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

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June 2, 2015

Mr. William Keegan, Jr.
Foxborough Town Manager
40 South Street
Foxborough, MA 02035

and

Mr. John Motta
Sun Edison Origination1, LLC
100 Twinbridge Drive
Pennsauken, NJ 08110

RE: Approval with Conditions
Application for: BWP SW 36 Post-Closure Use - Major
Solar PV Generating Facility on a Closed, Capped Landfill
Transmittal #: X264970

AT: Foxborough Landfill
East Belcher Road
Foxborough, Massachusetts
Facility ID#: 39279 Regulated Object#: 172523

Dear Mr. Keegan and Mr. Motta:

The Massachusetts Department of Environmental Protection, Solid Waste Management Section (the "MassDEP"), has completed its Administrative and Technical review of the referenced Post-Closure Use permit application (the "Application") for the Foxborough Landfill (the "Landfill"). The Application was prepared and submitted on behalf of the Town of Foxborough "Town") and Sun Edison Origination1, LLC ("Sun Edison") by Innovative Site, Civil & Structural Engineering, Bel Air, MD ("ISE" or the "Engineer").

MassDEP has determined the Application is administratively and technically complete and hereby **Approves** the Post-Closure Use of the Landfill for a 1.556 megawatt ("MW") DC 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 received by MassDEP on March 2, 2015:

A. The permit transmittal (assigned No. X264790) and application form (BWP SW 36) for Post-Closure Use – Major;
B. A bound document entitled: "Post Closure Use Plan & Report, Proposed 1.556 MW (DC) Solar Array", (the "Report") prepared by ISE;
C. A set of eleven 24 inch by 36 inch design drawings ("Design Drawings") with a title sheet labeled "Foxborough Landfill Ground Mount Solar Panel System, East Belcher Road, Foxborough, MA 02035, dated 2/20/15, prepared by ISE;
D. A set of fourteen 24 inch by 36 inch electrical drawings ("Electrical Drawings") with a title sheet labeled "Solar Electric System Client: Town of Foxborough Landfill, East Belcher Road, Foxborough, MA", dated 02-01-15, prepared by ISE;
E. One copy of the document entitled "Certification Report, Foxborough Sanitary Landfill Closure Foxborough, Massachusetts, December 2000", prepared by Camp Dresser & McKee;
F. A set of five 24 inch by 36 inch construction drawings with a title sheet labeled "Town of Foxborough Massachusetts, Foxborough Sanitary Landfill Final Closure Plans, April 26, 1999, Revised for Record Drawing November 2000", ("Closure Drawings") prepared by Camp Dresser & McKee;
G. One copy of the 2013 Annual Landfill Inspection Report, dated December 2014, prepared by CDM Smith;
H. A Phase 1 Environmental Site Assessment was completed by ECS Mid Atlantic, LLC on December 20, 2014.

Supplemental Application information was received on April 10, 2015, consisting of:

I. An ISE transmittal form and cover letter dated April 8, 2015, with responses to MassDEP comments e-mailed to ISE on March 18 and 23, 2015;
J. A bound "Lease Agreement" between the Town and SunEdison Origination1, LLC;
K. A bound document entitled "Wind & Ballast Analysis of RBI tacking System for Foxborough Landfill – MA – 13-0078" dated April 8, 2015.
L. A set of seven 24 inch by 36 inch Ground Mount design drawings ("Ground Mount Drawings") with a title sheet labeled "Landfill Structure for SunEdison at Foxborough, East Belcher Road, Foxborough, MA 02035, prepared by the RBI Solar;
M. A set of twelve 24 inch by 36 inch revised electrical drawings ("Revised Electrical Drawings") with a title sheet labeled "Solar Electric System Client: Town of Foxborough Landfill, East Belcher Road, Foxborough, MA", dated 04-07-15, prepared by ISE;
N. A set of seven 24 inch by 36 inch revised design drawings ("Revised Design Drawings") with a title sheet labeled "Foxborough Landfill Ground Mount Solar Panel System, East Belcher Road, Foxborough, MA 02035, dated 4/8/15, prepared by ISE;

The Application is signed on behalf of the Town by William Keegan, Town Manager and on behalf of Sun Edison by Sujay Parikh, Vice President. The Design Drawings and geotechnical

calculations are signed and stamped by John M. Conwell, Massachusetts Registered Professional Civil Engineer No. 51369. As a condition of this permit, all electrical drawings must be signed and stamped by a Massachusetts registered Professional Electrical Engineer, prior to construction.

II. SITE DESCRIPTION & INVESTIGATIONS:

The unlined, capped Landfill is owned by the Town and located along the northeast side of East Belcher Road. The Landfill site is comprised of four land parcels that consist of approximately 81.64 acres. The Landfill final cover system covers approximately 23 acres and the proposed PV array area is approximately 5.5 acres above the final cover system in the top "plateau" area.

The Landfill site was used as an open faced dump in the 1960's and 1970's and as a sanitary landfill beginning in 1973. The Landfill accepted commercial refuse and construction and demolition debris until January 1, 1996, and municipal solid waste until December 31, 1998. Construction of a final cover system commenced in 1999, substantially completed by January 5, 2000, and certified as properly closed by Cap Dresser & McKee in a Certification Report dated December 28, 2000.

The final cover system consisted of the following components:

- 6 inches of gas venting layer sand overlain by
- a 40 mil high density polyethylene (HDPE) flexible membrane barrier layer; overlain by
- a 12 inch sand drainage; overlain by
- a 8 inch soil vegetative support layer.

An existing access road extends partially up the north end of the west side of the Landfill. The construction drawings for the Landfill final cover system indicate that the road is 10 feet wide and consists of 12 inches of drainage sand overlain by 12 inches of crushed stone.

Weston and Sampson Engineers, Inc of Peabody, Massachusetts submitted a Comprehensive Site Assessment ("CSA") to MassDEP in February 1998. MassDEP issued a Conditional Approval for the CSA in October 1998. As a condition of the CSA approval, the Town conducts Post-Closure Environmental Monitoring Program activities at the Landfill consisting of groundwater, surface water, and landfill gas monitoring. Results of landfill soil gas monitoring in March, June and October 2014, has indicated significant gas migration primarily beyond the western edge of the Landfill including landfill gas concentrations of explosive gases exceeding 25% of the Lower Explosive Limit.

III. POST-CLOSURE USE SOLAR ARRAY PROPOSAL SUMMARY:

The Application included a lease agreement between the Town and Sun Edison, signed by the Acting Town Manager on March 31, 2014, indicating that the Town entered into a 20 year lease agreement with Sun Edison allowing Sun Edison to design, contrast, operate and maintain a PV array at the Landfill.

Hereinafter, the Town and Sun Edison shall be referred to as the "Applicants". The Applicants and all construction and maintenance personnel associated with the solar photovoltaic installation on the Landfill shall be referred to as the "Applicants' Contractors".

PV Array Design:

The Applicants are proposing to construct and maintain a PV array on the capped Landfill, consisting of the following components:

- Approximately 4,788 solar modules with support racking and ballast blocks located above the Landfill final cover system;
- One HEC-UL 1200 KW inverter located off the Landfill final cover system;
- One 1MVA transformer located off the Landfill final cover system;
- Two new utility poles located off the Landfill final cover system;
- a new access road above the Landfill final cover system for post construction PV array maintenance; and
- a security fence.

The ground mounted PV array is to be constructed on areas of the Landfill with a maximum slope of 10 percent. The PV array will utilize mono-crystalline, Sun Edison Silvantis™ F325ByC PV modules (78 inches by 39 inches). The modules will be laid out in rows 2 modules high and 4 modules long for exterior areas of the array (panel layout 1 x 4) and in rows 2 modules high and 5 modules long for interior areas of the array (panel layout 1 x 5). The modules will be oriented in east-west rows with the modules facing south.

Modules will be mounted on a RBI Solar racking system, which utilizes galvanized steel posts and mounting rails to be mounted on pre-cast concrete blocks. Approximately 99 blocks measuring 8.5 feet long by 2.25 feet wide by 1.5 feet high will be used on the relatively flat interior of the array system and support 10 PV modules and associated racking and electrical equipment (DC Combiners). Approximately 111 blocks measuring 8.5 feet long by 3.5 feet wide by 1.5 feet high will be used on the relatively flat exterior of the array system and support 8 PV modules and associated racking and electrical equipment. In landfill areas with a 3 percent grade to 6 percent grade, 222 blocks measuring 10 feet long by 4.16 feet long will be used. In landfill areas with a 6 percent grade to 10 percent grade, 166 blocks measuring 10 feet long by 4.33 feet wide by 1.5 feet high will be used. The blocks will be placed directly on the existing landfill vegetative cover soil and will not be required to be leveled. There will be no excavation of the Landfill final cover system.

The racking system will hold the panels at a fixed tilt of 20 degrees from horizontal. The panels will be approximately 2 feet 6 inches above grade on the south side an 7 feet above grade on the north side. The racks will be installed to provide an 8-foot 11-inch clear space between panels and will 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. A ten foot separation will be maintained between the existing Landfill passive gas vents and the modules and pad mounted electrical equipment.

All electrical wiring will be installed in cable trays mounted on ballast blocks in all areas above the Landfill final cover system and between the landfill final cover system and the existing perimeter access road. A 48 inch wide pre-cast trench rated AASHTO HS20 (32,000 lbs) will be installed across the perimeter across road.

One equipment pad will be installed outside the Landfill final cover system limits to support electrical equipment at the west side of the Landfill adjacent to the former scale. The pad will support one pad mount switch, post mounted sensors and monitors, a 1MVA transformer and a 1200KW inverter. No grounding rods will penetrate the Landfill final cover system. The construction details of the equipment pad have not been finalized. The Applicants are currently reviewing the issue of subsurface landfill gas migration in the area of the proposed equipment pad and will finalize the construction details based on their findings and any proposed corrective action for mitigation of landfill gas migration. A condition of this permit requires that the concrete pad not be constructed until the subsurface landfill gas migration issues are adequately addressed and pad construction details are submitted to MassDEP and approved by MassDEP. (refer to Condition #16)

Two new utility poles will be installed outside the limits of the Landfill final cover system to facilitate connection of the PV array to the power grid. The first pole will facilitate the transition of the underground electrical cable to overhead wires extending to the second new pole. The second pole will support a utility meter and an air break switch. Overhead wires will the run to an existing "point of common connection" utility pole on east Belcher Road. There will be no penetration of the Landfill final cover system.

As a condition of this permit, all electrical work will be designed in accordance with the most recent versions of the Massachusetts Electrical Code and electrical permits will be secured from the local building official. (refer to Condition #18)

Bearing Capacity, Settlement, and Stability:

The Application included a geotechnical evaluation for the installation of the PV array and supporting structures.

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 loading. 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, modules and snow) on the Landfill surface will result in a maximum bearing pressure of 833 pounds per square foot (psf) (approximately 5.79 psi).

A tipping stability evaluation was performed for the ballasts. A minimum safety factor of greater than 1.5 was calculated and deemed to be acceptable. A sliding stability evaluation was performed for the ballasts. A minimum safety factor of 1.28 was calculated and deemed to be acceptable.

Construction Equipment on the Landfill Final Cover System:

Installation of the array system will be accomplished using only low ground pressure equipment with less than 7 psi pressure on the cap. The Landfill cap must continually be monitored throughout all stages of construction for any signs of damage or stress. A list of equipment used on the Landfill, the Landfill area accessed by the vehicle, and the pressure rating of each vehicle will be indicated in the certification report. A final inspection of the Landfill surface must also be performed at the conclusion of the PV array construction project and any areas of concern will be repaired. (refer to Conditions #6 and 11)

Access Road:
There is one existing access road on the Landfill located above the final cover system. During construction of the PV array, low ground pressure vehicles (<7psi) will be permitted to travel over the Landfill final cover surface where there is no access road. MassDEP has included a condition in this permit in the event that use of heavier vehicles on the access road becomes necessary during installation of the PV array. (refer to Condition #11) This condition requires that, prior to road use, hand dug test pits be excavated to verify the existing road thickness and the vehicles used on the access road be limited to specified ground pressures.

Storm Water: The Applicants evaluated the potential stormwater impacts of the placement of solar panels over the Landfill final cover system using USDA NRCS Win-55 and Win-Tr-20 computer programs to model the site and compute the peak flows for each of the effected drainage areas. Pre-development and post-development runoff conditions for the 25-year storm event were evaluated. The Applicants concluded that the PV array will result in little impact due to the minimal change if post construction runoff.

Site Security: An existing security fence surrounds the existing Landfill. Prior to construction the fence will be inspected by the Applicants and repaired if/as necessary. The fence is or will be a 6 foot high (minimum) chain link fence. All gates will have "Knox Boxes" to provide access to authorized personnel and emergency responders.

Post Closure and Post-Closure Use Operations and Maintenance: There are no proposed changes to the post closure operation and maintenance plan for Landfill. The Town will continue to maintain the Landfill, including the area used for the PV array

As a condition of this permit, 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. MassDEP is also requiring that inspections include the condition of the security fencing. (refer to Condition #19)

Health and Safety: As a condition of this permit, MassDEP is requiring that a Solar Array Construction Period Health and Safety Plan and a Post Closure Operations and Maintenance Health and Safety Plan be submitted and that personnel training be provided for employees who access the solar array areas of the Landfill. (refer to Condition #8)

Decommissioning Plan: The lease agreement between the Town and Sun Edison includes operation of the PV array for 20 years and requires that Sun Edison remove all its tangible property within 60 days of the expiration of the lease agreement and return the site to its original condition.

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 Foxborough 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 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. This approval does not relieve the Town, as the owner of the Landfill, from its responsibility to comply with all post closure monitoring and maintenance requirements for the entire Landfill. 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.

2. Pre-Construction submittals: Prior to construction, the Applicants shall submit the following to MassDEP for its review.
    a) "Equipment Pad Details" for the design of the equipment pad, grounding of electrical equipment, and all electrical conduits. The equipment pad and conduits must be designed to prevent landfill gas from entering the electrical equipment. The design must consider the presence of subsurface landfill gas that currently migrates into the area proposed for the equipment pad.
    b) Should the Applicants propose to mitigate the existing subsurface landfill gas migration in the vicinity of the proposed equipment pad, the Applicants must submit a BWP SW 25 Corrective Action Design Application with complete details of the proposed mitigation. The Applicants must complete the mitigation and demonstrate through subsurface monitoring that subsurface landfill gas migration has ceased prior to construction of any equipment pad design that does not consider the existing landfill gas migration.

3. Regulatory Compliance: The Applicants, Engineer 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), 2011 Edition, Article 690-"Solar Photovoltaic (PV) Systems", as amended.

4. 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 off the cap. 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 additional 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" as defined below 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 Applicants 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, geosynthetic clay liner (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 Applicants report the settlement to MassDEP and state their intent to perform repairs and provides MassDEP with final survey results and a summary write up.

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

5. Notification of Construction: The Applicants shall notify MassDEP, Southeast Regional Office Solid Waste Section Chief, in writing (e-mail is acceptable) when the post-closure use construction commences and provide a second notification when the post-closure use construction is completed.

6. Certification Report: A final inspection of the Landfill surface must be performed at the conclusion of the PV array construction project and any areas of concern must be repaired. Within ninety (90) days of completing the installation of the solar photovoltaic array, MassDEP shall be provided with a certification report for MassDEP's records. 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 be signed and stamped by a Massachusetts-registered professional engineer and 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. Should the Applicants desire a formal review and written approval of the certification report, the Applicants must submit a formal BWP SW 43, Landfill Closure Completion application.

7. 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.

8. Health and Safety: The Applicants, Engineers and Applicants' 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 site specific Solar Array Construction Period Health and Safety Plan shall be developed and submitted to MassDEP (for its files) prior to the beginning of any construction work. The Solar Array Construction Period Health and Safety Plan shall include as 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 construction activities at the Landfill regarding hazards associated with the landfill gas and the PV array, including electrical hazards.

   A site specific Post Closure Operations and Maintenance Health and Safety Plan for the post-closure use period, shall be developed and submitted to MassDEP (for its files) prior to the beginning of any construction work. The Post Closure Operations and Maintenance Health and Safety Plan shall include as 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.

9. Personnel Training: The Applicants, Engineers and Applicants' Contractors shall instruct all construction and maintenance personnel regarding the potential hazards associated with landfill gas and shall give on-the-job training involving in any activity authorized by this permit. Such instruction and on-the-job training shall teach personnel how to comply with the conditions of the permit to carry out the authorized activity in a manner that is not hazardous to public health, safety, welfare or the environment.

10. Landfill Gas Notification Requirements:

    a. As specified in solid waste management regulations at 310 CMR 19.132 (5) (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's Regional office that covers the municipality in which the facility is located within two hours of the findings; and*
    3. *undertake the actions specified under 310 CMR 19.150, Landfill Assessment Requirements and 310 CMR 19.151: Corrective Action Requirements, 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 Applicant shall notify MassDEP's Bureau of Waste Site Cleanup-Emergency Response Section (508) 946-2850 within two (2) hours of the exceedance as per 310 CMR 40.0321(1) (a) of the regulations.

11. Vehicles Operating on the Landfill Final Cover System: Vehicles operating on the access road located above the final cover system shall be limited to the following ground pressures based on soil thickness above the geomembrane liner:

Soil < 24 inches	no vehicles
Soil >/= 24 inches	<10 psi
Soil 24 to 36 inches	<20 psi
Soil >36 inches	>20 psi

    If the access road is to be used, the actual access road thickness shall be verified by hand excavating test pits at 50 foot intervals prior to allowing any vehicle with a ground pressure greater than 7 psi to utilize the access road.

    Vehicles operating on the Landfill final cover system where there is no access road shall be low-pressure construction equipment with ground pressures of **7 psi** or less.

    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 any equipment is

creating the potential for damage to the final cover system, 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 equipment used on the Landfill, the Landfill area accessed by the vehicle, and the pressure rating of each vehicle shall be indicated in the certification report.

12. Permanent and Temporary Roads: 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 allow the construction of temporary ramps as necessary.

13. 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 sand drainage layer without written approval by MassDEP. The Engineer and Applicants' Contractors shall ensure that vehicles operating on the Landfill surface do not compromise the integrity of the Landfill final cover system.

14. Construction Precautions: All excavations and construction shall be supervised by a Massachusetts Registered Professional Engineer engaged by the Engineer. All necessary precautions shall be taken to protect the Landfill storm water control system, environmental monitoring network and the Landfill gas vents and other on site structures. All operators of vehicles entering the construction area should be clearly instructed by the on-site engineer and/or the Applicants' 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 Engineer shall notify MassDEP within 24 hours and provide a written plan with a schedule for repairs.

15. Array Setbacks: The Applicants shall maintain a minimum 10 foot radius buffer between the closest edge of the PV array modules and all Landfill gas vents and a 10 foot radius buffer between the pad mounted electrical equipment and all Landfill gas vents.

16. Electrical Equipment Pad: The Applicants shall not construct the electrical equipment until:
    a) all subsurface conduits and trenches are designed to be explosion proof and designed to prevent the migration of landfill gas, and either:
    b) the issue of subsurface landfill gas migration has been addressed, a mitigation approved by MassDEP has been plan implemented, the effectiveness of the mitigation plan demonstrated, and design details for all conduits, trenches, and the equipment pad have been submitted to MassDEP and approved by MassDEP, or
    c) the equipment pad and sub-base are designed to eliminate the potential for subsurface landfill gas to impact the electrical equipment, and design details for all conduits, trenches, and the equipment pad have been submitted to MassDEP and approved by MassDEP.

17. Enclosures and Combustible Gas Alarms: There shall be no penetrations (utility, conduits or other) at the base of the equipment pad. Any enclosures shall have a landfill gas monitor that is fully operational at all times. The monitor shall be calibrated to a methane standard; have an audible and a lighted beacon. At a minimum, the alarm shall be set to sound when the concentration of explosive gases exceeds 10% of the Lower Explosive Limit (LEL).

18. Electrical Design Plans: The Applicants shall submit final electrical design plans, stamped by a Registered Massachusetts Electrical Engineer prior to commencing construction activities. The electrical design, including the complete grounding design, shall meet applicable NEC and local electrical code requirements. If any grounding rods are installed as part of the grounding system, the rods shall only be driven into the ground outside the limits of the Landfill final cover system. The location of any such grounding rods shall be clearly depicted on a site plan.

19. Post-closure Use Operation and Maintenance Plan: During the first year of operation 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, 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 19.018 inspections shall be conducted by a MassDEP listed solid waste professional. The Applicants, Engineer and Applicants' Contractors shall monitor the effectiveness of the site security system and 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 problems, settlement problems, security or other issues observed at the Landfill shall be reported to MassDEP and repaired immediately.

20. Site Security: Pursuant to 310 CMR 19.130(23) the Town is required to provide sufficient fences or other barriers to prevent unauthorized access to the Landfill. The Town must continually monitor and evaluate the potential for unauthorized access and institute all appropriate measures to prevent unauthorized access during the closure and post-closure period.

21. Decommissioning Plan: If the proposed project is abandoned, during or after completion of construction, the Applicants institute a decommissioning plan and site restoration plan which shall include, at a minimum; dismantling and removal of all panels and supporting equipment, transformers, overhead cables, foundations and buildings and restoration of the roads and landfill final cover system to restore the site to substantially the same physical condition that existed prior to post-closure use construction.

22. 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.

23. 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 solar 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.

REVIEW OF DECISION

Pursuant to 310 CMR 19.033(4)(b), if the Applicants are aggrieved by MassDEP's decision to issue this decision, it may within twenty-one days of the date of issuance file a written request that the decision be deemed provisional, and a written statement of the basis on which the Applicants believe they are 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 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 final decision on the effective date. Failure by the Applicants to exercise the right provided in 310 CMR 19.033(4)(b) shall constitute waiver of the Applicants' right to appeal.

RIGHT TO APPEAL

Right to Appeal: This approval has been issued pursuant to M.G.L. Chapter 111, Section 150A, and 310 CMR 19.033: Permit Procedure for an Application for a Permit Modification or Other Approval, of the "Solid Waste Management Regulations". Pursuant to 310 CMR 19.033(5), any person aggrieved by the final permit decision, except as provided for under 310 CMR 19.033(4)(b), may file an appeal for judicial review of said decision in accordance with the provisions of M.G.L. Chapter 111, Section 150A and M.G.L. Chapter 30A no later than thirty days of issuance of the final permit decision to the Applicants. 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 be effective in accordance with the terms of 310 CMR 19.033(3).

Notice of Appeal: Any aggrieved person intending to appeal a final permit decision to the Superior Court shall first provide notice of intention to commence such action. Said notices of intention shall include MassDEP Transmittal No. X264970 and shall identify with particularity the issues and reason why it is believed the final 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 which processed the permit application, if applicable at least five days prior to filing of an appeal. The appropriate addresses to send such notices are:

Office of General Counsel
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 final 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 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, Chief
Solid Waste Management Section

MD/DC/

MDakers\energy\foxborough\Foxboro Solar final 060215.docx

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