

ATTACHMENT B

**PREPAREDNESS
AND
PREVENTION PLAN**

PREPAREDNESS AND PREVENTION PLAN

1. FACILITY DESIGN

The Veolia ES Technical Solutions, L.L.C. (VES) facility is designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

2. SECURITY

The VES facility is surrounded by access control and a block wall that is accessed by three chain link fence gates. The block wall is topped with variations of barbed and concertina wires. The wall to the west and the western portion of the northern wall is topped with barbed wire. The center portion of the block wall to the north is topped with tolls of concertina and strands of barbed wire. The remaining wall including the eastern portion of the northern wall and the eastern wall is topped with tolls of concertina wire. The gates are topped with strands of barbed wire. The exterior storage areas at the rear of the facility are well-lighted at night. Access gates are maintained locked when the facility is not in operation. When facility is in operation, access to the building and exterior storage areas is available through the main front building entrances. Appropriate warning signs are posted at perimeters and elsewhere in the facility, in English and Spanish, and as described in 40 CFR 264.14(c).

2.1 24-Hour Surveillance System

VES's buildings are alarmed between 11:00 p.m. and 6:00 a.m. when the facility is not in operation. The fire and police departments respond to all alarms.

2.2 Barrier and Means to Control Entry

During normal business hours access to the facility is controlled by gates. Access to the buildings and the exterior storage areas are available only through the main front entrances. Personnel outside of the company requiring access to the waste handling portions of the facility must register at the front desk and will be escorted into the facility. Specific personnel, typically the General Manager, Operations Manager and/or the Transportation Manager, retain keys to open the gates. In addition to the barriers, internal communication devices are employed, including telephones, hand-held 2-way radios, and a heat/smoke alarm system that includes an audible and a visual signal (sound and strobe lighting).

2.3 Access to Communications or Alarm Systems

Facility supervisors are equipped with two-way radios that allow them to be in constant, direct communication with facility management personnel. Facility operations personnel, including personnel who handle and process waste materials, area always under the supervision of a supervisor who has direct access to communication systems. Operations personnel are in direct voice and visual contact with supervisors whenever materials are being received or processed at the facility. There is always more than one employee on the premises when the facility is in operation.

Building 1 is equipped with a heat/smoke alarm system that includes an audible and a visual signal (sound and strobe lighting).

2.4 Warning Signs

Warning signs that read “Danger-Authorized Personnel Only” are posted at each entrance to the active portion of the facility, in sufficient number to be seen from any approach to the active portion. These signs are displayed on each entry gate. The signage is provided in both English and Spanish, and is legible from a distance of at least 25 feet. This signage is deemed acceptable in accordance with 40 CFR 264.14(c) as the legend of the signage indicates that only authorized personnel are allowed to enter the active portion, and the entry onto the active portion can be dangerous.

3.0 INSPECTION SCHEDULE

Regular inspections of the facility will be conducted in accordance with Inspections Schedule provided in Attachment D of this permit.

4.0 PREPAREDNESS AND PREVENTION

A description of emergency equipment and internal and external communications equipment is provided in the Contingency Plan.

VES’s communication, alarm, fire protection, spill control, and decontamination equipment are periodically tested and inspected to ensure proper operation during an emergency. VES’s Inspection schedule includes the inspection checklist for site safety and emergency equipment.

5.0 PREVENTIVE PROCEDURES, STRUCTURES, AND EQUIPMENT

VES strives to prevent hazards to human health or the environment through the preventive procedures, structures, and equipment described in this section, pursuant to 40 CFR 270.14(b)(8).

5.1 Required Equipment and Testing and Maintenance of Equipment

In accordance with 40 CFR 264.32, VES is equipped with the following emergency

response equipment:

- Two-way radios to facilitate internal communications and immediate emergency instructions;
- Heat/Smoke alarm system with audible and visual alarm;
- Telephones;
- Portable fire extinguishers, spill control equipment, and decontamination equipment;
- Water at adequate volume and pressure to supply water stream hoses, foam producing equipment or water spray systems.

All facility communications, fire protection equipment, spill control equipment, and decontamination equipment are inspected on a regular schedule as detailed in Inspection Schedules, and are routinely maintained as required by 40 CFR 264.33. The two way radios, telephones and water supply systems are used on a daily basis and any need for repair to these systems would immediately be detected. Likewise, because they are used daily, any need for repair to these items is expedited. Fire extinguishers are inspected weekly, and inspection tags are completed monthly. An outside contractor does annual maintenance on portable fire extinguishers.

5.2 Required Aisle Space

VES maintains aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the facility in an emergency. A minimum aisle width of 2-feet will be maintained to allow for employee access and egress, and the movement of portable fire-fighting and spill response equipment (e.g., fire extinguishers and absorbents).

5.3 Loading/Unloading Operations

VES facilitates safe loading and unloading of containers by implementing the following:

- Employee training;
- Specialized equipment (drum handlers, etc.);
- Cones and portable barriers;
- Warning alarms;
- Inspection procedures;
- Spill kits

The VES facility is relatively flat, so the movement of materials over or around inclines does not become problematic. Loading and unloading are conducted in designated areas. These areas are equipped with spill kits. Containers are unloaded by employees who are trained to operate forklifts. The drums and cartons are transferred into the building and are placed into the receiving/staging area. Containers are then inspected and logged into the facility's waste tracking system. In the event of lamp breakage, material is cleaned up and placed into a drum located near the inspection area. This drum is clearly marked

with a hazardous waste label. Should a spill occur that requires clean up, VES employees will use the mercury recovery vacuum or similar device to contain and clean up the spill. Once the receiving procedures have been completed, the incoming material is transferred to either the processing area or the storage building.

5.4 Run-on/Run-off

The site is graded in a manner to minimize off-site drainage from entering the site and to minimize on-site run-off of storm water. Storm water either evaporates from the site, or is pumped for off-site disposal.

5.5 Water Supply Protection

The site formerly utilized a series of eleven on-site dry wells to drain storm water. Eight of these dry wells have since been permanently sealed. Dry wells located in the employee parking lots are stenciled with the words “Storm Water Only” to prevent direct dumping into the well. There are no operational dry wells in the areas where hazardous materials are used, loaded, stored or otherwise managed.

5.6 Environmental Controls

Environmental controls are required because of the toxicity of mercury. It is a contaminant when introduced into the atmosphere, the soil, or ground water. The following controls are installed to minimize the hazard associated with handling of the lamps during the process.

- All mercury – containing items are stored within a secure container properly stored within a building. If lamps are broken in shipment, particulates which may work their way out of shipping containers are readily addressed by properly cleaning the areas with appropriate response equipment.
- Shipping containers are opened in an exhausted (negative pressure) space. Since a typical 4-foot fluorescent tube contains no more than an average of 30 milligrams of mercury, exhausting the space in which the system operators work minimizes the amount to which a person may be exposed. All persons working within the exhausted enclosure wear personal protective equipment appropriate to the tasks being performed and the associated hazards present.
- A portable Jerome mercury vapor analyzer, or similar analyzer, is used to monitor mercury vapor concentrations in the air throughout the work place, on a daily basis.
- The atmosphere exhausted from the crusher, separator, and the dust collector is treated by carbon filtering to remove any mercury in the vapor phase. A portable Jerome mercury vapor analyzer, or similar analyzer, is used to monitor mercury vapor concentrations at the carbon filters for both the crusher/storage area carbon filter system and the

disassembly/retort area carbon filter system. Measurements are taken between the first and second in-series carbon units for each system at a frequency of once every four hours during operation. If a measurement is above VES's Action Level, two subsequent verification measurements are taken, which include the use of a second Jerome mercury vapor analyzer. Three consecutive readings above the mercury vapor action level are to be reported to ADEQ pursuant to Part II, Section K.3.

5.7 Fire Protection and Fail-Safe Measures

Building code classifies the collection building as Group H-17 occupancy and the requirements thereof are met in the design. This classification arises not with respect to fire hazard but with respect to the classification of mercury as a highly toxic material. Mercury is non-combustible and the combustibility of phosphor powders and carbon is of a low order. However, since the vaporization of mercury is accelerated at higher temperatures and it is separated by code, the collection building that houses the carbon canisters is protected by an automatic sprinkler with a water flow alarm connected to the building fire and security alarm system.

5.8 Equipment and Power Failure

In the event that any equipment within the lamp or retort processes fail, or a power failure occur, alarms would be activated. The alarm consists of visual and audio aides that would alert employees of the failure. The systems were designed to shut down all operations upon activation of the alarms. Upon power failure, a backup generator is utilized to ensure proper ventilation is maintained within the work environment to preserve the safety of the employees. In the event of power failure, a standby stored-air compressed air system causes diaphragm valves to close on the three crusher in-feed ports, the two material exit ports, and the pollution control system emission stack. This prevents a release of mercury vapor from within the system. Electrical interlocks prevent opening and resetting of the air-operated valves until electric power is restored, at which time the system is required to be restarted manually, following inspection of all components.

5.9 Personnel protective Equipment

VES provides personal protective equipment (PPE) to each operations and maintenance employee. The PPE is issued for use during routine operations and for emergency situations. A detailed description of the PPE available at VES, its locations, and capabilities is provided in the Contingency Plan.

6.0 PREVENTION OF REACTION OF IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTES

VES does not receive any ignitable wastes at the facility except as identified and described in Waste Analysis Plan (WAP).