hazardous waste then currently stored or existing at the facility, and provisions for its proper disposal. Also provided will be plans for complete decontamination of the facility and/or disposal of all buildings, equipment, surfaces and associated cleanup wastes. At the time of closure, soil surrounding the facility will be analyzed for contaminants and a plan submitted for any necessary remediation.

J. Product Reuse Program

Purpose and Approach to Reuse

In order to further Columbia County's commitment to the principle of waste reduction, and to encourage beneficial use of appropriate items, the product reuse program is intended to provide an opportunity for local residents and other organizations to reuse certain products which are accepted at the Hazardous Waste Collection Facility. This program will be provided to the extent that existing staff and contractor labor is available to monitor this activity.

Once the collection and disposal systems have been normalized, Columbia County will evaluate the best method and staffing options available to divert HHW and CEG waste from recycling, processing and disposal to waste reuse. The types of wastes eligible for reuse will be determined by Columbia County and every effort will be made by staff to divert eligible waste to reuse within the constraints of existing staff time and budget.

A reuse area has not been planned for the HHW facility at this time, but may be added to the program at some time in the future. Columbia County will notify the DEQ permit manager of any changes that would include starting a reuse program. As such, it has not yet been determined the exact location and configuration of the reuse area. As the normal operation of the facility is established in the early months, the best location and arrangement for the reuse area will be determined. The facility is designed with a flexible operating layout and site which would allow a reuse program to occur in a number of different locations at the facility. This reuse activity may be initiated as an internal staff only opportunity to pilot this concept and document use and potential cost savings.

Certain wastes are inappropriate to be offered for reuse by the community. Cancelled, suspended, and banned pesticides such as DDT and Chlordane will not be offered as reuse. On the other hand, full cans of unopened paint, automotive fluids, or household cleaners are prime candidates for reuse in the community. In general, products that arrive in poor condition or without intact labels in good condition or less than ½ full product containers are likely to be excluded from the reuse area.

Products destined for the reuse program would be screened for content, characteristics and condition.

Items not named in this plan, and canceled, suspended or banned pesticides specifically, will not be eligible for reuse. Pesticides intended for use by a commercial pesticide applicator will not be made available to the general public, but may be available to another agency or Columbia County for use by a qualified applicator. A partial list of the most common banned pesticides includes:

Creosote	Pentachlorophenol
2,4-D	Chlordane
2,4-Dinitrotoluene	DDT
Endrin	DDD
Heptachlor	DDE
Heptachlor Epoxide	Lindane
Methoxychlor	Toxaphene
2,4,5-TP (Silvex)	

Items in the reuse area will be in sealed containers which will be segregated by hazard class. Storage requirements for items in the reuse area will be the same as those for any other item in the facility.

Screening

Only select items are acceptable for placement in the public reuse program. These include paint (both alkyd and latex) and related solvents; motor oil, antifreeze and related automotive fluids; household cleaners; fertilizers, and other non-hazardous lawn and garden products. Products which are chemically incompatible with these materials will not be offered for reuse through this program or otherwise commingled; only flammable and combustible liquids, non-regulated materials and other items chemically compatible with flammable liquids shall be considered eligible for the program. For reusable items donated to agencies and non-profit organizations, items deemed unacceptable for the public reuse program could be included in the reuse program (but not banned pesticides); these items are stored inside the facility in accordance with general storage requirements and are not available to the general public.

Each container is checked to assure that its contents match its labeling, and that the contents are in usable condition. In most cases, partial containers more than half full are acceptable; however, in the case of automotive fluids, only sealed, unused containers are considered candidates for reuse. Products will not be bulked or combined, except that, for example, two partial containers of the same product of the same brand and formulation may be combined to yield one full container.

Customer Waiver Form

Customers who wish to take products for reuse must complete and sign a waiver form. Customers will be prohibited from dropping off items in the reuse area, even if the items are new, unused products. Organizations and agencies with legitimate need for products may ask for products to be held at the facility specifically for that customer. Columbia County will reserve the right to restrict or revoke any customer's access to the reuse program.

Spill Prevention and Response

Primary responsibility for spill prevention and response in the public reuse area lies with facility staff. Most containers in the reuse area are one gallon size or smaller, with five gallon size being the maximum allowed. As a result, any spills will be small enough to be easily addressed with absorbents. A spill kit containing a selection of universal and product-specific (oil only) sorbents will be kept in the reuse area, as well as a broom, dustpan, and grain shovel.

III. EMERGENCY PREVENTION AND RESPONSE PLAN

A. Spill Prevention and Control

Much of the focus of operational plans and procedures is to prevent the release of any hazardous waste to the air, ground, or water. Prevention of releases is accomplished through the development of, and strict adherence to, waste handling procedures, use of engineering controls, and spill cleanup protocols. No waste material shall be stored outside of the facility.

Pre-Opening Checks and Actions

Before opening the facility, staff will inspect the containment sump in the facility for waste and blown precipitation. Wind-blown precipitation is likely to occasionally land inside the containment system and flow by gravity to the sump. This water is likely to be uncontaminated but should be examined for oil sheen or other visible contaminants and potentially tested for pH and other simple tests if there may be wastes in the sump. If wastes are found in the sump, the source of the waste should be immediately determined and measures taken to stop the leak if within the skills and training of the staff. Any uncontaminated stormwater will be removed from the unloading area by squeegee and absorbents or pump to the surface water management system.

Additionally, staff will inspect the fence perimeter at the beginning of every facility operations day for any abandoned waste material. Abandoned waste found shall be logged into the facility by type and quantity.

Waste Handling

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

Receiving/Unloading Area

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 in this plan as unacceptable.

Containers holding acceptable wastes will be inspected for container integrity before they are removed from the customer's vehicle. Containers which appear to be leaking or weakened will be overpacked 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; carts shall be rolled into the segregation area inside the facility as soon as they are full.

Sorting and Packaging Areas

In the sorting area, wastes will be placed into shipping containers or if needed characterized, field tested and routed to the appropriate area for packing. Loose- and lab-packing of some materials will be performed in this area; all bulking will be performed in the designated area of the facility.

Sorting tables and wheeled carts are equipped with a raised perimeter lip to prevent runoff onto the floor. 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.

All wastes will be strictly 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.

Storage Areas

All containers in storage areas shall be DOT approved shipping containers in good condition; containers will be inspected before they are filled and again before they are placed in storage. Lids and bung caps shall be secured and sealed tightly. Materials in the storage areas shall remain segregated by

hazard class, with the most reactive wastes stored separately in hazardous materials storage cabinets. All hazardous materials are to be stored inside the fenced and locked area when staff are not present.

Engineering Controls

Facility Construction

The HWCF is designed to contain any spills and to prevent the escape of any spill to the surrounding ground or water. There are no drains or sumps with outlets inside the facility. The floors inside the waste handling and storage areas of the facility are sloped towards the sump. The floor was poured as a single slab without joints. Except for the bulked flammable liquids, all hazardous wastes are loose- or lab-packed and the immediate container provides secondary containment. This secondary containment precludes mixing of incompatible wastes. The floors and trenches are coated with chemically-resistant epoxy to contain any waste spilled until it can be cleaned up.

The surrounding pavement is sloped away from the HWCF to divert run-on from the facility to the stormwater control system. The design of the unloading area slab (epoxy-coated concrete) is pitched inward at 2% slope to ensure that any spill which occurs during unloading will remain in the unloading area.

The facility will rely on mechanical ventilation to avoid hazardous atmospheres in the flammable liquid bulking area once it begins bulking. Reactive wastes, corrosives and oxidizers are stored in hazardous materials storage cabinets, with built-in secondary containment.

Spill Response

Any spill of any potentially hazardous material shall be occasion for immediate response by personnel trained in proper spill response techniques. Most incidental spills can be managed by trained staff. Spills meeting the guidelines below shall be documented on an incident report form:

Flammable liquids: Spills greater than one gallon.

Corrosives: Spills greater than one gallon.

Poisons: Spills greater than one gallon.

Oxidizers, reactives, peroxides, water reactives, mercury: Any size.

The incident report will document the type and amount of material involved and corrective measures taken; all records will be maintained in the facility operating records for the life of the facility.

Small spills will be cleaned up using a compatible absorbent 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 solvents).

The definition of a small spill will depend on the nature of the material that is spilled. It will be up to the discretion of the person in charge to determine when the local fire department's Hazmat Team shall be called, but 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 or unknown materials that are spilled will be immediately referred to the Hazmat Team by dialing 911, or by calling one of the Hazardous Materials Contractors listed in the Emergency Response section below.

Small spills occurring in the unloading area will be contained on the surface of the slab and cleaned up with absorbent. After characterization, the collected material may be placed into approved containers for final disposition. In the event that field tests are unable to characterize the collected waste, it will be packaged, shipped and incinerated as a poison.

In all cases, Columbia Fire and Rescue shall be immediately notified of all spills outside the structure and significant spills inside the structure.

B. Emergency Equipment and Response

Equipment On-Site

Safety Equipment

In addition to spill clean-up materials and standard personal protective equipment (PPE), the facility is supplied with first aid materials, spill kits, an approved safety shower/eyewash for decontamination of personnel, and portable fire extinguishers (see Figure 2 for approximate locations).

Communication Equipment

Communication will be via cell phone.

Fire Protection Equipment

The facility is equipped with a heat sensor fire alarm and strobe which can also be manually activated. In the event of a fire inside the facility during operating hours, staff will evacuate all personnel (including any customers) from the facility immediately. Depending on the circumstances of the fire, a general site evacuation order may be given.

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 flammables. In this case, portable fire extinguishers may be used to limit the potential of the fire to spread to the drum storage area. If at any time the automatic fire alarm sounds, all employees will evacuate the facility.

Portable extinguishers are located in the facility as required by the fire department, most likely with a rating of between 10-B and 40-B for flammable liquids. HWFC staff must be trained in the use of portable fire extinguishers. A combination of sizes of portable fire extinguishers may be allowed by the fire dept.

Equipment Maintenance and Testing

All safety equipment will be maintained as recommended by the manufacturer and tested according to any applicable regulation or manufacturer's recommendation.

Portable fire extinguishers will be inspected by facility personnel once a month; noted will be gauge condition, integrity of the safety seal and overall condition. Annually, a fire extinguisher service company will inspect and service each extinguisher as necessary. All staff must have approved fire extinguisher training.

Emergency Response Procedures

In the event of a spill, fire or other emergency which poses an immediate threat to the safety of customers or employees, facility personnel on duty are authorized to evacuate the facility. If necessary, the entire Columbia County Transfer Station site may be evacuated with the consent of the Columbia County Site Supervisor or other available management personnel. In the absence of an ability to readily communicate with management personnel, facility staff are authorized to order a site evacuation.

In the event of a general site evacuation, site personnel will notify employees and the appropriate authorities, either by phone or via two-way radio as soon as practical.

Emergency Contact Personnel

In the event of an emergency (fire, spill, natural disaster, or medical emergency) in the facility, the following Columbia County personnel will serve as emergency coordinators in the order listed:

Columbia County Site Operations Manager

Nathan Smith

Mobile phone: (360) 949-5349

Work Schedule: M-F 7 AM – 5 PM

Solid Waste Administrator

Michael Russell Public Works Director/Solid Waste Administrator

Office phone: (503) 397-5090

Mobile phone: (541) 731-2684

Work Schedule: M-F 8:00 AM– 5:00 PM

Solid Waste Program Coordinator

Kathy Boutin-Pasterz

Office phone: (503) 397-7259

Mobile phone: (971) 203-8121

Work Schedule: M-TH 7:00 AM– 5:00 PM

Maintenance Staff Contact

John Ray

Mobile phone: 503-369-7865

Work Schedule: M-TH 7:00 - 5:00PM

In the event of any emergency requiring evacuation of the facility or the site, or any fire, all of the above personnel will be notified. The emergency coordinator will be responsible for notifying emergency services providers (police, fire department, hospitals) as well as any appropriate regulatory agencies (ODEQ, OR-OSHA, etc.).

Facility staff are equipped and trained to contain and clean up many spills, but will not attempt further action in the case of a large spill. In this case, a hazardous waste contractor will be retained to perform necessary cleanup.

In the event of an emergency requiring immediate action beyond the capabilities of facility and site personnel, a hazardous waste contractor shall be called to provide assistance.

In any situation requiring immediate response, the contractor or other service provider able to provide a working crew on site with the least lead time will be selected.

Spill Response

Small spills will be cleaned up as they occur by facility personnel. In most cases, a suitable absorbent material and hand tools will suffice. However, larger spills may require different techniques. Since the facility includes a containment sump, leaked or spilled materials will be contained there. The floor is covered with an epoxy coating to prevent materials from migrating through the slab. It will be up to the discretion of the person in charge to determine when the a Hazmat Team shall be called, but 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 or unknown materials that are spilled will be immediately referred to the HazMat Response Team by calling 911, or by calling one of the 24 hr. contractors listed above.

In the event of a large spill, leak or accumulation of run-on where absorbents would not be a feasible method of clean-up, it is likely that a hazardous waste contractor would be called upon to clean the facility using vacuum equipment or other method(s) as appropriate.

For working purposes, large spills will be 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 302 - Table 302.4, except as provided in OAR 340-108-0020(6). A copy of CFR 40 Part 302 is located in the PPE cabinet against the center fence of the HWCF. 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 Management System	1-800-452-0311
National Response Center	1-800-424-8802
Oregon Department of Environmental Quality	1-503-229-5353

This emergency response plan will be submitted to the following emergency service providers and agencies for review and must be approved before operations may commence:

Columbia County Fire and Rescue
Regional HazMat Team
OR-OSHA /Portland Office
Oregon Dept. of Environmental Quality, Portland regional office
Oregon State Police Department, Bomb Squad

These agencies and service providers will be familiarized with the facility and any concerns addressed. All will be advised of any changes to the facility or its operations.

All other emergency responses needed, fire, police, medical, natural disaster, call 911 for help.

IV. WASTE CATEGORIES AND MANAGEMENT

<u>Category</u>	<u>Packing Type</u>	<u>Management Method</u>
Acids/Bases	loose/lab	TSD
Flammable Liquids	bulk	TSD/fuel blender
Flammable Solids	loose	TSD/fuel blender
Batteries - NiCd	loose	RBRC
Batteries - button cell	loose	TSD
Batteries - alkaline, other	loose	TSD
Oxidizers	lab	TSD
PCB's	loose	TSD
Poisons	lab	TSD
Pesticides	lab	TSD
Paint, Oil-based	bulk or loose	TSD
Latex	loose	Portland Metro
Aerosols, poison	loose	TSD
Water reactives	lab	TSD
Other chemicals	lab	TSD
Propane cyl., <i>refer to</i>	Solid Waste Transfer Building	Recycled
Fluorescent tubes, <i>refer to</i>	Solid Waste Transfer Building	Recycled
Small arms ammo	lab	TSD
Smokeless powder	lab	TSD
Lead Acid Batteries, <i>refer to</i>	Solid Waste Transfer Building	Recycled
Motor oil, <i>refer to</i>	Solid Waste Transfer Building	Alternative fuel
Antifreeze, <i>refer to</i>	Solid Waste Transfer Building	Recycled

APPENDIX 1 - FORMS AND RECORDS

This is a summary of records described in the preceding sections. All records will be maintained by the Columbia County office of Solid Waste Administrator main office. All records will be retained for a minimum of three years.

User survey form: Records amount and type of waste(s) received, as well as demographic information, and includes a statement that the waste is of household origin.

Drum log: Attached to each lab-packed drum; lists the contents of the drum. A copy remains attached to the drum through storage and shipping. This requirement may vary as required by the hazardous waste contractor.

Manifests: All hazardous waste shipped off-site by a hazardous waste disposal contractor is recorded on a DOT hazardous waste manifest.

Inspection checklist: Inspections checklist will include all safety equipment and systems, as well as housekeeping requirements and storage area compliance.

Incident report form: Any abandoned, prohibited or regulated waste, equipment failure, large spill or other incident is to be documented on a standard Incident Report Form.

Reuse waiver: Anyone taking products from the reuse program must sign the disclaimer. **Statement**

of Generator Status: used when a load is suspected of being of commercial origin. **Additional:**

Personnel records, including training and medical records, are maintained by Columbia County and will be kept on file at the main office.

Columbia County Household Hazardous Waste Facility

Incident Report Form

Date _____ Time _____

Type of incident (e.g., abandoned waste, regulated generator, vehicle accident, equipment failure, spill, fire, injury)

Name 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:

Name and title

Columbia County Household Hazardous Waste Facility

Drum Filling and Shipping Records

Drum ID #	Hazard Class (DOT)	Waste Type	Start Date	End Date	Shipping Date

APPENDIX 2 – FACILITY INSPECTION LOG

WEEKLY INSPECTION COLUMBIA COUNTY TRANSFER STATION AND HHW FACILITY

Person Inspecting _____ Date of Inspection _____

Transfer Station Site:

- G Inspect Grounds litter and flying debris.
- G Inspect recycling area for litter and misplaced items.
- G Inspect perimeter fencing for damage and evidence of vandalism.
- G Inspect paving for damage and evidence of chemical spills
- G Inspect storm drain catch basins for need of cleaning
- G Inspect sewage sump for accumulation of floating debris.
- G Inspect directional signs and painted direction arrows.
- G Inspect planting areas for weeds, damage and maintenance.
- G Inspect wetland area for litter and other damage.
- G Inspect curbing for damage
- G Check outside night lighting once a month

Comments:

Transfer Station Building:

- G Inspect overhead doors for damage and operation
- G Inspect outer metal covering for damage and report if found
- G Inspect french drains at doors for blockage and need of cleaning
- G Check fire extinguishers location and damage.
- G Check eye wash station for damage and test flow monthly.
- G Inspect push wall for structural damage.
- G Inspect hazardous and petroleum storage areas for proper containment
- G Check for spills and leaking containers.
- G Are containers overflowing or in need of batching for disposal.
- G Check lighting for burned out or damaged lights.
- G Inspect Compactor pit for debris
- G Inspect sump area and sump pumps for proper operation.
- G Inspect hydraulic lines and pumps for damage and leaks

Comments:

Maintenance, Truck Wash and Storage Building:

- G Inspect exterior of building for physical damage and report damage noted.
- G Inspect wash rack hoses and connections for damage.
- G Inspect sump and french drain for need of cleaning.
- G Inspect interior walls for damage.
- G Inspect grease and oil containers for spills and damage to lines and fittings.

- G Inspect flammable liquid storage is maintained and items are secured.
- G Inspect lighting for burned out or damaged fixtures.

Comments:

Household Hazardous Waste Facility:

- G Inspect exterior of building for damage and report any found.
- G Inspect floor surfaces for damage and spills and note repairs needed.
- G Check to see if any HHW materials present and not contained.
- G Check to see if HHW area is secured by lock.
- G Check all temporary storage of hazardous materials secure and in marked containers.
- G Inspect lighting for burned out bulbs or damaged fixtures.
- G Check function of work area exhaust fan.
- G Check vapor and fire detector annunciator panel for possible malfunction.
- G Inspect and test eye wash station for proper operation.

Comments:

Incident Response Levels Chart

	Incidental Spill	Response Level 1	Response Level 2	Response Level 3
Incident Type	<input type="checkbox"/> No exposures <input type="checkbox"/> Easy access <input type="checkbox"/> No release to air, water, sewer, soil <input type="checkbox"/> Single type of known material spilled, no potential to mix <input type="checkbox"/> Paint, oil, antifreeze: <5 gal <input type="checkbox"/> Acid: <1 gal (hydrochloric, sulfuric, phosphoric only) <input type="checkbox"/> Known acid fumes < 1 cubic foot <input type="checkbox"/> Single pesticide: <1 qt./lb. Liquid/solid <input type="checkbox"/> Flammable liquid: <1 gal <input type="checkbox"/> No heat / sparks, or fire potential <input type="checkbox"/> Easily contained	<input type="checkbox"/> No injury³ <input type="checkbox"/> Reported odor <input type="checkbox"/> Easy access/ not restricted ¹ <input type="checkbox"/> No heat / sparks or fire potential <input type="checkbox"/> Small liquid or solid spill <5' x 5' <input type="checkbox"/> Known materials <input type="checkbox"/> Mixed materials, not reacting <input type="checkbox"/> Acid fumes generated <1 cubic yard <input type="checkbox"/> Dissipates immediately <input type="checkbox"/> PH test to confirm acid <input type="checkbox"/> If fumes are not from known acid, retreat and upgrade <input type="checkbox"/> Releasing propane, not restricted, no fire potential <input type="checkbox"/> Uncontained asbestos < 3 ft release	<input type="checkbox"/> No injury³ <input type="checkbox"/> Restricted access ² <input type="checkbox"/> Large spill > 5' x 5' <input type="checkbox"/> Unknown liquid / solid <input type="checkbox"/> Labeled poisons <input type="checkbox"/> Mixed materials, possible reaction / no fire <input type="checkbox"/> Acid Fumes, >1 cubic yd. <input type="checkbox"/> Unknown fumes > 1 cubic yd, dissipates quickly <input type="checkbox"/> If fumes rapidly expand or do not dissipate within 10 minutes, upgrade <input type="checkbox"/> Releasing propane in restricted area / no fire potential <input type="checkbox"/> Uncontained asbestos >3 ft. release	<input type="checkbox"/> Fire, not immediately extinguished or involving chemicals <input type="checkbox"/> Rescue <input type="checkbox"/> Single serious exposure injury <input type="checkbox"/> Multiple exposure injuries <input type="checkbox"/> Any facility user requiring decon <input type="checkbox"/> Bombs/ high explosives, bomb threat <input type="checkbox"/> Any LEL >10%, sustained for 1 minute or at 10' from spill <input type="checkbox"/> Mixed or unknown materials reacting - generating heat, smoke or fire <input type="checkbox"/> Unknown compressed gas cylinders, releasing <input type="checkbox"/> Any material generating large or rapidly expanding fume or smoke <input type="checkbox"/> Any potential for fume to migrate off-site
Expected Actions	<input type="checkbox"/> Clear / secure area <input type="checkbox"/> 24 hr. trained responders <input type="checkbox"/> Buddy system <input type="checkbox"/> Level C (FF APR) <input type="checkbox"/> Incidental Spill SOP	<input type="checkbox"/> Clear / secure area <input type="checkbox"/> 40 hr. trained responders <input type="checkbox"/> 3 person ERT <input type="checkbox"/> Level C -FF APR (Level B is optional) <input type="checkbox"/> Air monitoring recommended <input type="checkbox"/> Safety Officer required <input type="checkbox"/> Verbal Ops Plan (SERB)	<input type="checkbox"/> Alarm or verbal evacuation <input type="checkbox"/> Large team ERT , <input type="checkbox"/> Use ERT Checklists as needed <input type="checkbox"/> IC / Ops / Safety Officer assigned <input type="checkbox"/> Assessment with air monitoring <input type="checkbox"/> Level B ² <input type="checkbox"/> Written Ops Plan /SERB	<input type="checkbox"/> Alarm evacuation <input type="checkbox"/> Large Team ERT <input type="checkbox"/> IC / Ops / Safety <input type="checkbox"/> Level B <input type="checkbox"/> Level A Haz-Mat if needed <input type="checkbox"/> SERB, Ops plan
Notification	<input type="checkbox"/> People in area <input type="checkbox"/> EC's on Site	<input type="checkbox"/> People in area <input type="checkbox"/> EC's on Site <input type="checkbox"/> Columbia County contact	<input type="checkbox"/> People in area <input type="checkbox"/> EC's on site <input type="checkbox"/> Columbia County contact <input type="checkbox"/> Immediate to MST	<input type="checkbox"/> 9-1-1 <input type="checkbox"/> Columbia County contact <input type="checkbox"/> Immediate to MST <input type="checkbox"/> Unify or transfer command to fire or haz-mat (IC / CSO) <input type="checkbox"/> Oregon Emergency Response System (800) 452-0311
Reports	<input type="checkbox"/> Spill Summary	<input type="checkbox"/> Spill Summary	<input type="checkbox"/> Written Ops Plan <input type="checkbox"/> Spill Summary <input type="checkbox"/> Debrief report / IC report	<input type="checkbox"/> Written Ops Plan <input type="checkbox"/> Spill Summary <input type="checkbox"/> Debrief report / IC report

<ol style="list-style-type: none"> 1. Restricted areas (i.e. Pit, compactors): Upgrade all potential incidents 1 level 2. Level C w/ air monitoring or Level B required 3. Splash to clothing or skin: Level C to assist victim, provide proper decon, 9-1-1 or CSO assessment (public exposure, call 9-1-1) 4. Definition of terms:
<p>Ops Operations ERT Emergency Response Team Qt Quart Gal Gallon LEL Lower Explosive Limit FF APR Full Face Air Purifying Respirator ERT Emergency Response Team SOP Standard Operating Procedure IC Incident Commander</p>