

Appendix H – Environmental Health

- Operations Plan: Bow Lake Transfer/Recycling Station
- Environmental Protection Plan (Example)
- Hazardous Materials Emergency Response Plan
- Public Health Memorandum (2006)

King County Solid Waste Division Bow Lake Transfer & Recycling Station Operating Plan

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Introduction

This Operating Plan has been developed in accordance with WAC 173-350-310. Significant deviations from this plan are noted in the operating record. Documents and forms provided in appendices are for reference only and are subject to change; changes are made in accordance with any regulations, policies and procedures applicable to the document or form. The Department of Ecology and the jurisdictional health department will be notified of substantive changes to appendices; changes affecting required plan elements may require approval.

Bow Lake Transfer Station Overview

The Bow Lake Transfer Station is located at 18800 Orillia Road South in the cities of Tukwila and Sea-Tac and in unincorporated King County. The facility is bordered by I-5 on the west side and by undeveloped property on other sides. The perimeter of the site is fully fenced.

The station is designed for collection and transfer of mixed municipal solid waste from commercial and self-haul vehicles. The types of solid waste accepted include garbage, rubbish, yardwaste, and certain other wastes, such as CDL, as limited by the Waste Acceptance Rule for King County Solid Waste Division Solid Waste Handling Facilities (Appendix A).

Primary recyclables (glass, tin, aluminum cans, mixed waste paper, newspaper and #1 and #2 plastic bottles) are accepted at no cost and household appliances are accepted with payment of a fee. The King County Comprehensive Solid Waste Management Plan establishes policy for collection of recyclables at transfer stations.

Operating Days and Hours

Operating days and hours are posted at the Transfer Station entrance (Appendix G).

Operating hours at King County Solid Waste disposal facilities are determined by the Solid Waste Division Director in accordance with the policies and process contained in King County Code 10.10.020 and 10.10.025 (Appendix H). In accordance with 10.10.025, the Department of Ecology and the jurisdictional health department will be notified of changes to operating hours.

Site Access & Signage

All vehicles enter and exit the Bow Lake Transfer Station from the Orillia Road entrance at the south end of the site. Before entering the facility's main gate, customers have the option to proceed to the No-Fee Recycling Area. Locking gates at both the recycling area and main station entrance restrict access when the station is not open to the public.

Signs at the facility entrance identify the name and address of the site, phone number, hours of operation, and materials that are not accepted.

Upon entering the station, customers disposing of solid waste and/or fee recyclables stop at the scale house. The scale house is where vehicles are weighed, fees are assessed and transaction data are recorded. There is a scale on either side of the scale house; one for inbound traffic and one for outbound traffic. Either scale may be used for both inbound and outbound weights should one scale be inoperable. The Scale Operator may ask customers questions pertaining to the load to ensure that customers are bringing in only acceptable waste and offer information about disposal options for unacceptable materials. Customers may also ask questions or request information.

Facility Operation & Waste Handling

At this facility, commercial and self-haul customers dump into a shallow pit located in a partially enclosed Transfer Building. There are two entrances to the transfer building, one for the public and one for commercial haulers and other large dump vehicles. Commercial haulers and other dump vehicles use the west side of the Transfer Building; self-haul customers use the east side of the building. When commercial haulers are not present, self-haul customers may use the west side of the building. Safety cables are installed as a precautionary measure to keep customers and staff from falling into the pit. For safety reasons, customers are instructed to keep children and pets inside the vehicle, and not smoke while in the Transfer Building. Commercial customers are instructed to open and close container doors on the tipping floor of the Transfer Building.

A track dozer in the pit is used to break down and push solid waste into a transfer trailer located in a chute below the level of the pit floor. Solid waste in the trailer is then further compacted by a stationary compactor.

Transfer Station Operators, using a yard goat, pull the loaded trailer from the chute, close the lid, and park it in the loaded trailer parking area. From there, it is hauled to Cedar Hills Regional Landfill for disposal.

If a partially full trailer is in the chute when the station closes, it is pulled from the chute and parked on the chute apron with lids closed; it is returned to the chute when the station reopens to complete loading.

For trailers requiring immediate attention due to odors or other issues, the Transfer Station Operator contacts the Transportation Lead to request the trailer's removal. The Special Waste Unit is contacted to supervise waste handling if necessary.

Trailers observed to be leaking may be hauled and dumped, then deadlined for repair, or may be held at the station for repair prior to hauling if the problem is significant. Trailers with doors or lids that will not close are held at the station to be repaired prior to hauling.

Empty trailers, brought from Cedar Hills Regional Landfill, are stored in the empty trailer parking area. As an empty trailer is needed, a yard goat is used to place it the chute.

The pit design gives this facility the ability to accept surges of solid waste. Waste can continue to be received although all trailers on site may be full. The maximum facility capacity is 45,600 cubic feet in the pit and ten full trailers.

Transfer Station Operators have the authority to close the transfer station if it reaches capacity. When the level of waste in the pit reaches the level of the tipping floor, the pit is considered to be full. Capacity may be reached due to equipment breakdowns or lack of empty transfer trailers. Depending on the situation, customers may be held on site or re-routed until the pit level is less than full. If prolonged closure is expected, commercial garbage haulers are contacted and redirected as necessary.

Control of Materials

Unacceptable Waste - Control

The Transfer Station does not accept waste types that are prohibited by the Waste Acceptance Rule for King County Solid Waste Division Solid Waste Handling Facilities (Appendix A).

Control of wastes is carried out through signage that provides specific information concerning the quantity and type of waste accepted at the facility and through observation by staff.

- Signage at the station entrance informs users of prohibited wastes.
- Upon entering the site every customer stops at the scale house where the Scale Operator visually inspects the load when possible, asks the customer questions about their load as needed, and denies access to vehicles carrying prohibited wastes. The Scale Operator contacts the Transfer Station Operator by radio if prohibited wastes are suspected.
- Transfer Station Operators observe customers unloading solid waste into the pit when possible. Transfer Station Operators take steps to minimize the time when a Transfer Station Operator is not present on the floor while customers are unloading.
- Waste Screeners from the Special Waste Unit perform periodic visual screening of mixed municipal solid waste as it is being disposed in the pit. Their observations are documented and may lead to citations if waste hauling/disposal violations are detected.
- Waste Screeners from the Special Waste Unit perform periodic visual screening of solid waste hauled from the Bow Lake Transfer Station, as it is unloaded at the Cedar Hills Regional Landfill.
- Scale Operators, Transfer Station Operators or Waste Screeners provide information about disposal options for unacceptable materials.

Unacceptable Waste - Handling

Should prohibited waste inadvertently be dumped in the pit, Transfer Station Operators can remove the material. Prohibited wastes removed from the pit are returned to the customer whenever possible. Prohibited waste that cannot be returned to the customer is placed in a special container (a “clamshell”) located on the tipping floor. Personnel from the Special Waste Unit collect unacceptable waste for proper disposal during their regularly scheduled site visits. If a particular item or material is unusual or cause for concern, the Special Waste Unit is contacted and asked to make an immediate pick-up.

If suspected asbestos has not yet been unloaded, the load is refused, and the customer is referred to the Special Waste Unit for disposal instructions. If the suspect material is in the pit, the pit is closed until instructions are received from the Special Waste Unit. If the suspect material is in a trailer, the trailer is removed from the chute, and tagged to prevent hauling until instructions are received from the Special Waste Unit.

While customer unloading is generally unsupervised at the No-Fee and Fee Recycling Areas, Transfer Station Operators monitor the process as time allows and remove non-recyclable materials. Acceptable waste is disposed in the pit; unacceptable waste is managed as described above.

Hazardous or dangerous wastes that inadvertently enter the waste stream are subject to the requirements of the Dangerous Waste Regulations (WAC 173-303). The operator who discovers regulated waste is required to contact a supervisor and/or the Special Waste Unit for waste disposal instructions.

Unacceptable waste is documented on the Unacceptable Waste Report (Appendix I).

Burning Debris

Vehicles that enter the site with burning debris are not allowed to dump. On-site personnel call 911 and if possible direct the vehicle to a location away from buildings and equipment. Should it be impossible for the customer to safely move the vehicle out of the transfer building, the building is evacuated; depending on the situation, it may be necessary to evacuate the site.

Burning loads may be dumped onto the ground under direction of the Fire Department. Under no circumstance is the vehicle allowed to dump into the pit. Should burning material inadvertently be dumped into the pit, the transfer building is evacuated, 911 is called and a supervisor or manager is notified. On-site staff follows directions of the Fire Department.

Scavenging

All scavenging (a.k.a. salvaging) of any material, by employees or the public, is prohibited.

Safety & Emergency Plans

Safety and emergency response procedures are detailed in the First Response Quick Reference Guides for Transfer Station Operators and Scale Operators (Appendix B). The Hazardous Materials Emergency Response Plan (Appendix C) contains detailed information about topics such as spill containment and clean up.

The locations of safety and emergency equipment such as fire hydrants, first aid kits, eye wash stations, and telephones are shown on the station site map (Appendix D).

For power outage or other external electrical emergencies, Puget Sound Energy, 1-888-225-5773, is the electricity service provider. Emergency power is available.

For water or sewer emergencies, the first point of contact is the Site Engineer who will contact the appropriate utility if needed.

The general guideline for emergencies is that the person who first observes the incident assumes or delegates command until other authorities arrive.

Transfer Station Operators have the authority to close the transfer station due to any unsafe condition. Unsafe conditions may include fire, earthquake or strong wind. If prolonged closure is expected, commercial garbage haulers are contacted and redirected as necessary.

Solid Waste Division staff receives required safety training, including asbestos awareness, blood borne pathogens, MSDS, and fire extinguisher training. Staff is required to use personal protective equipment appropriate to the job.

Personnel and Staffing

The facility is staffed as necessary to carry out daily operations. At a minimum one Transfer Station Operator is present during hours that waste is accepted. Other staff members working at the facility may include Scale Operators, Waste Screeners (the Special Waste Unit), maintenance personnel, Truck Drivers and Supervisors. Additional personnel are present as needed. Staff is scheduled to work according to operational needs, as assigned by the responsible Solid Waste Supervisor or Manager.

Operating Records

Operating records are maintained in hard copy or electronic form depending on the record, and are kept in a variety of locations. Records are kept for a minimum of five years. The Health Department may review records upon request to the Transfer Station Supervisor or Operations Manager.

Waste Received: Data recorded in the cashiering computer system includes the weight and type of waste. If the computer system is inoperable, transaction information is hand recorded and entered later. A computer record of each transaction is stored in the on-site computer until transfer to a central computer system for long-term storage. (Appendix E: Forms Used to Record Volumes or Weights)

Waste Removed: Municipal solid waste removed from the site is transferred to the Cedar Hills regional landfill for final disposal. As a full trailer enters the Cedar Hills site a record of the load is created; a computer record of each transaction is stored in the on-site computer until transfer to a central computer system for long-term storage.

Recyclable materials are removed from the site by a contractor who provides information about the specific commodity and weight of the load to the Solid Waste Division sometime after removal; this information is maintained in a computer database.

Maintenance Activity: Equipment and facility maintenance may be documented in the maintenance logbook, which is kept on site. Maintenance activity may also be recorded in the computerized equipment and facility work order system or another computer based maintenance record system.

Self-Inspections: Completed weekly, monthly and quarterly inspection reports are retained in the facility logbook short term and are removed by the supervisor quarterly for long term storage off site in hard copy or electronic form. Other self-inspections are maintained as described. See Self-Inspections below for details.

Regulatory Agency Inspections: Completed inspection reports are retained off site by the Operations Manager's office and by the Division Director's office.

Annual Report

The Solid Waste Division prepares and submits a copy of an annual report to the jurisdictional health department and the Department of Ecology (DOE) on forms supplied by DOE.

Maintenance

Transfer Station Operators are responsible for day to day upkeep of the transfer stations; this includes tipping floor sweeping and wash down, on-site litter collection and vegetation control. Transfer Station Operators are also responsible for initiating work orders for repairs and maintenance that are outside the scope of their duties.

Shop personnel inspect all heavy equipment weekly and perform preventative (scheduled) and demand (unscheduled) maintenance on equipment and facilities.

A centralized work order request system is operated out of the Cedar Hills Shop for initiating, tracking and keeping records of preventative and demand maintenance work. Demand maintenance work may be requested as a result of an inspection or as need is determined.

Facility and equipment maintenance may also be performed by contractors or other County agencies as needed.

Inspections

Routine and periodic inspections are performed by regulatory agencies and the Solid Waste Division through self-audit to ensure operational and facility compliance with environmental, public health, and waste management regulations. Facility inspection reports are a component

of the operating record. Records are kept for a minimum of five years. The Health Department may review records upon request to the Transfer Station Supervisor or Operations Manager.

Self-Inspections

Periodic inspections are conducted by staff, supervisors, and/or technical/engineering staff to ensure operational, maintenance, safety, security, and regulatory conditions are met. The inspections are a formal way of documenting site condition and looking at items that may not be obvious during normal operations. If unacceptable conditions are observed while operating, on-site staff addresses the issue promptly without waiting for an inspection to take place.

(Appendix F: Self-Inspection Forms)

Instructions For Self-Inspections

- Note any unacceptable conditions. Correct the condition if it is within the scope of duties; contact the appropriate person or complete a work order if it is not. Note the action taken.
- Do not wait for an inspection to report or correct unacceptable conditions observed during normal operations.

Weekly Transfer Station Inspection: A weekly inspection of the station is performed by a Transfer Station Operator, Transfer Station Supervisor or Health & Environmental Investigator II. The inspection requires an inspection form to be completed (Appendix F). The purpose of this inspection is to ensure that the station is being maintained in a manner that will prevent deterioration or the release of wastes to the environment that could pose a threat to human health. Included in the weekly inspection are:

- Equipment and structures
- Signs, fences, gates
- Odors and dust
- Catch basins and drains
- Birds, rodents, insects, other vectors
- Vegetation control

Monthly Safety Inspection: A Transfer Station Operator performs this inspection on a monthly basis to verify the presence and proper operating condition of safety-related materials and systems.

Quarterly Transfer Station Inspection: A Transfer Station Supervisor performs this inspection to determine overall conditions of the station. The prior quarter's inspection forms are collected from the site at the time of this inspection and become part of the operating record.

Quarterly Safety Inspection: The Division Safety Officer performs this inspection to identify and document potential safety hazards. The Safety Officer retains these inspections.

Annual Facility Inspection: Annually, staff from the Operations and Engineering Sections inspects each station. The purpose of this inspection is to check the general condition of all the systems at the station and determine future Capital Asset Maintenance Program needs. The Engineering Section retains these inspections.

Regulatory agency inspections include the following:

Public Health – Seattle & King County: Public Health conducts inspections during both operating and non-operating hours to monitor compliance with solid waste handling regulations (King County Board of Health Code – Title 10).

Washington State Department of Ecology (Ecology): Periodic inspections may be conducted by Ecology to ensure that Public Health - Seattle and King County is adequately enforcing the King County Board of Health Code – Title 10 standards and to ensure these standards are at least as stringent as the State's solid waste handling standards (WAC 173-350). A supervisor from the Solid Waste Division accompanies the inspector.

Puget Sound Clean Air Agency (PSCAA): Periodic inspections are made by PSCAA to monitor air quality.

Fire Marshall and Local Agencies: Periodic inspections are made by local agencies and officials such as the Fire Marshall to monitor conditions and compliance with codes.

Department of Labor and Industries: Periodic inspections of work-safety conditions are conducted by this agency. A supervisor from the Solid Waste Division accompanies the inspector.

State Boiler Inspector: A Department of Labor and Industries Boiler Inspector performs regular inspections on pressurized equipment such as the potable water system equipment.

Environmental Controls

Odor Management Plan

- Tipping floors in the Transfer Building are thoroughly swept and/or washed once each day and are swept and/or washed throughout the day as needed to control odors.
- Excessively odiferous loads may not be accepted and/or may be directed to the Cedar Hills Landfill for disposal. When a waste clearance is issued the generator is queried to determine whether excess odor is likely; in that case the load is directed to Cedar Hills. For materials brought directly to the transfer station, the Transfer Stations Operator, or Waste Screener if present, informs the customer if their load is excessively odiferous that future loads should be brought to Cedar Hills. Public Health may be notified if the customer continues to bring in excessively odiferous loads. Excessively odiferous loads are documented on the Unacceptable Waste Report (Appendix I).
- Transfer trailers are covered by heavy tarp lids to contain odor.
- For trailers requiring immediate attention due to odors coming from the trailer, the Transfer Station Operator contacts the Transportation Lead to request the trailer's immediate removal.
- Transfer Station Operators wash trailer parking areas and the trailer chute on Sunday and during the week as needed and as time permits.
- The Division's sweeper truck washes paved areas weekly; an odor neutralizer may be used.
- A contractor pressure washes paved areas once a month.
- Burning of waste is prohibited.

Dust Control

- Unloading occurs under cover of the Transfer Building to manage fugitive dust.
- A spray misting system is used in the Transfer Building to control dust. A "fogger" nozzle on the water hose may also be used.

- Excessively dusty waste may not be accepted unless bagged or wetted, or may be directed to the Cedar Hills Landfill for disposal.
- The Division's sweeper truck washes paved areas weekly to control dust.

Vector Control

The on site buildings were designed and constructed to eliminate harborage for rodents, insects, and other vectors. When specific problems are identified, physical evidence and the surrounding area are examined to help identify the source, and address the problem at the source. The specific resolution is source dependent and will vary.

Rodents

- On a regular basis, a contracted vendor places and maintains bait stations and traps. If rodent activity is observed between visits by the contractor, a revisit by the contractor may be arranged.
- Feeding of animals, such as birds or squirrels, is prohibited. All food kept on site is to be kept in sealed containers.
- Rodent habitat is discouraged by vegetation and litter control.

Birds

- Wires have been extended above the pit to discourage the congregation of birds.
- Transfer trailers are covered by heavy tarp lids to minimize attraction.

Insects

- Upon request, a contracted vendor sprays for insects.
- Containers of stagnant water are not allowed.

Surface and Groundwater Protection

Runoff from the empty and loaded trailer parking area, the chute, the tipping floor and the pit drains to a holding tank; it is then pumped into a tanker truck and transported to Cedar Hills for discharge into the sanitary sewer system. The holding tank has a remote alarm through a SCADA system and an on-site alarm.

The wastewater is pumped into a tanker truck and transported to the Cedar Hills Regional Landfill for pretreatment and conveyance to the King County wastewater treatment plant in Renton. The wastewater at Cedar Hills is routinely monitored. The Cedar Hills wastewater discharge permit includes wastewater hauled from Bow Lake (Reference: Industrial Waste Discharge Permit Number 7543).

The Wastewater Crew cleans the sanitary catch basins and oil/water separators weekly and the surface water catch basins monthly.

Litter Control

- The Transfer Building and litter fencing within the site provide barriers against scattering litter; the perimeter fence acts as barrier to keep litter contained within the site.
- Transfer Station Operators pick up litter within the site daily and respond to weather and heavy wind conditions that may spread litter.
- The Transfer Station Operator picks up recycling area litter other than that which is inaccessible when the recycling collection container is in place. The contracted recyclable

materials hauler performs site cleanup under the recycling collection containers at the time of switching containers.

- The litter control crew picks up litter outside the site fences and on access roads each weekday.
- Any load that is not secured in a manner that would prevent material from leaving the vehicle while it is in motion is subject to an additional fee.
- Transfer trailers are covered by heavy tarp lids to minimize litter and potential for birds to enter the trailer and spread litter.

Complaints

The Solid Waste Division offers a 24-hour telephone number for reporting complaints related to Transfer Station Operation. Customers may also email complaints to the Solid Waste Division. Customers who make complaints while on site are offered a Customer Comment Form. All complaints are recorded and investigated. Records may be reviewed upon request to the Operations Manager.

Regulatory Compliance

The Solid Waste Division complies with all applicable local, state, and federal laws and regulations. At this time the Bow Lake Transfer Station has no permits applicable to wastewater discharge, land use or air emissions.



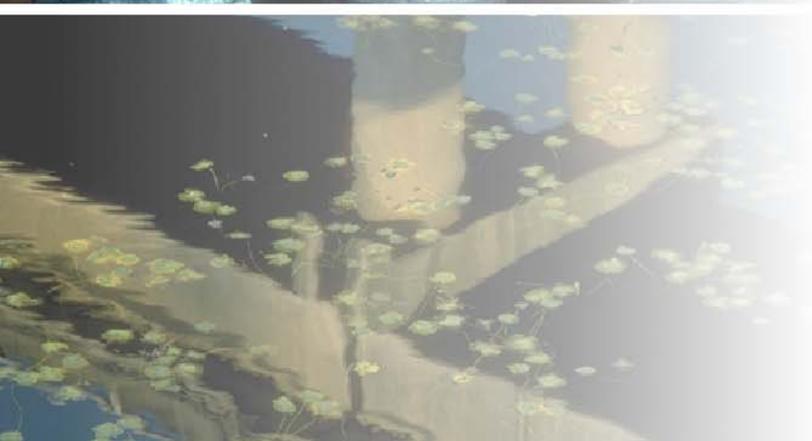
***Environmental Protection Plan
First NE Transfer/Recycling
Station Construction
Shoreline, Washington***



***Prepared for
KPG, Inc. and King County***



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ENVIRONMENTAL PROTECTION PLAN FIRST NE TRANSFER/RECYCLING STATION CONSTRUCTION SHORELINE, WASHINGTON

PURPOSE AND BACKGROUND

This Environmental Protection Plan (EPP) describes procedures for managing and monitoring the project mass excavation process at the First Northeast Transfer Station. These include procedures for identifying, testing, and handling of materials with potential constituents of concern should they be encountered during excavation. This location is the site of the former Corliss landfill, a municipal landfill that operated from approximately 1946 to 1959 for disposal of primarily household refuse. The existing transfer station was constructed in the mid-1960s. Project construction is planned beginning in 2005 to upgrade the facility and construct a new building for drop-off and transfer of municipal household waste and yard waste. At least 64,000 cubic yards of soil material including existing refuse fill are planned to be excavated during construction. It is anticipated that excavated materials will be disposed of at the Cedar Hills Landfill (CHL), with the exception of incidental quantities of other materials, should they be encountered, that the CHL is not permitted to receive. The limits and extent of planned mass excavation are identified on the Permit Drawing Set.

This EPP confirms the planning and construction provisions for environmental preparedness that the King County Department of Natural Resources & Parks, Solid Waste Division (SWD) has established for the project. The EPP also documents mutual understanding between environmental health/safety regulatory agencies and the SWD for protection measures to be implemented by the project team during construction. Project team members include:

- The general contractor (Contractor) and subcontractors responsible for excavation, transport, and disposal of excavated materials and related activities;
- The Contractor's health and safety personnel;
- The SWD Construction Manager (CM – KPFF);
- The on-site Environmental Representative (ER – Hart Crowser); and
- The on-site Geotechnical Representative (GR – Civil Tech, Inc.).

The following sections summarize refuse material to be excavated and procedures for materials handling, on-site management, and disposal. EPP items pertaining to Contractor responsibilities are based on performance requirements listed in the project specifications. Applicable sections of the project specifications are referenced for additional detail. Related items include surface water and groundwater protection measures, worker health and safety, and landfill gas protection measures during construction.

REFUSE FILL TO BE EXCAVATED

Test pits were completed at the property in July 2004 to observe the physical and chemical nature of the refuse materials, and to provide information on expected subsurface conditions. Observations from this work and from previous investigations indicate that the refuse consists of bottles, cans, paper products, and other common household waste materials. In addition, samples of the refuse were collected for chemical characterization analysis. Analysis results indicated the presence of relatively low to non-detect concentrations of organic and metal constituents of concern.

Based on the chemical characterization results and observations during the test pit explorations, there is no indication that the refuse fill contains waste from industrial sources, or when excavated, would be designated as a Dangerous Waste (DW) based on criteria listed in Chapter 173-303 WAC. These results indicate that excavated refuse should be appropriate for disposal at the CHL. There is no indication of adverse environmental impacts related to the refuse, based on field observations and sample testing results. Further, no obvious contaminant sources were observed that would be expected to affect groundwater underlying the former landfill.

CONTRACTOR'S CONTINGENCY RESPONSE PLAN

The Contractor will prepare and submit a site-specific Contingency Response Plan to establish and maintain quality control for procedures for environmental protection. The Contingency Response Plan will be reviewed and approved by the CM and management team prior to beginning work at the property. Minimum requirements for the Contingency Response Plan are listed in Section 02 61 00 of the Specifications (Removal of Hazardous Materials) and are summarized below.

The Contingency Response Plan is intended to provide the following:

- General sequence of response and notification procedures in the event of an unplanned release of hazardous materials (excluding refuse) or other emergency (see Table 1 for general notification procedures);
- Emergency contact information including a designated 24-hour emergency response contact knowledgeable of the excavation and hazardous materials at the property, and who has comprehensive emergency response and incident mitigation information for such material, or has immediate access to a person who possesses such knowledge and information (see Table 2);
- Identification of an emergency coordinator in compliance with WAC 173-303-350, in the event that DW materials, though unexpected, are encountered;
- Identification of temporary storage areas for suspect and confirmed DW;
- Identification of refueling and vehicle maintenance areas;
- A contamination prevention section with best management practices (BMPs) and other procedures to prevent introduction of contaminants to surface water, air, soil, or groundwater; and
- A list of hazardous materials and chemicals to be stored or used on the project property including but not limited to products for fueling, equipment maintenance, and vehicle servicing.

The plan will emphasize spill response protocols and appropriate containment and cleanup procedures to minimize the effect of spills and releases. Spills will be cleaned up to the satisfaction of the CM and ER. Response actions are subject to compliance with applicable regulations and agency notifications. Additional details regarding reporting procedures, contingency actions for handling, and temporarily storing DW, and minimum requirements for response equipment and supplies are listed in the referenced section of the Specifications.

RESPONSIBILITIES AND NOTIFICATIONS FOR SUSPECT DW

Responsibilities and Notifications

The Contractor is responsible for excavation, handling, and transport of refuse and other excavation materials for off-site disposal at the CHL. The Contractor

and others handling refuse material are responsible for providing personnel with proper training and implementing all necessary health and safety procedures. Minimum contractor health and safety requirements are presented in Specification Section 01350 Health and Safety. As the on-site ER, Hart Crowser will observe refuse excavation and handling activities, and document the visual and physical characteristics of these materials.

Hart Crowser will also evaluate the potential for the presence of DW and other materials that differ from the expected refuse and fill types previously observed. In the event that suspect DW is identified by the ER or others, the Contractor will take additional actions to segregate this material for further characterization by the ER. Table 1 describes the general responsibilities for notification, field procedures for suspect DW, and coordination of off-site disposal efforts for confirmed DW. The range of suspect DW covered by this EPP is intended to include solid materials, liquids, and possibly affected excavation seepage water (although not expected). Activities for potential DW handling and temporary storage will be conducted in accordance with the Contractor's Contingency Response Plan.

The ER and CM will be notified immediately by whoever makes the discovery. The CM will then promptly notify King County representatives. Table 2 provides contact information for various parties working at the property or responsible for shipment and disposal of excavation materials and potential DW. This contact list will be used for notification of the responsible parties, and will be updated as necessary. A notification form is included in Appendix A to record the incident information and to document the notification process.

Table 1 - Notification and Follow-Up Actions

Action	Responsible Parties
1. Field screen suspect materials using common sense criteria or photoionization detector (PID) for volatile organic compounds indicative of potential contaminants.	ER (During Excavation), or Any Person Who Discovers Potential Environmental Issue
2. Maintain contingency spill, containment, and suspect DW handling materials.	Excavation Contractor and Transporter
3. Implement Health and Safety Plan procedures applicable to DW and provide qualified personnel.	Excavation Contractor and Transporter
4. Initiate notification sequence: notify CM and ER.	ER or Any Person Who Discovers Potential Environmental Issue
5. Segregate, contain, and manage suspect materials for observation and sampling (or otherwise isolate area of concern).	Excavation Contractor
5A. Number/label containers with suspect DW materials and collect characterization samples, as necessary, for lab testing.	ER
5B. Maintain containers with suspect DW in protected manner until transported for disposal. Maintain identification number.	Excavation Contractor
6. Collect and analyze verification samples to determine quality of soils remaining in excavation area where suspect materials were removed.	ER
7. Sign DW Disposal Manifests (if needed) or Solid and Liquid Waste Disposal Characterization Certifications.	King County Solid Waste Division (KCSWD)
8. Select off-site disposal facilities.	Municipal Solid Waste – KCSWD (CHL per the Specifications) Asbestos – KCSWD (CHL per the Specifications) DW – Contractor will select, KCSWD will approve Construction Demolition Landfill – Contractor
9. Coordinate shipment of regulated materials for off-site disposal (including interim off-site storage facility, if necessary).	Excavation Contractor, CM, and/or Waste Handling Contractor
9A. Provide truck trip tickets to CM with copies to ER.	Excavation Contractor, or Waste Handling Contractor
9B. Prepare letter to disposal facility with compiled laboratory testing results, and prepare agency notifications for King County signature.	ER and KCSWD.

Table 2 - Contact Information for Responsible Parties

Party	Contact and Title	Address	Contact Numbers
County Representatives	<p><i>King County Solid Waste Division</i></p> <p>First Contact: Lisa Williams</p> <p>Second Contact: Neil Fuji</p> <p>Third Contact: Mike Long</p>	<p>201 So. Jackson Street Suite 701 Seattle, WA 98104</p> <p>201 So. Jackson Street Suite 701 Seattle, WA 98104</p> <p>201 So. Jackson Street Suite 701 Seattle, WA 98104</p>	<p>(206) 296-8488</p> <p>(206) 296-4411</p> <p>206 296-4416</p>
Owner's Geotechnical Representative	<p><i>CivilTech Engineering Mark Wicklund</i></p>	<p>10800 NE 8th Street, Suite 820 Bellevue, WA 98004</p>	<p>(425) 453.6488 Direct (425) 453.5848 Fax wicklund@civiltech.com</p>
Owner's Environmental Representative	<p><i>Hart Crowser Rick Moore Environmental Manager Field Representatives To Be Determined</i></p>	<p>1910 Fairview Avenue East Seattle, WA 98102</p>	<p>(206) 826-4521 Direct (206) 954-2303 Mobile (206) 328-5581 Fax rick.moore@hartcrowser.com</p>
Construction Manager	<p><i>KPFF</i></p> <p>First Contact: Craig Williamson</p> <p>Second Contact: C.K. Humphreys</p>	<p>201 So. Jackson Street Suite 701 Seattle, WA 98104</p> <p>201 So. Jackson Street Suite 701 Seattle, WA 98104</p>	<p>(206) 382-0600</p> <p>(206) 382-0600</p>
Site Contractors			
Lydig Construction	<p>First Contact: Kep Peterson</p> <p>Second Contact: Kieron Walford</p>		<p>(206) 931-5757</p> <p>(425) 269-1624</p>

Table 2 - Contact Information for Responsible Parties

Party	Contact and Title	Address	Contact Numbers
Health and Safety and Emergency Response			
Site Health and Safety Manager			
Emergency Agency Notification	Local Police		(206) 546-6730
National Response Center (NRC)	<i>King County Solid Waste Division</i>		King County will contact NRC (800) 424-8802
	First Contact: Mike Long	201 So. Jackson Street Suite 701 Seattle, WA 98104	(206) 382-0600
	Second Contact: Pam Badger	201 So. Jackson Street Suite 701 Seattle, WA 98104	(206) 296-8441
Waste Handling Contractors and Transporters			
Excavation Materials			
Hazardous Materials/DW			
Off-Site Disposal Facilities			
Cedar Hills Landfill	First Contact: Dean Voelker	16925 Cedar Falls Road SE North Bend, WA 98038	(206) 296-0469
	Second Contact: Brad Bell	16925 Cedar Falls Road SE North Bend, WA 98038	(206) 296-4490

FIELD PROCEDURES FOR MANAGEMENT AND SEGREGATION OF DW

The ER will observe the suspect DW materials and affected areas to determine the type and extent of the material. The ER will also determine appropriate handling and sampling methods for the materials. The Excavation Contractor or other appropriate site contractor(s) will handle, temporarily store, and protect suspect materials in a manner to protect workers and the environment. Worker protection during excavation and handling is the responsibility of the site Contractor(s). Handling, temporary storage, and transport of DW will be completed in accordance with requirements of Chapter 173-303 WAC.

The Excavation Contractor and Transporter will determine:

- Appropriate measures to mitigate dust emissions, runoff, fumes, etc., to control the migration of DW materials into other areas (cross contamination);
- Appropriate protective safety equipment, and/or other engineered systems, are needed for worker safety; and
- The need for and extent of any containment or other special construction measures based on information provided by the ER regarding the type and amount of suspect DW materials encountered, and the expected or known concentrations of these substances.

The ER will confer with the CM, King County representatives, and appropriate site contractor(s) regarding the recommended approach for controlling contaminant releases or minimizing the potential for migration. The ER will also determine whether on-site monitoring may be needed to evaluate the presence of volatile constituents associated with suspect or confirmed DW materials.

Segregation and Temporary Storage

Prior to commencing excavation, the appropriate Contractor(s) will identify specific areas for temporary storage of suspected or confirmed DW materials. Suspect DW materials will be excavated or separated from other excavation materials by the Excavation Contractor, and temporarily stored in containers suitable for the materials. The ER will mark or identify the storage area/container using a unique numbering system to reference the point of origin of the material on the property. The appropriate Contractor(s) will see that the identification numbers are maintained until the materials are trucked off site. Storage of these materials will be controlled to prevent their release or mixing with other materials.

Unless approved in writing by the CM or King County, suspect DW material will not be removed from the property until the ER completes characterization testing, as necessary, to chemically identify constituent types and concentrations for disposal designation. The Contractor will then notify the CM in writing as to the schedule for off-site transport of suspect or confirmed DW. DW manifests will be signed by King County before any confirmed DW material is shipped to temporary or permanent storage or disposal sites. King County will also approve such shipments prior to transport.

Incompatible Materials

The ER will assist the appropriate Contractor(s) in segregating suspect or confirmed DW materials based on their compatibility with other suspect materials, and based on their physical and chemical properties. Potentially incompatible categories of suspect DW materials (as determined by the ER) will not be stored or mixed together until the type and extent of constituents, and the nature and degree of risk associated with contact of the separate materials, has been determined by the ER.

Interim Off-Site Storage

If necessary, the appropriate Contractor(s) and/or Transporter may identify an interim off-site storage site for temporary storage of suspect or confirmed DW materials. Storage protocols for interim off-site locations are the same as those for on-site storage. Interim off-site storage sites will be approved in writing by the CM or King County prior to off-site transportation. Shipments will not be mixed together in common containers unless approved in advance by the ER.

Equipment and Personnel Decontamination

All equipment and vehicle components coming in contact with refuse and hazardous materials will be cleaned before such equipment or vehicles are relocated to other work locations. Decontamination will consist of thoroughly pressure washing or steam cleaning all equipment components contacting excavation materials and hazardous materials (including potential DW). Alternative decontamination methods, if proposed by the Contractor must be approved by the CM and management team. All wastewater from equipment decontamination and a truck wheel wash will be disposed of in the sanitary sewer or other off-site disposal facility.

Other Best Management Practices (BMPs)

The Contractor will implement other BMPs to control odors during excavation, provide daily cover for exposed landfill areas, abate potential pest vectors, and mitigate noise impacts. BMPs for these items are described in Specification Section 01570 Environmental Controls. Additional discussion of measures for stormwater management, mitigation of potential methane gas emissions, and protection of groundwater resources during construction are described below.

STORMWATER MANAGEMENT

Stormwater that contacts refuse or hazardous materials will be handled as leachate for sanitary sewer disposal. The King County Solid Waste Division has contacted and applied for construction permits from the Ronald Wastewater District (the local sewer company) and the Department of Natural Resources Wastewater Treatment Division regarding handling and disposal requirements. Non-contact stormwater will be disposed of in the storm sewer or by other means. BMPs and related procedures for stormwater management are outlined in Specification Section 01572 Temporary Erosion Control and in the Permit Drawing Set (Temporary Erosion and Sediment Control – TESC, and TESC Details). Stormwater treatment is expected to consist of settling in TESC pond, as needed, to reduce turbidity and silt content prior to discharge.

GROUNDWATER PROTECTION MEASURES

Relative to current hydrogeologic conditions and chemical quality, no adverse impacts to groundwater are expected from, or following, construction activities for the project. This conclusion is based on the following observations:

1. Construction will remove a significant portion of the existing refuse as a potential source of contamination, thus improving the overall condition.
2. Construction will also increase the area of building and pavement coverage. This will reduce the overall infiltration of surface water and the associated potential contact with buried refuse.
3. The building will completely cover areas where piles are driven, so the pile penetrations will not create points of entry for surface water.
4. Piling installation and other construction activities will not affect seasonal groundwater fluctuations. Groundwater may locally contact refuse during periods when the water table is rising, consistent with the historical condition, but this condition remains unchanged. Numerous pilings were previously driven through refuse during the METRO North Base construction. Piling installation will also compact and decrease void space in the immediately surrounding refuse, making the material less permeable.
5. Potential for drag down of refuse during piling installation is low based on observations made during the July 2004 test explorations and review of subsurface soil types from other explorations. Dense sands underlying the refuse layer will provide additional resistance for inhibiting drag-down.

6. Previous geotechnical investigations indicate that a groundwater confining layer does not exist in the depth range that pilings will be driven, so it is not expected that the pile driving will create new pathways for potential contaminant migration.

Several additional design features provide further protection of groundwater resources. An impermeable landfill gas barrier membrane will be placed beneath the building structure. Although infiltration of surface water is not expected under the building footprint, the liner provides an additional safeguard for groundwater protection. Details of the liner installation are presented on several sheets of the Permit Drawing Set.

LANDFILL GAS MONITORING

Planned methane mitigation measures during construction are described in Specification Section 01570 Environmental Controls. In general, these measures involve identifying void spaces and other features in refuse that may be prone to accumulation of landfill gases, and providing adequate ventilation when workers are present. Particular attention will be given to low-lying areas where gases could accumulate.

As part of the Contractor's health and safety program, workers will be informed as to potential for methane and landfill gases to be present. All workers will comply with regulatory requirements limiting access to enclosed spaces. Smoking is prohibited on the property at all times during construction.

Following construction, a permanent landfill gas barrier will be installed beneath the building and soil gas monitoring will be conducted during construction (see project Permit Drawing Set for details). To alleviate potential gas build-up, the gravel backfill behind the retaining walls will provide a preferential venting route for landfill gas that may accumulate below the surface.

DOCUMENTATION AND RECORDKEEPING

The ER will keep records to track and document discovery and temporary storage of suspect or confirmed DW or other hazardous materials. The tracking forms will include the following information:

- Date and time of discovery of suspect material;
- Person or party discovering material;

- Equipment used to detect or characterize suspect material, recorded measurements (as applicable), and record of calibration readings and time;
- Suspected or confirmed types and concentration of constituents, and other pertinent information; physical description and extent;
- Record of background sample results, as applicable;
- Person or party making notification;
- Date and time of discovery or notification of ER;
- Manner of handling and method of storage;
- Temporary on-site or off-site storage container identification numbers;
- Disposal decision;
- Disposal facility; and
- Date and time of removal from property.

The appropriate Contractor(s), Transporters, and disposal facilities will provide the necessary information to the ER to complete these records. Recordkeeping will also include field observations, results of chemical analyses, correspondence with landfills and other off-site disposal facilities, and report(s) generated from the work. The ER will provide these records in weekly reports that may include other transmittals to the CM. If an incident occurs, the report should be submitted to the CM on the day that the incident occurs. Records will also include handling and disposal documentation for wastewater from equipment decontamination and stormwater contacting refuse.

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APPENDIX A
NOTIFICATION FORM FOR DISCOVERY OF
SUSPECTED OR KNOWN HAZARDOUS MATERIALS

NOTIFICATION FORM

This record documents information, actions, and notification (as applicable) regarding the discovery of and response to the presence of suspected and known hazardous materials on the project.

1.0 Date/Time of Event/Incident

2.0 Person Filling Out Form

Name: _____

Phone Number: _____

3.0 Description of Condition

4.0 Person Discovering Condition

Name: _____

Phone Number: _____

5.0 Action Taken

6.0 Notifications

6.1

6.2

6.3

7.0 Stockpile/Container Information

ID Number	Description	Approximate Volume	Samples	Tests	Disposition

8.0 Monitoring Equipment and Calibration

9.0 Field Screening Monitoring Results

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**HAZARDOUS MATERIALS
EMERGENCY RESPONSE PLAN
KING COUNTY SOLID WASTE DIVISION
TRANSFER FACILITIES**

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Hazardous Materials Emergency Response Plan

INTRODUCTION

Purpose

This plan describes the procedures and resources used by the King County Solid Waste Division (SWD) to respond to hazardous materials emergencies at Division transfer facilities. The term "hazardous materials" as used in this document refers to those materials designated as hazardous substances in 40 CFR 302, 49 CFR 172.101, or WAC 173-340-200, and to solid wastes which exhibit any of the physical, chemical or biological properties described in WAC 173-303-090, 173-303-101, 173-303-102 or 173-303-103 and which are not exempted by 173-303-071. Affected SWD staff members are made familiar with these procedures and resources as part of their initial training. Copies of this plan are maintained at each site and a copy is assigned to each individual authorized to act as an Emergency Coordinator.

There are eight Solid Waste Division Transfer Stations, designed for transfer of mixed municipal solid waste from commercial and private vehicles to trailers, which are transported to the Cedar Hills Regional Landfill.

The King County Solid Waste Division strictly controls the types of waste accepted at its facilities through King County Public Rule PUT 7-1-4(PR),

Waste Acceptance Policy. This policy prohibits disposal of hazardous or dangerous waste, burning or smoldering material, infectious waste, excessively odorous or dusty material and a variety of other materials. Site employees are trained to recognize unacceptable materials delivered for disposal at SWD facilities.

The transfer stations are designed for either direct loading of solid waste into trailers, or depositing into a pit. If deposited in a pit, the material is moved via heavy equipment into a trailer, or moved into a compacting mechanism and from there to a trailer. The material is thereby transferred to the Cedar Hills Regional Landfill for final disposal. Empty and full trailers are parked in separate, designated areas at each site.

EMERGENCY RESOURCES

Communications

Telephones are located in the scale house and in the transfer building office of each station. Telephones are used primarily for off-site communication.

Transfer station operators and scale operators are equipped with two-way radios for communication between the tipping floor, scalehouse and other areas of the facility. The radios also provide

communication with SWD truck drivers responsible for supplying empty trailers to the facility and removing full ones. The radios used by the transfer station operators are programmed only for on-site communication, while the radio available in the scale-house can also be used to reach off-site facilities and personnel, including supervisory personnel at Cedar Hills Regional Landfill.

Fire Suppression

Fire hydrants are located on-site as indicated in the site drawings. Fire extinguishers are available throughout the transfer building.

High volume water lines are available in the transfer building for facility cleaning. While not designed specifically for fire suppression, these hoses are useful for extinguishing small fires and for wetting down smoldering material in trailers or pits.

Spill Containment and Cleanup Equipment

Materials available on site for containment and cleanup of spills or leaking containers are listed in Table 1. Cleanup materials include absorbent sheets and socks capable of absorbing a spill of up to 20 gallons of a suspected hazardous material. In general, site personnel would only respond to spills of low hazard, known materials such as hydraulic fluid spills from ruptured hydraulic lines. Spills of high hazard materials or unknowns would be handled by the SWD's on-call cleanup contractor (see Emergency Services). Drain plug mats are available for temporarily sealing sewer or stormwater drains. Twenty gallon poly-labpack containers and a poly-safetypack secondary containment unit capable of

holding two 55-gallon drums are available for temporary storage of hazardous materials illegally disposed at the facility and for spill cleanup residues. The location of spill containment and clean-up supplies is shown on Figure 2.

The SWD's Special Waste Unit maintains an additional supply of cleanup materials at Cedar Hills Landfill and in their vehicles. The Transfer Station Operators also have additional stocks of cleanup materials stored at Cedar Hills Landfill. The County's hazardous waste cleanup contractor, Pacific Industrial Resources, Inc. (see *Hazardous Waste Cleanup Services* below) maintains an extensive inventory of cleanup supplies and equipment for use as needed.

Table 1: Spill Equipment

Absorbent sheets, general use
Absorbent sheets, oil skimming
Absorbent socks, general use, 3" x 8'
Absorbent socks, oil skimming, 3" x 8'
Drain plug mat, 3' x 2'
Granular absorbent (floor dry, cat litter, or similar absorbent material)
Hazardous materials storage unit, 2 drum capacity
Overpack drums, small

Personal Protective Equipment

Level D personal protective equipment is available at the facility for use in defensive containment. This equipment includes liquid-proof disposable coveralls, liquid-proof gloves, heavy leather gloves, face shields, hard hats and work boots. Specialty items such as the liquid-proof coveralls and gloves are stored with the Spill Containment and Cleanup supplies.

Emergency Services

Hazardous Waste Cleanup Services

The SWD uses the services of Pacific Industrial Resources, Inc. (PIR) for hazardous materials spill response and cleanup. PIR's offices and equipment yard are located at 21812 84th Ave. S., Kent. They are available 24/7/365 via phone at 253-437-0785.

PERSONNEL ROLES

Lines of Authority

Emergency response occurs in three distinct phases: the evacuation phase (from the time the emergency is identified until the fire department arrives), the response phase (from the time the fire department arrives until life safety issues have been mitigated and the fire department leaves), and the cleanup phase (from the time the fire department leaves until the facility resumes normal operation). Lines of authority change during the course of an emergency as the incident progresses through these phases. In particular, the jurisdictional Fire Department (JFD) defines these lines of authority by assuming incident command when they first arrive at the transfer station and by turning incident command over to SWD when they have determined that the emergency has been controlled, all life/safety issues are resolved and SWD may initiate cleanup actions. Incident command and lines of authority are described for each phase in

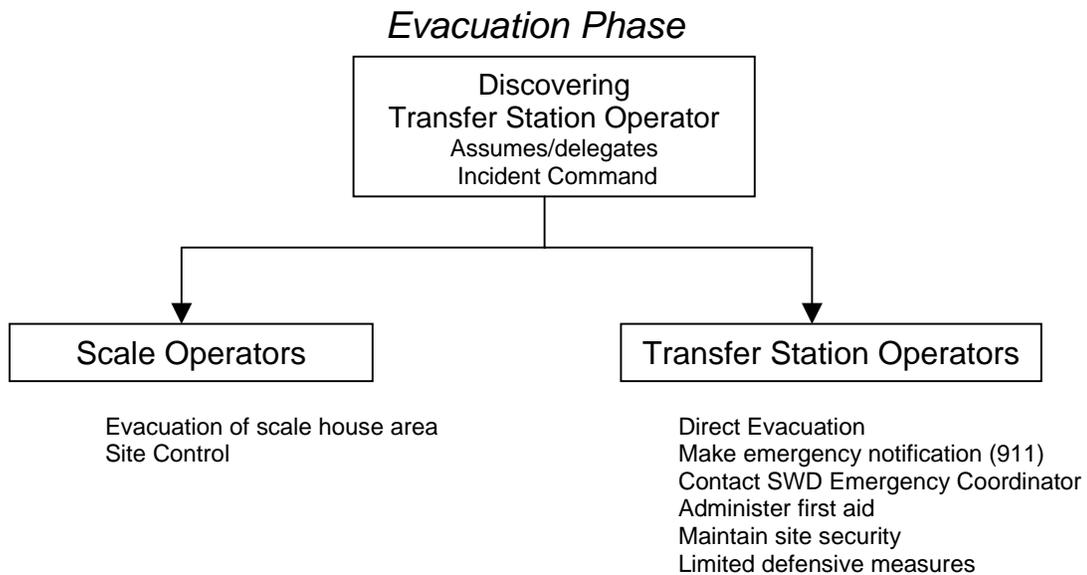
the following paragraphs. Figure 3 illustrates the lines of authority.

Evacuation phase. The discovering transfer station operator (or their designee) at the facility assumes incident command during the evacuation phase. Other site employees report to this individual for assignment of evacuation, emergency notification, first aid and other appropriate duties. Evacuation will generally be completed by the time the JFD arrives, but may in some circumstances continue or be expanded under the JFD's incident command.

Response phase. The senior on-scene official of the Fire Department assumes incident command throughout the course of the response phase. The SWD Emergency Coordinator reports to the JFD Incident Commander to provide information about the facility and technical support. Local police, regulatory agencies, and all other parties involved in the incident response also report to the JFD Incident Commander.

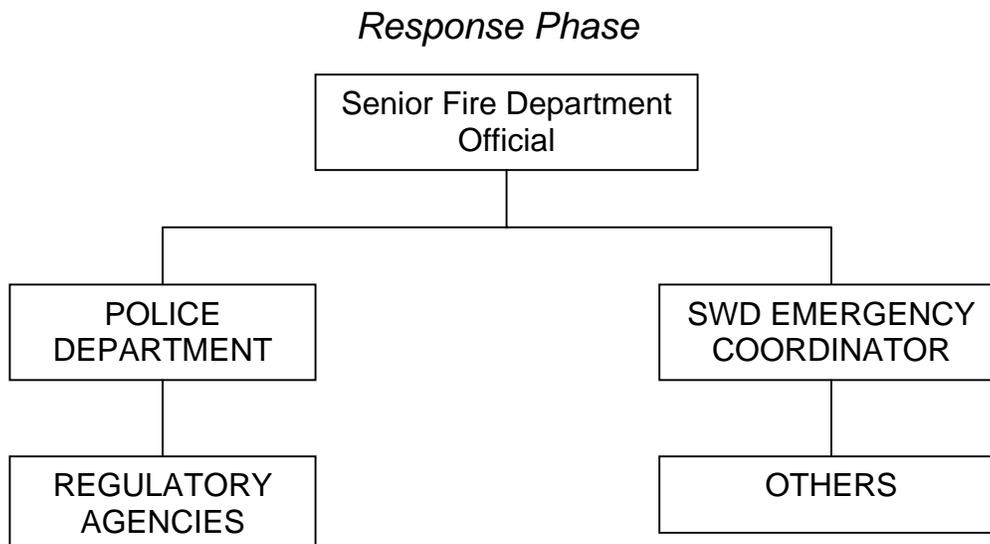
Cleanup phase. The SWD Emergency Coordinator assumes incident command after all life safety issues have been mitigated and the Fire Department leaves the scene. The Emergency Coordinator will be King County's senior representative on-site and will be responsible for: overseeing of the work of the county's Hazardous Waste Cleanup Contractor through the contractor's on-scene supervisor; coordination with regulatory agencies as necessary and; coordinating on and off site SWD personnel and related functions.

Figure 3: Response Flow-chart

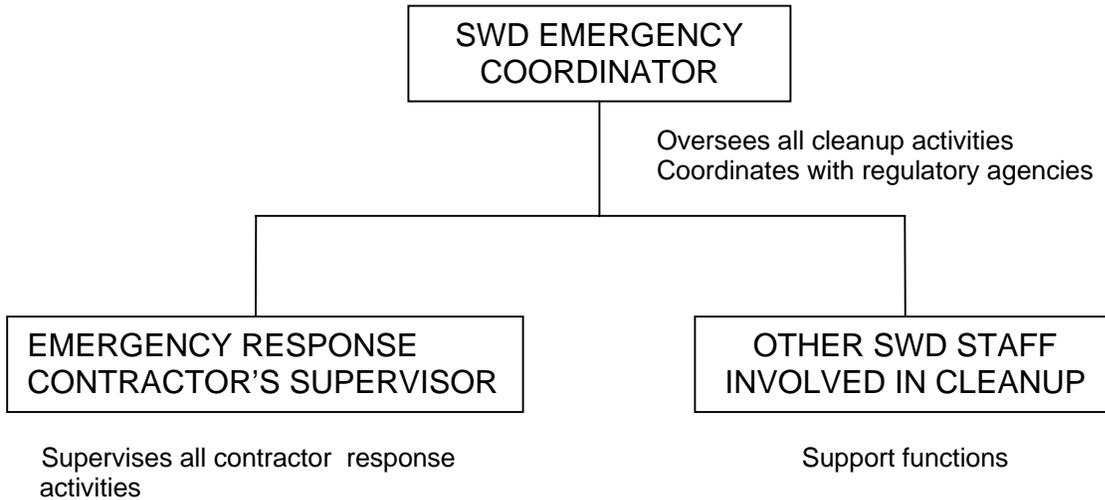


SWD Emergency Coordinator

Notifies regulatory agencies
Responds to the scene



Cleanup Phase



Transfer Station Site Employees

Transfer Station Operators. Under the direction of the discovering operator or their designee, operators take initial response actions to evacuate the facility, make emergency notifications, administer first aid when appropriate, and maintain site security during the evacuation phase.

Operators have received Hazardous Materials First Responder Operations training and may take certain defensive actions, such as placing containment socks and drain plug mats to limit the spread of a hazardous material release. These actions are limited to ones which may be performed at a safe distance from the hazardous materials and which may be performed safely without the use of personal protective equipment beyond their normal attire (level D). Defensive containment actions should be taken only after evacuation and notification responsibilities have been carried out.

Details of the incident should be recorded on an Accident Report form and given to the Emergency Coordinator after evacuation and notification responsibilities have been carried out.

Scale operators. Scale operators are responsible for site control at the facility gate during the evacuation phase, as directed by the current incident commander. Site control includes locking the cash in the scalehouse, directing vehicles from the site, and restricting site access to emergency and authorized SWD vehicles.

Emergency Coordinator

The Emergency Coordinator acts as the SWD's senior representative at the scene of hazardous materials incidents. During the evacuation phase, the Emergency Coordinator will notify regulatory agencies as required and respond to the scene. During the response phase, the Emergency Coordinator will be the SWD's liaison with the Fire Department. The discovering operator or their designee

will perform this function until the Emergency Coordinator arrives. During the cleanup phase, the Emergency Coordinator will be incident commander, overseeing all cleanup work performed by the SWD's hazardous waste cleanup contractor, coordinating with regulatory agencies, and performing related functions.

Hazardous Waste Cleanup Contractor

SWD retains a contractor, currently Pacific Industrial Resources, Inc. (PIR), to perform a variety of services involving hazardous materials incidents. PIR provides sampling and testing, hazardous material cleanup, decontamination of structures and equipment, hazardous waste disposal and related work as directed by SWD during the cleanup phase. PIR is contracted to mobilize to the transfer stations within one to three hours. The PIR Site Supervisor reports to the SWD Emergency Coordinator.

INITIAL RESPONSE PROCEDURES

Emergency Recognition

Transfer station site employees have been trained to recognize emergencies and potential emergencies involving hazardous materials. The following types of incidents should be considered hazardous materials emergencies or potential emergencies for the purposes of this plan.

Explosions and violent reactions.

Incidents in which materials have exploded or reacted violently should be

presumed to be caused by hazardous materials and should constitute an emergency.

Fires apparently involving hazardous materials. Fires which appear to be caused by hazardous materials and fires which are in the vicinity of apparently hazardous materials should be treated as hazardous materials emergencies.

It should be noted that fires periodically occur in commercial packers and transfer trailers which are caused by disposal of smoldering materials and are unrelated to any hazardous materials. While these types of fires are not considered hazardous materials emergencies, they may still require many of the same precautions.

Release of hazardous gasses, vapors or dusts. Releases of hazardous materials to the air in quantities believed to be hazardous to persons in the transfer station should be considered a hazardous materials emergency. It is recognized that it may be difficult to determine whether a particular odor or apparent release is hazardous. Employees must use their training and discretion in making this determination.

Release of liquid or solid hazardous materials. Spills of liquid or solid hazardous materials of quantity and type which pose a threat to human health or the environment should be considered hazardous materials emergencies. Examples include spills of corrosive or flammable liquids on the tipping floor, spills of toxic materials which are migrating toward sewer or stormwater drains and leaking containers of hazardous materials in trailers.

Some spills, because of the quantity and types of material involved, may not pose a significant threat to human health but may be a significant environmental concern. This would include items like waste oil and hydraulic fluid. While these type of spills require cleanup, this cleanup does not necessitate the emergency actions specified in this plan.

The presence of improperly disposed hazardous solids and hazardous liquids in non-leaking containers does not necessarily constitute an emergency. While these materials must be removed and stored for proper disposal, it is usually not necessary to take the emergency actions specified in this plan.

Emergency Notification

Any employee who discovers an emergency incident should first notify other employees on site. As directed by the discovering operator, or their designee, the operators will evacuate the facility and immediately make emergency notification by calling 911. The 911 notification should be made from the nearest telephone which is safe from possible exposure to the hazardous materials. The employee making the emergency notification should provide as much information to the 911 operator as possible, including, at a minimum, the name and address of the transfer station, caller's name, description of the emergency in as much detail as possible, and information about injured persons. The employee should stay on the telephone until the operator indicates that he/she has all the information needed for initial response.

After placing the 911 call, the employee should call Cedar Hills at 296-4490 to notify SWD of the incident. The employee should talk to any available supervisor, providing as much information as possible about the incident. The employee **should not** leave a voice mail message or leave a message with a receptionist. The supervisor should relay this information immediately to the designated primary Emergency Coordinator. If the primary Emergency Coordinator is not available, one of the alternate Emergency Coordinators should be notified.

After conveying the emergency information to the Emergency Coordinator, the supervisor should notify local route haulers directly, or notify one of the solid waste supervisors to perform hauler notification, who should then contact the route haulers and instruct them to divert their vehicles from this facility.

Personnel affected during the hazardous materials incident should notify their supervisor. This information may be relayed via voice mail if the supervisor cannot be reached immediately.

Emergency Alerting and Evacuation

The employee who first discovers an emergency should immediately notify other transfer station staff of the incident, either by voice communication, by radio or by telephone between the tipping floor and the scale house. The other transfer station staff should alert customers of the emergency and direct evacuation of the facility, as directed by

the discovering operator, or their designee.

Alerting and evacuation of the transfer building should be performed by the operators not calling 911 and Cedar Hills (their or any SWD supervisor). The operators should inform all persons on the tipping floor that there is an emergency and that they must immediately leave the facility on foot.

Primary and secondary/alternate evacuation routes and meeting locations are posted at the facilities.

Alerting and evacuation of the scale house area should be performed by the site scale operator. The scale operator should also hold all incoming traffic at the scale house and direct vehicles to allow access to the site by emergency response vehicles.

Site employees should assist injured and disabled persons in leaving the facility when possible. Site employees should not attempt to perform rescue of injured persons when rescue requires entry of areas into which hazardous gasses, vapors, fumes or dusts are being released.

Emergency Medical Treatment and First Aid

The jurisdictional Fire Department (JFD) should provide first aid and transport of injured persons to emergency medical facilities. Site employees are not required to administer first aid or CPR, but may choose to do so before the JFD arrives in accordance with their level of training. If site employees choose to administer first aid or CPR, appropriate precautions should be taken as

instructed in their first aid training. Site employees are only required to attempt to make injured persons comfortable and to direct the JFD personnel to injured persons.

Operations Shutdown and Defensive Containment Measures

Operators should perform the following shutdown and defensive containment actions only after evacuation and notification have been completed, and *only* when these actions can be done safely in level D personal protective equipment (without approaching the hazardous materials).

Control storm water and/or sanitary sewer discharges. Site drawings indicate the location of storm sewer and sanitary sewer catch basins. Station operators may attempt to control discharges by turning off pump station(s) as appropriate and/or placing drain plugs when there is a possibility of releasing hazardous materials to the sanitary sewer or the storm water system.

Place Absorbent Material. Spills may be contained by placing absorbent socks or sheets in the path of the spill. Oil absorbent sheets and socks should be used for spills of hydraulic oil, other oil or solvents. Universal absorbent socks and sheets should be used for all other spills.

Site Security and Control

The site scale operator will provide site control from the beginning of an incident until the jurisdictional Fire Department and/or Police Department (JPD) personnel arrive at the scene. Site

control will be provided by the JPD personnel if they choose to respond to an incident. If the JPD does not respond, the JFD Incident Commander and the SWD Emergency Coordinator will determine which agency will control access to the site. SWD will restrict access to part or all of the site during the cleanup phase.

Notification of Regulatory Agencies

The SWD Emergency Coordinator should perform or delegate performance of required notifications of hazardous materials releases. Phone numbers of regulatory agencies are provided in the Consolidated Emergency Phone List. Reporting should be as follows.

Health Department. The Seattle-King County Department of Public Health should be notified of all hazardous materials incidents at solid waste handling facilities. Notification should be as soon as possible and a copy of the incident report should be forwarded to the Health Department in the event of any substantive incident.

Department of Ecology. The Washington Department of Ecology should be notified of any releases of hazardous materials to air, water or ground as soon as possible.

King County Department of Natural Resources, Water Pollution Control Division. The Renton or West Point Treatment Plant, as appropriate, should be notified of any releases of hazardous materials to the sanitary sewer system as soon as possible.

City of Renton – Water Utility.

A report should be made to the Aquifer Protection Coordinator within 24 hours for any spills that occur at the Renton Transfer Station.

Puget Sound Clean Air Agency.

Releases of asbestos to the atmosphere should be reported to PSCAA within 24 hours of the release.

King County Office of Emergency Management (OEM).

Releases of hazardous substances which leave facility boundaries via air, surface water or groundwater in excess of federal Reportable Quantities (RQs) should be reported to OEM as soon as possible. See Appendix A for instructions on RQ determination.

State Emergency Coordinator. RQ releases which must be reported to OEM should also be reported to the State Emergency Coordinator.

National Response Center. RQ releases which must be reported to OEM must also be reported to the National Response Center.

Labor and Industries. The Washington State Department of Labor and Industries must be notified in the event of serious injury to one or more employees or if it is determined that any employees may have been exposed to a hazardous material.

King County Safety and Claims Management Division. Accidents of a serious nature should be reported immediately. Minor accidents may be reported by submitting a completed Report of Accident form.

King County Office of Risk Management. All hazardous materials emergencies should be reported to Risk Management within 24 hours.

Public Information

The SWD Emergency Coordinator should communicate information about the incident for public notification through the Department of Natural Resources Communications Manager. In the event that the Communications Manager is not available, information should be communicated to SWD Public Involvement Unit staff.

CONTAINMENT AND CLEANUP

Techniques for Containment and Cleanup

Containment and cleanup methods will vary depending on: type of hazardous materials involved, type of incident (e.g., spill vs. explosion), amount of material involved, location of the incident within the facility and related factors. Cleanup will typically be performed by PIR, though the JFD and/or SWD may perform cleanup in some situations. If SWD employees are involved in the cleanup, they will be provided with (and must wear) the required personal protective equipment. In any case, an incident-specific work plan will be prepared detailing the cleanup strategy.

Waste Disposal

Contaminated media and cleanup residuals could be hazardous wastes and should be disposed of properly. PIR shall use data from analysis of

spilled material to classify the waste in accordance with the Washington State Dangerous Waste Regulations (WAC 173-303) and the Federal Hazardous Materials Transportation Regulations (49 CFR). PIR shall select the proper disposal method in accordance with the RCRA Land Disposal Restrictions of 40 CFR Part 268.

Hazardous waste will be transported from the transfer station to a treatment, storage or disposal facility (TSDF) as soon as possible. This will generally require at least two weeks for analytical data, classification of waste, and approval from the TSDF. Under certain emergency situations where leaving the waste material in place poses an unreasonable risk, PIR can obtain authorization to transport hazardous waste to the TSDF within a day of generation.

If the waste material does not designate as a Dangerous Waste, it may be approved for disposal at Cedar Hills. A special waste clearance is required.

Return to Normal Operations

The transfer station should be returned to normal operations only after it has undergone adequate cleanup and all environmental and safety systems are operational. Spill cleanup supplies should be replenished prior to startup of normal operations. Spill containment and cleanup supplies for restocking depleted inventories are stored at the Cedar Hills Regional Landfill. Air and surface sampling data should be evaluated against established occupational and environmental exposure standards to determine whether the cleanup was adequate.

The facility should not be reopened if analytical data indicate there could likely be exposures to employees or the public in excess of occupational standards. The facility may be reopened when there is residual contamination in low-activity areas which may be isolated while further cleanup is being conducted.

Site employees should be given information regarding the nature of the incident and any further safety instructions which may be appropriate.

POST-INCIDENT EVALUATION AND FOLLOW-UP

SWD will ensure that there is an evaluation and follow-up documentation for each incident, where applicable. The following evaluation and follow-up actions will be taken.

Incident summary report. PIR will provide SWD an incident summary report within ten days of completing any emergency cleanup activities. The report will summarize the nature of the incident, the materials involved, specific cleanup actions conducted, sampling conducted, analytical results, and any additional work needed. For any incidents in which PIR is not involved, SWD will prepare this report.

Reporting to regulatory agencies. SWD will provide follow-up reports to regulatory agencies as appropriate, depending on the materials involved in the incident. In the event of any substantive incident (spill, release, emergency or accident), a copy of the

incident report should be forwarded to the Health Department.

Post-incident evaluation meeting.

Where appropriate, SWD will coordinate a post-incident evaluation meeting with parties involved to discuss and critique the response. The meeting may involve any or all of the following: site employees, the SWD Emergency Coordinator and operations staff, JFD, JPD, the Health Department, Department of Ecology, KC Water Pollution Control Division, and other jurisdictions.

NOTE: The Health Department should be included, or at least invited, in all post-incident evaluations.

UPDATING PLAN

This plan should be tested through field exercises with site employees. Field exercises may include unannounced simulated incidents, tabletop scenarios, and other approaches.

The plan should be reviewed by SWD annually and updated as needed. In addition, the plan should be updated whenever changes in facility design or operation have a significant impact on emergency response. The plan should also be updated when post-incident evaluation indicates significant errors or problems with plan implementation. Please contact the Primary Emergency Coordinator (see phone list) to update this plan or report any inaccuracies.

December 7, 2006

Technical Memorandum

From: Tom Creegan, Engineer III, King County Solid Waste Division
To: Steve Bingham, Senior Project Manager, ESA Adolfson
Subject: Bow Lake Transfer/Recycling Station Facility Master Plan Update and Implementation – Public Health Procedures and Requirements

This memorandum addresses public health procedures at the Bow Lake Transfer and Recycling Station.

The Bow Lake Transfer Station is located at 18800 Orillia Road South in the cities of Tukwila and Sea-Tac, and in unincorporated King County. The facility is bordered by Interstate-5 on the west side and by undeveloped property on other sides. The perimeter of the site is fully fenced.

The station is designed for collection and transfer of mixed municipal solid waste from commercial and self-haul vehicles. The types of solid waste accepted include garbage, rubbish, yardwaste, and certain other wastes, such as CDL.

Current operations are outlined in the attached document, King County Solid Waste Division Bow Lake Transfer & Recycling Station Operating Plan. The plan includes adopted procedures for odor management, dust control, vector control, surface and groundwater protection and litter control.

Public Health Regulations at Transfer Stations:

Transfer stations are subject to the requirements of the Washington Administrative Code, in particular WAC 173-350, Solid Waste Handling Standards. Seattle-King County Public Health's Title 10, Solid Waste Handling, adopts the State's standards.

WAC 173-350-040 states the following:

The owner or operator of all solid waste facilities subject to this chapter shall:

- (1) Design, construct, operate, and close all facilities in a manner that does not pose a threat to human health or the environment;
- (2) Comply with chapter [90.48](#) RCW, Water pollution control and implementing regulations, including chapter [173-200](#) WAC, Water quality standards for ground waters of the state of Washington;
- (3) Conform to the approved local comprehensive solid waste management plan prepared in accordance with chapter [70.95](#) RCW, Solid waste management -- Reduction and recycling, and/or the local hazardous waste management plan prepared in accordance with chapter [70.105](#) RCW, Hazardous waste management;

(4) Not cause any violation of emission standards or ambient air quality standards at the property boundary of any facility and comply with chapter [70.94 RCW](#), Washington Clean Air Act; and

(5) Comply with all other applicable local, state, and federal laws and regulations.

Additionally, the following King County Public Rules govern the clearance and acceptance of solid waste:

(1) PUT 7-2-1 (PR) Clearance of Solid Waste Disposal at King County Waste Disposal Facilities

This public rule specifies the procedures to be used for clearance of special waste for disposal at King County Solid Waste Division facilities. This affects wastes such as contaminated soils, medical waste, dangerous waste, biosolids, hazardous waste, friable asbestos-containing material, etc. All incoming loads of special waste must be accompanied by a Waste Clearance Decision Form. If the waste generators determine that Waste Clearance is needed, they must submit a completed Waste Clearance Application Form to the Solid Waste Division, or to Seattle & King County Public Health. After agency review, a Waste Clearance Decision is issued. Copies of both forms are kept in county files.

(2) PUT 7-1-5 (PR) Waste Acceptance Rule for King County Solid Waste Division Solid Waste Handling Facilities

The county's transfer stations are primarily for the management of mixed municipal solid waste. This public rule stipulates what other types and/or quantities of wastes are prohibited or accepted at county facilities. **Inspections:**

The Operating Plan outlines inspection requirements, including the need for weekly and month inspections, and states the following:

“Routine and periodic inspections are performed by regulatory agencies and the Solid Waste Division through self-audit to ensure operational and facility compliance with environmental, public health, and waste management regulations. Facility inspection reports are a component of the operating record. Records are kept for a minimum of five years. The Health Department may review records upon request to the Transfer Station Supervisor or Operations Manager.”

Regulatory agency inspections include the following:

Public Health – Seattle & King County: Public Health conducts inspections during both operating and non-operating hours to monitor compliance with solid waste handling regulations (King County Board of Health Code – Title 10).

Washington State Department of Ecology (Ecology): Periodic inspections may be conducted by Ecology to ensure that Public Health - Seattle and King County is

adequately enforcing the King County Board of Health Code – Title 10 standards and to ensure these standards are at least as stringent as the State's solid waste handling standards (WAC 173-350). A supervisor from the Solid Waste Division accompanies the inspector.

Puget Sound Clean Air Agency (PSCAA): Periodic inspections are made by PSCAA to monitor air quality.

Fire Marshall and Local Agencies: Periodic inspections are made by local agencies and officials such as the Fire Marshall to monitor conditions and compliance with codes.

Department of Labor and Industries: Periodic inspections of work-safety conditions are conducted by this agency. A supervisor from the Solid Waste Division accompanies the inspector.

State Boiler Inspector: A Department of Labor and Industries Boiler Inspector performs regular inspections on pressurized equipment such as the potable water system equipment.

Additional public health measures included in the expanded Transfer/Recycling Station

The following systems and measures will be incorporated into the design of the new facility with the express purpose of meeting or exceeding the public health regulations applicable to a solid waste transfer facility:

Vector Deterrents:

- MSW receipt and handling will occur in a fully enclosed building (Transfer Building). The vehicle entry doors for this building will be kept low height (approximately 16 feet) to discourage birds from entering the building. These doors will be closed during any times when the station is closed to customers.
- Anti-bird perching devices (wires and spikes) will be included on roof and all perching surfaces.
- Automatic wheel washes and vehicle wash off stations will be included for commercial vehicles to minimize the tracking of waste outside the building.
- There will be no open stormwater ponds on the site that could attract waterfowl.
- Site landscaping and plant materials will be selected to minimize harborages for rodents and similar vermin.
- Site retaining wall system will avoid nooks and crevices such as found with block-type wall systems that can provide harborages for rodents and similar vermin.

Odor and Dust Mitigation:

- MSW handling operations will take place within the fully enclosed transfer building.
- The transfer building will include a dust extraction system for the two solid waste compactors.

- The transfer building will include a dust and odor control system consisting of a high pressure, low volume misting system that will include the ability to introduce odor neutralizing agents that chemically combine with odor molecules to create non-odorous atmosphere in the transfer building.
- The truck washout and automated tire wash systems will minimize tracking of dust and debris outside the building. Such material can be the source of both airborne dust and odor, particularly in warm, dry weather, if not controlled.
- The building drain system to which contaminated water from the waste processing areas will flow, will be equipped with water seal type traps and debris/fines collection and removal sumps to control the build up of odor-causing “gunk” and to prevent the escape of any sewer gas. The sumps will provide specific locations where deodorizer/disinfectant can be added.
- The waste handling floors and surfaces will be designed to be easily washed down to eliminate areas of debris build up where odor can originate.

Noise Mitigation:

- MSW handling operations, including heavy equipment such as loaders, solid waste compactors, and commercial hauling vehicle backup maneuvering will be located inside the fully enclosed transfer building.
- Transfer trailer maneuvering patterns will be laid out to minimize the number of backup operations (when safety backup beepers are activated).
- Site benching and berming and building placement will be utilized to screen noise producing operations from adjacent properties to the maximum extent practical.

Personnel/Customer Health and Safety:

- Non-slip surfaces will be provided in areas where staff and customers may be required to walk, including areas that are frequently wet.
- Fall protection will be provided throughout the facility where there is a possibility of falling from one level to a lower level.
- Lighting levels throughout the facility will be above the minimum lighting levels prescribed in codes and industry standards to promote visibility of hazards. The higher lighting levels will also reduce operator fatigue.
- Carbon monoxide and nitrogen dioxide, byproducts of gasoline and diesel engines respectively, will be monitored in occupied areas throughout the facility and connected to a warning system to alert occupants of elevated levels of harmful gasses.
- Methane barriers and detection and warning systems will be installed under all enclosed spaces at the site as required for construction in the vicinity of a landfill.
- Extensive cautionary and hazard warning signage will be utilized for both staff and customers throughout the facility.
- Spill detection, protection and emergency eyewash and shower equipment will be located throughout the facility.
- The fueling facility will be equipped with spill containment.

- Customer vehicle maneuvering and unloading will be laid out to maximize the separation between vehicles to avoid vehicle-to-vehicle collisions and vehicle-pedestrian accidents.
- Staff will be equipped with portable radios in order to call for help if there is an accident beyond visual or audible detection of other staff.

Fire Safety:

- Fire detection and suppression systems will be used throughout the transfer and equipment maintenance buildings.
- Fire detection systems will be utilized in other facilities on site including the scale facilities and the fueling facility.
- Fire hydrants and fire apparatus access routes will be laid out in accordance with the requirements of the local fire authority having jurisdiction.

Health and safety measures during construction

In addition to the normal construction site health and safety issues (falls, hazardous material spills, equipment accidents, fire, flying or dropped materials, etc.) which every contractor must address in a site safety plan in accordance with OSHA and WISHA codes and standards, the Bow Lake site holds some additional hazards related to the old refuse deposits that need to be addressed. These include potential health issues due to methane gas and odors.

The construction contractors will be required to develop and implement a site health and safety plan, in accordance with Seattle and King County Public Health –requirements, that addresses these issues, as the County requires on every solid waste project where buried refuse is present. The County has specific requirements that must be included in these plans which include detection, response and notification measures. These requirements and the contractors' health and safety plans will be coordinated with the project specific Environmental Protection Plan which will be developed by the County's consultant to address specific measures for identifying and dealing with waste (refuse) and any hazardous materials encountered during the site construction earthwork operations.