



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

DEVAL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

RICHARD K. SULLIVAN JR.  
Secretary

KENNETH L. KIMMELL  
Commissioner

December 26, 2012

David Field, Director,  
Easton Department of Public Works  
130 Center Street  
Easton, Massachusetts 02356

and

Mr. Scott Sargent  
Borrego Solar Systems, Inc.  
1115 Westford Street, 2nd Floor  
Lowell, Massachusetts 01851

RE: Approval with Conditions  
Application for: BWP SW 36 Post-Closure Use - Major  
1.86 Megawatt Solar Photovoltaic Array  
Transmittal #: X252054

AT: Easton Landfill  
114 Prospect Street  
(Town Dump Road)  
Easton, Massachusetts  
Facility ID#: 39244, Regulated Object#: 172491

Dear Mr. Field and Mr. Sargent:

The Massachusetts Department of Environmental Protection, Solid Waste Management Section (the "MassDEP"), has completed its review of the referenced Post-Closure Use permit application (the "Application") for the Easton Landfill (the "Landfill"). The Application was prepared and submitted on behalf of the Town of Easton (the "Town") by Tighe & Bond, Inc. ("T&B" or "Engineer") of Portsmouth, New Hampshire.

MassDEP has determined the Application is administratively and technically complete and hereby **Approves** the Post-Closure Use of the Landfill for a 1.86 megawatt ("MW") solar photovoltaic ("PV") array subject to conditions as specified herein.

## **I. SUBMITTALS:**

MassDEP has reviewed the Application pursuant to 310 CMR 19.000: *Solid Waste Regulations*, 310 CMR 19.143: *Post-Closure Use of Landfills* and MassDEP's *Landfill Technical Guidance Manual, May 1997* (the "Manual"). The Application consists of the following:

- A. The permit transmittal, application forms for Post-Closure Use - Major (BWP SW 36), narrative describing the proposed use, engineering calculations performed by Tighe & Bond and by Borrego Solar Systems, Inc., and twenty six engineering drawings received by MassDEP on October 15, 2012.
- B. Supplemental Application information prepared by Tighe & Bond, dated November 19, 2012 and received via e-mail by MassDEP on November 21, 2012, in response to MassDEP's November 16, 2012, comments.

The Application and site plans are signed and stamped by David A. Murphy, Massachusetts Professional Engineer No. 35482. The structural calculations and drawings bear the signature and seal of James Edward Trant, Massachusetts Professional Engineer No. 28556. The electrical drawings bear the signature and seal of David J. Colombo, Massachusetts Professional Electrical Engineer No. 40426.

## **II. SITE DESCRIPTION:**

The Easton Landfill is an unlined Landfill located off Prospect Street on an 89.5 acre parcel of Town-owned land in Easton (the "Site"). The Landfill final cover system occupies approximately 20 acres. The Landfill operations began in the 1972 for the acceptance of municipal solid waste and ceased in 1999. The Landfill was capped in 2005. The Landfill is generally surrounded by wetlands and buffered by woods. The nearest residences are located along Prospect Street to the west and Foundry Street/Route 106 to the north.

Existing Final Cover System Design: On July 2, 2002, MassDEP approved closure plans for the Landfill. A closure construction certification report was submitted in January 2004 and MassDEP approved the certification report on February 2, 2005. The final cover was installed with a minimum top slope of 5% and side-slopes no greater than 3:1.

The final cover system includes the following layers from bottom to top:

- a four-inch (4") minimum gas venting/liner protection layer, overlain by,
- a 40-mil HDPE flexible membrane liner (FML) barrier layer, overlain by,
- a twelve-inch (12") minimum sand drainage layer with a minimum hydraulic conductivity of  $1 \times 10^{-2}$  cm/sec, overlain by,
- an eight-inch (8") minimum dense graded stone layer or vegetative layer with a self propagating, low maintenance vegetative cover.

The storm water design incorporated a series of 4-inch diameter perforated drain pipes, wrapped in filter fabric, installed within the sand drainage layer to drain water and ensure slope stability.

An active landfill gas collection and flare system was constructed at the Landfill to eliminate odors due to fugitive landfill gas emissions, to prevent soil-gas migration beyond the Landfill footprint, and to accommodate a potential future post-closure use of the Site. Twenty three gas well head vaults were constructed as part of the active landfill gas collection system. The landfill gas is initially treated with a "Sulfa-Treat System" to remove hydrogen sulfide from the gas stream and then it is combusted in an enclosed flare at the south end of the Site. On November 12, 2002, MassDEP approved a Non-Major Comprehensive Plan permit application for the enclosed flare to combust landfill gas.

Post Closure Environmental Monitoring & Maintenance: MassDEP approved the post closure environmental monitoring program for the Landfill within the closure certification report approval letter issued on February 2, 2005. Post closure environmental monitoring (groundwater, surface water and soil gas monitoring) is currently conducted by the Town. The Town currently monitors 14 groundwater monitoring wells and 2 surface water locations on a semiannual basis. Sixteen soil-gas monitoring wells are monitored on a quarterly basis. Currently, the landfill final cover system is inspected annually and mowed at least once per year.

### **III. POST-CLOSURE USE PROPOSAL SUMMARY:**

The Town is the owner of the Landfill and has entered into an agreement with Borrego Solar Systems, Inc. ("Borrego") to develop a 1.86 MW solar photovoltaic installation on the Landfill. Hereinafter, Borrego and the Town shall be referred to as the "Applicants". Borrego and all construction and maintenance personnel associated with the Town's Landfill shall be referred to as the "Applicant's Contractors". The Applicants are proposing to construct and maintain a PV array on the capped Landfill, consisting of the following components:

- The Existing access road from the base of the Landfill to the crest of the Landfill will be improved for vehicle access for construction and maintenance activities;
- Approximately 716 precast concrete foundations (interior ballast blocks 9.25 foot x 3 foot by 12 inch thick or 10 foot by 3 foot by 12 inch thick exterior blocks) will be placed directly on the vegetative support layer or on a crushed stone leveling pad;
- Approximately 7,140 PV modules (LG Electronics Solar Modules) installed on approximately 357 Sunlink support racks placed on precast concrete ballast;
- One electrical equipment concrete pad (approximately 42' x 52' x 12" thick) will be installed on the vegetative support layer, which will hold electrical equipment, including inverters, transformers, neutral grounding reactors, switchboards and switchgear;
- One 1000 KVA transformer and one 500KVA transformer;
- Three SMA-America SC500HE-US inverters;
- The photovoltaic panel racks will be connected to the electrical equipment pad by aboveground electrical cables, strung on the panel racks and also on ladder-cable trays between the panel racks, except for cables traversing the existing landfill access roads;
- The switchgear box of the electrical equipment pad will convey electrical power from the Landfill via electrical cable buried in a conduit duct bank beneath the existing gravel road. The subsurface conduit will transition to overhead wiring for transmission of electricity to the National Grid utility grid at a utility pole on Town Dump Road;

- Four new utility poles will be installed outside the limits of the landfill final cover system.

A new permanent access road will be constructed above the existing paved access road and then continue along the crest of the Landfill with a turnaround at the southeastern end of the Landfill. The road design results in greater than 3 feet of separation between the final cover system geomembrane and construction loads, which the Engineer states is suitable for heavy construction traffic.

The ground mounted PV array is to be constructed on areas of the Landfill with a maximum slope of 10% (approximately 6 degrees). The proposed PV array will encompass approximately 8.3 acres of the Landfill. The array will utilize PV modules (3.25-foot by 5.4-foot) mounted on Sunlink Large-Scale GMS Racking attached to the precast concrete ballast blocks. The PV array will use monocrystalline PV modules laid out in panels, 4 modules high and 5 modules wide (panel layout 4 x 5), mounted on racks of 20 modules each. The rack ballasts will consist of two precast concrete blocks, each with two posts to support the rack. Each panel support rack or assembly will utilize a fully ballasted mounting system with no penetrations of the low permeability layer of the final cover system. The modules and the associated racking will be approximately 7' in height in the rear and 2' - 6" in the front. The rows of PV panels will be oriented east-west with approximately 15 feet between each row (north-south measurement).

The racking system will hold the panels at a fixed tilt of 20 degrees from horizontal. The ballast blocks, access roads and electrical equipment pad will increase the total impervious area on the Landfill by approximately 0.53 acres (2.6 percent). The racks will be placed to avoid interference with access roads, the passive landfill gas collection extraction vents and all storm water control features. The existing elevation and grade of the Landfill will not be altered. All photovoltaic rack assemblies and above-ground wiring will be kept at least 10 feet from any landfill gas wellhead vaults (**refer to condition #2**). The proposed design will impact limited portions of the vegetative layer of the final cover system. The impacts result from rack ballasts installations and below grade cable installations.

The Applicants propose to place the ballast blocks on either the existing vegetative support layer or on crushed stone as needed to set the ballasts to a maximum slope of 5 degrees in the north south direction and 5 degrees in the east west direction. The crushed stone or crushed ABC will either be placed directly on the existing grass or on a geotextile fabric that will be placed directly on the existing grass, at a maximum slope of 6 degrees (10 percent) from horizontal, in a north-south direction.

A 12-inch thick reinforced concrete pad (42 ft by 52 ft) will be located at the approximate midpoint of the proposed access road on the landfill. Aluminum ladder type cable trays will be used to support the conduit above the landfill surface from the arrays to the equipment pad. The location beneath the pad will be prepared by the placement of compacted crushed stone/gravel. The electrical lines from the transformer and switchgear will run from the base of the boxes down through the concrete equipment pad and into the crushed stone below. Electrical lines with conduits will be sealed into the concrete pad to prevent landfill gas from entering the electrical equipment and none of the electrical lines will penetrate the vegetative support layer.

The photovoltaic racks will be anchored to the ballast blocks. The electrical wiring on the photovoltaic racks will be run in the SunLink racks and aluminum ladder-type cable trays will be used to support the conduit above the landfill surface from the arrays to the electrical equipment pad. At proposed road crossings electrical wiring will be run below ground. The electrical wiring will be placed below the roads in 4 inch conduits within a reinforced concrete duct bank. From the electrical equipment pad the medium voltage electrical wiring will be placed in 4 inch concrete duct bank along the proposed permanent access road to the composting area.

Array grounding details (PV modules, racking system, concrete ballasts and electrical equipment pad) are provided on drawings *E-5.0 Electrical Details* and *E-5.1 Electrical Details*. None of the rebar or wiring encased in the concrete ballast blocks will be in contact with the soil. The grounding ballast blocks have been designed as concrete encased electrodes. The electrical equipment pad grounding detail depicts a copper ground ring and copper ground plates located in the soils to be placed over the existing final cover system. All grounding conductors that will be connected to the ground ring and ground plates will be set in place before fill is placed and the concrete equipment pad is poured. No electrical/grounding equipment shall penetrate the HDPE flexible membrane layer or compromise the integrity of the final cover system (**refer to condition #12**).

Three 3-inch underground PVC conduits, encased in concrete and located in the 18-inch processed gravel subgrade layer of the proposed access road, will convey power from the switchgear on the equipment pad to proposed utility poles at the north end of the site on Town Dump Road. Four new utility poles will be installed to support a recloser, a metering cluster, a site owned load break switch and a utility owned load break switch. Power will be directed via overhead wires to a transformer on an existing National Grid owned utility pole.

Bearing Capacity, Settlement, and Stability: The Application included a geotechnical evaluation for the installation of the PV array and supporting structures on the final cover system.

The Application included an analysis of the foundations for the PV array that will bear directly on the final cover system and has considered the dead load, snow load and wind load. The results of the geotechnical evaluation are as follows:

- The modules, ballasts, and footings do not exceed loading criteria for the Landfill.
- The solar array will not cause adverse landfill settlement.

The anticipated maximum loading scenario (ballasts, racking system, and modules) on the Landfill surface will result in a bearing pressure of 2.2 pounds per square inch (psi). The anticipated maximum loading at the equipment pad on the Landfill surface will result in a bearing of 3.5 psi. The Engineer stated the allowable bearing pressure was 7 psi.

Settlement analysis was also performed for the ballasts bearing on the low permeability layer of the final cover system. The result of these calculations estimated the settlement as approximately 1/2 inch.

A sliding stability evaluation was performed for the ballasts located on landfill areas with a 3 degree slope. A safety factor of 1.5 was calculated and deemed to be acceptable.

Storm Water: The Engineer used the HydroCAD methodology to evaluate the suitability of the existing storm water management system for the proposed post-closure use for the 2, 10, 25, and 100 year, 24 hour storm events. It was concluded that the impervious area for the post-closure use amounts to approximately 2.6% of the affected catchment area. The Engineer stated the stormwater management system includes two stormwater basins that are stable, in good condition, and have sufficient capacity for the site. The Engineer further stated that the proposed project would not significantly increase the runoff from the basins or the elevation of ponded water within the basins.

Post Closure and Post-Closure Use Operations and Maintenance: The Town currently implements the landfill's post closure monitoring and maintenance plan. The Town is to continue to perform all post closure environmental monitoring (groundwater, surface water and soil-gas monitoring). There are no proposed changes to the post closure operation and maintenance plan for the area to be maintained by the Town of Easton and not used for the PV array. MassDEP is requiring a Health and Safety Plan and personnel training for employees who access the areas of the Landfill (**refer to conditions #7 and #8**).

An Operations and Maintenance Plan was submitted for the maintenance of the PV array. The Application includes the following statement "Borrego Solar Systems, Inc. is responsible for maintaining and servicing the Solar Electric System" and Borrego will inspect the array area for environmental impacts to the Landfill from the operation of the solar array and normal Landfill operations. The area will be mowed not less than once a year. Additionally, MassDEP is requiring that during the first year of operation of the PV array inspections of the Landfill final cover system be performed on a monthly basis and thereafter quarterly, at a minimum (**refer to condition #15**).

Additionally, the Application includes the following statement "... The Town will maintain the responsibility for vegetation management at the Site outside of the "solar array area" and Borrego will maintain responsibility for vegetation management within the "solar array area". MassDEP is requiring that the limits of the "solar array area" be identified on the site plan (**refer to condition #5**).

Site Security: Site security will include a continuous chain link fence that is 7 feet in height (three strands of barbed wire on top of 6'-0" wire mesh fabric). The electrical equipment on the landfill will be within a separate fenced area, with the fence being installed on the concrete pad. The proposed chain link fence will be installed on the Site along the perimeter and off the landfill cap.

Decommissioning Plan: The power purchase agreement between the Town and Borrego allows for operation of the PV array on the Easton landfill for up to 20 years. If this option is not exercised and Borrego is the owner of the system when the contract ends, it is required to decommission and remove the system for the Landfill. System components include solar panels, mounting substrates, system foundations, wiring and connections, power inverters, servicing

metering equipment, and the utility connection. The Landfill will be left in similar condition to pre-installation in compliance with applicable regulations and permits in effect.

Massachusetts Environmental Policy Act: The proposed work is located within Hockomock Swamp Area of Critical Environmental Concern ("ACEC") and within an area mapped as estimated and priority habitat requiring the submittal of an ENF. The Applicants filed an Environmental Notification Form ("ENF") for the proposed PV array per the Massachusetts Environmental Policy Act. On October 19, 2012 the Secretary of Energy and Environmental Affairs determined "... *this project **does not require** the preparation of an environmental impact report*".

Massachusetts Division of Fisheries & Wildlife: The National Heritage & Endangered Species Program ("NHESP") of the Massachusetts Division of Fisheries & Wildlife ("DWF") received a Notice of Intent with site plans (dated 8/23/2012) in compliance with the rare wildlife species section of the Massachusetts Wetlands Protection Act Regulations. NHESP also received a Massachusetts Endangered Species Act (MESA) project review checklist and supporting documentation for review pursuant to the MESA. On September 24, 2012, DWF determined that this project will not adversely affect the actual resource area habitat of state-protected rare wildlife species and will not result in a prohibited "take" of state listed rare species.

#### **IV. PERMIT DECISION:**

MassDEP, having determined the information in the Application is satisfactory and in accordance with its authority granted pursuant to M.G.L. c.111, s. 150A, and 310 CMR 19.000, hereby **APPROVES** the Post-Closure Use of the Easton Landfill for a Solar Photovoltaic Array subject to the conditions identified herein.

#### **V. GENERAL PERMIT CONDITIONS:**

- 1) Permit Limitations: The issuance of this approval is limited to the proposed solar photovoltaic array at the Easton Landfill as detailed in the Application and does not relieve the Applicants from the responsibility to comply with all other regulatory or permitting requirements. Post-Closure Use construction shall proceed in complete compliance with the approved plans, MassDEP's regulations and requirements, the Manual or as required by this Approval. There shall be no deviation from this Approval without prior consent from MassDEP. MassDEP shall be consulted prior to any deviation from the approved design. MassDEP may require a permit modification application for significant design modifications. Construction shall incorporate all the recommendations of the design engineers, including but not limited to the recommended material type and compaction requirements for fill material.
- 2) Regulatory Compliance: The Applicants, Engineers and Applicants' Contractors shall fully comply with all applicable local, state and federal laws, regulations and policies, by-laws, ordinances and agreements. This includes but is not limited to, 310 CMR 19.142: *Post-Closure Requirements*, 310 CMR 19.143: *Post-Closure Use of Landfills*, and 310 CMR 19.043: *Standard Conditions*. Applicable federal regulations include, but are not limited to, 29 CFR Part 1910, OSHA standards governing employee health and safety in the workplace

and all applicable local, state and federal electrical codes and permits, including National Electrical Code (NEC).

- 3) Inspection and Repair of Settlement Areas: Prior to construction of the PV array, any suspect settlement areas on the Landfill project area shall be surveyed to determine the lowest spot. The surrounding area should be then surveyed to find the “relief point” defined as the lowest surrounding area where ponded water would flow out. The elevation difference is defined as the “pond value”. Minor settlement shall be defined as less than a 12-inch pond value. Any landfill project area that has undergone minor settlement shall be corrected by the placement of addition vegetative support soil to promote runoff and the area shall be reseeded. Any area repaired should be surveyed and the location marked on a plan with the pond value. Any future settlement should be recorded cumulatively. If/when the total settlement reaches 12-inches, the area will be considered to have suffered major settlement and appropriate repairs to eliminate ponding shall be performed.

Major settlement is defined as a pond value of 12-inches or more. When this occurs, the final cover system must be repaired to prevent water from ponding above the low permeability layer. The Applicant may either:

- 1) Strip off the final cover soils above the low permeability layer, inspect and repair the low permeability layer if/as necessary, place low permeability soil as necessary to promote runoff, replace final cover soils; or
- 2) Expose the low permeability soil or geomembrane in a trench around the perimeter of the settled area. Fill the area with soil to form slopes promoting runoff. Cap the area with a new low permeability membrane, GCL, or low permeability soil layer that ties into the existing low permeability layer at the identified perimeter. Place new drainage sand and vegetative support material over the new cap area.

Any proposal to repair minor settlement may be done as routine maintenance, provided that the owner reports the settlement to MassDEP and states the intent to perform repairs and provides MassDEP with final survey results and a summary write-up.

Any proposal to do a major settlement repair must be submitted within a Corrective Action Design (BWP SW 25) application since disruption of the final cover system will take place and repair details must be submitted and approved.

- 4) Notification of Construction: The Applicants shall notify MassDEP in writing (e-mail is acceptable) when the post-closure use construction commences and is completed.
- 5) Certification Report: Within ninety (90) days of completing the installation of PV array, 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 at the Landfill. The report shall include, at a minimum, written certification from the supervising engineer that the project was performed in



accordance with MassDEP regulations, 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 "solar array area".

- 6) Preconstruction Work: Prior to commencement of construction activities, all Landfill gas vents, Landfill soil-gas monitoring wells, groundwater monitoring wells and other existing above ground structures on the Landfill cap and appurtenances shall be flagged for visibility, and protective barriers shall be placed around such structures, as needed, to prevent damage by vehicles accessing the area.
- 7) Health and Safety: The Applicants, Engineers and Applicant's Contractors are responsible to ensure all necessary precautions are taken to protect the health and safety of workers and the general public during both the construction phase and during the operation and maintenance phase of the post-closure use.

A copy of the site specific Health and Safety Plan for the Post-Closure use, shall be submitted to MassDEP (for its files) prior to the beginning of any construction work. The Health and Safety Plan shall include at a minimum:

- protocols for monitoring of landfill gas as needed;
  - protocols for modifying work practices if landfill gas is detected at levels deemed unsuitable; and
  - training for all workers including town workers conducting maintenance activities at the Landfill regarding hazards associated with the landfill gas and the PV array, including electrical hazards.
- 8) Personnel Training: The Applicants and the Applicants' Contractors shall instruct all construction and maintenance personnel 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 the permit and carry out the authorized activity in a manner that is not hazardous to public health, safety, welfare or the environment. PV array construction and operation and maintenance shall not include any excavations or penetrations of the low permeability layers of the final cover system.
  - 9) Landfill Gas Notification Requirements:

- a. As specified in solid waste management regulations at 310 CMR 19.132 (4) (g),

*"When, at any time, the concentration of explosive gases exceeds 10% of the lower explosive limit (LEL) in any building, structure, or underground utility conduits, excluding gas control, gas recovery and leachate collection system components, the owner/operator shall:*

- 1. Take immediate action to protect human health and safety;*
- 2. Notify the Department within two hours of the findings; and*

*3. Undertake the actions specified under 310 CMR 19.150, Landfill Assessment and 310 CMR 19.151: Corrective Action, as required by the Department."*

- b. If at any time monitoring detects the presence of any combustible gases at or in excess of 10% of the lower explosive limit at any location within a building or within any utility conduits on site or off-site, the Town shall notify MassDEP's Bureau of Waste Site Cleanup-Emergency Response Section (508) 946-2714 within two (2) hours of the exceedance as per 310 CMR 40.0321(1) (a) of the regulations.
- 10) Vehicles Operating on the Landfill Final Cover System: Vehicles operating on the Landfill final cover system shall only operate on the designated permanent and temporary access roads, except for low-pressure construction equipment (with ground pressures of **7 psi** or less) in accordance with the remaining conditions of this permit. Low-pressure construction equipment operating off the access road shall limit turning on the vegetative support layer as much as possible. If MassDEP determines the use of excavation equipment is creating the potential for damage to the FML, the usage of such equipment shall immediately cease upon notification by MassDEP. All operators of the vehicles entering the final cover system area shall be clearly instructed by the on-site engineer and/or the contractor of the requirements of this permit prior to arrival, to avoid damage to the Landfill final cover system components. A list of low ground pressure equipment used and the pressure rating of each vehicle shall be indicated in the certification report required in Condition #5.
  - 11) Permanent and Temporary Roads and Low Ground Pressure Equipment: Low ground pressure equipment shall not access the final cover system from permanent and temporary roads where the transition will result in excessive pressure and wear on the Landfill vegetative service. The on-site engineer may construct ramps as necessary.
  - 12) Integrity of the Final Cover System: All disturbances of the Landfill shall be limited to the proposed excavations and installations as depicted and described within the Application and approved plans. Excavations shall be limited to the topsoil layer. No excavations shall penetrate the 12-inch sand drainage layer or the HDPE flexible membrane layer without written approval by MassDEP. The Engineer and Applicant's Contractors shall ensure that vehicles operating on the Landfill surface do not compromise the integrity of the Landfill final cover system.
  - 13) Construction Precautions: All excavations and construction shall be supervised by a Massachusetts Registered Professional Engineer who shall have sufficient staff on-site to provide oversight for all construction work. All necessary precautions shall be taken to protect the Landfill storm water control system, environmental monitoring network, gas vents, and other on site structures. All operators of vehicles entering the area should be clearly instructed by the on-site engineer and/or the Applicant's Contractor of the permit requirements to avoid damage to the Landfill components. The on-site engineer shall observe the extent of each excavation performed on the Landfill capping system. If any damage occurs to any Landfill components, the Applicant's Engineer shall notify MassDEP within 24 hours and provide a written plan with a schedule for repairs.

- 14) Proposed Inverter/Transformer Pad and Interconnection Equipment: If the Applicants or Applicant's Contractors propose to change the electrical equipment a copy of the final design for the inverter/transformer pad and any other electrical pads and protective switchgear (interconnection equipment) proposed on-site shall be submitted to MassDEP for review and approval. The Applicant, Engineers and Applicant's Contractors are responsible to ensure that utilities/structures will not accumulate landfill gas during construction and operation. Except as proposed within the permit application, there shall be no penetrations (utility, conduits or other) at the base of any concrete pads or foundations. There shall be no penetration of any kind of the impermeable layer of the final cover system.
- 15) Post-closure Use Operation and Maintenance Plan: During the first year after completion of construction of the PV array, inspections of the Landfill final cover system shall be performed on a monthly basis. Monthly inspection reports shall be submitted to MassDEP within **fourteen (14) days** of completion. Following the first year of operation of the PV array, and if no problems have been documented, inspections of the Landfill shall be performed on a quarterly basis and shall be submitted to MassDEP within **fourteen (14) days** of completion. Pursuant to 310 CMR 19.142(6) inspections shall be conducted by a third-party consulting Massachusetts Registered Professional Engineer, or other qualified solid waste professional. The Applicants, Engineers and Applicants' Contractors shall monitor the effectiveness of the storm water management system which should include; swales, structures and any and all conveyance systems. MassDEP shall be consulted prior to any deviation from the approved storm water design. MassDEP may require a permit modification application for significant design modifications. Any erosion, settlement, security problems or other issues observed at the Landfill shall be reported to MassDEP and repaired immediately.
- 16) Site Security: Pursuant to 310 CMR 19.130(23) the Applicants are required to provide sufficient fences or other barriers to prevent unauthorized access to the Landfill. The Applicants and Applicant's Contractors must continually monitor and evaluate the potential for unauthorized access and institute all appropriate measures to prevent unauthorized access during construction and operation of the PV Array.
- 17) Decommissioning Plan: If the proposed project is abandoned, during or after completion of construction, the Applicants shall submit a decommissioning plan. The decommissioning and site restoration plan should include dismantling and removal of all panels and supporting equipment, transformers, overhead cables, foundations and buildings and restoration of the roads to restore the Site to substantially the same physical condition that existed prior to Post-Closure Use construction. Disturbed earth shall be graded and seeded.
- 18) Entries and Inspections: In accordance with *310 CMR 19.043: Standard Conditions*, MassDEP and its agents and employees shall have the right to inspect the Landfill and any equipment, structure or land located thereon, take samples, recover materials or discharges, have access to and photocopy records, to perform tests and to otherwise monitor compliance with this permit and all environmental laws and regulations.

- 19) **Reservation of Rights:** MassDEP reserves the right to require additional assessment or action, as deemed necessary to protect and maintain an environment free from objectionable nuisance conditions, dangers or threats to public health, safety and the environment. MassDEP reserves all rights to suspend, modify or rescind this permit if it determines the PV array compromises the integrity of the final cover system and/or results in a threat to public health, safety or the environment.

This approval pertains only to the Solid Waste Management aspects of the proposal does not negate the responsibility of the owners or operators to comply with any other local, state or federal laws, statutes and regulations or enforcement actions, including orders issued by another agency now or in the future. Nor does this approval limit the liability of the owners or otherwise legally responsible parties from any other applicable laws, statutes or regulations now or in the future.

## **RIGHT OF APPEAL**

**Right to Appeal** – This approval has been issued pursuant to M.G.L. Chapter 111, Section 150A, and 310 CMR 19.037: Review Procedures for Permit Modifications, Permit Renewals and other Approvals, of the “Solid Waste Management Regulations”. Pursuant to 310 CMR 19.037(5), any person aggrieved by the issuance of this determination 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 receipt of the final permit. The standing of a person to file an appeal and the procedures for filing such an appeal shall be governed by the provisions of M.G.L. c. 30A. 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 decision shall remain effective or become effective at the conclusion of the thirty (30) day period.

**Notice of Appeal** - Any aggrieved person intending to appeal a grant of a permit to the Superior Court shall first provide notice of intention to commence such action. Said notice of intention shall include the MassDEP transmittal number X252054 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 the MassDEP and the Regional Director for the regional office which processed the permit application at least five days prior to the filing of an appeal.

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Department of Environmental Protection  
One Winter Street  
Boston, MA 02108

Philip Weinberg, Regional Director  
Department of Environmental Protection  
20 Riverside Drive  
Lakeville, MA 02347

No allegation shall be made in any judicial appeal of a 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.

Please direct any questions regarding this matter to me at (508) 946-2847 or Dan Connick (508) 946-2884 or write to the letterhead address.

Very truly yours,

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.

Mark Dakers, Acting Chief  
Solid Waste Management Section

D/DC

energy\Easton\Easton LF solar PCU 12262012.docx

fc: Easton Board of Health  
Fax: (508) 230-0629

Easton Conservation Commission  
Fax: (508) 230-0639

ec: Easton Town Administrator  
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