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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December 20, 2011

Neil Andres, Superintendent of Department of Public Works
Town of Eastham
555 Old Orchard Road
Eastham, Massachusetts 02642

And

Eric T. McLean, P.E.
American Capital Energy
15 Tyngsboro Road, Suite 4A
North Chelmsford, Massachusetts 01863

RE: Approval with Conditions
Application for: BWP SW 36 Post-Closure Use - Major
Solar Photovoltaic Array
Transmittal #: X238614

AT: Eastham Landfill
Old Orchard Road
Eastham, Massachusetts
Facility ID#: 39237, Regulated Object#: 172485

Dear Mr. Andres and Mr. McLean:

The Massachusetts Department of Environmental Protection, Solid Waste Management Section (MassDEP), has completed its Administrative and Technical review of the referenced Post-Closure Use permit application (Application) for the Eastham landfill (Landfill). The Application was prepared and submitted on behalf of the Town of Eastham and American Capital Energy (the **Applicants**) by Weston & Sampson Engineers, Incorporated (W&S or Engineer) of Peabody, Massachusetts.

MassDEP has determined the Application is administratively and technically complete and hereby **Approves** the Post-Closure Use of the Landfill for a 0.63 megawatt (MW) solar photovoltaic (PV) array subject to conditions as specified herein.

I. SUBMITTALS:

MassDEP has reviewed the Application pursuant to 310 CMR 19.000: *Solid Waste Regulations*, 310 CMR 19.143: *Post-Closure Use of Landfills* and MassDEP's *Landfill Technical Guidance Manual, May 1997* (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 engineering drawings and documents received by MassDEP on September 23, 2011.

B. Supplemental information, prepared by Weston & Sampson, consisting of a report dated November 14, 2011, revised engineering drawings, excerpts of the GSE Geomembrane Design Protection Manual, engineering calculations, a revised health and safety plan and documents received by MassDEP on November 16, 2011.

C. A letter report dated December 7, 2011, prepared by Weston & Sampson and received by MassDEP on December 8, 2011.

D. A letter report dated December 16, 2011, prepared by Weston & Sampson and received by MassDEP on December 16, 2011.

The Application is signed and stamped by Duane C. Himes, Massachusetts Professional Engineer No. 32336.

II. SITE DESCRIPTION & INVESTIGATIONS:

The Eastham landfill is located on an approximately 38 acre parcel of Town-owned land (the "Site"). The closed Landfill occupies approximately 10.4 acres of land in the southern portion of the Site. A Town operated transfer station has been constructed in the central portion of the Site. The Town's transfer station and Eastham Department of Public Works (DPW) occupies the northern portion of the Site. The Landfill is abutted by residential properties and Old Orchard Road to the south; Old Orchard Road and residential properties to the East; Cape Cod Rail Trail borders the site to the West; the Town's transfer station and DPW to the North. The Landfill operations began in 1937 and ceased in mid-1990s. Groundwater flow is east-southeast toward Old Orchard Road and residential properties.

Existing Final Cover System Design: On March 6, 1997, MassDEP approved closure plans for the Landfill. The final cover system was substantially complete in July 1997. The final cover was installed with a minimum top slope of 5% and side-slopes no greater than 3:1. The final cover system for the Eastham landfill consists of two designs; a top slope final cover design and a side slope final cover design.

Top Slope Final Cover System: The top slope final cover design was constructed of the following components from bottom to top:

- a 6-inch sand subgrade layer, overlain by
- a 6-inch sand gas venting layer ($k \geq 1 \times 10^{-3}$ cm/s)
- a smooth 40-mil High Density Polyethylene (HDPE) flexible membrane liner material, overlain by
- a 6-inch thick sand drainage layer with a maximum stone size of 3/4-inch and a minimum hydraulic conductivity of (k ≥1x10-3 cm/sec., overlain by
- a geotextile filter fabric
- a 12-inch thick layer of vegetated topsoil

Side Slope Final Cover System: The top slope final cover was installed to transition into a side slope final cover which was constructed from bottom to top:

- a 6-inch sand subgrade layer, overlain by
- a 6-inch sand gas venting layer ($k \geq 1 \times 10^{-3}$ cm/s)
- a textured 40-mil High Density Polyethylene (HDPE) flexible membrane liner material, overlain by
- a geotextile fabric
- a 10-inch thick sand drainage layer with a maximum stone size of 3/4-inch and a minimum hydraulic conductivity of (k ≥1x10-3 cm/sec.
- a geotextile filter fabric
- and 8 inch layer of vegetated topsoil

On December 8, 1997, MassDEP received a Landfill Closure and Capping Construction Certification report prepared by ATP Environmental. On June 29, 1998, MassDEP issued an approval with conditions for the construction certification report.

The closure design incorporates a passive gas venting system consisting of 19 gas vents with seven of the gas vents located at 100 foot intervals on the eastern side of the Landfill to address subsurface gas migration along Old Orchard Road. The gas vents were installed in 24 inch diameter bore holes advanced to the bottom of waste and back filled with clean stone. Except for the seven gas vents located on the eastern side slope, the passive vents have a sealed boot through the HDPE barrier layer and discharge the gas to the atmosphere. The eastern vents terminate below the HDPE barrier layer with gas conveyed to the other vents on the landfill through via 6 inch diameter HDPE header lines.

Post-Closure Environmental Monitoring: An Initial Site Assessment (ISA) for the Landfill was approved by MassDEP in April 1994. A Comprehensive Site Assessment was submitted in January 1996 by ATP Environmental. MassDEP issued a "Technical Deficiency" letter to the Town in January 1996 and again in March 1998 following several submittals (November 1995, January 1996, March 1996, July 1996 & April 1997) related to groundwater/private well sampling events. On February 5, 2001, the MassDEP issued a letter entitled: "Comprehensive Site Assessment - Status Review", which focused the assessment on the potable drinking water wells (groundwater status) directly downgradient of the Landfill. MassDEP issued a letter on July 25, 2002 entitled "CSA Outstanding Requirements". This last letter established a more extensive groundwater sampling protocol; in an attempt to evaluate both Landfill monitoring wells and residential private wells for standard parameters [310 CMR 19.132(1)(h)] and "extended parameters" (including semi-volatiles and 1,4 dioxane). 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.

III. POST-CLOSURE USE PROPOSAL SUMMARY:

American Capital Energy (ACE or Developer), through an agreement with the Town of Eastham (Town) and Cape and Vineyard Electrical Cooperative, Incorporated (CVEC), proposes to develop 0.63 MW solar photovoltaic installation on the Landfill. Hereinafter, the Town of Eastham, American Capital Energy and all construction and maintenance personnel associated with the Town's Landfill shall be referred to as the "Applicants' Contractors". American Capital Energy in conjunction with the Town is proposing to construct and maintain a PV array on the capped Landfill, consisting of the following components:

- One permanent access road and additional temporary access roads;
- Approximately 560 precast concrete foundations (70 inches x 40 inches by 14 inches thick) will be placed within the vegetative support layer;
- Approximately 2,360 PV modules installed on support racks placed on the concrete foundations;
- One inverter (500 kW) and one transformer (750 kVA) mounted on a single concrete pad on the sand drainage layer of the cap;
- The photovoltaic panel racks will be interconnected using above grade cables. Underground conduits will be only installed below temporary access roads.
- Switching gear (25 KV switch and REC meter) mounted on a concrete pad on the sand drainage layer of the cap system.

The existing access road will be extended to create a turnaround location (hammerhead). The existing access road extension road will be constructed by stripping off the 12 inches of the vegetative support layer of the landfill cap, placing a woven filter fabric, and adding 12 inches of compacted burrow.

Temporary access roads will be constructed, if needed, during construction to minimize impact to the landfill final cover system. The temporary access roads will be constructed by placement of a woven filter fabric over the vegetative support layer, and addition 18 inches of dense graded crushed stone. The temporary access roads will be removed within six months of completion of construction and the road areas will be restored to meet the specification of the capping system.

Most of the array that will be constructed on the Landfill cap will be placed on a slope of less than 5% (2.9 degrees). In some areas the PV array will be placed on a 15% slope (8.5 degrees**)**.

The solar array will utilize PV modules (3.25-foot by 5.42-foot) mounted on galvanized steel, aluminum or stainless steel framed racks attached to the precast concrete foundations. The racking system will hold the panels at a fixed tilt of 20 degrees from horizontal. The PV array will use monocrystalline PV modules mounted on racks consisting of nine modules in a single row (panel layout 1 x 9) with two ballasts per rack. Each panel support rack or assembly will utilize a fully ballasted mounting system with no penetrations of the low permeability layer of

the final cover system. The modules and the associated racking will be approximately 5 feet in height in the rear and 3 feet in the front. The rows of solar panels will be oriented east-west and the spacing between each row will vary from approximately 4'7" to 12'4" (north-south measurement).

The existing elevation and grade of the Landfill will not be altered. The proposed design will impact limited portions of the vegetative layer of the final cover system. The impacts result from permanent access road, PV rack ballasts installations, inverter/transformer concrete pad, switchgear pad, and conduit supports.

The panels will be supported by PV racks installed on concrete ballasts. To install the precast concrete ballast, the vegetation and organic topsoil below each of the array ballast will be removed. The excavations will not extend to a depth beyond the thickness of vegetative support layer. The top slope final cover system topsoil layer is approximately 12 inches thick and the side slope topsoil layer is approximately 8 inches thick. After excavating, a layer of geotextile will be placed onto the existing final cover systems sand drainage layer and then a layer of leveling stone will be placed and compacted in preparation for the placement of the concrete ballasts. The leveling stone will be installed such that the maximum slope on the concrete ballasts will be 5% or less. Once this is accomplished, the vegetative cover surrounding each ballast is to be restored.

The support racks will house all wiring between the modules. The electrical transmission wiring will run within cable conduits above grade, mounted on the rack assemblies where applicable, or mounted on conduit supports (block assemblies) above grade to keep the cables off the ground surface. Only at temporary road crossings will the electrical wiring run below ground. The electrical wiring that will be placed below these temporary roads will be placed in 4 inch fiberglass reinforced epoxy (FRE) cable conduits, at a minimum depth of 1 foot below the road surface. All underground cables will be sealed, have gas tight fittings and will include flexible connections at transition points. There are no subsurface penetrations at the inverters, transformer and switchgear concrete pads. 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.

The concrete ballasts will be constructed off the cap area and will be brought into the site via pickup trucks or lightweight lulls. A single concrete electrical equipment pad for the transformers/inverters will either be precast offsite or formed on site. Concrete will be trucked or pumped to the pad location. If a concrete truck is used, the permanent access road will need to have an additional 6 inches of stone placed on it prior to operating a concrete truck or the concrete will need to be pumped from the bottom of the Landfill to the proposed pad location. The area beneath the concrete electrical pad will be prepared by stripping the 12 inch topsoil layer and backfilling with a minimum of 12 inches of crushed stone (**refer to condition #11**).

A single concrete pad mounted 25 KV disconnect switch and recording metering will be installed at the northern end of the hammerhead turnaround. The area beneath the concrete pad will be

prepared in a similar fashion to the inverter/transformer pad by removing the organic layer and placing a minimum of 12 inches of stone in the area were concrete is to be placed. Final pad design (dimensions) for both the electrical equipment pad for the inverter/transformer pad and the switchgear pad will be determined based on the final equipment selection and approval by electrical inspector and/or utility representative. The inverter/transformer pad and switchgear pad will be designed such the conduits feeding the switches will enter the pad above grade (**refer to condition #13**).

The output from the PV array will be conveyed via electrical cables above grade on conduit supports and will transition to overhead wiring for transmission of electricity, via several new utility poles (outside the limits of waste), to the existing overhead NSTAR primary system off of Old Orchard Road.

Geotechnical Evaluation: The Application included a geotechnical evaluation for the installation of the array and supporting structures on the final cover system.

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

- The modules, ballasts, and footings do not exceed loading criteria for the Landfill capping system.
- The transformer pad does not exceed the recommended loading criteria for the Landfill capping system.
- The PV array will not cause adverse Landfill settlement.
- The Engineer determined the potential vehicle loading on the permanent and temporary access roads would not produce unacceptable loading stresses to the Landfill capping system.
- The PV array is stable on a 15% slope.
- The 4 inch FRE electrical cables conduit buried under the temporary access road and the road base soil surrounding the conduit will support the applied vehicle loads.

The anticipated maximum loading scenario racking system (ballasts, racking system, and modules) and the electrical equipment pad on the Landfill surface will result in a bearing pressure ranges between 203 and 379 pounds per square foot. The bearing pressure ranges are all less than allowable 1000 pounds per square foot (less than 7 psi).

The estimated settlement resulting from the static loads increase of the solar array foundation footings was 0.54 inches. The Engineer has stated the geomembrane layer of the final cover system can undergo this distortion without impacting its function.

A sliding stability evaluation was performed for the ballasts. A maximum slope of 15% was evaluated. The Engineer determined the factor of safety for sliding of the PV ballasts on the underlying soils was approximately 1.5 on a 15% slope.

Storm Water: The Applicants' Engineer performed storm water calculations using Hydro CAD modeling software (TR-20) analysis for the 24-hour, 25 year storm and the 24-hour, 100 year

storm. The PV array will modify run off characteristics by the addition of impervious surfaces (i.e. foundation ballasts and concrete pads) which represents less than 5% of the of the closed landfill surface. The capacity of various elements of the landfill storm water conveyance and detention systems impacted by the development area were reviewed including, swales, stoned line ditches, storm water piping and detention basins. The Applicants' Engineer concluded there will be adequate capacity to handle the post development storm water at the Landfill and there is no need to modify the existing storm water management system.

Post Closure and Post-Closure Use Operations and Maintenance: The Town currently implements the landfill's post closure monitoring and maintenance plan. The Town is to continue to perform all post closure environmental monitoring (groundwater and soil gas monitoring) for the Landfill. Operations and maintenance for the Landfill for the area where the PV array is located up to a distance of 10 feet away from the edge of the PV array will be performed by the project developer: American Capital Energy. The Town will maintain responsibility for the remainder of the Landfill outside the 10 foot buffer around the PV array (**refer to condition #1**).

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. Currently, the Landfill is mowed at least annually with quarterly final cover system inspections by the Town.

A post-closure use operation and maintenance plan for the post-closure use area used for the PV array was submitted with the Application. The Developer proposes to provide: site security; electrical maintenance; module cleaning; and final cover system maintenance including but not limited to, mowing, undergrowth control, pest control, and erosion control. The Developer proposes to conduct monthly inspections to check the landfill cap for erosion and changes in vegetative growth following the first year of construction of the PV array (**refer to condition # 15**).

The Application included a Health and Safety Plan for operation and maintenance activities to be performed by employees at the Eastham landfill solar project for the operation and maintenance of the proposed PV array. The Application did not include a health and safety plan for the construction of the proposed PV array (**refer to condition #7**).

Site Security: The Landfill currently has a gated perimeter fence along Old Orchard Road. As part of the solar facility development, additional fencing will be installed along the northerly side of the capped Landfill to provide security between the transfer station and the PV system.

Decommissioning Plan: Decommissioning and site restoration will include dismantling and removal of all panels and supporting equipment, transformers, overhead cables and foundations and restoration of the roads, and modules sites to substantially the same physical condition that existed before construction of the PV array.

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 Eastham 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 Eastham 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.

2. Regulatory Compliance: The Applicants, Engineers and Applicants' Contractors shall fully comply with all applicable local, state and federal laws, regulations and policies, by-laws, ordinances and agreements. This includes but is not limited to, 310 CMR 19.142: *Post-Closure Requirements*, 310 CMR 19.143: *Post-Closure Use of Landfills*, and 310 CMR 19.043: *Standard Conditions*. Applicable federal regulations include, but are not limited to, 29 CFR Part 1910, OSHA standards governing employee health and safety in the workplace and all applicable local, state and federal electrical codes and permits, including National Electrical Code (NEC), 2011 Edition, Article 690-"Solar Photovoltaic (PV) Systems".

3. Inspection and Repair of Settlement Areas: Prior to construction of the PV array, any suspect settlement areas on the Landfill project area shall be surveyed to determine the lowest spot. The surrounding area should be then surveyed to find the "relief point" defined as the lowest surrounding area where ponded water would flow 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 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.

4. Notification of Construction: The Applicants shall notify MassDEP in writing (e-mail is acceptable) when the post-closure use construction commences and is completed.

5. Oversight and 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. Within seven (7) months of completing the installation of solar photovoltaic array, MassDEP shall be provided with a certification report. 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.

6. Preconstruction Work: Prior to commencement of construction activities all Landfill gas passive vents, Landfill soil-gas monitoring wells, groundwater monitoring wells and other existing above ground structures on the Landfill cap and appurtenances shall be flagged for visibility, and protective barriers shall be placed around such structures, as needed, to prevent damage by vehicles accessing the area.

7. Health and Safety: The Applicants, Engineers and 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 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 the beginning of any construction work. The health and safety plan shall include as a minimum;
   - protocols for monitoring of landfill gas (i.e. methane, hydrogen sulfide, etc.) as needed,
   - protocols for modifying work practices if landfill gas is detected at levels deemed unsuitable.

8. 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 show limit turning by tracks on the vegetative support layer as much as possible. If MassDEP determines the use of excavation equipment is creating the potential for damage to the FML, the usage of such equipment shall immediately cease upon notification by MassDEP. All operators of the vehicles entering the final cover system area shall be clearly instructed by the on-site engineer and/or the contractor of the requirements of this permit prior to arrival, to avoid damage to the landfill final cover system components. A list of low ground pressure equipment used and the pressure rating of each vehicle shall be indicated in the certification report required in condition #5.

9. Permanent and Temporary Roads and Low Ground Pressure Equipment: Low ground pressure equipment shall not access the final cover system from permanent and temporary roads where the transition will result in excessive pressure and wear on the landfill vegetative service. The on-site engineer may construct ramps as necessary.

10. Construction Precautions: All necessary precautions shall be taken to protect the Landfill storm water control system, environmental monitoring network and the Landfill gas vents. All operators of vehicles entering the 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 the any Landfill components, the Applicants' Engineer shall notify MassDEP within 24 hours and provide a written plan with a schedule for repairs.

11. 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 vegetative support layer. No excavations shall penetrate the sand drainage layer during construction, including staking for concrete forms, or during operation and maintenance of the PV array 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.

12. Personnel Training: The Applicants, Engineers 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.

13. Proposed Inverter/Transformer Pad (PowerStation) and Interconnection Equipment: The Applicants stated within the permit application that manufacturers "cut sheets" for the electrical equipment were included in Appendix B for informational purposes only and were only representative of equipment that is proposed. Final equipment selection may vary based on availability and other factors at the time of construction.

If the Applicants propose to change the electrical equipment a copy of the final design for the inverter/transformer pad and any other electrical pads and protective switchgear (interconnection equipment) proposed on-site shall be submitted to MassDEP for review and approval. The Applicants, Engineers and Applicants' 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 footings or foundations. There shall be no penetration of any kind of the impermeable layer of the cap.

14. Landfill Gas Notification Requirements:

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

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

        1. *Take immediate action to protect human health and safety;*
        2. *Notify the Department within two hours of the findings; and*
        3. *undertake the actions specified under 310 CMR 19.150, Landfill Assessment and 310 CMR 19.151: Corrective Action, as required by the Department."*

    b. If at any time monitoring detects the presence of any combustible gases at or in excess of 10% of the lower explosive limit at any location within a building or within any utility conduits on site or off-site, the Applicants or Applicants' contractors shall notify MassDEP's Bureau of Waste Site Cleanup-Emergency Response Section (508) 946-2714 within two (2) hours of the exceedance as per 310 CMR 40.0321(1) (a) of the regulations.

15. Post-closure Use Operation and Maintenance Plan: During the first year after completion of construction of the PV array, inspections of the Landfill final cover system shall be performed on a monthly basis. Monthly inspection reports shall be submitted to MassDEP within fourteen (14) days of completion. Following the first year of operation of the PV array and if no problems have been documented, inspections of the Landfill shall be performed on a quarterly basis and shall be submitted to MassDEP within fourteen (14) days of completion. Pursuant to 310 CMR 19.142(6) inspections shall be conducted by a third-party consulting Massachusetts Registered Professional Engineer, or other qualified solid waste professional. The Applicants, Engineers and Applicants' Contractors shall monitor the effectiveness of the storm water management system which should include; swales, structures and any and all conveyance systems. MassDEP shall be consulted prior to any deviation from the approved storm water design. MassDEP may require a permit modification application for significant design modifications. Any erosion, settlement, security or other issues observed at the Landfill shall be reported to MassDEP and repaired immediately.

16. 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.

17. 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.

RIGHT OF APPEAL

Right to Appeal – This approval has been issued pursuant to M.G.L. Chapter 111, Section 150A, and 310 CMR 19.037: Review Procedures for Permit Modifications, Permit Renewals and other Approvals, of the "Solid Waste Management Regulations". Pursuant to 310 CMR 19.037(5), any person aggrieved by the issuance of this determination may file an appeal for judicial review of said decision in accordance with the provisions of M.G.L. c. 111, § 150A and M.G.L. c. 30A not later than thirty (30) days following receipt of the final permit. The standing of a person to file an appeal and the procedures for filing such an appeal shall be governed by the provisions of M.G.L. c. 30A. Unless the person requesting an appeal requests and is granted a stay of the terms and conditions of the permit by a court of competent jurisdiction, the permit decision shall remain effective or become effective at the conclusion of the thirty (30) day period.

Notice of Appeal - Any aggrieved person intending to appeal a grant of a permit to the Superior Court shall first provide notice of intention to commence such action. Said notice of intention shall include the Department transmittal number X238614 and shall identify with particularity the issues and reason why it is believed the permit decision was not proper. Such notice shall be provided to the Office of General Counsel of the Department and the Regional Director for the regional office which processed the permit application at least five days prior to the filing of an appeal.

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

David Johnston, Regional Director
Department of Environmental Protection
20 Riverside Drive
Lakeville, MA 02347

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

Please direct any questions regarding this matter to me at (508) 946-2833 or to Mark Dakers 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.

David B. Ellis, Chief
Solid Waste Management Section

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ec: Eastham Board of Health, Jane Crowley
jcrowley@eastham-ma.gov

Frank DeFelice, Inspector of Buildings
buildingdept@eastham-ma.gov

American Capital Energy, Eric McLean, PE
emclean@americancapitalenergy.com

Cape & Vineyard Electric Cooperative, Inc., Ron Collins
rcollins@cvecinc.org

Renewable Energy Development Partners, LLC, Hank Ouimet
houimet@redpllc.com

Weston & Sampson, Duane Himes, P.E.
himesd@wseinc.com

DOER, Seth Pickering
Seth.Pickering@state.ma.us

DEP-SERO
ATTN: J. Viveiros
L. Carlson

DEP-Boston
ATTN: J. Doucett
P. Emond
S. Weinstein
C. Finneran