

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 MAEVE VALLELY BARTLETT
Secretary

DAVID W. CASH Commissioner

September 4, 2014

Mr. Peter Morin Braintree Town Solicitor 1 John F Kennedy Memorial Drive Braintree, Massachusetts 02184

RE: Approval with Conditions

Application for: BWP SW 36 Post-Closure Use - Major

Solar Photovoltaic Array Transmittal #:X262183

AT: Braintree Landfill

Ivory Street

Braintree, Massachusetts

Facility ID#: 39109, Regulated Object#: 172364

Dear Mr. Morin:

The Massachusetts Department of Environmental Protection, Solid Waste Management Section ("MassDEP"), has completed its review of the referenced Post-Closure Use permit application (Application) for the Braintree landfill ('Landfill'). The Application was prepared and submitted on behalf of the Town of Braintree (the "Applicant") by AMEC Environment & Infrastructure, Inc. ('Engineer') of Chelmsford, Massachusetts.

MassDEP has determined that the Application is administratively and technically complete and hereby approves the Post-Closure Use of the Landfill for a 1.263 Megawatt (MW) solar photovoltaic (PV) array subject to the conditions 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* (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, five (24" x 36") engineering drawings and documents received by MassDEP on July 14, 2014.
- B. Supplemental Application information prepared by the Engineer, consisting of responses to MassDEP's July 1, 2014, comments, received via e-mail by MassDEP on August 8, 2014.
- C. Supplemental Application information submitted by the Engineer consisting of a cover letter dated September 2, 2014, and drawings and structural calculations prepared and stamped by Ronald H. Schneider, Massachusetts Professional Engineer No. 45127.

The Application and geotechnical calculations and stormwater calculations are signed and stamped by Robert J. Bukowski, Massachusetts Professional Civil Engineer No. 41492.

II. SITE DESCRIPTION

The Braintree Sanitary Landfill is a capped and closed, unlined landfill located off Ivory Street on a Town owned parcel of land encompassing approximately 22 acres, in Braintree (the "Site"). The Landfill final cover system encompasses approximately 20 acres.

The Landfill abuts a Motel 6 to the north; a wetland area to the northeast; a wetland area and Monatiquot River and ultimately Route 3 to the east; the Monatiquot River to the southeast; a Covanta Energy Facility to the southwest; and the Braintree Transfer Station and ultimately Ivory Street to the west. Access to the Landfill is from Ivory Street and through the Transfer Station area.

Filling and solid waste disposal began in a former wetland area in the 1930s. The Landfill was operated as an open face burning dump from 1950 until approximately 1970In April 1968, the Braintree Board of Health voted to modify the Landfill assignment from an open dump to a "sanitary landfill". An incinerator was constructed at the Landfill, and ash and other non-burnables from that facility were placed in the Landfill from 1970 to 1983. The Landfill was closed permanently in November 1971, and only accepted ash from the newly constructed incinerator after that time. In 1983, the Landfill ceased operations, was covered with sand and gravel and hydro seeded, and the incinerator was converted to a transfer station. Landfill closure design began in 1985 and closure construction was completed in 1987.

<u>Existing Final Cover System Design:</u> On the top of the Landfill, the northern slope, and the northern portions of the east and west slopes, the final cover system consisted of:

- Subgrade soil; overlain by
- A nonwoven geotextile; overlain by
- A 30 mil PVC geomembrane; overlain by
- 12 inches of concrete sand; overlain by 6' inches of top soil.

On the southern slope, and the southern portions of the east and west slopes, the final cover system consisted of:

- 12 inches of low permeability soil with a minimum hydraulic conductivity of 1x10-7 cm/sec; overlain by
- 12 inches of granular fill; overlain by;

• 6 inches top soil.

A passive gas venting system was installed to prevent landfill gas migration. In addition, an active gas system was installed and operated at the Landfill until approximately 2004 in order to provide landfill gas to a fuel cell for electricity generation. There are no current plans for future operation of the active gas collection system. Passive gas vents that had been plugged to improve the quality of landfill gas in the active extraction system were unplugged in 2004 to allow passive venting of landfill gas.

A 530-foot gas vent trench system, which includes 10 vent pipes spaced 50 feet apart and a vertical barrier, was installed along the northern and western sides of the landfill in 1981.

<u>Post-Closure Environmental Monitoring:</u> Post-closure environmental monitoring is currently conducted by the Town pursuant to a Post Closure Monitoring Plan approved on January 28, 2009 and revised on Revised on February 3, 2009. The Town currently monitors 4 groundwater monitoring wells and 2 surface water monitoring locations on an annual basis. The Town collects gas samples from 7 existing gas monitoring wells on a quarterly basis.

Groundwater in the vicinity of the Landfill is not in a current drinking water source area or within a potential drinking water source area, therefore the applicable Massachusetts Contingency Plan groundwater categories are GW-2 and GW-3.

III. POST-CLOSURE USE PROPOSAL SUMMARY:

Ivory Street Solar LLC ("Ivory" or "Developer"), through an agreement with the Town of Braintree ("Town") proposes to develop 1.263 MW solar photovoltaic installation on the Landfill. Hereinafter, the Town of Braintree, Ivory and all construction and maintenance personnel associated with the Town's Landfill shall be referred to as the "Applicant's Contractors". Ivory, on behalf of the Town, is proposing to construct and maintain a PV array on the capped Landfill, consisting of the following components:

- Construction of a permanent on Landfill access road;
- Approximately 592 precast concrete ballast bocks (10.2 feet x 1.17 foot-by 1.5 feet thick interior blocks, 10.2 feet x 3 feet x 1.5 feet thick exterior blocks) placed on a gravel base keyed into the topsoil support layer of the final cover system;
- Approximately 296 PV panel support racks (Schletter) installed on the concrete ballast blocks;
- Approximately 4,142 PV modules (Canadian Solar CS6X 305P -72 cell) placed on the PV panel support racks;
- One 1000 kW inverter (Advanced Energy Solar AE 1000NX);
- One 1,000/1120 kVA transformer (Advanced Energy AE 1000NXMVT); and
- The photovoltaic panel support racks interconnected and connected to the inverter/transformer using above-ground cables.

The existing access road to the top of the Landfill will be used during construction but the portion of the road on the top of Landfill plateau will be covered with solar panels. A permanent access road will be constructed the eastern side of the top of the Landfill by placement of a woven filter fabric over the vegetative support layer, and the addition of 12 inches of compacted dense graded crushed stone.

The array will be installed on areas of the Landfill with a slope of less than 8.8% (5 degrees). The existing vegetative support soil will be removed to a maximum depth of 6 inches and replaced with filter fabric and leveling gravel. The maximum top slope of the gravel will be 3 percent. The Applicant has proposed to place the vegetative support soil from the ballast block locations in a low spot in the northwest area of the Landfill (shown on Drawing C-101). This low area must be evaluated for existing excessive settlement. (**Refer to Condition # 6**)

The solar array will utilize PV modules (39 inches by 77 inches) mounted on aluminum framed racks attached to two precast concrete ballast blocks per rack. The racking system will hold the panels at a fixed tilt of 25 degrees from horizontal. The PV array will use PV modules mounted on racks consisting of fourteen modules per string in a double row (panel layout 2 x 7). The modules and the associated racking will be approximately 3 feet above grade in the front (south edge) and 8 feet 6 inches above grade in the rear. The rows of PV panels will be oriented east-west and the typical spacing between each row will be approximately 15 feet (north-south measurement). The Landfill contours are not aligned with the east-west axis of the PV racks, therefore the rows will be at a slight cross-slope angle.

The existing elevation and grade of the Landfill will be minimally altered. The proposed design will impact limited portions of the topsoil layer of the final cover system due to the installation of rack ballast bocks with no penetrations of the low permeability layer of the final cover system.

The modules will be electrically connected using above ground cables in wire racks run on concrete blocks or unistrut stands as applicable. The cables will cross the access road via a 24 inch wide by 12 inch deep cable crossing tray with H-20 wheel loading. As show on project design drawing C-501, the access road, which is typically constructed with 12 inches of gravel, will be mounded at the cable tray to allow installation of the cable tray above the vegetative support layer.

The inverter and transformer will be located on an existing concrete pad previously constructed for the former fuel cell. Upon leaving the inverter, the medium voltage conductors will pass through existing underground conduit that was installed for the former fuel cell project to pad mounted metering and protection equipment owned by Braintree Electric Light Department.

All electrical work will be designed for the most recent version of the Massachusetts Electrical Code (MEC) which includes and incorporates the requirements of the National Electric Code (NEC). Prior to construction, an electrical permit will be obtained from the local building department official, and the project will incorporate any additional electrical requirements stipulated by the building department official (**refer to Condition #7**).

The existing landfill gas collection and management system will not be modified by the installation of the solar array. The arrays will be set back a minimum of 10 feet from three passive gas vents located on the Landfill top plateau.

Ballast bocks will be placed adjacent to four active gas system collection well vaults. If any collection well vault location conflicts with the installation of a ballast block, the Applicant proposes to shift the array row to eliminate the potential conflict in case there is a future need to re-start the active gas collection system. Existing lateral piping connecting the formerly active wells is 4-inch to 8-inch diameter pipe located just

above the PVC membrane liner. Test pits in the final cover system indicated 2.6 to 2.9 feet of cover material resulting in a minimum of two feet of cover material above the gas system lateral pipes.

<u>Geotechnical Evaluation:</u> The Application included a geotechnical evaluation for the installation of the PV array and supporting structures on the final cover systems.

The Application included an analysis of the foundations for the PV array that will bear 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, panel support racks, and ballasts do not exceed the loading criteria for the Landfill.
- The PV array will not cause adverse Landfill settlement. Predicted settlement was calculated as 0.3 inches at interior ballast blocks and 1.1 inches at the larger exterior ballast blocks.
- The PV array is stable on a slope up to 8.7 percent with a sliding safety factor of 4.6.
- The 15 inch diameter PVC drainage buried under the proposed permanent access road will support the applied vehicle loads.

The anticipated maximum loading scenario (ballasts, racking system, and modules) on the Landfill surface will result in a maximum bearing pressure of approximately 261 pounds per square foot (psf) (<3 pounds per square inch (psi)).

Storm Water: The Engineer performed calculations using Hydraflow modeling software (TR-55) analysis for the 24-hour, 25 year storm and again under the 24-hour, 100 year storm. The PV array will modify run off characteristics of a limited portion of the Landfill by changing some of the landfill grass cover to impervious surfaces increasing stormwater runoff. The additional impervious surfaces (i.e. ballasts and electrical equipment concrete pads) represents approximately 7% of the of the closed Landfill surface that is to be covered by the PV array. The capacities of various elements of the Landfill storm water conveyance systems were reviewed. The Engineer concluded there should be adequate capacity to properly manage the post development at the Landfill, there is no need to modify the existing storm water management system.

<u>Post Closure and Post-Closure Use Operations and Maintenance:</u> There are no proposed changes to the post closure operation and maintenance plan for the area to be maintained by the Town and not used for the PV array other than the mowing restrictions.

On January 28, 2009, MassDEP approved a "Post Closure Monitoring Plan" for the Landfill. 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 for the Landfill. Operations and maintenance for the Landfill for the area where the PV array is located including panel washing and vegetation removal is to be the responsibility of the project Developer: Ivory Street Solar LLC. The Town is to maintain responsibility for the remainder of the Landfill.

There are no proposed changes to the post closure operation and maintenance plan for the area to be maintained by the Town and not used for the PV array. Inspections of the landfill area containing the PV array and stormwater controls are required monthly for the first year of PV system operation and quarterly

thereafter. Complete Landfill inspections are to be conducted every two years pursuant to 310 CMR 19.018(6)(b). (**refer to condition #18**).

Prior to commencement of construction, the Applicant will be required to prepare and submit a Health and Safety Plan for the construction of the proposed PV array and a Health and Safety Plan for operation and maintenance activities within at the PV array area. (**refer to condition #3**).

<u>Site Security:</u> Site security will include a continuous chain link fence integrated with the Landfill property perimeter fence. (**refer to condition #19**).

<u>Decommissioning Plan:</u> Under the terms of the agreements between the Town of Braintree and Ivory, Ivory is required to remove the PV system within 180 days after expiration or termination of the agreement. Under the agreement, Ivory is not required to replace disturbed vegetation. A condition of this permit requires the Applicant to replace and maintain all disturbed vegetation and correct any other impacts to the final cover system. (**refer to condition #20**).

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 Braintree 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 Braintree Landfill as detailed in the Application and does not relieve the Applicant's Contractors 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. Regulatory Compliance: The Applicant, Engineer and Applicant's 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".
- 3. <u>Health and Safety:</u> The Applicant, Engineer 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 postclosure use.

A copy of the site specific health and safety plan for the post-closure use CONSTRUCTION phase, shall be submitted to MassDEP (for its files) prior to commencement of the PV array operation. The health and safety plan shall include as a minimum:

- protocols for monitoring of landfill gas (i.e. methane, hydrogen sulfide, etc.) as needed; and
- protocols for modifying work practices if landfill gas is detected at levels deemed unsuitable.

A copy of the site specific health and safety plan for the post-closure use OPERATIONS AND MAINTENANCE phase, shall be submitted to MassDEP (for its files) prior to the beginning of any construction work. The 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 PV array including electrical hazards.

4. <u>Landfill Gas Notification Requirements:</u>

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 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 Town 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.
- 5. <u>Inspection and Repair of Settlement Areas:</u> 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 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, 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 Applicant reports 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.

Note that this condition applies to the low area show on Drawing C-101 proposed to be used for the placement of vegetative support materials at ballast block locations.

- 6. <u>Pre-Construction Submittals</u>: Prior to commencing construction of the following elements of the project, the Applicant shall submit the following for MassDEP's records:
 - a) Security fence gate: Security fence gate details and test pit results demonstrating adequate soils above the final cover system low permeability layer.
 - b) Security fence: Additional test pit results demonstrating adequate soils above the final cover system low permeability layer a minimum of 50 feet on center and more frequently if test pit results indicate less than 12 inches between the proposed bottom of the post and the top of the low permeability layer.
 - c) Conduit support blocks: Pursuant to the August 1, 2014, response to comments No. 3, the conduit support block detail will be submitted in an "Issued for Construction Drawings" package. Submit one copy of this Issued for Construction Drawings package prior to commencement of construction. MassDEP reserves the right to require modification of any construction detail submitted within the drawings that was no previously reviewed and approved by MassDEP.

- d) Electrical Work permit: An electrical work permit obtained from the local building department official. The Applicant shall incorporate any additional electrical requirements stipulated by the Braintree building department official.
- e) Electrical Work: The Applicant shall submit copies of all electrical work drawings stamped by a Massachusetts Registered Electrical Engineer. Grounding methods for all equipment shall be indicated as applicable and shall not penetrate the landfill final cover system.
- 7. <u>Notification of Construction:</u> The Applicant shall notify MassDEP in writing (e-mail is acceptable) when the post-closure use construction commences and is completed.
- 8. <u>Pre-construction Work:</u> Prior to commencement of construction activities all landfill gas passive vents, 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.
- 9. <u>Personnel Training:</u> The Applicant, Engineer and Applicant's Contractors shall instruct all 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. <u>Design Clarifications</u>:

- a) As shown on project design drawing C-501, the access road, which is typically constructed with 12 inches of gravel, will be mounded at the cable tray to allow installation of the cable tray above the vegetative support layer. The Applicant shall ensure that the cable tray is installed completely above the existing final cover system unless otherwise approved in writing by MassDEP.
- 11. 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. (**refer to Condition #17**)
- 12. <u>Road Access and Low Ground Pressure Equipment:</u> Low ground pressure equipment shall not access the final cover system from roads where the transition will result in excessive pressure and wear on the Landfill vegetative surface. The on-site engineer may construct ramps as necessary.

- 13. <u>Integrity of the Final Cover System:</u> 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 top 6 inches of the topsoil layer. No excavations shall penetrate the sand drainage layer or the PVC 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.
- 14. Construction Precautions: All necessary precautions shall be taken to protect the Landfill storm water control system, environmental monitoring network and the Landfill gas vents and horizontal pipes. 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 cover system. If any damage occurs to the any Landfill components, the Engineer shall notify MassDEP within 24 hours and provide a written plan with a schedule for repairs.
- 15. Proposed Inverter/Transformer Pad (PowerStation) and Interconnection Equipment:
 - If the Applicant or Applicant's Contractors propose to change the electrical equipment a copy of the final design shall be submitted to MassDEP for review and approval. The Applicant, Engineer and Applicant's Contractors are responsible to ensure that utilities/structures will not accumulate landfill gas during construction and operation. 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.
- 16. Certification Report: Within ninety (90) days of completing the installation of solar photovoltaic 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 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. At a minimum, the report shall include as built drawings depicting all pertinent site features, equipment used, etc.
- 17. <u>Post-closure Use Operation and Maintenance Plan:</u> 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 Applicant, Engineer and Applicant's 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.

There are no proposed changes to the post closure operation and maintenance plan for the area to be maintained by the Town and not used for the PV array. Landfill inspections shall be conducted pursuant to 310 CMR 19.018(6)(b) every two years that evaluate the entire Landfill, the environmental monitoring system and summarize the inspection and monitoring information pursuant to 310 CMR 19.018(6) and (8) and submitted pursuant to 310 CMR 19.018(8)(c).

- 18. <u>Site Security:</u> The Applicant 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 Solar Photovoltaic Array.
- 19. <u>Decommissioning Plan:</u> If the proposed project is abandoned, during or after completion of construction, the Applicant shall submit a decommissioning plan. The decommissioning and site restoration plan should 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 the final cover system components, including the vegetative support layer, to substantially the same physical condition that existed prior to post-closure use construction.
- 20. <u>Entries and Inspections:</u> 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.
- 21. <u>Reservation of Rights:</u> 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 Applicant is 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 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 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 Applicant to exercise the right provided in 310 CMR 19.033(4)(b) shall constitute waiver of the Applicant's 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 applicant. 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. X262183 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) 2847 or to 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/rr

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ec: Braintree Board of Health

mmcgrath@braintreema.gov

AMEC Environmental & Infrastructure, Inc.

Robert.Bukowski@amec.com

DOER, Seth Pickering

Seth.Pickering@state.ma.us

ec: DEP-Boston

ATTN: P. Emond

S. Weinstein

J. Doucett

T. Higgins

DEP-SERO

ATTN: M. Pinaud

J. Viveiros

L. Black