



Department of Environmental Protection

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DEVAL L. PATRICK
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Secretary

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Commissioner

Date: September 16, 2011

Rhonda Grady
Electronic Recyclers International-
Massachusetts, Inc.
89 Cross Street
Holliston, MA 01746

RE: Holliston
Transmittal No.: X237912
Application No.: CE-11-014
Class: SUBMIN
FMF No.: 520142
SSEIS No. 119-3530
LPA PLAN APPROVAL

Dear Ms. Grady:

The Massachusetts Department of Environmental Protection, Bureau of Waste Prevention, Permitting Section ("MassDEP") has determined that the referenced Limited Plan Application ("LPA") is administratively complete and in conformance with current air pollution control engineering practices. MassDEP **approves** the referenced LPA authorizing the proposed construction, substantial reconstruction and/or alteration, and subsequent operation, of the electronic products recycling facility at the referenced location.

This LPA Plan Approval is in accordance with 310 CMR 7.02 of the Air Pollution Control Regulations ("Regulations"), 310 CMR 7.00, as adopted pursuant to M.G.L. c.111, sections 142A-142N.

Included as part of the LPA Plan Approval are the following:

- Stamped approved **BWP AQ 01-B** Application form,
- Special Conditions (if any).
- General Conditions for Non-Fuel Emission LPAs,

Please review the entire LPA Plan Approval carefully as it stipulates the particular conditions which the facility owner/operator must adhere to for the facility to be constructed/reconstructed/alterd and operated in compliance with the Regulations.

MassDEP has determined that the filing of an Environmental Notification Form ("ENF") with the Secretary of Environmental Affairs, for air quality purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act and Regulation 301 CMR 11.00, section 11.04, provide certain "Fail-Safe Provisions" which allow the Secretary to require the filing of an ENF and/or Environmental Impact Report later.

I. FACILITY DESCRIPTION

The facility is a 100,000 square foot building for the purpose of accepting and processing/recycling electronic equipment. The electronic equipment will include a variety of end-of-life consumer and commercial devices.

II. PROJECT DESCRIPTION

Monitors and televisions containing cathode ray tubes (CRTs) will be manually dismantled into various commodities including plastics, aluminum, copper, steel, circuit boards, and glass. The circuit boards along with other non-CRT containing electronics will be processed in the shredder. Some circuit boards will be shipped off-site whole. Intact bare CRTs will be shipped off-site for further processing. The shredding operation will have enclosures around dust generating parts of the process and dust collectors to remove any particulate prior to discharge of air within the building.

All batteries, mercury-containing lamps and mercury-containing devices will be removed prior to shredding the electronic equipment. The batteries, mercury-containing lamps and mercury-containing devices will be managed as universal waste. The material handling and storage prior to processing will occur in a separate area from the processing and shredding. A slow speed shredder will be used to shred the electronic equipment. Following the shredder, the material will go through separators which will sort the different particles for further recycling.

There will be two separate dust collection systems to handle the dust generated by the shredding and separating processes. A Donaldson-Torit DFO 4-32 baghouse rated at 25,540 cubic feet per minute (cfm) will collect dust from the shredder. A Donaldson-Torit DFO 4-48 baghouse rated at 38,300 cfm will collect dust from the separators. Exhaust from the two baghouses will flow through additional HEPA filters prior to discharge inside the building.

There will be eight (8) wall mounted building ventilation exhaust fans located along the east and north sides of the building. These fans will be operated to provide building ventilation whenever it is necessary to remove building heat generated by the equipment. The fan intakes are equipped with 5/8th inch thick bulk media filter pads. It is estimated that these fans will operate no more than 2,000 hours per year. The discharge of indoor air from the wall mounted fans will be an indirect discharge to the ambient air.

III. SPECIAL CONDITIONS

A. Facility emissions may not exceed the amounts listed in Table 1.

Table 1		
Pollutant	Short Term Emission Limit Monthly	Long Term Emission Limit—12 month rolling total
Particulate Matter	Less than 1 ton	1.54 tons
Opacity	Shall not exceed 10%	

B. The electronics shredder shall not process more than 120 tons of the above mentioned material per day.

C. The Permittee shall ensure continuous upfront battery and mercury-containing device removal from the materials to be processed by shredding.

D. The Permittee shall keep the process dust collection system maintained and properly functioning at all times the shredder is operating.

- E. The Permittee shall operate and maintain the baghouses in accordance with manufacturer's specifications and shall handle the collected dust in a way that minimizes spilling or fugitive dust. A daily log of the baghouse pressure drop shall be kept. At least once per calendar quarter, the Permittee shall:
1. Check exhaust for each dust collector for any apparent problem;
 2. Verify the dust collectors are operating within the proper pressure drop range;
 3. Verify proper operation of the shakeout/pulse jet cleaning mechanism on each unit.
- F. The Permittee shall check the HEPA filters at least once per calendar quarter for particulate loading and shall replace them as necessary.
- G. The Permittee shall inspect the wall exhaust fan bulk media filter pads at least once per calendar quarter for particulate loading and shall clean or replace them as necessary.
- H. The Permittee shall ensure that indoor dust levels are minimized by following a Standard Operating Procedure (SOP) for good housekeeping (floor sweeping, proper handling of collected dust, etc.), and shall keep records (logbooks or equivalent) of the performance of the good housekeeping work. The Permittee shall make the SOP and performance records available to MassDEP during inspections or upon request.
- I. At least once a year, the Permittee shall monitor the indoor particulate and metals levels. Such monitoring shall be done by means of either
1. employee industrial hygiene sampling as described in e-Stewards Standard 4.4.6.1., or
 2. a non-employee sampling program to be developed by the Permittee within 90 days of this Approval and submitted to MassDEP for approval, or
 3. by another method that MassDEP has approved.

The results of the monitoring shall be maintained by the Permittee on-site and made available to MassDEP during inspections or upon request.

IV. GENERAL CONDITIONS FOR NON-FUEL EMISSION LPAs

- A. **INSTALLATION and OPERATION** - No person shall install or operate the equipment as noted in this plan application except in conformance with the requirements established in this Plan Approval. This Plan Approval is only for the equipment as noted within the application or as may otherwise be specified in the Plan Approval.
- B. **SUSPENSION, MODIFICATION, AMENDMENT OR REVOCATION** - This Plan Approval may be suspended, modified, amended or revoked by MassDEP if, at any time, MassDEP determines that the facility is violating any condition or part of this Plan Approval. This Plan Approval may be modified or amended when in the opinion of MassDEP a modification or amendment is necessary or appropriate to clarify the approval conditions or after consideration of a written request by the Permittee to amend the approval conditions. Any relaxation of an emission limit or a specific condition noted in this Plan Approval that would result in an increase in emission rates as established in this Plan Approval must be made in accordance with 310 CMR 7.02.
- C. **OTHER REGULATIONS** - This Plan Approval does not negate the responsibility of the owner/operator to comply with this or any other applicable federal, state, or local regulations now or in the future. Nor does this Plan Approval imply compliance with any other applicable federal, state or local regulation now or in the future.
- D. **VISIBLE EMISSIONS** - Unless otherwise required by this Plan Approval, opacity, exclusive of uncombined water, shall not exceed 10% at all times during all modes of operation, including startups and shutdowns. Visible

emissions or opacity that exceeds the limits set forth in this Plan Approval shall be reported to MassDEP in writing or by fax within seven (7) days of the occurrence.

- E. DUST AND ODOR - The facility shall be operated in a manner to prevent the occurrence of dust or odor conditions that may cause or contribute to a condition of air pollution as defined in Regulation 310 CMR 7.01 and 7.09.
- F. NOISE - Noise from the facility during routine operation, including startups and shutdowns, shall not exceed MassDEP noise guidelines and shall not cause a condition of air pollution as defined in Regulation 310 CMR 7.01 and 7.10.
- G. ASBESTOS - Should asbestos remediation/removal be required as a result of this Plan Approval, such asbestos remediation/removal shall be done in accordance with Regulation 310 CMR 7.15.
- H. TESTING -
 - 1. Any emission testing conducted to show compliance with the limitations in this Plan Approval must be conducted in accordance with the Environmental Protection Agency test methods as specified in the Code of Federal Regulations, Title 40, Part 60, Appendix A - Standards of Performance for New Stationary Sources or by another method correlated to the above method to the satisfaction of MassDEP and in accordance with the requirements noted in 310 CMR 7.13.
 - 2. In accordance with 310 CMR 7.13, MassDEP may require testing for any pollutants if deemed necessary to ascertain the emission rates and relationship to equipment design and operation.
- I. RECORD KEEPING -
 - 1. A record keeping system shall be established and continued on site by the Permittee. All records shall be maintained up-to-date such that twelve-month rolling period information is readily available for Department examination. Record keeping shall include, at a minimum:
 - a) The initiation and completion dates for the proposed construction, reconstruction or alteration.
 - b) Compliance records sufficient to demonstrate that emissions of air contaminants have not exceeded what is allowed by this Plan Approval. Such records may include daily production records, raw material usage rates, emissions test results, the results of indoor air monitoring specified in Special Condition III.I., monitoring equipment data and reports.
 - c) Maintenance: A record of routine maintenance activities performed on emission unit, control equipment (baghouses and HEPA and wall fan filters) and monitoring equipment including, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
 - d) Malfunctions: A record of all malfunctions on emission unit, control equipment and monitoring equipment including, at a minimum: the date and time the malfunction occurred; a description of the malfunction and the corrective action taken; the date and time corrective actions were initiated; and the date and time corrective actions were completed and the emission unit returned to compliance.
 - 2. All records shall be kept on site for five (5) years and shall be made available to MassDEP upon request.
 - 3. Pursuant to the authority granted to MassDEP at 310 CMR 7.02, the facility shall maintain a copy of this Plan Approval, and any subsequent modifications of this Plan Approval, on-site for as long as the Plan Approval is valid. The Plan Approval is valid until one of the following conditions occur: the equipment is dismantled or removed from the facility, the facility notifies MassDEP that the Plan Approval is no longer valid, the equipment is substantially reconstructed or altered and subject to 310 CMR 7.02, the Plan Approval is superseded by another Plan Approval, or MassDEP revokes the Plan Approval in accordance with 310 CMR

7.02. MassDEP may revoke, in accordance with 310 CMR 7.02, any Plan Approval if the actual construction has not begun within two years from the date of issuance or if, during the construction, the construction is suspended for the period of one year or more.

J. REPORTING -

1. The Permittee will not be required to submit Source Registration/Emission Statements under 310 CMR 7.12 as long as its emissions remain below the SR reporting threshold, currently at 2 tons per year of particulate matter.
2. Any construction, substantial reconstruction or alteration, as described in 310 CMR 7.02, of equipment as noted within this Plan Approval application at this facility shall be reported in writing to MassDEP 30 days prior to said construction, substantial reconstruction or alteration and on the next required source registration.
3. The Regional Bureau of Waste Prevention, Compliance and Enforcement office, must be notified by telephone, email, or fax as soon as possible (but no later than 24 hours) after the occurrence of any exceedance of an emission limit as noted within this Plan Approval OR any upsets or malfunctions to the facility equipment, air pollution control equipment, or monitoring equipment which result in an excess emission to the air, a violation of any conditions of this Plan Approval and/or a condition of air pollution.

K. REMOVAL OF AIR POLLUTION CONTROL EQUIPMENT - Notwithstanding 310 CMR 7.02, no person shall cause, suffer, allow, or permit the removal, alteration or shall otherwise render inoperative any air pollution control equipment or equipment used to monitor emissions which has been installed as a requirement of 310 CMR 7.00, other than for reasonable maintenance periods or unexpected and unavoidable failure of the equipment, provided that MassDEP has been notified of such failure, or in accordance with specific written approval of MassDEP.

L. MONITORING - Equipment or emission monitoring systems installed for the purpose of documenting compliance with this Plan Approval shall be installed, calibrated, maintained and operated by the Permittee in sufficient manner to ensure continuous and accurate operations at all times.

M. COMPLIANCE ASSURANCE FEE - Pursuant to 310 CMR 4.03, an annual fee, based on the Commonwealth's fiscal year, may be charged to your facility to cover the cost of compliance activities performed by MassDEP, including registrations, report reviews, inspections, source registration reviews, etc. No fee shall be charged in the fiscal year that the permit is issued. If multiple air quality permits exist for a facility, the facility shall pay the single highest applicable fee. This fee does not include stack test fees.

V. APPEAL

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations. The hearing request along with a valid check payable to Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02241

The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below.

The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority. MassDEP may waive the adjudicatory hearing filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Should you have any questions concerning this Plan Approval, please contact Paul Dwiggins at (508) 767-2760.

Sincerely,

**This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
is on file at the DEP office listed on the letterhead.**

Roseanna E. Stanley
Section Chief,
Bureau of Waste Prevention

RES/PD

ecc: Yi Tian, DEP-Boston