



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

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**FACILITY INFORMATION:**

**Facility Name:** Aerc Com Inc

**On-Site Inspection Start Date:** 12/17/2013

**On-Site Inspection End Date:** 12/17/2013

**ME ID#:** 43329

**EPA ID#:** FLD984262782

**Facility Street Address:** 4317 Fortune Pl Ste J, West Melbourne, Florida 32904-1509

**Contact Mailing Address:** 4317-J Fortune Place, West Melbourne, Florida 32904-1509

**County Name:** Brevard

**Contact Phone:** (321) 952-1516

**NOTIFIED AS:**

LQG (>1000 kg/month)

Transporter

Transfer Facility

TSD Facility Unit Type(s)

**INSPECTION TYPE:**

Routine Inspection for TSD Facility Unit Type(s)

**INSPECTION PARTICIPANTS:**

Principal Inspector: John E. White, Inspector

Other Participants: Parvez Mallick, Inspector; Michael Malliska, Operations Manager

**LATITUDE / LONGITUDE:** Lat 28° 5' 39.5694" / Long 80° 41' 51.624"

**SIC CODE:** 4212 - Trans. & utilities - local trucking, without storage

**TYPE OF OWNERSHIP:** Private

**Introduction:**

On December 17, 2013 John White, Glen Perrigan, and Randy Miller, Florida Department of Environmental Protection (FDEP), and Parvez Mallick, U.S. Environmental Protection Agency, accompanied by Michael Maliska, AERC Recycling Solutions (AERC), inspected AERC for compliance with state and federal hazardous waste and universal waste regulations. AERC was inspected as a Large Quantity Generator (LQG), transporter, universal waste generator/handler, a hazardous waste transfer facility and a permitted mercury processing facility.

The facility has operated at this location since November 1993 and employs approximately 15-20 people who work Monday through Friday from 7:00AM to 11:00PM. City of West Melbourne provides potable water and sewer. The facility owns three trucks and leases two trucks for transportation of universal waste.

The facility was originally Mercury Technologies International (MTI) but changed its name to Advanced Environmental Recycling Company (AERC) in 2001. The initial RCRA mercury recycling permit was issued December 30, 1996. The current permit, 0072959-HO-004, expires December 30, 2016.

NOTE: The permit incorrectly identifies AERC as the property owner. The property is owned by Fortune Cookie Park Inc., 4320 Woodland Park Drive, West Melbourne, Florida 32904.

**INSPECTION HISTORY (Past 10 Years):**

On January 24, 2013, AERC was inspected by FDEP and was not in compliance at the time of the inspection. Violations cited included; failure to sign a manifest as the designated facility; failure to submit a biennial report in a timely manner; storage of hazardous waste in a supply area; storage

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of drums three rows high; storage of mercury lamps and glass in open containers; and failure to use an EPA identification number on a hazardous waste manifest. The formal enforcement case was resolved through issuance of a Consent Order, OGC #13-1248, that included \$9,500 in civil penalties.

On April 20, 2011 AERC was inspected by the Department and was not in compliance at the time of the inspection. The facility was cited for failing to keep daily logs and failure to keep universal waste containers closed. The facility came into compliance immediately and no formal enforcement action was taken.

On December 16, 2009, AERC was inspected by the Department and found to be in compliance.

On September 11, 2008, AERC was inspected and was not in compliance at the time of the inspection. The facility was cited for: failure to provide adequate aisle space; failure to dispose of waste within 90-days; failure to have accumulation start date on containers per permit. The case was resolved by amending an existing Consent Order, OGC #07-2193, from the 2007 inspection. The amended Consent Order included an additional \$26,692.00 in civil penalties. The amended Consent Order allowed an \$18,956.00 increase in the amount for the Supplemental Environmental Project and required payment of \$7,736.00 in civil penalties.

On May 24, 2007, AERC was inspected and was not in compliance at the time of the inspection. The facility was cited for: failure to obtain original manifests; failure to document daily container count log; failure to provide annual training to staff; failure to provide adequate aisle space; failure to update contingency plan; failure to process crushed bulbs within the one year time frame as per permit. The case was resolved by execution of a Consent Order, which included a Supplemental Environmental Project and a civil penalty of \$25,397.00.

On May 16, 2006, AERC was inspected and found to be in compliance.

On January 10, 2005, AERC was inspected and found to be in compliance.

On September 30, 2004, AERC was inspected and found to be in compliance.

### **Process Description:**

AERC has been permitted to operate a mercury containing lamp and device storage and recovery facility. The storage of mercury containing lamps and devices is limited to 223,200 lamps or 968 drums. The total storage of non-hazardous materials located outside in covered containers is a maximum of twenty-two tons.

AERC also operates a 10-day transfer facility for hazardous waste destined for the AERC Pennsylvania facility, which is a permitted TSD. AERC is a large quantity generator of hazardous waste, a large quantity handler of universal waste, a universal waste transporter and a hazardous waste transporter.

The facility receives spent mercury containing bulbs and devices for the purpose of crushing or dismantling and separating the lamps or devices in a manner as to produce separated individual recyclable components such as glass, scrap metal and mercury containing powder (phosphor powder). A lamp recycler (LSS-1) separates the end caps, glass, shatter shields, and filaments from the phosphor powder. The metal and phosphor powder is sent to a sister company in Pennsylvania for thermal retort. At times when the LSS-1 is not working properly, the glass is put through the machine twice and then sent off to the Brevard County landfill. Samples are taken daily of the glass and end caps. Those samples are then composited and sent for testing.

The facility cannot process lamps or devices containing liquid mercury. Items containing liquid mercury are consolidated and sent to the Pennsylvania facility.

The air filtering unit for the LSS-1 contains three sets of air filters. These are pre-filters, HEPA-filters, and carbon filters. The filters are monitored on a regular basis and when the levels of mercury reach a certain level, the filters are changed. The Pre-Filters have been tested and

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determined to be nonhazardous. The HEPA-filters and carbon filters are disposed of as hazardous waste.

High Intensity Discharge (HID) lamps are dismantled in order to remove mercury containing ampoules from the bases. The consolidated ampoules are sent to the Pennsylvania facility.

The facility is also a universal waste handler. All types of batteries are brought to the facility then sorted and consolidated into 55-gallon drums or onto pallets. The batteries are shipped off-site for reclamation.

AERC accepts PCB and non-PCB lighting ballasts for sorting and shipment to other recycling facilities, as well as electronic scrap for demanufacturing or remanufacturing. Most electronics are managed at AERC's facility located at 4301 Woodland Park Drive, Suite 105, West Melbourne, Florida.

AERC also operates a 10-day transfer facility for hazardous waste destined for the AERC Pennsylvania TSD facility.

#### INSPECTION:

##### Shipping and Receiving Area:

Inspection of the facility began in the Receiving/Shipping area. The area is used for unloading of lamps for processing. The facility's first shift sorts the lamps and the second shift processes the lamps.

This area is also being used as a storage area for electronic waste waiting to be transferred to AERC's electronics recycling operation located on an adjacent property. Twenty-three pallets of electronic waste were stored in the area. According to Mr. Maliska, the electronic waste will usually be stored in this area for 2-3 days before being transferred.

One box of used electronics identifies the generator as MS Noordam, a Holland America cruise ship. The box was labeled as "Hazardous Waste" and as "Universal Waste."

A black metal drum with a green lid was stored in a corner of the area. The drum was 2/3 full of what appeared to be metal slag with copper. A label on the drum says "WT 1533" which may be the weight of the container.

A Gaylord box in the area contained HID lamp bases. The lamp bases will be recycled as scrap metal.

A 10-gallon container stored in the area contained floor sweepings. The satellite accumulation container was not properly labeled [40 CFR 262.34(c)(1)(ii)].

A hopper contained glass and bases from incandescent bulbs. This material is mixed with the glass generated by processing of fluorescent lamps after the processing glass has been sampled and determined to be clean. The waste glass is shipped to a Subtitle D landfill.

##### Battery Processing Area:

AERC accepts lead-acid, lithium ion, nickel metal hydride, nickel cadmium, and alkaline batteries for recycling. Currently, alkaline batteries are shipped to Metal Conversion Technology, Georgia.

Nine 55-gallon drums containing batteries were stored along a wall. Four of the 55-gallon drums contained alkaline batteries, one drum contained lithium ion batteries, three drums contained nickel metal hydride batteries, and one drum contained nickel cadmium batteries. The oldest container in the area was dated 5 May 2013. Three additional drums of spent alkaline batteries were also found in the area.

Located in this area were waste accumulation containers for acids and bases removed from batteries. Both drums were labeled "Waste Sulfuric Acid Solution"; however, one drum, two-thirds full and dated "7 Jan 13", was for accumulation of waste acid and the other, full drum, dated "13

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Sept 13", was for accumulation of alkaline, sodium hydroxide waste. An additional 55-gallon drum, containing about five gallons of waste, was labeled "Waste Sodium Hydroxide" and was dated "4 Feb 13." A 5-gallon pail labeled "Waste Sodium Hydroxide" contained about one gallon of waste. It was determined the 5-gallon pail is a transfer bucket and should be labeled with the words "Hazardous Waste" or with other words that identify the contents of the container to prevent mixing of incompatible wastes. Also, waste should be immediately transferred from batteries to the waste accumulation container and not stored in the bucket. There should be a second, properly labeled, transfer bucket for acid waste to prevent mixing of incompatible acids and bases. Due to the volume of hazardous waste sodium hydroxide stored in the satellite accumulation area, the new 55-gallon drum storing waste sodium hydroxide in excess of the 55 gallon limit, should have been labeled "Hazardous Waste" and marked with the date upon which the first drop of waste was placed in the container [40 CFR 262.34(a)(3)].

A 30-gallon container labeled "Used Oil" was noted in the area.

#### Bulb and Battery Storage Areas:

There were ten rows of waste and recyclable materials stored in this area. An inventory of the materials is listed below beginning from the north side of the warehouse moving to the south side of the warehouse.

Located along the north wall of the warehouse were seven Gaylord boxes, twenty-four 55-gallon drums, eight four-foot tube lamp boxes, and one cubic yard fiber bag. Two of the Gaylord boxes contained end caps for recycling, two Gaylord boxes contained plastic shields removed from fluorescent lamps prior to recycling and three Gaylord boxes contained 5-gallon pails of e-scrap that were identified as water meters from US Waste in Tallahassee, Florida. The water meters were new, but had failed and were discarded. Of the twenty-four 55-gallon drums, nine contained phosphor powder, the oldest drum dated 9/16/13, eight drums contained projection bulb float switches, two drums contained HID lamps, one drum contained low-pressure sodium lamps, two drums contained mercury switches, one drum contained mercury ampoules and one drum contained neon lamps.

Located in the second row were the following: twenty-seven 5-gallon pails of lithium batteries; a pallet of scrap electronics; six 55-gallon drums of universal waste lamps for recycling; eight 55-gallon drums of crushed lamps for recycling; a four-foot box of universal waste HID lamps; a pallet with three boxes of universal waste lamps and three boxes of non-PCB ballasts; one 15-gallon container of compact fluorescent lamps; one 5-gallon container of small lamps; and three 6-gallon containers of unused floor sweeping material. A 55-gallon drum labeled "Hold Discrepancy Hold Please" was found in the row. The drum, from Professional Electric, contained compact fluorescent lamps mixed with crushed lamps. The lamps can be processed at this facility.

Located in the third row were the following: two pallets containing lead-acid batteries; six 55-gallon drums of lithium ion batteries; six 30-gallon drums of lithium ion batteries; two 5-gallon containers lithium ion batteries; fifteen 1-gallon containers lithium ion batteries; three pallets with boxes of lithium ion batteries; one pallet with wet nickel cadmium batteries; and eight 55-gallon drums of alkaline batteries.

Located in the fourth row were seven pallets with containers of lithium ion batteries; eight 55-gallon drums of alkaline batteries; eight 55-gallon drums of batteries containing potassium hydroxide; and twenty 55-gallon drums of nickel cadmium batteries.

Located in the fifth row were eleven 55-gallon drums of nickel cadmium batteries, one 30-gallon drum of nickel cadmium batteries, eight 55-gallon drums of alkaline batteries, four 55-gallon drums of household hazardous waste batteries (mixed), three pallets of lead acid batteries, and one pallet with lithium ion batteries.

Located in the sixth row were five pallets of lead acid batteries, one box of wet nickel cadmium batteries, one drum of nickel metal hydride batteries, one drum of potassium hydroxide batteries, two drums of alkaline batteries, three drums of lithium ion batteries, and two 5-gallon containers of lithium ion batteries.

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Located in the seventh row were thirteen 55-gallon drums of lithium ion batteries, twelve 55-gallon drums alkaline batteries, three 55-gallon drums household hazardous waste batteries (mixed), three 55-gallon drums nickel cadmium batteries, six 5-gallon containers lithium ion batteries, and two pallets of lead acid batteries.

Located in the eighth row were five 55-gallon drums alkaline batteries, eight 55-gallon drums lithium ion batteries, two 55-gallon drums potassium hydroxide batteries, two 55-gallon drums nickel cadmium batteries, thirty-four 5-gallon containers lithium ion batteries, one 55-gallon drum poly biphenyls, one 55-gallon drum lead acid batteries, and twelve boxes of lead acid batteries.

Located in the ninth row were four boxes of non-PCB ballasts, one container of capacitors, two pallets and one box of lead acid batteries, two 55-gallon drums of lithium ion batteries, two 5-gallon pails of lithium ion batteries, and one cubic yard bag of solid waste.

Located in the tenth row were thirty-five 55-gallon drums on PCB ballasts, one 55-gallon drum of non-PCB ballasts, one box of capacitors, one box of transformers, and one 5-gallon pail of PCB ballasts.

#### 10-Day Storage Area:

No hazardous waste was stored in the 10-day area at the time of this inspection.

#### 90-Day Storage Area:

Four 55-gallon drums of waste phosphor powder were stored in the 90-day storage area. All of the drums were properly labeled "Hazardous Waste"; however, not all of the containers were properly marked with accumulation start dates as required by 40 CFR 262.34(a)(2).

#### HID Lamp Processing Area:

Located in a corner of the warehouse is the area where high intensity discharge (HID) lamps are broken down. A 30-gallon container held HID lamps waiting to be processed. Mercury ampoules are removed from the lamps and placed in a 55-gallon drum in a satellite accumulation area. The mercury ampoules are shipped off-site for reclamation. The drum was properly labeled.

#### Production / Processing Area:

The lamp processing equipment, LSS-1, was not operating at the time of the inspection. Approximately 200 lamps coated with a plastic shatter shield were stored in two tube boxes. Employees removed the shatter shield prior to processing the lamps. The lamps should be stored in closed containers prior to the start of processing operations [62-737.800(9), F.A.C.]. At the time of the inspection processing operations were being conducted during a later work shift.

The lamp processing equipment has a drum labeled "Hazardous Waste" accumulating phosphor powder in a satellite accumulation area. Lamp end caps drop into a fiber bag and glass is discharged into a 55-gallon drum. Several boxes of lamps awaiting processing were stored against a wall in the processing area.

Outside next to the loading dock is the area for the glass roll-off container. The container stores glass generated by the lamp processing equipment. Once sampling of the glass has documented the glass does not exhibit a hazardous waste characteristic of toxicity, the glass is disposed of at a Subtitle D, non-hazardous waste landfill.

#### Records:

A review of the facility's contingency plan found emergency coordinators identified on pages 4 and 8 of the plan were not correct. The employees identified were no longer employed by the facility [40 CFR 264.54(d) / 403.727(1)(c), F.S.].

The facility was not conducting weekly inspections of 90-day waste accumulation areas as required by 62-730.160(5), F.A.C. and 40 CFR 265.174.

At the time of inspection, documentation could not be provided by the facility showing notifications

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of local authorities, as required by 40 CFR 264.37(a) and 265.37(a), had been completed.

The last composite sample for glass was completed 12/13/2013. The last daily sampling event for glass was completed on 12/17/2013. The last composite sample for end caps was completed 12/13/2013. The last daily sampling event for end caps (HID Lamp Bases) was completed on 12/17/2013.

A review of the weekly and twelve week running average for mercury content is required by the facility's permit 0072959-HO-004, Part II, Item B. 10. A sample of weekly composites and twelve week running averages, provided on February 6, 2014, included the time period for week 2 of July 2013 to week 3 of November 2013, a period of twenty weeks. A review of the sampling data provided found no weekly composite for the time period reviewed exceeded 3 ppm mercury. The review also found the facility is not maintaining a twelve week running average as required. The data provided indicated the twelve week running average for the twenty week period was consistently 1.112 ppm. An average of the data for the twenty week period provided found the average for the last twelve weeks was actually 0.881167 ppm.

A review of hazardous waste manifests noted the last shipment date was 9/6/2013. Based on this shipment date, it appears AERC may have accumulated hazardous waste generated on site for a period exceeding 90 days [40 CFR 262.34(b)].

Mercury containing wastes generated by the facility are shipped to AERC.COM located in Allentown, Pennsylvania, EPA identification number PAD987387216. The hazardous waste transporter used by the facility is Freehold Cartage, EPA identification number NJD054126164.

During the inspection, the following records were requested by EPA Region 4:

Financial assurance Letter of Credit  
Standby Trust Agreement  
AERC letter on company letterhead in which letter of credit is referenced  
Certificate of third party liability insurance  
Most recent closure plan and closure cost estimate

Adequacy of financial assurance and closure cost estimates are currently under review by U.S. EPA.

## **New Potential Violations and Areas of Concern:**

### **Violations**

Type:	Violation
Rule:	262.34(a)(2)
Explanation:	While being accumulated on site for less than 90 days, the date upon which each period of accumulation begins must be clearly marked and visible for inspection on each container. Specifically, AERC failed to mark waste accumulation containers with the accumulation start date.
Corrective Action:	AERC must ensure all 90-day accumulation containers of hazardous waste are properly marked with the accumulation start date.

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Type:	Violation
Rule:	262.34(a)(3)
Explanation:	While being accumulated on-site, each container and tank must be labeled or marked clearly with the words, "Hazardous Waste." Specifically, AERC failed to properly label a 55-gallon drum of waste in the battery acid accumulation area.

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Corrective Action: AERC must ensure all 90-day waste accumulation containers of hazardous waste are properly labeled with the words "Hazardous Waste."

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Type: Violation

Rule: 262.34(b)

Explanation: A generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of 40 CFR parts 264 and 265 and the permit requirements of 40 CFR part 270. Specifically, AERC shipped hazardous waste off-site on 9/6/2013 and then accumulated waste generated on-site until the next shipment on 1/3/2014, a period exceeding 90 days.

Corrective Action: AERC must ensure hazardous waste generated on site is not stored for longer than 90 days.

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Type: Violation

Rule: 262.34(c)(1), 262.34(c)(1)(ii)

Explanation: A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in 261.33(e) in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with paragraph (a) of this section provided he: Marks his containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers. Specifically, AERC failed to properly label a 10-gallon container of floor sweepings.

Corrective Action: AERC must ensure satellite accumulation containers are properly labeled with either the words "Hazardous Waste" or with other words that identify the contents of the container.

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Type: Violation

Rule: 264.54, 264.54(d)

Explanation: The contingency plan must be reviewed, and immediately amended, if necessary, whenever: The list of emergency coordinators changes. Specifically, employees identified in the contingency plan as the emergency coordinator and alternates were no longer employed by the company.

Corrective Action: AERC must update the content of the contingency plan when staffing changes take place. The plan should be reviewed on a regular basis to ensure it is up to date and complete.

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Type: Violation

Rule: 265.174

Explanation: At least weekly, the owner or operator must inspect areas where containers are stored, except for Performance Track member facilities, that must conduct inspections at least once each month, upon approval by the Director. To apply for reduced inspection frequency, the Performance Track member facility must follow the procedures described in 265.15(b)(5) of this part. The owner or operator must look for leaking containers and for deterioration of containers

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caused by corrosion or other factors. Specifically, AERC failed to inspect containers or document the inspections as required by 62-730.160(5).

Corrective Action: AERC must inspect all less than 90-day hazardous waste accumulation containers, at least weekly, and document the inspections.

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Type: Violation

Rule: 403.727, 403.727(1)(c)

Explanation: It is unlawful for any hazardous waste generator, transporter, or facility owner or operator to fail to comply with a permit. Specifically, AERC failed to maintain a twelve week running average of mercury concentrations in glass waste as required by the specific condition identified in Part II, item B. 10. of permit number 0072959-HO-004.

Corrective Action: AERC must comply with all of the conditions of permit number 0072959-HO-004.

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Type: Violation

Rule: 62-737.800(9)

Explanation: Owners and operators shall store processed and unprocessed materials in closed containers; and for broken or damaged unprocessed lamps and devices, and residuals, store these in closed, covered and sealed containers or in enclosed areas of the facility conforming to paragraph 62-296.417(1), F.A.C., to prevent mercury emissions. Specifically, AERC was storing mercury lamps in open containers in an area adjacent to the processing equipment at a time when processing was not taking place.

Corrective Action: AERC must ensure that all containers of unprocessed material are stored in closed containers.

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## Conclusion:

Upon completion of the inspection, an out briefing was held with Michael Maliska, Facility Manager. Issues discussed included:

- Contingency Plan must be updated in accordance with 40 CFR 264.54(d)/265.54(d)
- Proof of Notifications of local authorities in accordance with 40 CFR 264.37(a)/265.37(a) must be provided
- Black drum with green lid containing what appeared to be metal slag waste must be properly managed as either scrap metal or tested and disposed of properly
- Out of date emergency information posted throughout facility must be updated
- Satellite areas for acids and bases must be properly managed, including use of separate collection pails for each waste stream
- 90-day waste accumulation drums must be marked with an accumulation start date
- 90-day waste accumulation areas must be inspected weekly and a log maintained

AERC was inspected as a permitted mercury reclamation facility, large quantity generator, hazardous waste transporter, universal waste transporter, and universal waste handler and was not in compliance at the time of this 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.

John E. White

**PRINCIPAL INSPECTOR NAME**

Inspector

**PRINCIPAL INSPECTOR TITLE**

FDEP

**ORGANIZATION****Supervisor:**Aaron Watkins

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.