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

September 5, 2018

Todd Presson
CEO, Patriots Renewable LLC.
549 South Street
Quincy, MA 02169

and

Terence W. Conory
TW Conroy 5, LLC
101 W Main St
Elbridge, NY 13060

RE: Approval with Conditions
Application for: BWP SW 36 Post-Closure Use - Major
Solar Photovoltaic Array
Transmittal #: X280389

AT: Stoughton Landfill
100 Page Street
Stoughton, Massachusetts
Facility ID#: 39766, Regulated Object#: 172970

Dear Mr. Presson and Mr. Conroy;

The Massachusetts Department of Environmental Protection, Solid Waste Management Section (the "MassDEP"), has completed its Administrative Review and Technical Review of the referenced Post-Closure Use permit application (the "Application") for the Stoughton landfill (the "Landfill").

MassDEP has determined the Application is administratively and technically complete and hereby **Approves** the Post-Closure Use of the Landfill for a 1.2 megawatt ("MW") solar photovoltaic ("PV") array subject to conditions as specified herein.

I. APPLICANTS:

Conroy Development (aka TW Conroy 5, LLC) ("Conroy") leases the Landfill site through an agreement with Town of Stoughton ("Town") and has entered into a 20 year lease agreement. The Town will purchase electricity generated by the project through a power purchase agreement with

Patriot Renewables LLC ("Patriot"). The responsibility of Patriot include only support services for permitting and construction of the project.

Hereinafter, Conroy and Patriot shall be referred to as the "Applicants". The Applicants and all construction and maintenance personnel associated with construction and operation of the PV array and maintenance of Landfill areas to be maintained by the Applicant shall be referred to as the "Applicants' Contractors".

The Application was prepared and submitted on behalf the Applicants by Tighe & Bond, Inc., of Westfield, Massachusetts (the "Engineer").

II. 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. A permit transmittal form assigned No. X280389, an application form for Post-Closure Use - Major (BWP SW 36), a narrative describing the proposed use, engineering calculations, engineering drawings, received by MassDEP on May 25, 2018.

B. Supplemental Application information, prepared by the Engineer in response to comments e-mailed to the Engineer on June 14, 2018, received by MassDEP on July 11, 2018.

The Application was signed by Todd Presson of Patriot Renewables LLC and by Terence W. Conory of TW Conroy 5, LLC. Brian S. Huntley, Massachusetts Professional Civil Engineer No. 46273 signed the Application and the geotechnical calculations. The Design Drawings bear the signature and seal of David A. Murphy, Massachusetts Professional Civil Engineer No. 35462.

III. APPLICATION REVIEW AND DECISION PROCESS:

The Application was submitted and reviewed pursuant to the provisions of 310 CMR 19.029(2): *Applicable Permit Procedures* and 310 CMR 19.033: *Permit Procedure for an Application for a Permit Modification or Other Approval*. According to these review procedures, MassDEP's decision regarding the proposed activities shall be either: a "Provisional Decision" pursuant to 310 CMR 19.033(4)(a); or a non-provisional decision pursuant to 310 CMR 19.033(4)(b). MassDEP has determined that a non-provisional decision is appropriate for this Application.

IV. POST-CLOSURE USE PROPOSAL SUMMARY:

The Applicants have proposed to develop a 1.2 MW solar photovoltaic installation on the Landfill consisting of the following components:

- Approximately 3312 Yingli Solar YLM-H 72 Cell PV modules installed on Game Change Pour In Place Ground Mounting Racks, or equivalent;
- Sixteen 60-kW Solectria Solar PVI 60TL Inverters;
- One 1000 kVA transformer;

The panels will be mounted at a fixed 5° angle facing south. The rows of racks will be spaced approximately 3 feet apart. The rack foundations will consist of cast in place ballast blocks each with one post to support the racking system. The 52-inch diameter ballast blocks will be cast in place. Crushed stone or crushed uncoated ABC may be used as needed to assist in the leveling of the posts within the ballast prior to placement of the concrete. As the site is a landfill, the posts will not be driven into the ground on this project, no penetration of the cap will be permitted and all the equipment will be ballasted. The rack foundation will consist of metal ballast pans placed on the crushed stone leveling layer.

The system will include integrated combiner and disconnect switches into which the panel wiring feeds. From the combiner box, energy will be transmitted to the 60kW inverters, located on the array racking. The conduits will be above the Landfill surface except road crossing where cable tray will be used. The road crossing tray will be H20 load rating Oldcaslte Plastibeton or approved equal dimensions as required to accommodate cable tray and conduit installation. An aboveground cable tray will convey electricity from the plateau of the Landfill down the western slope of the Landfill to proposed riser pole and new transmission lines.

One reinforced concrete electrical equipment pad (length 27.8 feet, width 8.4 feet and thickness 1 feet) will be located along the northern edge of the landfill. The electrical equipment pad will have inverters and will also contain switchgear and a 1,000 kVA transformer that will step-up the power prior to interconnecting with National Grid's (NGRID) local distribution circuit.

The temporary material for the construction vehicle access area consisting of compacted gravel base course nominally 12 feet wide will be laid on the Landfill during the construction phase. These construction materials consisting of panels, racking and electrical supplies will only be stored on the prepared access road/stockpile area that has been filled to provide 3 feet minimum separation to the membrane cap. Prior to construction all the gas vents will be flagged to avoid accidental damage.

A geotextile fabric will be placed over the existing Landfill cover system gravel layer and be overlain by 3 to 5 inches of crushed stone to provide a level area for the racking system over the entire array area. The proposed design will not impact the final cover system and the existing elevation and grade of the Landfill will not be altered. As a condition of this permit the Landfill must be inspected prior to construction and all settled areas and uneven areas regraded or required to promote stormwater flow. (refer to Condition 8). Only low ground pressure equipment (<7 psi) is proposed to be use on the Landfill final cover system, except on the access road. (refer to Condition 14).

The racking system will hold the panels at a fixed tilt of 10 degrees from horizontal. The racks will be placed to avoid interference with access roads and the passive landfill gas venting wells. A 10 foot setback from the existing landfill gas vents will be maintained to minimize the potential for adverse impacts due to landfill gas emissions. (refer to Condition 10)

Switchgear, and one transformer are proposed and will be located on a cast-in-place reinforced concrete pad located above the Landfill final cover system in the top plateau area.

The low voltage cable conduits will be mounted on the rack assemblies of each array. As the wiring runs between arrays and traverses the Landfill to the inverters/transformer, the wiring the will be installed in a cable ladder tray or be encased in rigid conduit supported on pedestals. The duct bank will cross beneath the access road at the Landfill perimeter and extend to the new utility riser pole. New overhead wires will convey power from the riser pole to the point of interconnection. The final electrical design must be prepared by a Massachusetts Professional Registered Electrical Engineer and electrical drawings sealed and signed by the Massachusetts Professional Registered Electrical Engineer must be submitted prior to commencement of installation. (refer to Conditions 11, 12 and 13)

Five new utility poles will be installed outside the Landfill footprint to support switches and metering equipment. The point of interconnection will be an existing utility pole. Test pits will be hand excavated and observed by the field engineer before the installation of utility poles and guy wires to ensure that the landfill final cover system is not impacted. The Application included a Health and Safety Plan for the construction phase of the proposed PV array.

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

Based on the anticipated maximum loading of the ballasts, racking system, and modules on the Landfill surface, the Engineer calculated a bearing pressure of 3.8 pounds per square inch ("psi") on the final cover geomembrane. The anticipated maximum loading scenario of the concrete equipment pad and equipment on the Landfill surface will result in a bearing pressure of 2.9 psi. The Engineer stated these loads are less than the 7 psi loads experienced during the final cover construction and are expected to have a negligible effect on the final cover system.

Settlement analysis was also performed by the Engineer for the ballasts bearing on the final cover system. These calculations indicate initial settlement of less than 1/2 inch.

Uplift, tipping and sliding stability evaluations were performed for the concrete ballasts by Gamechange Racking. They were signed, stamped and reviewed by Scott Van Pelt, P.E.

Access Road: There is an existing access road extending to the top plateau area of the Landfill. The Engineer stated that, given the existing road was proof tested with on and off highway construction equipment and loaded trucks, it is not expected that the loading of the geomembrane will be any higher during construction of the solar project. As a condition of this permit, the Engineer is required to monitor the construction equipment proposed to be use for the solar project construction and ensure that the access road is suitable for the proposed equipment.

Storm Water: Under existing conditions stormwater saturates the Landfill cap soils and excess runoff sheet flows across the Landfill surface into existing swales and downchutes. The Engineer states that the spacing and orientation of the ballast blocks will allow stormwater to mimic existing conditions. The existing and proposed conditions were evaluated to determine the effect of the crushed stone ballast pan support layer on the runoff curve number. The Engineer

determined that the overall curve number would be reduced thereby reducing peak stormwater runoff rate and that no changes to the existing stormwater control system would be required.

The subsurface conduit crossing will be constructed with a stormwater culvert to allow stormwater to pass under the access road and cable tray. The existing road will be raised with fill 30 inches to allow the conduit and culvert to pass underneath without penetrating landfill cap.

Post Closure and Post-Closure Use Operations and Maintenance: Patriot and Conory Development will develop the solar array on the Landfill. Conory development manages the Landfill and C&D material processing facility through a contact with Town. The limit of work the proposed project will occupy approximately 3.25 acres of the Landfill. There will be no change to current post closure use environmental monitoring.

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).

Site Security: The Applicants state that the Landfill site is enclosed by a chain-link fence except where some gaps exist in the fence. The Applicants will be responsible for maintaining the Solar Arrays and the area during its post closure use.

Decommissioning Plan: Patriot will decommission and remove the system from the Landfill at the end of the useful Project life. System components include: solar panels, mounting substrates, system foundations, wiring and connections, power inverters, service and metering equipment, and the utility interconnection.

Financial Assurance: The proposed post-closure use installation and operation does not change post-closure requirements of landfill. Pursuant to the provisions of 310 CMR 19.051, the Applicant shall establish a Financial Assurance Mechanism ("FAM") in order that sufficient funds are available to properly decommission the solar PV array system, and all of its appurtenant structures and features, and to properly restore the Landfill to its original condition The FAM shall be based on the MassDEP approved cost estimate and shall be "in-place" at least thirty (30) days prior to the start of construction. MassDEP has determined that the appropriate amount of the required FAM is $90,000 per megawatt AC for landfills that do not have an existing FAM that covers landfill maintenance. Prior to construction Patriot will provide $86,400 as decommissioning financial assurance mechanism to MassDEP. (refer to Condition #20)

V. SITE DESCRIPTION & INVESTIGATIONS:

The Landfill site is comprised of approximately 33 acres used for waste disposal and capped with a landfill final cover system. The Landfill site is located in a commercial/industrial area of Stoughton and is generally bound by Mack Drive to the east, an unnamed pond and Page Street to the south, Reebok Drive and BJ's Wholesale Club to the west/north-west, and the Reebok Factory Direct Store and undeveloped land to the north. The Stoughton/Avon town line and a utility corridor run parallel to the parcel's eastern boundary.

The Landfill was operated by the Town as a municipal solid waste disposal site from the mid 1940's until operations ceased in approximately 1976 when it was closed and covered with soil but not capped in accordance with the regulations 310 CMR 19.000.

In 1973, the Town of Stoughton, conveyed responsibility for management of the site to the Stoughton Redevelopment Authority (the "SRA"). In 1976, the SRA leased a portion of the site to the Stoughton Department of Public Works ("DPW"). In 1996, the SRA leased a portion of the site (i.e. 28.8 acres) to Conroy for potential development considerations. In 2002, the SRA amended its lease to include Conroy as a sublease regarding operations at the site. The amended lease also allowed for the establishment of a solid waste transfer operation on a 5.1-acre portion of the site an operated by Stoughton Recycling Technologies ("SRT")[1].

On February 9, 2004, MassDEP issued a provisional of a BWPSW25 - Corrective Action Design ("CAD") permit (i.e. Transmittal #W039959) in order to close/cap the Landfill. On May 26, 2006, MassDEP entered into an Administrative Consent Order with Penalty (#ACOP-SE-06-4006) with the Town for violations of the BWPSW25-CAD permit. The ACOP resulted in a three-phase corrective action plan in order to achieve compliance. MassDEP approved Corrective Action Plans for the Phase 1, Phase 2, and Phase 3 on September 26, 2006, December 29, 2006, and March 28, 2007, respectively. On November 14, 2008, MassDEP revised the Phase 3 CAD by approving the use of construction and demolition ("C&D") debris including fines & residuals generated by SRT as grading/shaping landfill closure material. On December 22, 2009, Sitec Environmental, Inc. submitted a closure certification report for Phase 1 and Phase 2 of the Landfill.

On June 6, 2013, MassDEP issued an amendment to the ACOP that extended the date for completion of closure of Phase 3 and modified the closure design. The design change included the disruption of a portion of the final cover system in Phase 1 for the purpose of acceptance of additional grading and shaping materials to facilitate a larger plateau area on the Landfill to maximize the area available for a future PV array. On November 12, 2014, Green Seal Environmental, Inc. submitted a closure certification report for Phase III of the Landfill, including the disturbed area of Phase 1.

Existing Final Cover System: The final cover system on the Landfill side slopes consists of the following:

- a prepared subgrade; overlain by
- a 6 inch layer of sand with a minimum hydraulic conductivity of $1x10^{-3}$ cm/sec, acting as a geomembrane subgrade and gas venting layer; overlain by
- a 40-mil High Density Polyethylene (HDPE)textured, flexible geomembrane liner material, overlain by

[1]ACOP-SE-06-4006 identified the Town of Stoughton as the owner of the Landfill and was Signed by the Stoughton Board of Selectmen although some documents refer to the Stoughton Redevelopment Authority as the Landfill owner, no transfer certification has been filed with MassDEP as regarded pursuant to 310 CMR 19.044. Accordingly MassDEP has determined that the Town of Stoughton remains the owner of the Landfill.

- a 12-inch sand layer minimum hydraulic conductivity of $3x10^{-3}$ cm/sec, with sub drains installed a maximum of 75 feet on center, acting as a drainage layer; overlain by
- an 8-inch layer of vegetative support material with a minimum organic content of 5%.

The final cover system on the Landfill top plateau area, where the PV array and electrical equipment will be installed consists of the following:

- a prepared subgrade; overlain by
- a 6 inch layer of sand with a minimum hydraulic conductivity of $1x10^{-3}$ cm/sec, acting as a geomembrane subgrade and gas venting layer; overlain by
- a 40-mil High Density Polyethylene (HDPE)textured, flexible geomembrane liner material, overlain by
- a 12-inch sand layer minimum hydraulic conductivity of $1x10^{-2}$ cm/sec, acting as a drainage layer; overlain by
- a biaxial geogrid and non-woven geotextile layer, overlain by
- a 12-inch dense grade gravel layer.

Landfill Gas Extraction System: The Landfill has a passive landfill gas venting system consisting of 47 passive gas vents and a landfill gas barrier trench.

Post-Closure Environmental Monitoring: On October 6, 2009 MassDEP issued a Comprehensive Site Assessment ("CSA") approval. The Landfill gas monitoring results included in the CSA identified soil-gas migration along the Landfill's northwest perimeter. MassDEP required that a permit application be submitted to address the landfill soil-gas migration. On August 26, 2010, MassDEP approved a gas barrier interceptor trench designed to be constructed along part of the west side of the Landfill that abuts Reebok Drive. The trench was designed to be approximately 645 feet long, 3 feet wide and extend approximately 3 feet below the groundwater level or to bedrock, whichever was shallower.

Post-closure environmental monitoring (groundwater and soil-gas monitoring) is currently conducted by the Town. The Town has not proposed any changes to the post-closure environmental monitoring plan based on the proposed post-closure use.

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 Stoughton Landfill for a Solar Photovoltaic Array subject to the conditions identified herein.

V. PERMIT CONDITIONS:

1. Permit Limitations: The issuance of this approval is limited to the proposed Solar Photovoltaic Array at the Stoughton 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.

2. 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".

3. Construction Precautions: All construction shall be supervised by a Massachusetts Registered Professional Engineer. All necessary precautions shall be taken to protect the Landfill final cover system, storm water control system, environmental monitoring network and the Landfill gas extraction wells. All operators of vehicles entering the area should be clearly instructed by the on-site engineer and/or the Applicants' Contractors of the permit requirements to avoid damage to the Landfill components. Prior to the commencement of construction activities, all Landfill gas vents located in close proximity to the proposed array shall be flagged for visibility to minimize the potential for damage by vehicles during construction. If any damage occurs to the any Landfill components, the Applicants shall notify MassDEP within 24 hours and provide a written plan with a schedule for repairs.

4. Notification of Construction: The Applicants shall notify MassDEP in writing (e-mail to the solid waste section chief is acceptable, mark.dakers@mass.gov) when the post-closure use construction commences and is completed.

5. Health and Safety: The Applicants, Engineer 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 should be kept on site which includes 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

commencement of operation of the PV array. 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.

6. Personnel Training: The Applicants, Engineer and Applicants' 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.

7. 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 conduit, 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.

8. 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 Town or 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 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.

9. Integrity of the Final Cover System: No excavation of the Landfill final cover system has been proposed. No excavation of the Landfill final cover system shall be performed without a prior proposal and written MassDEP approval. All PV array installation work shall be as depicted and described within the Application and approved plans. Manufacturer's recommendations for standard construction practices **shall not be followed** if the practice may lead to damage to the final cover system.

10. Array Setbacks: The Applicant 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.

11. Proposed Electrical Equipment: A copy of the proposed final design for the any electrical equipment and support pads proposed on-site shall be submitted to MassDEP for review and approval prior to installation. The Applicants, Engineer and Applicants' Contractors are responsible to ensure that utilities/structures will not accumulate landfill gas during construction and operation. Appropriate electrical plans shall be stamped by a Massachusetts Registered Electrical Engineer. 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. All utility trenches shall be designed so they do not act as a conduit for landfill soil-gas migration.

12. Electrical Equipment Pad: The Applicants shall not construct the electrical equipment pad until all subsurface conduits and trenches are designed to be explosion proof and designed to prevent the migration of landfill gas and the equipment pad and sub-base are designed to eliminate the potential for subsurface landfill gas to impact the electrical equipment.

13. Enclosures and Combustible Gas Alarms: There shall be no penetrations (utility, conduits or other) at the base of the electrical equipment support concrete slab. 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).

14. Vehicles Operating on the Landfill Assess Road and above the Final Cover System:
Prior to operation of any vehicle with a ground pressure greater than 7 psi on the Landfill final cover system or on the access road above the Landfill final cover system during PV array construction and or during PV array maintenance or Landfill maintenance, the Applicants shall prepare a list of the proposed equipment and the fully loaded ground pressure of the equipment. A Massachusetts Registered Professional Engineer shall prepare an evaluation demonstrating that the access road and the final cover soils above the final cover geomembrane are adequate to protect the final cover system geomembrane from adverse impacts from the proposed vehicles. The Engineer's evaluation shall be maintained on site at all time during construction and shall be submitted in the Closure Certification Report required pursuant to Condition #17.

15. 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 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 14 days of completion. Inspections shall be conducted by a third-party consulting Massachusetts Registered Professional Engineer, or other qualified solid waste professional. The Applicants, Engineer 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 control 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 within 24 hours. The notification must include a written plan with a schedule for repairs and repaired immediately.

16. 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. Conroy 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.

17. Certification Report: 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 a project narrative, as-built drawings depicting all pertinent site features and photographs representative of the construction processes and completed work. 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. 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 permit application.

18. Ongoing Landfill Maintenance: During installation and operation of the PV array, the Applicants shall not impede the inspection and maintenance of the Landfill.

19. 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.

20. Decommissioning Plan: If the proposed project is abandoned, during or after completion of construction, the Applicant shall submit a detailed written 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, slabs, 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. The plan should describe the methods and equipment proposed to be use during decommissioning and to ensure the integrity of the landfill final cover system is maintained.

21. Permit Transfer: Pursuant to 310 CMR 19.044, no sale, assignment, or transfer of the rights or privileges, or effective control of such rights or privileges, granted under a permit to establish, expand, construct, operate or maintain a facility shall be valid until a responsible official of the transferee submits a transfer certification, using a BWP SW 49 application form, in accordance with 310 CMR 19.011(1) to MassDEP. Accordingly the Applicants are jointly and severably liable for maintaining the landfill and PV array as specified in this permit and for adhering to the permit conditions, unless and until a properly completed BWP SW49 application is submitted to MassDEP. The Applicants should refer to 310 CMR 19.044 and the BWP SW 49 application form for the complete permit transfer requirements.

22. 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.

VI. REVIEW OF DECISION:

The Application was submitted and reviewed pursuant to the provisions of 310 CMR 19.029(2): *Applicable Permit Procedures* and 310 CMR 19.033: *Permit Procedure for an Application for a Permit Modification or Other Approval* and MassDEP is issuing a non-provisional decision

Pursuant to 310 CMR 19.033(4)(b), if the Applicants are aggrieved by MassDEP's decision to issue this decision, they 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 believes 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.

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: 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 following the date 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. X280389 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

Millie Garcia-Serrano, 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.

If you have any questions or comments regarding this approval letter, please contact me at (508) 946-2847 or Hersh Thakor at (508) 946-2715 or at the letterhead address. In any correspondence regarding this approval, please reference permit Transmittal No. X280389.

Very truly yours,

Mark Dakers, Chief
Solid Waste Management Section

D/HT
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Building Commissioner & Zoning Officer
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Stoughton Board of Health
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T. Higgins

DEP- Lakeville
ATTN: M. Pinaud
M. Dakers