VOLUME REDUCTION, MERCURY RECOVERY, MERCURY RECLAMATION PROCESSES

Environmental Compliance

COMPLIANCE INSPECTION CHECKLIST

INSPECTION TYPE: ANNUAL (INS1, INS2) ☒ COMPLAINT/DISCOVERY (CI) ☐

RE-INSPECTION (FUI) ☐ ARMS COMPLAINT NO:

AIRS ID#: 0730094 **DATE:** 4/08/2010 **ARRIVE:** 9:30 A.M. **DEPART:** _____

FACILITY NAME: VEOLIA ES TECHNICAL-TALLAHASSEE

FACILITY LOCATION: 342 Marpan Lane

TALLAHASSEE 32305

OWNER/AUTHORIZED REPRESENTATIVE: GREG NEWTON **PHONE:** (850)877-8299

CONTACT NAME: Linda Dunwoody **PHONE:**

ENTITLEMENT PERIOD: 5/19/2007 (effective date) / 5/19/2012 (end date)

PART I: INSPECTION COMPLIANCE STATUS (check ☑ only one box)

☐ IN COMPLIANCE ☐ MINOR Non-COMPLIANCE ☒ SIGNIFICANT Non-COMPLIANCE

PART II: CONTROL TECHNOLOGY– Rule 62-210.300, F.A.C.
(check ☑ appropriate box(es))

1. Does the facility operate any emissions units other than the volume reduction, mercury recovery, and mercury reclamation processes and emissions units which are exempt from permitting pursuant to the criteria of paragraph 62-210.300(3)(a), or (b), F.A.C., or have been exempted from permitting under Rule 62-4.040, F.A.C.? (Rule 62-210.300(4)(c), F.A.C.)---------- ☐Yes ☒ No
2. Does this facility emit or have the potential to emit 10 tons per year or more of mercury? (Rule 62-210.300(4)(c)1., F.A.C.)---------- ☐Yes ☒ No
3. Was the highest reported exposure limit observed equal to or less than the United States Occupational Safety and Health Administration's (OSHA) permissible exposure limit (PEL) of $1mg/10m^3$ for mercury vapor as set forth in 29 CFR 1910.1000, Table Z-2? (Rule 62-296.417(1)(a), F.A.C.)---------- ☒Yes ☐ No
4. Is the area in which the processing equipment (as defined in Rule 62-737.200, F.A.C.) is located, fully enclosed and kept under negative pressure while processing mercury containing lamps or devices? (Rule 62-296.417(1)(b)---------- ☐Yes ☒ No
5. Does this facility control mercury emissions through the use of: (check ☑ either a) or b) whichever is applicable)
   a) dual air handling systems? ☐
   b) a single air handling system with redundant mercury controls? ☒

NOTE: ***If you have checked 5.a) above, then proceed on to Page 2 and questions 6 through 12 which cover Dual Air Handling Systems.***

****If you have checked 5.b) above, then skip questions 6 through 12 and proceed on to questions 13 through 16 which cover Single Air Handling Systems with Redundant Mercury Controls.***

PART II: CONTROL TECHNOLOGY– Rule 62-210.300, F.A.C. *(continued)*
(check ☑ appropriate box(es))

***Dual Air Handling Systems**

6. Has the owner or operator installed a primary air handling system with air pollution control equipment in order to reduce the mercury content of the air collected during the volume reduction and mercury recovery and reclamation processes? (Rule 62-296.417(1)(c)1., F.A.C.)---------- ☐Yes ☐ No
7. Is the air collected by the primary system, vented within a fully enclosed area of the facility after the air is filtered through the air pollution control equipment? (Rule 62-296.417(1)(c)2., F.A.C.)---------- ☐Yes ☐ No
8. Once each day, while mercury-containing lamps or devices are being processed, is a sample of air collected from within the fully enclosed area of the facility in which the air collected by the primary air handling system is vented? (Rule 62-696.417(1)(c)3., F.A.C.)---------- ☐Yes ☐ No
   a) Is the mercury content of the sample determined and compared with the OSHA PEL?---------- ☐Yes ☐ No
9. Does the owner or operator operate, monitor, and maintain the primary system air pollution control equipment in such a manner as not to exceed the OSHA PEL for mercury vapor within the fully enclosed area of the facility in which the air collected by the primary air handling system is vented? (Rule 62-296.417(1)(c)4., F.A.C.)---------- ☐Yes ☐ No
10. Has the owner or operator installed a secondary air handling system in order to maintain negative pressure in the fully enclosed area of the facility in which the air collected by the primary system is vented? (Rule 62-696.417(1)(c)5., F.A.C.)---------- ☐Yes ☐ No
11. Has the owner or operator installed, and do they operate, monitor and maintain air pollution control equipment to reduce the mercury content of the air collected by the secondary air handling system?)Rule 62-696.417(1)(c)6., F.A.C.)---------- ☐Yes ☐ No
12. Is the primary air handling system with air pollution controls independent and separate from the secondary air handling system with air pollution controls? (Rule 62-696.417(1)(c)7., F.A.C.)---------- ☐Yes ☐ No
    a) Do the primary and secondary air handling systems air pollution controls incorporate carbon filters or equivalent technology?---------- ☐Yes ☐ No

****Single Air Handling Systems with Redundant Mercury Controls**

13. Does the owner or operator operate, monitor, and maintain an air handling system with redundant air pollution control equipment in order to reduce the mercury content of the air collected during the volume reduction, and mercury recovery and reclamation processes? (Rule 62-296.417(1)(d)1., F.A.C.)---------- ☒Yes ☐ No
14. Does the redundant air pollution control equipment incorporate at least two (2) carbon filters or equivalent technology arranged in series so that the air passes through both filters before being released? (Rule 62-296.417(1)(d)2., F.A.C.)---------- ☒Yes ☐ No
    a) Is each filter designed to ensure compliance with the OSHA PEL for mercury vapor at the emission point in the event of a single filter failure?---------- ☒Yes ☐ No
    b) Was the highest reported exposure limit observed equal to or less than the OSHA PEL of 1 mg/10m^3 for mercury vapor?---------- ☒Yes ☐ No
15. As the facility processes any mercury-containing lamps or devices once each day, and while mercury-containing lamps or devices are being processed, is a sample of air collected downstream of the first carbon filter (or equivalent technology) and upstream of the second? (Rule 62-296.417(1)(d)3., F.A.C.)---------- ☒Yes ☐ No
    a) Is the mercury content of the sample determined and compared with the OSHA PEL?---------- ☒Yes ☐ No
16. Does the owner or operator, operate, monitor and maintain the air pollution control equipment in such a manner as not to exceed the OSHA PEL for mercury vapor downstream of the first carbon filter (or equivalent technology) and upstream of the second? (Rule 62-296.417(1)(d)4., F.A.C.)---------- ☒Yes ☐ No

PART III: RECORDKEEPING REQUIREMENTS–Rule 62-210.300(3)(a)27. & 28., F.A.C. & 62-210.300(4)(c)1., F.A.C.
(check ☑ appropriate box(es))

1. Does the owner or operator of this facility which is subject to this rule maintain records of monitoring information that specifies and includes: (Rule 62-296.417(2), F.A.C.)
   a) the date, place and time of measurement? ☒Yes ☐ No
   b) the methodology used? ☒Yes ☐ No
   c) the analytical results? ☒Yes ☐ No
   d) calibration and maintenance records of monitoring equipment? ☒Yes ☐ No
2. Does the owner/operator retain records of all monitoring data and supporting information, and make available for Department inspection, these records for a period of at least five years from the date of collection? (Rule 62-296.417(2), F.A.C.) ☒Yes ☐No

PART IV: GENERAL CONDITIONS/MAINTENANCE REQUIREMENTS – Rule 62-210.300(4)(e)6., 8., & 12., F.A.C.
(check ☑ appropriate box(es))

1. Does the owner or operator make every reasonable effort to conduct the specific activity authorized by the general permit in a manner that minimizes adverse effects on adjacent property or on public use of the adjacent property, where applicable, and on the environment, including fish, wildlife, natural resources, water quality, or air quality? ☒Yes ☐ No
2. Does the owner or operator maintain the permitted facility, emission unit, or activity in good condition? ☒Yes ☐ No
3. Has the owner or operator allowed the circumvention of any applicable air pollution control devices? ☐Yes ☒ No
4. Has the owner or operator allowed the emission of air pollutants as the result of the malfunction of, or inoperable condition of applicable air pollution control devices? ☐Yes ☒ No

PART V: SPECIAL CONDITIONS AND PROCEDURES – Rule 62-210.300(4)(d)4., F.A.C.
(check ☑ appropriate box(es))

A. New or Modified Process Equipment

1. Since the last inspection has there been
   a) installation of any new process equipment? ☐Yes ☒No
   b) alterations to existing process equipment without replacement? ☐Yes ☒No
   c) replacement of existing equipment substantially different than that noted on the most recent notification form? ☐Yes ☒No
   d) If you answered **YES** to any of the above, did the owner submit a new and complete notification form and appropriate fee (Rule 62-4.050, F.A.C.) to the appropriate DEP or local program office? ☐Yes ☐No

Tracy White
Inspector's Name (Please Print)

04/08/2010
Date of Inspection

Tracy White
Inspector's Signature

Approximate Date of Next Inspection

COMMENTS:

I met with Linda Dunwoody and Randy Williams. Records were available and maintained (once/day). Recordkeeping items that were reviewed were as follows: Retort Air room, item #16; Retort processing, item #14; Flourescent Lamp processing, item #12; HID processing, item #18 .

The latest Jerome analyzer calibration sheets were observed.The units (three) are re-calibrated once/year.

I viewed the four major equipment areas (as listed above for recordkeeping). The applicable equipment appeared to have sampling ports. The equipment was in operation. No excess emissions were noted. No changes to equipment (as listed in the last inspection report) were noted.

Just before HID processing, two workers were present in a separate, open area of the main building. One worker was processing and breaking the outer glass bulb of HID bulbs. The inner part that contained mercury appeared to remain intact.

The second worker was observed processing compact fluorescent light bulbs (CFBs), one after another. Several boxes of bulbs were awaiting processing. He was separating the glass portion of the bulb from the plastic screw-base by tapping the glass connection to the base with a metal object, thereby cracking the bulb open at the bottom connection point. The top glass portion of each CFB would then fall into a small plastic collection drum. The procedure appeared to allow some of the internal bulb contents to escape as the glass breach occurred.

I asked Ms. Dunwoody about possible concerns from the unconfined CFB emissions. She appeared to explain that the issue was not a problem since the amount of mercury contained in the bulbs was negligable in comparison to regular long-tube fluorescent bulbs. She also explained that the procedure was a manual "pre-process" and was not regulated.

Apparently the existing bulb (HID) processing machines on the site can not properly accept the solid screw base of the CFBs, therefore it must be separated from the glass portion of the bulbs before loading the glass component into the existing machine. Ms. Dunwoody explained that currently the facility does not have a machine to separately process the entire CFBs.

Potential violations observed during the inspection:

1) The facility did not choose an air handling system to control emissions from the initial (pre-processing) cracking of the CFBs. Source: Rule 62-296.417 (1) F.A.C. ; Rule 62-296.417 (1) (d) 1. F.A.C.

2) Also initial CFB processing was not located in a negative containment area. Source: Rule 62-296.417 (1) (b) F.A.C.