Florida Department of

Environmental Protection

Hazardous Waste Inspection Report

FACILITY INFORMATION:

Facility Name: Veolia ES Technical Solutions LLC

On-Site Inspection Start Date: 06/02/2015 **On-Site Inspection End Date:** 06/02/2015

ME ID#: 6716 **EPA ID#:** FL0000207449

Facility Street Address: 342 Marpan Ln, Tallahassee, Florida 32305-0904

Contact Mailing Address: 342 Marpan Ln, Tallahassee, Florida 32305-0904

County Name: Leon **Contact Phone:** (850) 877-8299

NOTIFIED AS:

Non-Handler
Transporter
Transfer Facility
TSD Facility Unit Type(s)
Used Oil

INSPECTION TYPE:

Routine Inspection for LQG (>1000 kg/month) facility

Routine Inspection for Transfer Facility

Routine Inspection for TSD Facility Unit Type(s)

Routine Inspection for Used Oil facility

Routine Inspection for Transporter facility

INSPECTION PARTICIPANTS:

Principal Inspector: Aaron Mitchell, Inspector

Other Participants: Linda Dunwoody, Facility Operations Manager

LATITUDE / LONGITUDE: Lat 30° 21' 51.8486" / Long 84° 16' 8.358"

SIC CODE: 3399 - Manufacturing - primary metal products, nec

TYPE OF OWNERSHIP: Private

Introduction:

Veolia Environmental Services Technical Solutions LLC (Veolia), formerly Recyclights, Superior Support Services, Inc., Onyx Special Services, Inc., and Onyx Environmental Services LLC, located at 342 Marpan Lane, Tallahassee, Leon County, Florida, has been in operation at this location since 1995. Veolia employs approximately 20 people in the transport and processing of mercury containing lamps and devices, mercury contaminated debris, electronic waste, batteries, scrap metal, and PCB waste.

Waste for recycle is picked up in NC, SC, GA, FL, TN, LA, MS, AR and AL and transported to Veolia for processing. Veolia is a large quantity generator of hazardous waste and a RCRA permitted facility. Veolia's facility located at 1 Eden Lane, Flanders, NJ (NJD080631369) is registered in Florida as a transporter of hazardous waste. The facility located at 342 Marpan Lane registered with the Department as a Hazardous Waste Transfer Facility on July 11, 2007. Veolia is also registered with the Department as a used oil transporter through June 30, 2015.

Veolia operates a universal waste transfer facility at 4972 Woodville Highway, Tallahassee, for the parking of transport vehicles prior to and after unloading at the permitted facility. The transfer yard and permitted facility are located on non-contiguous property in the same industrial park.

Veolia notified the Department of universal waste transfer facility activities at the transfer yard on January 9, 2006.

The current operating permit for Veolia, No 71455-HO-011, addresses mercury recovery, reclamation and storage and expires September 26, 2016.

Process Description:

Veolia is designed to recycle mercury containing lamps, devices and materials. Veolia uses the term mercury containing manufactured articles (MCMA) to refer to mercury containing devices and mercury contaminated materials.

Fluorescent lamps are recycled using a combination of manual and automated dry separation processes to separate the primary components of the lamps: glass, aluminum and the phosphor powder. Glass and aluminum are shipped off-site for further reuse. The phosphor powder derived from the fluorescent lamps is accumulated on-site and the mercury contained in the powder is reclaimed using a retort oven. In the recovery process, small amounts of other scrap metals and plastics are also generated.

HID lamps are processed using a combination of manual and automated separation processes to separate the outer lamp glass, brass or aluminum bases and the mercury containing arc tube. The arc tubes are crushed and loaded into containers for retort processing to reclaim the mercury. MCMA are recycled through a combination of manual separation followed by retort processing or the articles may be placed directly in the retort oven for processing.

A. Outside North Storage Area:
Four 20-yard roll-offs for collection of processed glass are staged in this area on a concrete pad. An adjacent asphalt paved area is used for collection of paper-products, wood pallet recycling and various empty container storage. At the north end of this paved area are two container trailers for storage of equipment, replacement parts and empty non-hazardous containers. This area is also used for overnight holding of transport trucks in the event of an arrival after business hours. The trucks are immediately unloaded during the next business day. At the time of the inspection one of the roll-offs had a purple liquid draining from the container. The facility manager informed the inspector that a client had purchased 55-gallon drums from Craigslist that had powder ink residue in the bottom of the drum. The client used the drum to store and transport crushed mercury containing lamps. The drum was processed and the drum contents were conveyed to the roll-off containers. Rain water entered the roll-off and washed the purple ink out of the container. The facility immediately contained the purple water and sent a sample of it off for analysis. The analysis came back as non-hazardous. The facility has absorbent material to contain and cleanup the water. The roll-off will be transported for disposal once all the water has drain from the container.

B. Container Storage Areas:
Veolia has two storage areas designated as "Container Storage Areas One and Two" (CSAs). The CSAs are permitted for up to 27 pallets (108 55-gallon drums) of MCMA; dental amalgam and traps; pre-retort phosphor powder; HID arc tubes; and site-generated hazardous waste (prep room debris and PPE, condensate water, and spent carbon). At the time of this inspection, hazardous waste stored in CSA One included 23 55-gallon drums and approximately 16 smaller containers. CSA Two contained 17 55-gallon drums and ten containers of hazardous waste, four drums of mop water and two Gaylord boxes of crushed aluminum end caps. The oldest date observed was March 10, 2015. All containers were properly closed, labeled, and dated.

C. Fluorescent Lamp Processing:
Fluorescent lamps are staged immediately adjacent to the lamp processing feed belts. Fluorescent lamps are hand fed into the lamp processing room via a conveyor belt. The Fluorescent Lamp Processing room, located in the northwest corner of the facility, is designed to process approximately 200,000 feet of lamp equivalents per 8-hour shift. Lamps are crushed with a drum crusher and dry-separated into glass, aluminum and phosphor powder. Phosphor powder is collected by a bag tower and accumulated in 55-gallon drums. There are two processing lines that are used to facilitate this operation. The second processing line is used when there is a need to

process a larger volume of materials. The facility has purchased a new 22.5 foot auger for the second processing line which has not been installed. The facility does not have a definite installation date as of yet. No violations were observed at the time of the inspection.

D. Loading Dock and Processed Powder Storage:
The loading and unloading area consists of two trailer docking areas for forklift transfer of materials to/from transport vehicles. Post-retort phosphor powder in 55-gallon drums is accumulated in this area along the east wall prior to off-site shipment for disposal in a Subtitle D landfill. The permit requires that post-retort phosphor powder be sampled to ensure effective retort processing prior to off-site shipment. During the inspection of the facility, approximately 31 drums total of post-retort phosphor powder and non-PCB containing ballasts being stored in this area. No violations were observed.

E. Retort Prep Area:
The retort room, located immediately south of the fluorescent lamp conveyor belts, is an enclosed negative pressure room. The prep area is separated from the retort oven by a roll-up door. The phosphor powder, crushed HID arc tubes, and MCMA's are prepared for the retort oven in the prep area. Drums of crushed HID arc tubes and phosphor powder from the lamp recycling operation have their lids removed in the prep area and are then placed in the retort oven. MCMA are manually disassembled and the liquid mercury is drained and accumulated for sale in the prep area. MCMA components are placed in the retort oven or segregated for off-site recycle/disposal. The manual processing of compact fluorescent lamps is conducted here due to the negative pressure environment that aids in reducing the amount of exposure to workers. At the time of the inspection materials were being staged here for processing through the Fluorescent Lamp Processing Line #1. No violations observed at the time of the inspection.

F. Retort:
The retort operation is comprised of an oven which is used to heat the mercury containing waste, liberating the mercury vapors which are drawn off the oven with a vacuum pump. The vapors are drawn through a series of heat exchangers in order to condense the vapors back into a liquid mercury state. The liquid mercury is decanted into accumulation containers for sale. This process varies depending on the materials that are going through the retort process. Lamps are on a 24-hr retorting time frame in which the oven bakes the lamp materials at high temperatures (1120 degrees F max) then cools down. This process is repeated several times during the 24-hour time period. At the time of the last annual inspection the Retort process was being facilitated at the Port Washington, Wisconsin facility. Veolia has since repaired its Retort Oven and restarted its reclamation of mercury from mercury containing wastes. No violations were observed at the time of the inspection.

G. Inbound Universal Waste Storage:
This area, located on the west side in the southern portion of the building, is the lamp storage area. The area has a permitted maximum storage capacity of 7,424 cubic feet of mixed fluorescent and HID lamps. The area is used for temporary storage of universal waste lamps that cannot be immediately processed. These lamps normally consist of HID lamps, U-shaped lamps and other specialty lamps that require manual processing prior to recycling/reclamation. The area is also used for temporary storage of universal waste batteries and non-RCRA hazardous materials. All the inbound material was labeled, closed and in good condition. All containers were within their permitted areas and no broken or exposed universal waste was observed. The area appeared to be in compliance at the time of the inspection.

H. HID Processing, Maintenance:
HID lamps are processed manually or through a custom built HID machine in the southern end of the building. The HID lamp machine is comprised of conveyor belts, crushers, magnets and air pollution control equipment. It is enclosed and under negative pressure. It uses an automated process to dry-separate outer glass, metal bases and support wires from the arc tubes. The arc tubes are crushed and dropped into 55-gallon drums for further processing in the retort room. The remaining components are dropped into collection containers for recycle/disposal. The drums of crushed arc tubes are managed as satellite accumulation area containers and moved to the CSA area at the north end of

the building within three days. In the manual process, individuals carry out the separation and sorting procedures by hand. The separated arc tubes are fed into the HID machine for crushing prior to retort. The automatic feeder/conveyor allows for in the processing of HID lamps to 37,000 lamps per 8-hour shift. The facility maintenance area is located adjacent to the HID processing area. The maintenance area is enclosed by a cage that keeps all maintenance materials separated from processing equipment.

I. South Building Battery, Container and E-Waste Storage:
This building is immediately south of the main building and is divided into two large storage areas. The Container storage area is used to hold empty fiber drums and cardboard boxes. No universal or hazardous wastes are stored in this area. The second room in this building is used for storage of e-waste and battery storage. The space is permitted to store up to 72 pallets. At the time of the inspection, all pallets were properly labeled and protected from the environment. A new battery sorting table has been added to help in sorting of the various battery types received by the facility. No violations were observed at the time of the inspections.

K. Records:
Veolia maintains records including: Inbound/outbound HW manifests or shipping documentation, Monthly Hg Reclamation Rate Samples, Weekly HW Storage Inspections, Weekly Process Operation Inspections, Personnel Training Records, Weekly Composite Samples, Weekly Safety Inspections, and the Contingency Plan. The records were randomly reviewed for CY2012 and CY2013 and found to have no violations at the time of the inspection. Due to the Retort Oven working intermittently the facility records for reclamation rate samples were not as numerous as usually observed.

New Aluminum End Cap Process:
Veolia notified the Department on, August 19, 2014, of its high mercury content regarding composite sampling analysis of its aluminum end caps from the processing of mercury containing lamps. Veolia update the Department throughout November of 2014 through February of 2015 of its attempts to address the high mercury content readings. The facility informed the Department of their intent to modify their existing permit and install a new piece of lamp processing equipment. This new process would allow the facility to address the high sample readings the facility was receiving from its aluminum end caps. The inspector reviewed the composite sampling analysis since the installation of the new processing equipment and observed a reduction to within permitted levels of mercury content in the analysis. The facility through the implementation of the new process has corrected the issue and are in compliance with their operating permit.

PHOTO ATTACHMENTS:

Container Storage Area #1

Container Storage Area #2

HID Procssing

E-Waste and Battery Storage

Conclusion:

The facility appeared to be in compliance at the conclusion of the inspection.

Signed:

A hazardous waste compliance inspection was conducted on this date, to determine your facility's compliance with applicable portions of Chapters 403 & 376, F.S., and Chapters 62-710, 62-730, 62-737, & 62 -740 Florida Administrative Code (F.A.C.). Portions of the United States Environmental Protection Agency's Title 40 Code of Federal Regulations (C.F.R.) 260 - 279 have been adopted by reference in the state rules under Chapters 62-730 and 62-710, F.A.C. The above noted potential items of non-compliance were identified by the inspector(s).

This is not a formal enforcement action and may not be a complete listing of all items of non-compliance discovered during the inspection.

Aaron Mitchell	Inspector	
PRINCIPAL INSPECTOR NAME	**PRINCIPAL INSPECTOR TITLE**	
Aaron Mitchell	FDEP	6/23/2015
PRINCIPAL INSPECTOR SIGNATURE	**ORGANIZATION**	**DATE**

Supervisor: **Brad Hartshorn**

NOTE: By signing this document, the Site Representative only acknowledges receipt of this Inspection Report and is not admitting to the accuracy of any of the items identified by the Department as "Potential Violations" or areas of concern.