# APPLICATION FOR A MERCURY-CONTAINING LAMP OR DEVICE MERCURY RECOVERY OR MERCURY RECLAMATION FACILITY PERMIT

## Part I

TO BE COMPLETED BY ALL APPLICANTS

Please Type or Print

## A. General Information

1. Type of facility:

| **Mercury Recovery** | **[✔]** | **Mercury Reclamation** | **[ ]** |
|---|---|---|---|
| Lamps | [✔] | Lamps | [ ] |
| Devices | [✔] | Devices | [ ] |
| | | Other mercury wastes | [ ] |
| | | Commodity grade mercury | [ ] |

2. Type of application: [ ] new construction [✔] operation [ ] modification [ ] transfer

3. Revision Number: 0

4. Date current operation began (or is expected to begin): November 1993

5. Facility name: AERC.com, Inc.

6. EPA/DEP ID. No.: FLD 984 262 782

7. Facility location or street address: 4317-J Fortune Place

8. Facility mailing address:

| 4317-J Fortune Place | West Melbourne | FL | 32904 |
|---|---|---|---|
| Street or PO. Box | City | State | Zip |

9. Contact person: Tracy DePaola Telephone: ( 321 ) 952-1516

Title: Southern Regional District Branch Manager

Mailing Address:

| Same as Above | | | |
|---|---|---|---|
| Street or PO. Box | City | State | Zip |

10. Operator's name: AERC.com, Inc. Telephone: ( 321 ) 952-1516

11. Operator's address:

Name: AERC.com, Inc.

Address:

Same as Above

Street or PO. Box City State Zip

12. Facility owner's name: Same as Above Telephone: ( 321 ) 952-1516

13. Facility owner's address:

Same as Above

Street or PO. Box City State Zip

14. Legal structure: [✔] Corporation [ ] Non-profit Corporation [ ] Partnership [ ] Individual
[ ] Local Government [ ] State Government [ ] Federal Government [ ] Other (specify)

15. If an individual, partnership, or business is operating under an assumed name, specify the county and state where the name is registered.

County: Brevard State: Florida

16. If the legal structure is a corporation, indicate the state of incorporation.

State of incorporation: Pennsylvania

17. If the legal structure is an individual or partnership, list the owners' names and mailing addresses.

Name: Robert W. Landmesser

Address:

400 Ocean Road Vero Beach FL 32963

Street or PO. Box City State Zip

Name:

Address:

Street or PO. Box City State Zip

Name:

Address:

Street or PO. Box City State Zip

Name:

Address:

Street or PO. Box City State Zip

18. Site ownership status: [ ] owned [ ] to be purchased [✔] to be leased 5 years

[✔] presently leased; the expiration date of the lease is: Jan. 2016

If leased, indicate:

Land owner's name: Fortune Cookie Park, Inc.

Land owner's address:

Name: Fortune Cookie Park, Inc.

Address:

| 4310 Woodland Park Drive | West Melbourne | FL | 32904 |
|---|---|---|---|
| Street or PO. Box | City | State | Zip |

19. Name of professional engineer: Joe Tessitore

Registration no.: 23374

Address:

Name: Joe Tessitore

Address:

| 801 W State Rd 436 \| Suite 2011 | Altamonte Springs | FL | 32714-3053 |
|---|---|---|---|
| Street or PO. Box | City | State | Zip |

Associated with: Ecology and Environment, Inc.

20. Facility located on Indian land: [ ] yes [✔] no

21. Existing or pending environmental permits: (attach a separate sheet if necessary)

| TYPE OF PERMIT | AGENCY | PERMIT NUMBER | DATE ISSUED | EXPIRATION DATE |
|---|---|---|---|---|

See Attachment #1

## B. Site Information

1. Facility location : County: Brevard Nearest Community: West Melbourne

   Latitude: N 28 deg 5' 39.3536" Longitude: W 80 deg 41' 52.9734"

   Section: 6 Township: 28 South Range: 37 East

   UTM # 32,777 / East / 106,318

2. Area of facility site (acres): Approximately 0.81 acres

3. Attach a topographic map of the facility area and a scale drawing and photographs of the facility showing the location of all past, present, and future material receiving, storage and processing areas. Also show the incoming and outgoing material traffic pattern including estimated volume and controls.

   See Attachments #2 & #3

4. Is the site located in a 100-year flood plain? [ ] yes [✔] no
   If yes, describe how facility will be constructed to prevent flooding (labeled as **Attachment** ___).

## C. Land Use Information

1. Present zoning of the site. Light Industrial

2. If a zoning change is needed, what should the new zoning be?

   N/A

3. Present land use of site

   Mercury Recovery Facility (Lamp Recycling)

## D. Operating Information

1. Is hazardous waste generated on site? [✔] yes [ ] no

List the types and anticipated annual amounts of generation (attach a separate sheet if necessary).

D009 - Mercury-containing Phosphor Powder from Fluorescent Lamp Recovery Operation ~37 tons/year | D009 - Plant Scraps and Debris with mercury ~ 2 tons/year; D009 - HID Ampoules (mercury-containing devices) from UW lamp recycling | D009 - Mercury-containing carbon filter media (periodically removed from air filtration system ~1 ton/year | D002 - Acid/Caustic battery solutions (from management of broken or damaged UW batteries ~ 0.25 tons/year | D009 - Granulated Activated Carbon w/Hg ~ 0.1 tons/year

2. Attach a brief description of the facility operation, nature of the business, and activities.

AERC recovers Hg from lamps, devices, electronics and other manufactured items. The company separates the lamp components and sends the Hg powder and ampoules for retort at the AERC, PA TSD. Where possible, all components are recycled.

See Attachment #4

3. Specify below each process used for storing or recycling of lamps or devices (including daily design capacities for recycling operations) at the facility, and annual quantities, to be stored or processed at the facility. (Attach a separate sheet if necessary)

| PROCESS | DAILY DESIGN CAPACITY | UNIT OF MEASURE | ANNUAL QUANTITY |
|---|---|---|---|
| LSS1 | 3500 T12 Lamps | Lamps/Hr | Appr. 8.4 million |
| HID Disassembly | 400 Lamps | Lamps / Hr | Appr. 770,000 |

See Attachment #5

4. Indicate the type of material and total amount of maximum desired storage to be permitted by the facility. This is the maximum amount of raw or unprocessed material, such as lamps or devices, and the total types and amounts of processed material, such as glass or phosphor material, which shall exist at the facility at any time. This shall be the maximum allowed storage by the facility. (attach a separate sheet if necessary) See Attachment #6

These sections explain that storage volumes are calculated using drum equivalents since material is received in different shapes, sizes and containers. Maximum lamp storage volume if all lamps is 244,800. Max storage if all drums is 1,632 drums.

5. Attach a description of how the facility shall be constructed and operated and the specifics of the technology which shall be utilized to process or recycle lamps and devices. Include any engineering plans, calculations and other related information describing the process to include the design, installation and operation of any air pollution control equipment. All engineering plans and reports shall be signed and sealed by a professional engineer registered in the State of Florida. Describe the specific types of materials the facility shall accept for introduction into its process. (e.g. fluorescent lamps, electrical thermostats etc.)

**Construction and Operation Plans are labeled as Attachment** # 7

6. Attach a description of the facility's Contingency Plan for responding to and dealing with spills or releases of hazardous material to the environment during facility operation or any other emergency conditions. Include the name and 24-hour response telephone number of the facility emergency response coordinator, who is to be contacted in the event of an emergency. Plans should at a minimum conform to the requirements of 40 CFR 264, Subpart D. Attach a description of procedures, structures, or equipment used at the facility to:

   (1) Mitigate effects of equipment failure
   (2) Prevent hazards in unloading operations (e.g., ramps, special forklifts);
   (3) Prevent undue exposure of personnel to hazardous material (e.g., protective clothing);
   (4) Prevent releases to soil, water or the atmosphere; and

   Attach a description of the preparedness and prevention procedures including required equipment, testing and maintenance of equipment, access to communications or alarm system, required aisle space, and arrangements with local authorities. Procedures should at a minimum conform to the requirements of 40 CFR 264, Subpart C.

**Contingency Plan is labeled as Attachment** # 8

7. Attach a copy of the facility's Worker Health and Safety Plan including training. This plan shall be of sufficient detail to describe how workers will be informed of the hazards present in the workplace and how to protect them from exposure or injury from these conditions. The plan should contain elements to instruct employees in identification of hazards, releases, emergency response conditions and methods to prevent releases of hazardous material.

**Worker Health and Safety Plan including training is labeled as Attachment** # 9

8. Attach a copy of the facility's Quality Control Plan to be approved in accordance with Chapter 62-160, F.A.C. This plan should include detailed description of how the facility shall monitor the conformance to the facility's operational plan, training plan, its methods of determining compliance with permit conditions or Chapter 62-737, F.A.C., (e.g., material sampling and analysis) and the performance of its processing equipment or pollution control equipment (if applicable). The plan shall also contain the measures to monitor conformance with the facility's closure plan.

**Quality Control plan to be labeled as Attachment** # 10

9. Attach a copy of the facility's Closure Plan. This plan shall be of adequate detail as to describe how the facility shall properly remove all quantities of raw or unprocessed material and processed materials or wastes in the event of either voluntary or involuntary closure or cessation of operations. The plan must also include programs for clean up or decontamination of process equipment and process areas if applicable and any analytical testing which must be performed to determine the adequate removal of hazardous materials. The plan must also include the estimated costs involved in carrying out each aspect of the closure of the facility.

Attach the following information to meet the closure performance standard which requires removing all hazardous wastes and hazardous constituents and controlling, minimizing, or eliminating, to the extent necessary to protect human health and the environment, closure related releases of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the soil, ground water, surface waters or to the atmosphere. The closure plan must include the following information:

a. A description of how the applicant will close the facility.

b. An estimate of the maximum inventory of unprocessed and processed materials and wastes on site at any one time over the active life of the facility and a detailed description of the methods to be used during closure. The methods may include methods for removing, transporting, treating, storing, recycling or disposing of all processed and unprocessed materials and all hazardous wastes. Identify the type(s) of the off site recycling or hazardous waste management units the applicant will use, if applicable;

c. A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during closure. The steps include procedures for cleaning equipment and removing contaminated materials, methods for sampling and testing contaminated operational areas of the facility, and criteria for determining the extent of decontamination required to satisfy the closure plan standard;

d. A schedule for closure of each facility. The schedule must include, at a minimum, the total time required to close each facility and the time required for intervening closure activities which will allow tracking of the progress of final closure ; and

e. A detailed description of the costs of closure. Attach the most recent closure cost estimates for the facility and a copy of the financial mechanism used to establish financial assurance for closure of the facility. The financial information must be submitted using forms specified in 62-737.80-0(4), F.A.C.

**Closure Plan is labeled as Attachment** # 11

**Financial Assurance Form is labeled as Attachment** # 11

10. Attach a copy of the documents used to demonstrate both general and pollution liability insurance coverage of at least $1,000.000 as required in 62-737.800 F.A.C.. Proof of this coverage must be provided to the Department on an annual basis

**Certificate of Insurance is labeled Attachment** # 12

11. Attach a list of the destinations and uses of processed material shipped off site for disposal or recycling. This is to include the markets for recycled glass or metal end caps or the recovered mercury from reclamation operations. For mercury recovery facility applications, identify the mercury reclamation facility which accepts your material for recovery of the mercury. Iif this is an out of state facility, include the facility's certification of compliance to the provisions identified in 62-737.840 (4), F.A.C.

**List of Destinations Facilities and Uses labeled as Attachment** #13

12. Attach a copy of the facility's Inspection Plan. This plan shall include the measures the facility shall take to monitor and inspect the performance of process operations and pollution control equipment. Indicate the methods and frequency of these inspections and the types of logs or records which shall be maintained.

**Inspection Plan is labeled as Attachment** # 14