



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

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**FACILITY INFORMATION:**

**Facility Name:** Veolia ES Technical Solutions LLC  
**On-Site Inspection Start Date:** 06/15/2022 **On-Site Inspection End Date:** 06/15/2022  
**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, TSD Facility, Transfer Facility, Transporter, Used Oil

**WASTE ACTIVITIES:**

**Generator:** LQG **Transporter:** Commercial Waste, Transfer Facility **TSD:** Treater, Disposer **Universal Waste:** Indicate types of UW generated and/or accumulated at the facility: **Transport:** Mercury Containing Lamps, Mercury Containing Devices **Maximum quantity of UW handled or transported at any time:** Mercury containing devices (LQH) - 100kg or more accumulated Mercury containing lamps (LQH) - 2000kg or more accumulated **Mercury Recovery and/or Reclamation**

**INSPECTION TYPE:**

Routine Inspection for TSD Facility Facility  
Routine Inspection for LQG (>1000 kg/month) Facility

**INSPECTION PARTICIPANTS:**

**Principal Inspector:** Monica Hardin, Inspector  
Corinna Clanton, Environmental Specialist; Chad Nowling, Environmental Consultant;  
**Other Participants:** Jarion Gavin

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

**NAIC:** 562211 - Hazardous Waste Treatment and Disposal

**TYPE OF OWNERSHIP:** Private

**Introduction:**

Veolia ES Technical Solutions LLC (Veolia or facility) is a Mercury Reclamation and Recovery Facility located at 342 Marpan Lane in Tallahassee, Florida on approximately 3 acres. This location has operated since 1996 under different companies with Veolia taking over in 2006. Veolia currently employs thirteen people (including day labor) with operations occurring Monday through Friday. Wastes are picked up in multiple states in the southeast including 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 Resource Conservation Recovery Act (RCRA) permitted facility. The current operating permit, No. 71455-014-HO, authorizes mercury containing lamps and devices storage, mercury recovery, and mercury reclamation; the current permit was issued August 4, 2021 and expires September 26, 2026. Veolia also operates a 10-day hazardous waste transfer storage facility and conducts hazardous and non-hazardous waste transporter activities at this facility.

Veolia also operates a universal waste transfer facility (FLR000124917) 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; the transfer yard was not inspected during this inspection.

On June 15, 2022 Monica Hardin, Corinna Clanton, and Chad Nowling, of the Florida Department of

## Veolia ES Technical Solutions LLC Inspection Report

Inspection Date: 06/15/2022

Environmental Protection (DEP or Department), conducted a routine compliance evaluation inspection at Veolia to ensure compliance with the applicable state and federal hazardous waste regulations and permit conditions. Veolia was last inspected on November 18, 2020, with no violations cited.

Veolia is designed to recycle mercury containing lamps, devices and materials. The facility 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 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.

High Intensity Discharge (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.

All fluorescent lamp processing equipment, except for the feed belts, are contained within a separate room that is equipped with special air handling systems. The air handling systems maintain a negative air pressure within the room to control mercury vapors. The HID process is performed within the controlled environment of the HID machine. Some HID lamps due to their construction, are dismantled by hand, however the arc tubes removed from these lamps are fed into the HID machine for crushing. Elemental mercury is recovered from the retort operation and shipped to a mercury refiner/seller. This company may sell the mercury as is or may further refine the mercury and repackage for sale or use in the manufacture of new products.

In addition to the recycling of mercury containing lamps and MCMA, the facility also operates as a handler of other universal wastes (batteries) and non-RCRA-regulated electronic wastes ('e-wastes') such as computer equipment and lamp ballasts.

### Process Description:

Department personnel arrived onsite around 1200, we were received by Mr. Jarion Gavin, who facilitated the visual inspection.

#### North Yard

The area immediately north of the main building is used for the accumulation of processed glass, staging, and storage of empty containers, pallets, and baled cardboard; the area is also designated parking for trailers containing manifested hazardous waste (10-day transfer facility area). At the time of inspection, we observed three 20-yard roll-off containers for the collection of processed glass, baled cardboard, wood pallets, and various empty containers; there were no trailers parked in the transfer area.

#### Storage Areas

Veolia has five designated storage areas. The storage areas are permitted to store up to 13,504 cubic feet of lamps, or 844 55-gallon drum equivalents of MCMA/unprocessed powder or a combination thereof within 106 pallet spaces. Each storage area is marked on the floor to indicate pallet numbers and to ensure adequate aisle space is maintained. At the time of this inspection, the following observations were made at each storage area:

- Storage area #1 contained a box for personal protective equipment (PPE) such as Tyvek suits; the container was labeled as non-hazardous special waste. (photo 1)
- Storage area #2 is designated for the storage of phosphor powder or MCMA received from other (Veolia) facilities; this area was empty.
- Storage area #3 contained twelve 55-gallon containers of processed phosphor powder; each container was labeled as non-hazardous special waste. Drums are processed three at a time and are sampled/analyzed once

## Veolia ES Technical Solutions LLC Inspection Report

Inspection Date: 06/15/2022

cooled prior to off-site shipment for disposal in a Subtitle D landfill. (photo 2)

- Storage area #4 is the primary lamp storage area immediately adjacent to the (un)loading dock. There were eighteen pallets with lamps. Containers on the pallets appeared appropriately labeled and each pallet also appeared appropriately labeled. (photo 3)
- Storage area #5 contained three boxes individually labeled for halogens, CFLs, and CFL pins; each of the boxes appeared empty.

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### Fluorescent Lamp Processing

Fluorescent lamps ready for processing are staged immediately adjacent to the lamp processing feed belts (photo 4); fluorescent lamps are hand fed into the lamp processing room via the conveyor/feed belt (photo 5). The Fluorescent Lamp Processing Room (labeled as Crush and Separate Room on the Facility Plan), is located in the northwest corner of the facility. It is designed to process approximately 200,000 feet of lamp equivalents per 8-hour shift. Lamps are crushed in 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. At the time of inspection, there were four pallets and six containers of lamps staged for processing. Lamps staged in this area are expected to be processed before the end of the day; if they are not processed they are moved to one of the designated storage areas.

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### Loading Dock

The loading/unloading area consist of two trailer docking areas for forklift transfer of materials to/from transport vehicles. In this area, the facility maintains a satellite accumulation container with an aerosol can puncture unit attached for aerosol can waste generated onsite (photo 6). The drum appeared appropriately labeled. A date of June 2021 was noted on the drum.

### 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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### 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-hour retorting time frame in which the oven bakes the lamp materials at high temperatures (1120 degrees Fahrenheit maximum) then cools down. This process is repeated several times during the 24-hour period.

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### HID Processing

HID lamps are processed through a custom-built HID machine in the southern end of the main facility building. Veolia previously used a manual process in conjunction with the automated process but that has been discontinued. 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.

Inspection Date: 06/15/2022

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### South Building

The South building is immediately south of the main building and is designated for battery, empty container, e-waste storage, and a maintenance area. No universal or hazardous waste is stored or generated in the container or maintenance areas. The battery storage and e-waste are stored separately for sorting and prepping for shipment. At the time of inspection, in the battery area we observed pallets for dry lead acid batteries, pallets for wet lead acid batteries, pallets of universal waste batteries for shipment, and batteries staged for sorting at the sorting table. Mr. Gavin explained dry lead acid batteries are taped and stacked with cardboard in between (photo 7) while wet lead acid batteries are capped (with plastic caps) and not stacked (photo 8). If any spills occur, a powder is applied to neutralize the acid and the material is placed in the appropriate container. Adjacent to the universal waste battery sorting table, nine pre-labeled battery pack buckets/boxes were staged for sorting (photo 9). Buckets under the table catch the batteries as an employee sorts them by type; prior to the end of the shift, buckets are emptied into their respective drums.

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### Records

Veolia maintains records including: Inbound/Outbound hazardous waste manifests or shipping documentation, Annual Mercury Recovery/Reclamation Report, Monthly Mercury Reclamation Rate Samples, Weekly Hazardous Waste Storage Inspections, Weekly Process Operation Inspections, Personnel Training Records, Weekly Composite Samples, Weekly Safety Inspections, Permit, most recent Biennial Report and the Contingency Plan. Requested records were provided electronically following the onsite inspection.

The records were reviewed from November 2020 through present, with no discrepancies noted. The provided Contingency Plan was dated November 11, 2021; Veolia stated an annual review is conducted with changes made as necessary. As required, the facility submitted their Biennial Report on April 1, 2022 and their annual Mercury Recovery and Reclamation Report on March 1, 2022.

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On June 20, 2022, through a Teams meeting with Monica Hardin (DEP) and Scott Fulton and Wayne Bulsiewicz (both with Veolia), a closing interview was conducted. We discussed the onsite inspection, waste reported on the Biennial Report, the 8700-12FL notification form, the battery sorting table, priority of processing lamps, the date on the can puncture unit, and the records for review. Mr. Fulton explained the aerosol can puncture unit is managed as a satellite accumulation area with the date used for internal record.

It was explained each year when Veolia submits their 8700-12FL notification form for their various registrations (such as used oil or transporter), they must complete the entire form. Specifically, sections related to hazardous waste generation have been being left blank recently, causing the generator status to be listed as a non-handler. Incomplete forms may be rejected in the future, delaying registration requirements.

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### PHOTO ATTACHMENTS:

Inspection Date: 06/15/2022

Photo 1: Storage Area #1



Photo 2: Storage Area #3



Photo 3: Storage Area #4



Photo 4: Processing Lamp Staging



Photo 5: Conveyor Belt to Lamp Processing



Photo 6: Aerosol Can Puncture Unit SAA





## Veolia ES Technical Solutions LLC Inspection Report

Inspection Date: 06/15/2022

Photo 7: Dry Lead Acid Batteries



Photo 8: Wet Lead Acid Batteries



Photo 9: Batteries Staged for Sorting



### Conclusion:

At the conclusion of this inspection, Veolia ES Technical Solutions LLC appeared in compliance with the applicable state and federal hazardous waste regulations.

Inspection Date: 06/15/2022

**1.0: Pre-Inspection Checklist**

## Requirements:

The requirements listed in this section provide an opportunity for the Department's inspector to indicate the conditions found at the time of the inspection. A "Not Ok" response to a requirement indicates either a potential violation of the corresponding rule or an area of concern that requires more attention. Both potential violations and areas of concern are discussed further at the end of this inspection report.


**Note: Checklist items with shaded boxes are for informational purposes only.**

| Item No. | Pre-Inspection Review  | Yes | No | N/A |
|----------|--|-----|----|-----|
| 1.1      | Has the facility notified with correct status? 262.18(a)                       | ✓   |    |     |
| 1.2      | Has the facility notified of change of status? 62-730.150(2)(b)                | ✓   |    |     |
| 1.3      | Did the facility conduct a waste determination on all wastes generated? 262.11 | ✓   |    |     |

Inspection Date: 06/15/2022

**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

Monica Hardin**Principal Investigator Name**Inspector**Principal Investigator Title****Principal Investigator Signature**DEP**Organization**07/18/2022**Date**Corinna Clanton**Inspector Name**Environmental Specialist**Inspector Title**DEP**Organization**Chad Nowling**Inspector Name**Environmental Consultant**Inspector Title**DEP**Organization**Jarion Gavin**Representative Name**Veolia ES Technical Solutions  
LLC**Organization**

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.

**Report Approvers:****Approver:**Cliff Richardson**Inspection Approval Date:**07/18/2022