



Jeb Bush  
Governor

# Department of Environmental Protection

Northwest District  
160 Governmental Center  
Pensacola, Florida 32502-5794

Colleen Castille  
Secretary

May 10, 2005

Mr. Jeff Kirk  
Operations Manager  
Onyx Environmental Services, Inc.  
342 Marpan Lane  
Tallahassee, Florida 32305

Dear Mr. Kirk:

Enclosed is a copy of the report on the hazardous waste compliance inspection that was conducted at your facility on April 26, 2005. We found your facility to be in compliance with the Resource Conservation and Recovery Act. This inspection did not address other areas of Department jurisdiction.

If you have any questions concerning this program or the enclosed report, please call Melissa Kennedy at 850/595-8360, extension 1265.

Sincerely,

Jim Byer  
Hazardous Waste Section  
Supervisor

JB:mdkl  
Enclosure



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## HAZARDOUS WASTE INSPECTION REPORT

1. **INSPECTION TYPE:** ☒ Routine ☐ Complaint ☐ Follow-Up ☐ Permitting ☐ Pre-arranged  
**FACILITY NAME:** Onyx Environmental Services - Tallahassee **DEP/EPA ID #:** FL0000207449  
**STREET ADDRESS:** 342 Marpan Lane, Tallahassee, Florida 32305  
**MAILING ADDRESS:** 342 Marpan Lane, Tallahassee, Florida 32305  
**COUNTY:** Leon **PHONE:** (850) 878-2259 **DATE:** April 26, 2005 **TIME:** 3:00 A.M.

### HW facility status

- ☐ non-handler  
☐ CESQG  
☐ SQG  
☒ LQG  
  
☐ transporter  
☐ transfer facility  
  
☒ TSD  
  
☐ SQH  
☐ LQH

### used oil facility status

- ☐ generator  
☐ transporter  
☐ transfer facility  
☐ marketer  
☐ processor  
☐ on-spec. burner  
☐ off-spec. burner  
  
☐ filter generator  
☐ filter transporter  
☐ filter transfer facility  
☐ filter processor

### Hg facility status

- ☐ exempt  
☒ generator  
  
☐ transporter  
  
☒ Hg recovery facility  
☒ Hg reclamation facility

### PCW facility status

- ☐ producer  
☐ transporter  
☐ recovery facility

## 2. APPLICABLE REGULATIONS:

- |  |  |  |   |
|--|--|--|---|
| <input checked="" type="checkbox"/> 40 CFR 261 | <input checked="" type="checkbox"/> 40 CFR 262 | <input type="checkbox"/> 40 CFR 263            | <input checked="" type="checkbox"/> 40 CFR 264  |
| <input checked="" type="checkbox"/> 40 CFR 265 | <input checked="" type="checkbox"/> 40 CFR 266 | <input checked="" type="checkbox"/> 40 CFR 268 | <input checked="" type="checkbox"/> 40 CFR 270  |
| <input checked="" type="checkbox"/> 40 CFR 273 | <input type="checkbox"/> 40 CFR 279            | <input type="checkbox"/> 62-710, FAC           | <input checked="" type="checkbox"/> 62-737, FAC |

3. **RESPONSIBLE OFFICIAL:** Jeff Kirk, Operations Manager  
4. **INSPECTION PARTICIPANTS:** Jeff Kirk / OES and Melissa Kennedy / FDEP  
5. **LATITUDE/LONGITUDE:** Lat 30° 21' 51.2"/Long 084° 16' 07.9"  
6. **TYPE OF OWNERSHIP:** private ~~federal~~ ~~state~~ ~~county~~ ~~municipal~~  
7. **PERMIT No.:** HO37-82472-004 **DATE ISSUED:** 09/26/01 **EXP. DATE:** 09/26/06

8. Site History and Description:

Onyx Environmental Services, Inc. - Tallahassee (OES) (formally Recyclights, Superior Support Services, Inc. and Onyx Special Services, Inc.) has been located at 342 Marpan Lane, Tallahassee, Florida since 1995. The facility currently operates as a mercury reclamation facility under Department Permit H037-82472-OO4 employing on average 8 to 16 personnel. The permit allows OES to receive, store, recover and reclaim mercury from mercury-containing lamps and devices. This Permit was issued September 26, 2001 and has an expiration date of September 26, 2006. The facility was granted a petition for variance from Rule 62-737.860(4) F.A.C. requiring a 99 percent reclamation rate of the mercury introduced into the facility's process. The initial variance was granted on January 4, 2002 with an expiration date of January 1, 2004, and an additional one-year variance extension was granted on June 8, 2004. The facility was last inspected for RCRA compliance on July 14, 2004 by FDEP with no violations cited.

9. Site Inspections:

On April 26, 2005, Melissa Kennedy of the FDEP Waste Management Section conducted a hazardous waste inspection of OES to ensure compliance with RCRA and Department Permit H037-82472-OO4. Jeff Kirk, Operations Manager for OES, facilitated a visual inspection of the facility, provided access to records and described current activities.

A review of OES training records for all current employees indicated that permit required initial and refresher training requirements are being satisfied.

A review of the Recovered Materials Log, Hg Vapor Monitoring Log, and the Daily Facility Inspection Log indicate that permit required record keeping was organized, complete and well maintained for the years 2004. A total of 144 drums (approximately 86,400 lbs) of hazardous waste (mercury containing phosphor powder) were generated in 2004.

Mr. Kirk reviewed the reclamation process from the arrival of the mercury-containing devices to the recovery of the mercury in the vacuum distiller. The fluorescent bulbs, HID lamps and mercury containing devices are received and temporarily staged on the south side of the building awaiting processing. There were 18 pallets of fluorescent bulbs, 6 pallets of HID lamps and 15 pallets of mercury containing devices / unprocessed powder at the time of this inspection. The number of pallets on site were within the permitted storage limits.

Waste batteries (lead-acid, Ni-Cd, alkaline, magnesium, and lithium) are brokered thru the facility. A storage area is provided on the southeast side of the facility and the bulk containers are transported to Inmetco in Ellwood City PA for metals recovery smelting. Waste electronic ballasts are also stored on the southeast side of the facility and then transported to OES, Stoughton, MA for cold dry separation of metals and potting compound (Picture A).



Picture A



Picture B

Near the center of the building the bulbs and lamps are placed on one of two conveyor belts crushed under negative pressure and the residue separated into glass, metal end caps, and mercury containing phosphor powder. The metal end caps are collected in bulk storage containers for recycling as scrap metal with R & L Metals in Tampa, FL. The glass is collected in roll-offs located outside on the north end of the building and is transported to the Leon County Landfill for use as daily cover material (Picture B). This area in and around the glass, metal and cardboard collection and storage locations has been paved with asphalt to provide a stable surface for the materials and aid in daily housekeeping of the area (Picture C).



Picture C



Picture D

The mercury containing phosphor powder is collected in 55-gallon drums and staged in the northeast end of the building waiting processing in the facility's vacuum distiller. A count of the 55-gallon drums of mercury containing phosphor powder stored in the staging area at the north end of the building revealed 11 pallets awaiting retort (Picture D). These drums were all labeled, in good condition, closed, and dated. The drums were stacked two high and adequate aisle space was maintained for inspection and emergency response.

A vacuum distiller capable of holding three 55-gallon drums is used to reclaim the mercury using heat to vaporize the mercury and subsequent condenser to liquefy the vapors.

This process generates condensate wastewater that contains low levels of mercury. This waste stream is managed and disposed of as a hazardous waste. Four drums (220 gallons) of hazardous wastewater were transported by OES (NJD080631369) to OES (AZ0000337360) in March 2005. The processed phosphor powder is tested for mercury content, and transported to the Onyx Pecan Row Landfill facility in Valdosta, GA for incorporation into concrete. The recovered mercury is transported to Bethlehem Apparatus Company in Hellertown, PA for re-distillation and reuse.

10. Summary of Alleged Violations: None

11. Recommendations: None

Report prepared by: Melinda D. Kennedy Date: May 9, 2005  
James Byer