



**Florida Department of
Environmental Protection
Hazardous Waste Inspection Report**

FACILITY INFORMATION:

Facility Name: Veolia ES Technical Solutions LLC

On-Site Inspection Start Date: 01/27/2010

On-Site Inspection End Date: 01/27/2010

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:

LQG (>1000 kg/month)

Transporter

TSD Facility Unit Type(s)

INSPECTION TYPE:

Routine Inspection for Transporter facility

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

Routine Inspection for TSD Facility Unit Type(s)

INSPECTION PARTICIPANTS:

Principal Inspector: Aaron Mitchell, Environmental Specialist

Other Participants: Melissa Woehle, Environmental Specialist; Wayne Bulsiewicz, Environmental Health and Safety Manager; Linda Dunwoody, Operations Manager; Frank Allred, Retort Operator

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, 2010.

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 and received EPA ID number FLR000124917 for that location.

The current operating permit for Veolia, No 71455-HO-009, addresses mercury recovery, reclamation and storage and expires September 26, 2011. Permit Modification No 71455-HO-010

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was issued on November 20, 2008. The modification increases the maximum storage volume for electronic waste from 36 pallets to 86 pallets and updates related closure cost estimates. It also contains an updated site plan. The last hazardous waste inspection of Veolia, was conducted on March 16, 2009, three areas of concern were identified. The areas of concern were addressed by Veolia and no further action was required.

Veolia notified the Department in January 2010 of failure to meet the 99% recovery rate requirement for the first half of 2009. The recovery rate reported by Veolia for this time period was 98.3%. The Northwest District had a teleconference with Veolia to discuss the issue on September 10, 2009. Additional mercury recovery data was requested by the District and provided by Veolia for review. Department permitting, legal, and compliance staff met with Veolia representatives in Tallahassee to further discuss the issue on January 27, 2010. Veolia proposed several solutions including a rule variance. The Department was not willing to grant a variance at this point. Veolia indicated that they were currently able to meet the 99% recovery rate if a weighted average of mercury recovered from powder and arc-tube waste streams was used. This solution is in agreement with Florida Administrative Code subsections 62-737.200(12) and 62-737.860(4) and was accepted by the Department. For this solution Veolia will have to continue to demonstrate, at least on a semi-annual basis, that they can achieve a 99% recovery of the total mass of mercury introduced into their process during that period. They should also continue to monitor the recovery rate for the various individual waste streams to determine if future trends will require further evaluation of the 99% recovery goal.

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:

Two 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, UW Transporter bulk delivery drop off (FEDEX), and various empty container storage. At the north end of this paved area, there 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.

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Attachments:**Equip. Storage & Empty Containers****Glass Roll-offs****B. HW Storage :**

Veolia previously had two separate hazardous waste staging areas, "Hazardous Waste Storage Area" (HWS Area) and "90-Day Accumulation Area" (90-Day Area), both located inside the north end of the main building. The HWS Area is permitted for up to 15 pallets (60 55-gallon drums) of MCMA, dental amalgam and traps, and pre-retort phosphor powder. The 90-Day Area is permitted for up to 6 pallets (24 x 55-gallon drums) of HID arc tubes, and site-generated hazardous waste (prep room debris and PPE, condensate water, and spent carbon). Veolia now stores all of the waste categories listed in this paragraph in the HWS Area.

At the time of this inspection, waste stored in the HWS Area included eight 55-gallon drums of pre-retort phosphor powder, two 55-gallon drums of pre-retort neon, and two small containers of MCMA. The former 90-Day area was located directly across from the HWS area and is now used for storage of aluminum end caps from lamp processing.

Attachments:**Phosphor Powder & Neon Drums****Site Generated HW****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. This 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. Veolia-TSD has a second processing line that is used when there is a need to process more materials.

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Attachments:**Flourescent Lamps Staging Area****Conveyor Belt****D. Loading Dock, Processed Powder Storage, Maintenance:**

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 shipment off-site for disposal in a Class D landfill. The post-retort phosphor powder has been sampled to ensure effective retort processing. The facility maintenance area is also located in this area.

Attachments:**Post Retort Drums****Loading Dock****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.

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Attachments:**Mercury Disassembly Room****Retort Room****F. Retort :**

The retort operation is comprised of an oven which is used to heat the Hg containing waste, liberating the Hg 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 Hg state. The liquid Hg 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 (1120F max) then cools down. This process is repeated several times during the 24-hour time period.

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 permitted storage dimensions are 64.5 feet long, 20 feet deep and 8 feet high for a maximum of 6,400 cubic feet of mixed fluorescent and HID lamps. This 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.

Attachments:**Pre-Process UW Lamp Storage****Pre-Process UW Lamp Storage**

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H. HID Processing:

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 HWS 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.

Attachments:

Manual Processing of HID Lamps



Automated HID Process

**I. Battery Storage:**

This area is in the southeast corner of the main building which is used for storage and sorting of batteries and electronic recycling wastes (e-waste). The maximum quantity of battery storage is 36 pallets. Batteries are repackaged in 55-gallon drums before being further processed.

The oldest date observed was June 29, 2009 , which was within the regulatory storage limit of one year.

Attachments:

Battery Storage



South Building



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J. South Building 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 up to a maximum of 86 Pallets.

Attachments:

South Bldg Empty Containers



South Bldg E-waste Storage

**K. Records:**

Veolia maintains records including:

Inbound/outbound HW manifests or shipping documentation
Weekly HW Storage Inspections
Personnel Training Records
Weekly Safety Inspections

Monthly Hg Reclamation Rate Samples
Weekly Process Operation Inspections
Weekly Composite Samples
Contingency Plan

The above records were randomly reviewed for CY 2009 and found to be complete with one exception. The number of containers was not recorded on several of the Weekly Hazardous Waste Storage Area Inspections. Veolia agreed to record the number of drums located in the Hazardous Waste Storage Area on the weekly checklist. Permit required training documentation was verified for four randomly selected employees. The records were well organized and easily accessible.

The first analysis result for the weekly composite sample of aluminum end caps taken on 7/11/09 (week 28) was reported as 6.1 ppm which is above the regulatory limit of 3. The remainder of the sample was sent for re-analysis on 7/14/09, but no results were received. Veolia provided documentation to show that the sample for re-test was received by Test America and explained that the lab was unable to locate the sample. Due to limited storage space, the end caps from week 46 were shipped off site for recycling/disposal while waiting for the results. Veolia has contacted Test America and implemented a secondary labeling system that helps to ensure that future samples sent to the company are accounted for during the testing process.

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Summary of Potential Violations and Areas of Concern:

Potential Violations

No Violations

Areas of Concern

No Areas of Concern

Conclusion:

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

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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

PRINCIPAL INSPECTOR NAME

Environmental Specialist

PRINCIPAL INSPECTOR TITLE**PRINCIPAL INSPECTOR SIGNATURE**

FDEP

ORGANIZATION

3/12/2010

DATE

Melissa Woehle

INSPECTOR NAME

Environmental Specialist

INSPECTOR TITLE**INSPECTOR SIGNATURE**

FDEP

ORGANIZATION

2/22/2010

DATE

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Veolia ES Technical Solutions LLC

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Frank Allred

REPRESENTATIVE NAME

Retort Operator

REPRESENTATIVE TITLE

NO SIGNATURE

REPRESENTATIVE SIGNATURE

Veolia ES Technical Solutions LLC

ORGANIZATION

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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.