



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

SEP 14 2011

Mr. Tim Bahr
Hazardous Waste Administrator
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399

RECEIVED
SEP 19 2011
DEP Central Dist.

SUBJ: RCRA Compliance Evaluation Inspection (CEI)
AERC.com, Inc.
EPA I.D. Number: FLD984262782

Dear Mr. Bahr:

On April 20, 2011, a Compliance Evaluation Inspection was conducted by the United States Environmental Protection Agency and the Florida Department of Environmental Protection (FDEP) at AERC.com, Inc., in West Melbourne, Florida, to determine the facility's compliance status with the Resource Conservation and Recovery Act (RCRA). This was an EPA oversight inspection. Therefore, FDEP is the lead agency for enforcement.

Enclosed is the CEI report which indicates that violations of RCRA were discovered. If you have any questions regarding the inspection, please contact Parvez Mallick, of my staff, by phone at (404) 562-8594 or by email at mallick.parvez@epa.gov.

Sincerely,

Larry L. Lamberth, Chief
South Enforcement and Compliance Section
RCRA and OPA Enforcement and Compliance
Branch

Enclosure

cc: Janine Kraemer, FDEP Central District



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SEP 14 2011

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Tracy DePaola
Facility Manager
AERC.com, Inc.
4317-J Fortune Place
West Melbourne, Florida 32904

SUBJ: AERC.com, Inc.
RCRA Compliance Evaluation Inspection Report
EPA ID Number: FLD984262782

RECEIVED
SEP 19 2011
DEP Central Dist

Dear Ms. DePaola:

Enclosed is a copy of the United States Environmental Protection Agency inspection report for the inspection conducted at AERC.com, Inc. in West Melbourne, Florida, on April 20, 2011. The site inspection revealed violations of RCRA.

Pursuant to the Memorandum of Agreement between the EPA and the State of Florida, the EPA has forwarded a copy of the inspection report to the State. If you should have any questions, please contact Parvez Mallick, of my staff, at (404) 562-8594.

Sincerely,

Larry L. Lamberth, Chief
South Enforcement and Compliance Section
RCRA and OPA Enforcement and Compliance
Branch

Enclosure

cc: Tim Bahr, FDEP (letter only)
Janine Kraemer, FDEP Central District (letter only)

**United States Environmental Protection Agency (USEPA)
Region 4, Atlanta, Georgia
Compliance Evaluation Inspection Report**

1) **INSPECTOR AND AUTHOR OF REPORT**

Parvez Mallick, Environmental Engineer
South RCRA and OPA Enforcement and Compliance Section
RCRA and OPA Enforcement and Compliance Branch
U.S. Environmental Protection Agency
61 Forsyth Street, S.W.
Atlanta, Georgia 30303

Phone: (404) 562-8594
Fax: (404) 562-8566
E-mail: mallick.parvez@epa.gov

RECEIVED
SEP 19 2011
DEP Central Dist.

2) **FACILITY INFORMATION**

AERC.com, Inc.
4317-J Fortune Place
Brevard County
West Melbourne, FL 32904
EPA ID No.: FLD984262782
NAICS No.: 562111

3) **RESPONSIBLE OFFICIAL**

Tracy DePaola
Facility Manager
AERC.com, Inc.
(321) 952-1516

4) **INSPECTION PARTICIPANTS**

Parvez Mallick, U.S. Environmental Protection Agency (EPA), Region 4
Danielle Bentzen, Florida Department of Environmental Protection (FDEP)
Michael Eckoff, FDEP
Tracy DePaola, AERC.com, Inc.

5) **DATE OF INSPECTION**

April 20, 2011
9:35 a.m.

6) **APPLICABLE REGULATIONS**

Resource Conservation and Recovery Act (RCRA) Sections 3002, 3005, and 3007 (42 U.S.C. §§ 6922, 6925, and 6927), and the regulations promulgated pursuant thereto at 40 Code of Federal Regulations (C.F.R.) Parts 260-270, 273, 279.

Florida Statutes (F.S.) Chapter 403.702 et seq., and the regulations promulgated pursuant thereto and set forth at the Florida Administrative Code (F.A.C.), Chapters 62-710 and 62-730.

7) **PURPOSE OF COMPLIANCE EVALUATION INSPECTION**

To conduct an unannounced EPA lead Compliance Evaluation Inspection (CEI) to determine the facility's compliance with applicable regulations of RCRA and the corresponding FDEP regulations.

8) **FACILITY DESCRIPTION**

Prior to the entry briefing, the EPA inspector presented enforcement credentials to Ms. Tracy DePaola. AERC.com, Inc. (AERC; the facility) was originally named Mercury Technologies International but changed its name to Advanced Environmental Recycling Company (AERC) in 2001. AERC receives spent mercury containing bulbs and devices which are crushed or dismantled to produce recyclable components such as glass, scrap metal and mercury containing powder (phosphor powder). A lamp recycler separates the end caps, glass, shatter shields and filaments from the phosphor powder. The metal and phosphor powder are sent to the AERC Pennsylvania (PA) treatment, storage and disposal (TSD) facility for thermal retort. The facility cannot process lamps or devices containing liquid mercury. Lamps or devices containing liquid mercury are consolidated and sent to the Pennsylvania facility. 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.

AERC also receives all types of batteries which are sorted and consolidated into 55-gallon containers 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. Electronic scrap for de-manufacturing or re-manufacturing is also accepted. Most electronics are managed at AERC's facility located at 4301 Woodland Park Drive, Suite 105, in West Melbourne, Florida.

AERC is located within a small business park and consists of a front office area connected to a warehouse. The warehouse area includes: a lamp and drum storage area; lamp processing area; shipping/receiving staging area; cardboard baler; lamp ballast staging area; universal waste battery (including lithium batteries) storage area; battery processing area; satellite accumulation areas (two); and a hazardous waste storage area. A roll-off container for the storage of clean crushed glass from the lamp recycling machine is located behind the warehouse near the shipping/receiving dock. AERC has been in operation at this location for approximately 14 years and had 20 employees at the time of the inspection. AERC has other facilities located in California, Virginia and Pennsylvania. AERC is in operation Monday through Friday from 7 a.m. to 11:30 p.m. AERC is on West Melbourne City water and sewer.

AERC is a Large Quantity Generator (LQG) of hazardous waste; a Treatment, Storage, and Disposal (TSD) facility (storage prior to recycling is regulated and requires a permit/mercury recovery facility); a hazardous waste transporter; a universal waste handler and a universal waste destination facility (recycling of universal waste lamps). AERC also operates a 10-day transfer facility for hazardous waste destined for the AERC Pennsylvania TSD facility. A LQG of hazardous waste is a generator of greater than or equal to 1000 kilograms of hazardous waste per month, with no on-site accumulation quantity limit. A LQG can accumulate hazardous waste for 90 days or less. The owner or operator of a destination facility is subject to all applicable requirements of 40 C.F.R. Parts 264, 265, 266, 268, 270 and 124, and the notification requirement under Section 3010 of RCRA.

The permit, Permit/Certification Number: 0072959-003-HO, to operate a mercury containing lamp and device storage and recovery facility, was re-issued on June 27, 2007, and expires on December 30, 2011. The storage of mercury-containing lamp and devices is limited to 244,800 lamps or 1,088 drums. Total storage of non-hazardous material located outside in covered containers (roll-off) should be a maximum volume of 22 tons of clean glass. The permit requires AERC to sample recovered materials (i.e., glass, metal) daily and analyze a composite sample weekly to determine the total mercury content. These analyses must show less than 1 part per million (ppm) mercury "average" during the 12 week time period and less than 3 ppm for any "weekly" composite (or AERC must propose alternate procedures to be approved by FDEP). The results of the sampling must be recorded and maintained in a log book and AERC is required by the permit to maintain a rolling 12 week average of the mercury contained in the recovered glass and metal end caps. The rolling 12 week average results must also be maintained on a form per the permit. The permit also requires compliance with the air requirements specified in Rules 62-210.300 and 62-296.417, F.A.C.

Part I, General and Standard Conditions, paragraph 14(e), of the permit requires the facility to keep a written operating record at the facility, which includes: results of any waste analysis; copies of manifests for three years; results of inspections; closure plan; inspections of emergency and safety equipment; biennial reports; personnel training records; the Waste Minimization Program Plan (62-730.160(I), F.A.C.); biennial certification of waste minimization; the description and quantity of each hazardous waste (received/generated); the location of each hazardous waste within the facility and the quantity at each location; a log of dates of operations and unusual events; and a summary report and details of incidents that require implementation of the contingency plan. Part I, General and Standard Conditions, paragraph 27 (d), requires the facility to maintain arrangements with State and local authorities per 40 C.F.R. § 264.37. Paragraph 27(e) requires the facility to maintain aisle space as required by 40 C.F.R. § 264.35. Part I, General and Standard Conditions, paragraph 34, requires the facility to maintain compliance with 40 C.F.R. Part 264, Subpart H – Financial Requirements and Rule 62-730.180(6), F.A.C.

Part II, Operating Conditions, of the permit, includes: paragraph 2, the requirement to maintain training records at the facility (training received annually, maintain updated list of personnel handling hazardous waste and their job titles per 40 C.F.R. § 264.16); paragraph 4, the requirement to amend the contingency plan if any condition in 40 C.F.R. § 264.54 is met (amendment must be approved in writing by FDEP); paragraph 6, the requirement to certify annually that the facility has a program in place to reduce the volume and toxicity of hazardous

waste and maintain the certification in the operating record; paragraph 16, the requirement to sample glass and metal end caps daily and composite samples weekly; paragraph 17, the requirement to maintain sample results in a log; and, paragraph 18, the requirement to maintain the rolling 12 week average. Part II, Operating Conditions, paragraph 20, requires the facility to keep a written operating record at the facility, which includes: waste profile sheet; incoming authorization log; mercury reclamation log; a summary report and details of incidents that require implementation of the contingency plan; manifests; and results of inspections.

9) INSPECTON FINDINGS

Lamp Recycling Machine

The lamp recycling machine (LSS-1) was not in operation at the time of the inspection (Photograph 1). Phosphor powder generated from lamp crushing in the LSS-1 is collected in a satellite accumulation container prior to transport to the 90 day hazardous waste storage area (Photograph 2). Glass, end caps, and HID bases (not ampoules) are sampled daily and sent to an outside laboratory for mercury analysis (5 day composite is analyzed). End caps generated from LSS-1 are sent to metal recyclers, Fortune Metals & Plastic Inc., located in Tampa, Florida (Photograph 3). Glass generated from LSS-1 is collected in a bin by LSS-1 prior to going to the roll-off container by the shipping/receiving dock area. The roll-off glass container destined for Brevard landfill, was full and covered (Photograph 4). Phosphor powder is transported as hazardous waste to the AERC facility in Pennsylvania.

An air filtering unit is used to filter the air from LSS-1. The air filtering unit consists of pre-filters, HEPA filters, and carbon filters. The pre-filters are changed as needed. The HEPA filters are changed approximately every eight months. Carbon filters are changed annually. The air handling unit has 14 HEPA filters and three trays of carbon filters. Air monitoring is conducted daily (approximately every two hours) to ensure the filters are working as designed. The bank of pre-filters have been tested and determined to be non-hazardous. The HEPA filters and carbon filters are disposed of as hazardous waste.

During the inspection, there were three open containers of lamps near the LSS-1 (Photograph 5). **AERC appears to be in violation of F.A.C. Chapter 62-730.185(1) (40 C.F.R. § 273.33(d)(1)), which states that containers or packages of lamps must remain closed. The inspectors informed AERC to keep all boxes/containers closed prior to processing.**

High Intensity Discharge (H.I.D.) Lamp Base Removal Area

Ampoules are removed from the H.I.D. lamp bases in this area. The ampoules contain liquid mercury. One 55-gallon container of ampoules closed and labeled "Hazardous Waste", dated (4/13/11), was located in this area (Photograph 6). AERC was informed that a satellite accumulation container for the collection of mercury containing ampoules at the point of generation does not require dating, until the satellite container becomes full (and greater than 55 gallons of hazardous waste begins accumulating in the satellite area) and is moved (within 3 days of accumulating greater than 55 gallons of hazardous in the satellite area) to the 90 day area.

90 Day Storage Area

The 90 day area contained mercury containing devices/debris (D009 hazardous waste). According to AERC, material in the 90 day storage area goes to the AERC Pennsylvania facility for disposal and/or to be disassembled and treated by thermal retort. Approximately, fifteen 55-gallon containers and twelve smaller containers of hazardous waste were located in the 90 day area (Photograph 7). The 10 day transfer area contains wastes received with the mercury containing waste plus additional hazardous waste. Approximately, sixteen 55-gallon containers of hazardous waste were stored in this area. These containers are transferred to the Pennsylvania facility within ten days of receipt (Photograph 8).

Staging Area

The staging area takes up the majority of the warehouse area and consists of multiple rows of materials in storage. During the inspection, Row 1 consisted of HID lamps and compact bulbs (Photograph 9). Rows 2 and 3 consisted of fluorescent lamps for processing in LSS-1. Row 4 contained PCB ballasts, crushed lamps, and batteries. Row 5 contained compact lamps and batteries. Row 6-8 contained batteries.

During the inspection, the inspectors observed several boxes of lamps were not closed in row 1 and 2 (Photograph 10). **AERC appears to be in violation of F.A.C. Chapter 62-730.185(1) (40 C.F.R. § 273.33(d)(1)), which states that containers or packages of lamps must remain closed. The inspectors informed AERC to keep all boxes/containers closed prior to processing.**

Battery Processing/Storage Area

Waste batteries managed as universal waste are sorted and consolidated by type. On the east side of the warehouse, between the battery processing area and universal waste battery storage area, were two satellite accumulation containers for corrosive hazardous wastes (Photograph 11). One 55-gallon satellite accumulation container was used to collect caustic (sodium hydroxide) waste, one 55-gallon satellite accumulation container was used to collect acid (sulfuric acid) waste, and one 30-gallon container was used to collect used oil. All containers were closed and labeled.

Records Review

Large quantity generator records (contingency plan and emergency procedures, personnel training, biennial report, manifests, and weekly inspections) were reviewed following the facility inspection. Records required by the permit were also reviewed.

The twelve week rolling average of weekly composite samples analyzed for total mercury (of end caps and glass), daily inspection logs, position descriptions, land disposal restriction notifications, and the biennial report were reviewed and appeared to be in order at the time of the inspection.

During the records review, inspectors found that recently total mercury content of crushed glass was showing greater than 1 ppm during the 12 week time period. AERC stated that the fluctuation in sample results was with the laboratory quality control. **This is an area of concern. AERC must follow proper sampling procedures/protocols or AERC must propose alternate procedures to be approved by FDEP.**

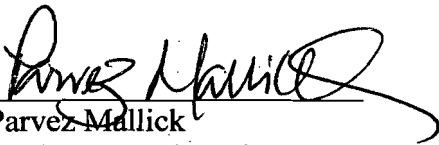
During the records review, the daily inspection logs and daily container logs were missing information for 12/10/2009, 1/24-28/2010, and 4/1/2010. **AERC is in apparent violation of their permit, Part II, Operating Conditions, #20 f., which states that the Permittee shall keep a written operating record at the facility which includes the results of inspections in the approved Inspection Plan and inspection log sheets attached to the permit, which require AERC to document daily container counts in a log.**

H.I.D metal bases and non-PCB transformers are sent to M & M Recycling. AERC is using Cintas to launder shop towels. Alkaline batteries are shipped to Exide for recycling and all other batteries are shipped to Toxco Inc. in Ohio.

Out Briefing


AERC was informed of the inspector's preliminary conclusions of the compliance evaluation inspection.

10) **SIGNATURE**

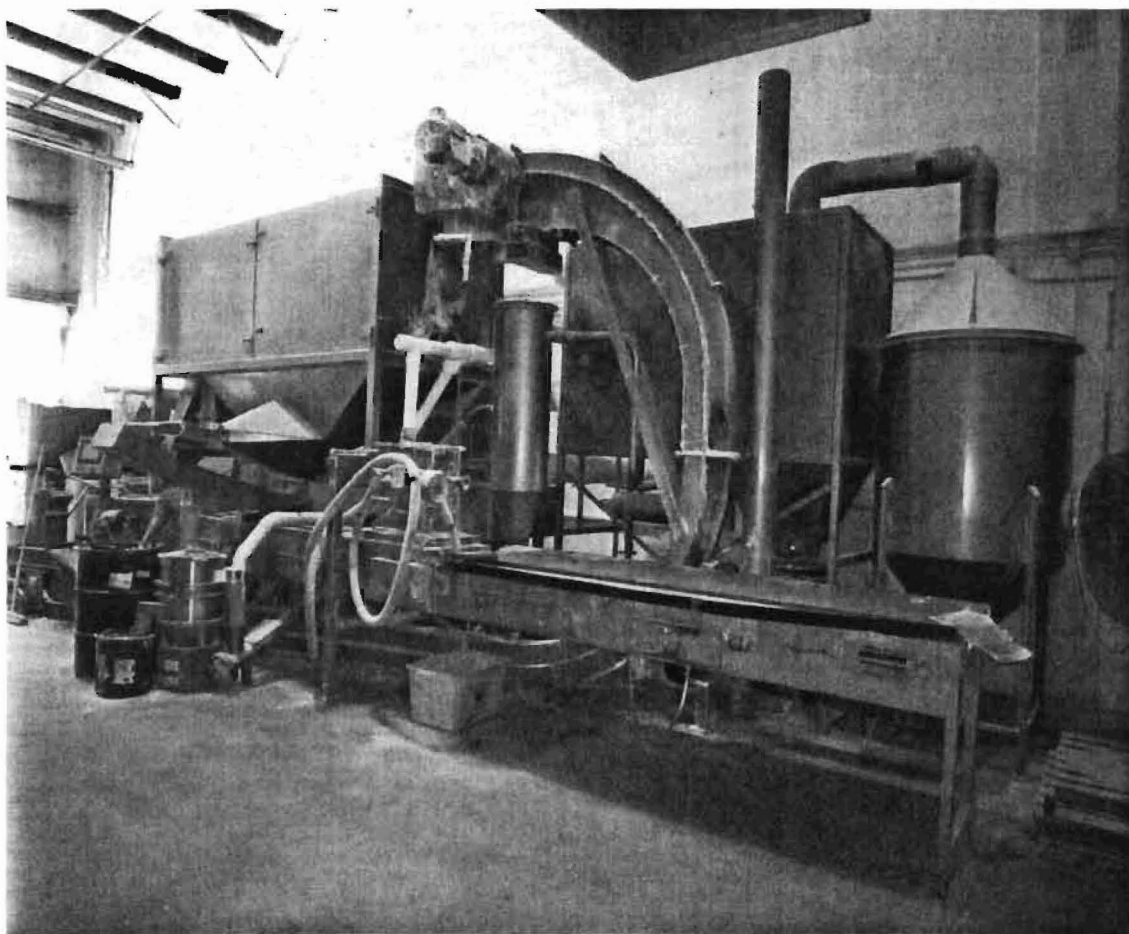

Parvez Mallick
Environmental Engineer

9/14/2011
Date

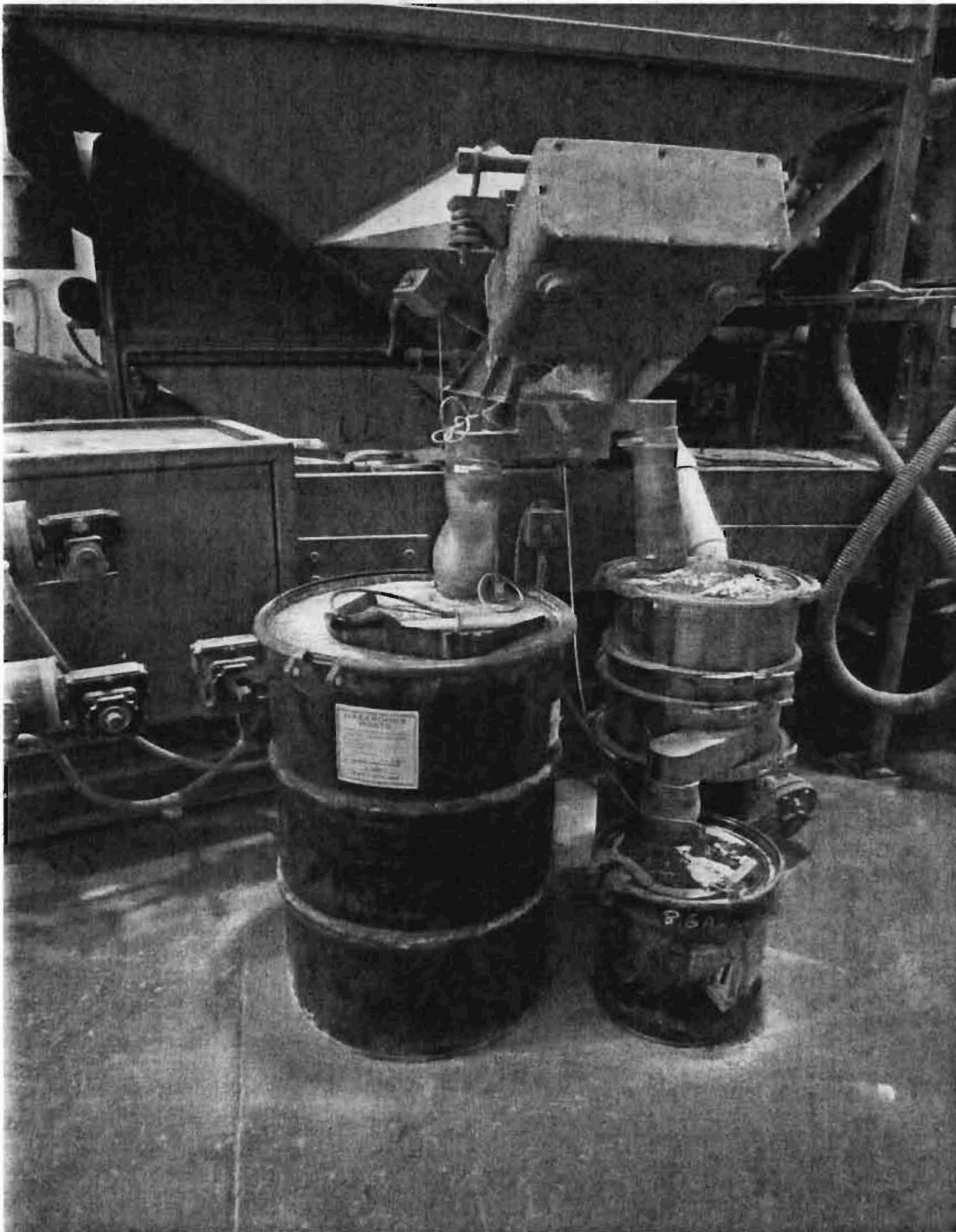
11) **CONCURRENCE AND APPROVAL**


Larry L. Lamberth, Chief
South Enforcement and Compliance Section
RCRA and OPA Enforcement and Compliance Branch

09/14/11
Date



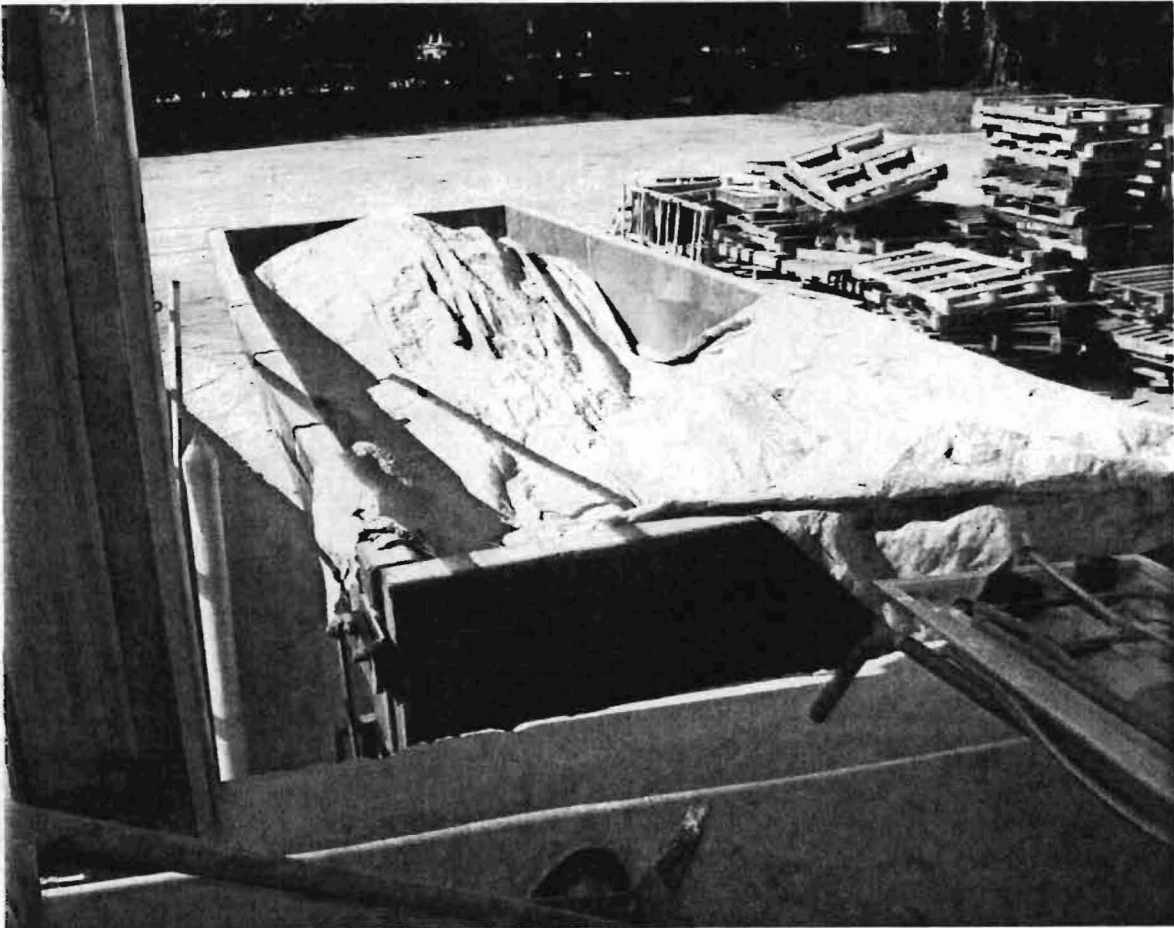
Photograph 1 – Lamp recycling machine (LSS-1)



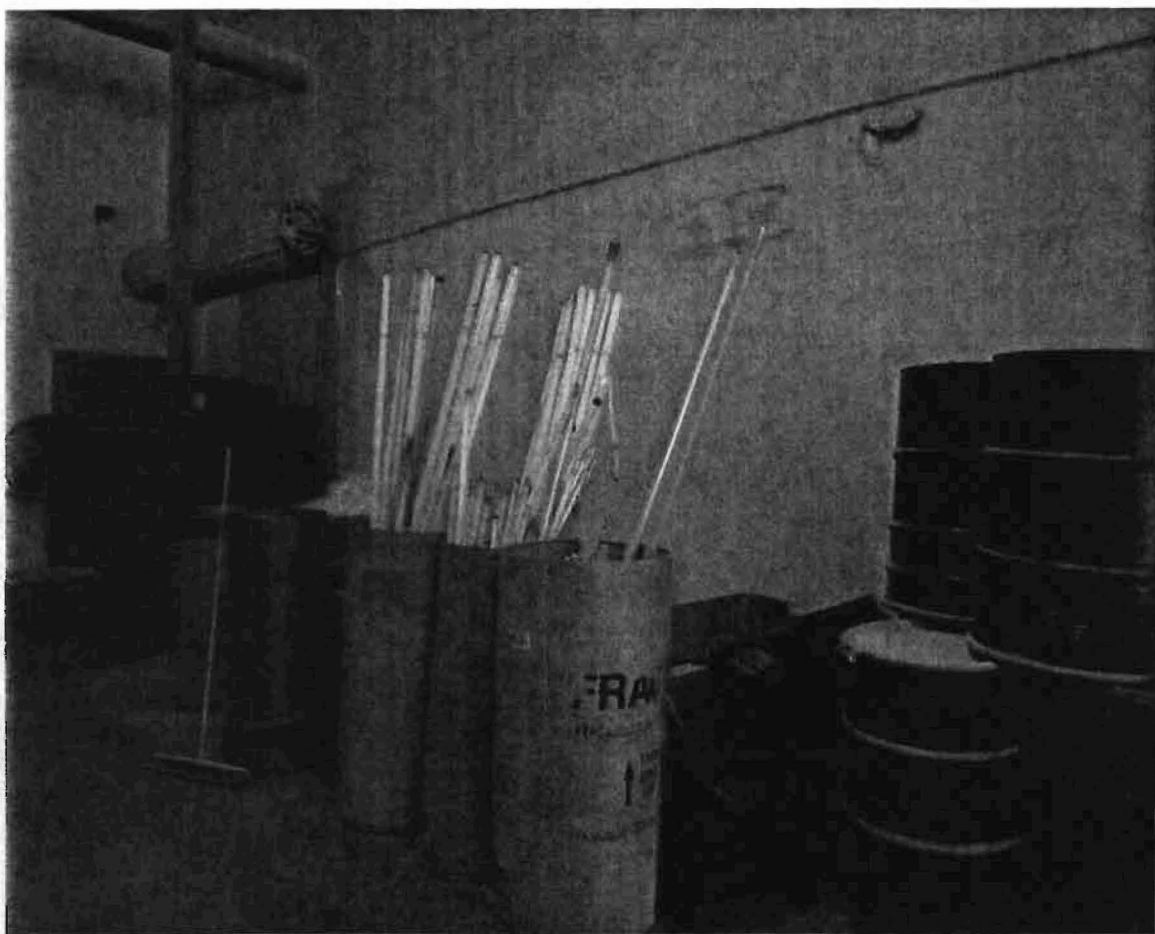
Photograph 2 – Satellite accumulation container of phosphor powder.



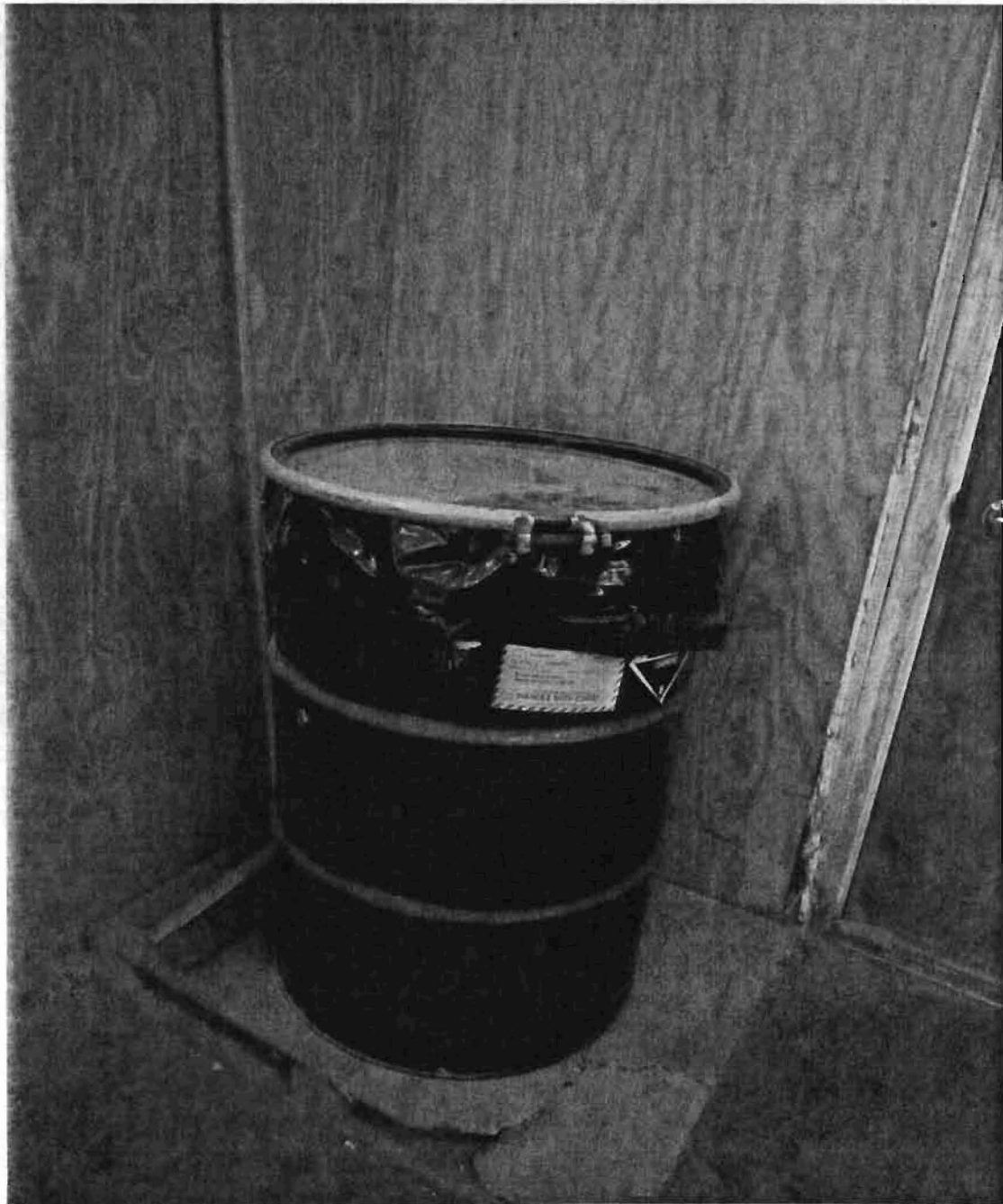
Photograph 3 – End caps generated from LSS-1



Photograph 4 – Covered roll-off container of clean glass



Photograph 5 – Open containers of lamps



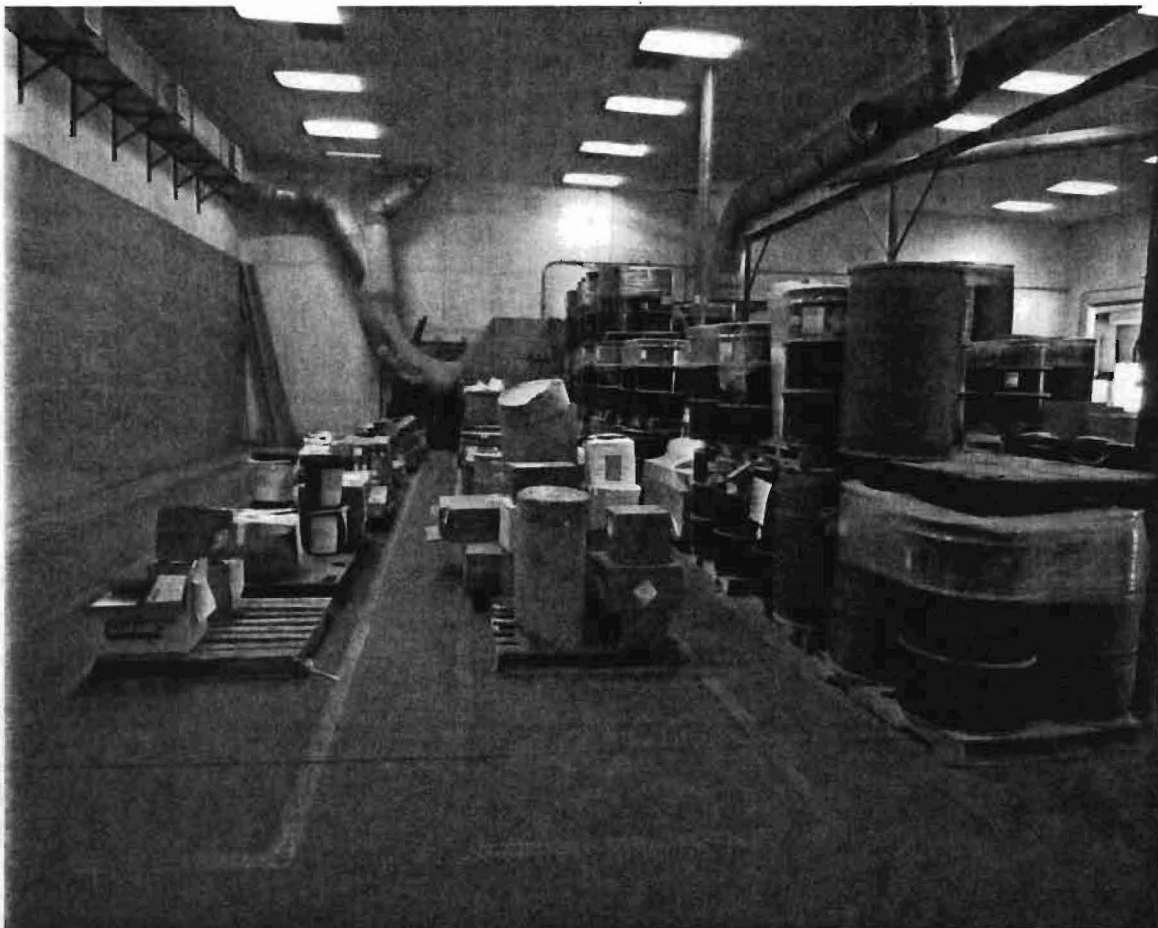
Photograph 6 – Satellite area with 55-gallon container of ampoules



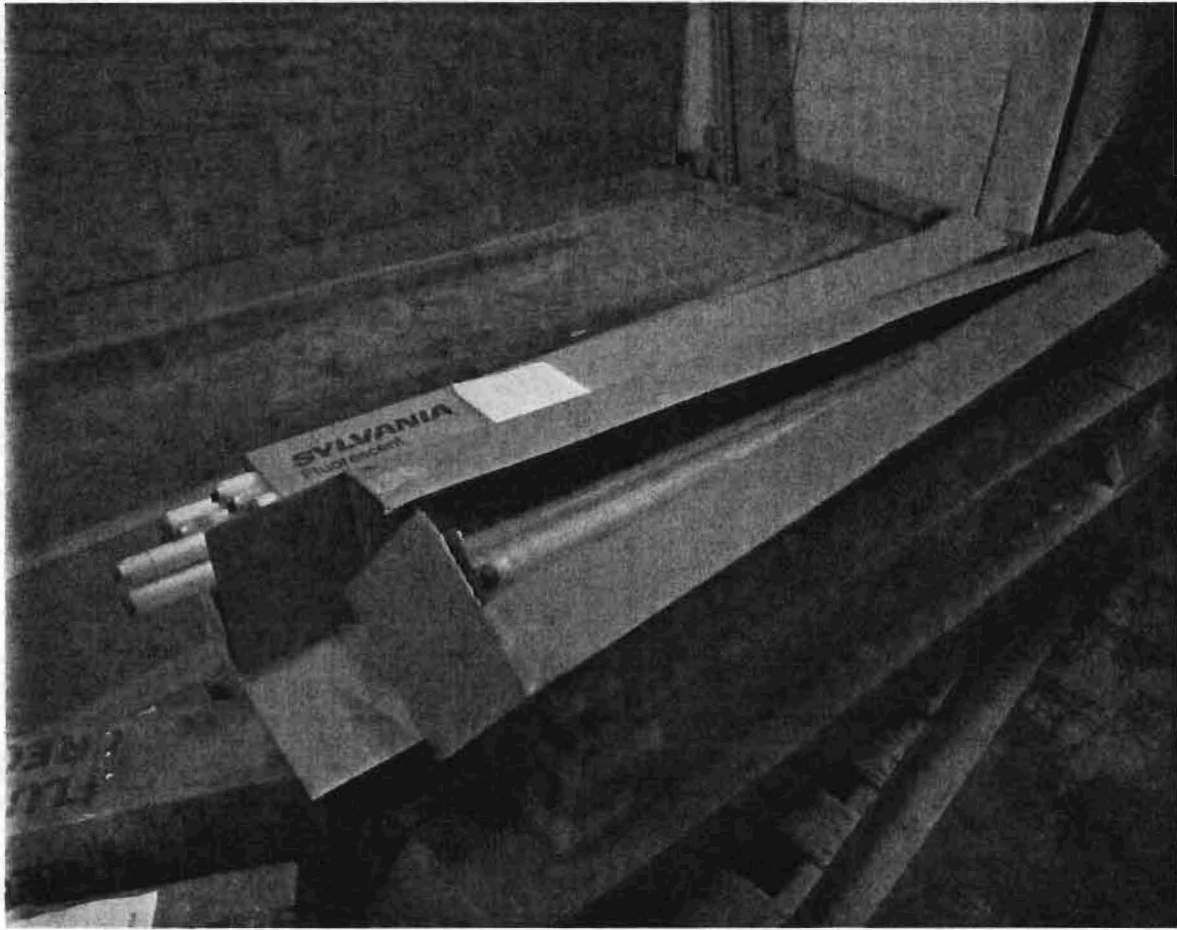
Photograph 7 – 90-Day Storage Area



Photograph 8 – 10-Day Transfer Area



Photograph 9 – Staging area row 1-3



Photograph 10 – Open boxes of lamps



Photograph 11 – Satellite accumulation area for battery electrolytes.