



## Department of Environmental Protection

Central Regional Office • 627 Main Street, Worcester MA 01608 • 508-792-7650

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Commissioner

### **BWP SW 37 POST-CLOSURE USE – MINOR Lancaster Landfill: Solar Project**

Permit Issuance Date: September 26, 2011

Name of Permittee: Town of Lancaster (“Permittee” or “Applicant”)  
695 Main St.  
Lancaster, Massachusetts 01523

Name of Facility: Lancaster Landfill (“Facility” or “Landfill”)  
Facility Address: Lunenburg Road  
Lancaster, Massachusetts 01523

DEP Region: Department of Environmental Protection (“Department” or “MassDEP”)  
Central Regional Office (CERO), Worcester  
Division of Solid Waste Management

Permit Number: X238918 (Transmittal No.)  
Facility Master File No. 172631

#### **I. FACILITY DESCRIPTION AND OUTSTANDING APPROVAL STATUS**

##### **A. Facility**

1. Owner: Town of Lancaster  
695 Main St.  
Lancaster, Massachusetts 01523
2. Operator: None
3. Description: The proposed post closure use includes the construction of an approximately 500 kilowatt array on the existing gravel pit adjacent to the 7-acre municipal landfill. The solar array project will take up a 2.78 acre portion of the existing gravel pit. The solar array will not be located within the limits of the closed landfill nor will any of the solar ray system components. Current Landfill environmental monitoring does not show landfill gas migration outside the limits of waste disposal and the location of the Landfill footprint is approximately six

hundred (600) feet away from the proposed photovoltaic arrays that no requirements for explosive conditions are anticipated. This project covers clearing, preparation, layout, stormwater management, grading and shaping for the solar array, equipment, a permanent security fence and locking gate around the solar array. The Solid Waste Site Assignment occupies approximately 56 acres, 7 of which encompass the limits of the Landfill. Gas vents and drainage swales are located on the landfill cap. Gas and groundwater monitoring wells are located around the perimeter of the Landfill

**B. Reviews and Approvals Affecting Current or Planned Operation.**

1. MEPA: August 5, 2011
2. Site Suitability Report: Not Applicable
3. Site Assignment: April 13, 1988 by Lancaster Board of Health
4. Landfill Closure: July 18, 1991

**C. Permit Application Information for BWP SW 37 Post-Closure Use – Minor**

1. Applicant Name: Town of Lancaster
2. Transmittal Number: X 238918 (Permit No.)
3. Start Date of Application: July 1, 2011
4. Date of Fee Receipt: Exempt
5. Consulting Registered Professional Engineer:  
  
Tighe and Bond  
53 Southampton Rd  
Westfield, MA 01085  
Contact: David Murphy, P.E. #35482  
Tel.: 413 562 5317
6. Title of Plans & Reports, Submission and Date of Receipt at DEP, CERO:  
  
BWP SW 37 Minor Post-Closure Use Permit Application, Lancaster, MA  
Solar Farm Project, Lancaster, MA  
Prepared by: Tighe and Bond Axio Power and TRC

Dated: June 30, 2011

Received by MassDEP-CERO: July 1, 2011

#### 7. Project Description:

The post-closure use request is for the installation of a 500 kilowatt photovoltaic (PV) solar array project on land adjacent to the town owned Lancaster Landfill. The solar array facility will be constructed on a parcel of land that falls within the site assigned limits issued by the Winchendon Board of Health in 1988. The Town of Lancaster proposes to construct and maintain a solar PV array within the existing sand pit to the east of the Landfill consisting of the following components:

- 500 kilowatt (KW)-watt photovoltaic panels (PV) on above-ground racks.
- Pole Mounted PV above-ground support racks stabilized by driven stake foundations anchored at a depth appropriate to the site.
- Installation of inverter stations and one transformer. The solar panels will be connected by both above-ground and below-ground DC conductors to the inverters.
- A below-ground transmission line from the inverters that will connect to the transformer.
- Installation of interconnect equipment connected to the transformer(s) via buried AC conductor.
- A perimeter fence and locking gate that will provide site security.

This post-closure use permit authorizes the proposed solar array installation including solar photovoltaic panels, driven pile footings, framework, inverters and transformers, perimeter fencing and all other associated transmission lines and electrical connections within the existing gravel.

## II. POST-CLOSURE USE – MINOR, APPLICATION REVIEW AND APPROVAL

This application complies with the application requirements set forth at 310 CMR 19.016: Post-Closure Use and 19.143: Post Closure Use of Landfills, and was reviewed in accordance with 310 CMR 19.037: Review Procedure for Existing Facility Permits, Permit Modifications, Permit Renewals and other Approvals. The plans and reports described above establish that the submittal complies with the criteria set forth with the review process at 310 CMR 19.038: Applicability and Review Criteria for a Permit or Permit Modification and 310 CMR 19.143: Post-Closure Use of Landfills.

This document is a Permit, issued pursuant to Massachusetts General Laws (MGL) Chapter 111, Section 150A and 310 CMR 19.000, the Solid Waste Management Facility Regulations (the “Facility Regulations”) and is subject to the conditions set forth below. In the event this Permit conflicts with all or parts of prior plan approvals or permits

issued pursuant to Chapter 111, Section 150A or solid waste regulations in effect prior to July 1, 1990, the terms and conditions of this Permit shall supersede the conflicting provisions of the prior permits and/or approvals. This Permit does not convey property rights of any sort or any exclusive privilege.

### III. GENERAL PERMIT CONDITIONS

1. **Compliance with Plans** - The Permittee shall assure that the Facility is operated in accordance with approved plans, reports, and other submissions described in Section I, except as may be modified by the conditions set forth in Section IV. No material changes in the design or activities described in the approved documents shall be performed without prior written MassDEP approval.
2. **Compliance with Other Approvals** - The post-closure use of this Facility shall be in compliance with other applicable local, state and federal laws and regulations.
3. **Standard Conditions** - The Facility shall be maintained in accordance with the conditions set forth at 310 CMR 19.007-19.011 and 19.043(5).
4. **Joint Liability** - This Permit is issued subject to the conditions of joint liability of the Permittee and owner in accordance with 310 CMR 19.043(3).
5. **Transfer** - No transfer of the Permit shall be permitted except in accordance with 310 CMR 19.044.
6. **Permit Modification** - MassDEP reserves the right to rescind, suspend or modify this Permit by the imposition of additional conditions based upon a determination of actual, or the threat of, adverse impacts from the maintenance, closure or post-closure use of the Facility.

### IV. SPECIFIC PERMIT CONDITIONS

1. **Criteria for Post-Closure Use** - This approval for post-closure use of the Lancaster Landfill shall be accomplished such that all activity associated with the project, as described in the application, will take place outside the footprint of the Landfill and shall not in any way alter the Landfill or the site environmental monitoring systems.
2. **Post-Closure Environmental Monitoring** - The Permittee shall maintain the existing and/or any future environmental control or monitoring systems in accordance with 310 CMR 19.133: Maintenance of Environmental Control and Monitoring Systems.
3. **Other Post-Closure Use** - The closed Landfill shall not be used for any other post-closure activity without submittal and Department approval of a Post-Closure Use

Permit Application in accordance with 310 CMR 19.143: Post-Closure Use of Landfills.

4. **Notification of Construction:** The Permittee shall notify MassDEP in writing (e-mail is acceptable) when the post-closure use construction commences and when the construction has been completed.
5. **Certification Report:** Within ninety (90) days of completing the installation of the solar photovoltaic array project, MassDEP shall be provided with a certification report. All construction work shall be completed under the supervision of a Massachusetts Registered Professional Engineer who shall have sufficient staff on-site to provide quality assurance/quality control (QA/QC) oversight for all construction work associated with the project. The report shall include, at a minimum, written certification from the supervising engineer that the project was performed in accordance with MassDEP regulations, applicable requirements and the approved Post-Closure Use permit application. The report shall include as-built drawings depicting all pertinent site features and the extent of the project area.
6. **Personnel Training:** The Town and its contractor(s) shall be instructed regarding the potential hazards associated with landfill gas and shall instruct or give on-the-job training to all personnel involved in any activity authorized by this permit. Such instruction or on-the-job training shall teach personnel how to comply with the conditions of this Permit to carry out the authorized activity in a manner that is not hazardous to public health, safety, welfare or the environment. Training shall be provided to workers conducting monitoring and maintenance activities at the Landfill regarding potential hazards associated with the PV array including but not limited to electrical hazards.
7. **Health and Safety:** The Town and its contractor(s) are responsible to ensure all necessary precautions are taken to protect the health and safety of workers and the general public during both construction and maintenance of the solar array.
8. **Construction Precautions:** All necessary precautions shall be taken to ensure that the proposed construction and maintenance work associated with the PV array does not damage the environmental monitoring network at the landfill. If any damage occurs to the above listed monitoring network components, the Town or its contractor(s) shall notify Lynne Welsh, Section Chief, MassDEP CERO within 24 hours and provide a written plan for repairs, including a schedule .
9. **Environmental Monitoring for Landfill Gas:** The Permittee shall provide a plan for the installation of three new gas monitoring probes in the area between the Landfill and the proposed location of the PV project in order to ensure that conditions of gas migration do not exist. The frequency of monitoring the new gas probes shall be four (4) times per year. On the instances when the gas monitoring coincides with regularly

scheduled Post Closure monitoring, the results will be included in the Post Closure monitoring reports. Any additional monitoring results will be submitted to the Department as a letter report within thirty days of the sampling results.

- 10 **Notification** - MassDEP shall be notified within twenty-four (24) hours of any incidents or disruptions which occur at the Facility that could affect the public health, safety, environment, or operation of the Facility. Written 24 hour notification shall be faxed to D. Lynne Welsh, Solid Waste Section Chief at 508-792-7621 in the MassDEP Central Regional Office. During emergency incidents at the Facility, immediate notification shall be provided to the Department by telephone to D. Lynne Welsh, Solid Waste Section Chief at 508-849-4007 in the MassDEP Central Regional Office.
11. **Final PV Design Documents:** A copy of the proposed final design for the PV array, transmission lines, transformer pad and any other electrical and protective switchgear (interconnection equipment) for the PV project shall be submitted to MassDEP for its review and files prior to construction.

## V. RIGHT OF APPEAL

1. **Review of Decision** - Pursuant to 310 CMR 19.037(4)(b), if the Applicant (Permittee) is aggrieved by MassDEP's decision to issue this Permit, it may within twenty-one (21) days of the date of issuance file a written request that the decision be deemed a provisional decision, and a written statement of the basis on which the Applicant believes it is aggrieved, together with any supporting materials. Upon timely filing of such a request, the decision shall be deemed a provisional decision with an effective date twenty-one (21) days after MassDEP's receipt of the request. Such a request shall reopen the administrative record, and MassDEP may rescind, supplement, modify, or reaffirm its decision. If MassDEP reaffirms its decision, the decision shall become a final Permit on the effective date. **Failure by an applicant to exercise the right provided in 310 CMR 19.037(4)(b) shall constitute a waiver of the applicant's right to appeal.**
2. **Right to Appeal** - Any person aggrieved by the issuance or denial of this Permit, except as provided for under 310 CMR 19.037(4)(b), may file an appeal for judicial review of said decision in accordance with the provisions of M.G.L. c. 111, § 150A and M.G.L. c. 30A not later than thirty (30) days following the receipt of the final permit. Unless the person requesting an appeal requests and is granted a stay of the terms and conditions of the permit by a court of competent jurisdiction, the permit shall remain effective at the conclusion of the 30 day period.
3. **Notice of Action** - Any aggrieved person intending to appeal the issuance of this permit to the Superior Court shall first provide notice of intention to commence such action. Said notice of intention shall include the file number [Transmittal No.

X238918] and shall identify with particularity the issues and reason why it is believed the permit decision was not proper. Such notice shall be provided to the Office of General Counsel of MassDEP and the Regional Director for the regional office that processed the permit application at least five (5) days prior to the filing of an appeal.

Office of General Counsel  
Massachusetts Department of Environmental Protection  
One Winter Street  
Boston, MA 02108

and

Martin Suuberg, Regional Director  
Massachusetts Department of Environmental Protection  
627 Main Street  
Worcester, MA 01608

No allegation shall be made in any judicial appeal of this permit decision unless the matter complained of was raised at the appropriate point in the administrative review procedures established in 310 CMR 19.000, provided that a matter may be raised upon a showing that it is material and that it was not reasonably possible with due diligence to have been raised during such procedures or that matter sought to be raised is of critical importance to the environmental impact of the permitted activity.

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.

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D. Lynne Welsh  
Acting Section Chief  
Solid Waste Management Program