



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

December 30, 2010

Brian Bowcock
Town of Fairhaven - Board of Selectmen
40 Center Street
Fairhaven, Massachusetts 02719

RE: Approval with Conditions
Application for: BWP SW 36 Post-Closure Use - Major
Solar Photovoltaic Array
Transmittal #: X235371

AT: Fairhaven Sanitary Landfill
Bridge Street
Fairhaven, Massachusetts
Facility ID#: 39264

Dear Mr. Bowcock:

The Massachusetts Department of Environmental Protection, Solid Waste Management Section (the "MassDEP"), has completed its administrative and technical review of the referenced Post-Closure Use permit application (the "Application") for the Fairhaven landfill (the "Landfill"). The Application was prepared and submitted on behalf of the Town of Fairhaven (the "Town" or "Applicant") by Weston and Sampson (the "Consultant") of Peabody, Massachusetts. Blue Sky Power (the "developer" or "operator") will be responsible for the construction, operation and management of the solar facility. MassDEP has determined the Application is administratively and technically complete and hereby approves the Post-Closure Use of the Landfill for a solar photovoltaic ("PV") array subject to conditions as specified herein.

I. SUBMITTALS:

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

- A. The permit transmittal, application forms for Post-Closure Use - Major (BWP SW 36), narrative describing the proposed use, engineering calculations, seven engineering drawings and documents received by MassDEP on November 5, 2010.

This information is available in alternate format. Call Michelle Waters-Ekanem, Diversity Director, at 617-292-5751. TDD# 1-866-539-7622 or 1-617-574-6868
MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

- B. Supplemental Application information, prepared by Weston and Sampson, consisting of a letter report dated December 17, 2010, engineering calculations, seven engineering drawings and documents received by MassDEP on December 20, 2010.

II. POST-CLOSURE USE PROPOSAL SUMMARY:

The Town is proposing to construct and maintain a "... 0.578 megawatt (MW) solar photovoltaic array..." on the capped Landfill, consisting of the following components:

- 1,456 precast concrete foundations will be placed within the vegetative support layer;
- 1,456 PV support racks will be placed on the concrete foundation ballasts;
- 2,535 PV modules will be installed on the support racks placed on the concrete foundations;
- The modules will be connected to the inverter using above ground and buried electrical cables;
- One inverter will be constructed within an enclosure on the capped Landfill;
- The inverter will be connected to a transformer at the interconnection point (off the Landfill final cover system but within the site assigned property) via overhead and buried electrical cables;
- One permanent access road and an additional temporary access roads will be constructed for vehicle access for construction and maintenance activities.

The ground mounted PV array will utilize PV modules, mounted on racks or assemblies. Each assembly holds 13 modules and will utilize fully ballasted mounting systems with no penetrations of the final cover system. There will be 31 rows of assemblies, called sub-arrays that will be oriented east-west with approximately 6-feet between each sub-array (north-south measurement). Most of the PV array is to be constructed on 5 percent slope areas of the Landfill with the outer fringes of the array in areas close to 10 percent slope. Solar array construction activities (solar array and access roads) are expected to disturb less than 3-acres of land on the Landfill.

The foundation for the assemblies will be constructed by excavating approximately 4-inches to 12-inches into the vegetative support layer of the capping system and placing precast concrete foundations 6-foot long by 20-inches wide and 20-inches thick above the sand drainage layer (**refer to condition #11**). The concrete foundations will be cast on the southern parcel which is not within the limits of the existing final cover system for the Landfill (see section **III. Site Description & Investigation**). The racks will be anchored to the concrete foundations and the electrical transmission wiring will be mounted on the rack assemblies. Cable conduits between sub-arrays and the inverters will be buried within the existing vegetative support layer of the capping system. The conduits will be buried in trenches, 12-inches deep by 12 to 18-inches wide and will either be backfilled with concrete or soil. The excavations will be lined with non-woven geotextile to provide separation of the backfill material and the sand drainage layer. The two legged rack will hold the modules at a fixed tilt of 30 degrees from horizontal. The lower edge of the assembly will be approximately 4-feet above the cap to shed snow and allow sun to shine beneath the modules to maintain grass growth. The upper edge of the assembly will be approximately 8-feet off the ground. The arrays will be set back at least 10-feet from the landfill passive gas vents to prevent physical damage to the vents.

Pre-engineered metal building will be anchored to a cast in place concrete slab, 26-feet long by 17-foot wide and 6-inches thick. The concrete slab will be constructed by excavating approximately 4-inches into the 12-inch vegetative support layer. The geotechnical analysis for the concrete slab evaluated the concrete slab placed on 24 inches of sand. Underground utilities will enter through the side of the metal building with flexible connections. The inverter will be placed in the all climate metal building. The building will be positively ventilated by an inverter cooling fan. A landfill gas monitoring warning and monitoring system will be installed in the building (**refer to condition #8**).

An overhead transmission line will run from a mast on top of the inverter building to one or more poles and then proceed underground to a pad mount transformer that will be installed along the eastern edge of the Landfill beyond the final cover system limits. The pad mounted transformer is proposed to be located approximately 10-feet from the edge of waste. An interconnection application has been filed with NSTAR. At the interconnection point, additional electrical equipment and protective switchgear will follow the design requirements set by NSTAR. The design for the interconnection equipment has not been finalized with NSTAR. A copy of the final design for the transformer pad and any other electrical and protective switchgear proposed on-site will have to be submitted to MassDEP prior to the commencement of construction. (**refer to condition #9**).

A permanent access road will be constructed adjacent to the eastern perimeter of the PV array over the final cover system. This road will be constructed by removing the top 6-inches of the vegetative support layer, compacting the subgrade, placing a woven geotextile, and placing 18-inches of compacted gravel meeting Mass DOT M1.30.0 Type C compacted gravel borrow specifications. The temporary access roads will be constructed by placing a woven geotextile directly on the grass surface and placing a minimum of 18-inches of compacted gravel over the existing vegetative support layer. The temporary access roads will be removed within six months after array construction and the vegetation will be reestablished.

The Application included a geotechnical settlement and stability analysis for the installation of the solar array and supporting structures and considered the dead load of the proposed structures, the wind load, and the snow load. Weston and Sampson and a Massachusetts Registered Structural Engineer for Beaumont Solar Company concluded that all analysis demonstrated minimal loading and no stresses which would damage the high density polyethylene (HDPE) membrane of the final cover system. The analysis included an evaluation of the net increase in vertical stresses to the final cover system and landfill waste mass from installation of the solar array, inverter building, and the temporary and permanent access roads. Weston and Sampson concluded the net increase in the vertical stresses to the underlying soils and landfill waste from the structures will be approximately 221 pounds per square foot for foundation ballasts (static loads), and the associated settlement will be 0.6-inches for solar array foundation (static loads), under these loading levels. The calculated factor of safety against sliding of the foundation ballasts on 10 percent slopes resulted in a factor of safety of 4.5.

Weston & Sampson has evaluated the original stormwater control system design calculations, and the potential changes to stormwater runoff conditions due to the proposed project. The Consultant stated the results of the analysis indicated that there is no increase in peak discharge

rates between pre- and post-development conditions for the 25 and 100 year storm events. Also, the Consultant stated because the discharge rates do not increase, the existing storm water management system for the site is adequate, and no changes to the management system are necessary.

The new permanent access road will change the stormwater flow pattern in one area on the east end of the PV array. On the west side of the new road, the contractor will construct a stormwater conveyance swale. Some stormwater will flow north along the road, cross under the road via two 8-inch diameter HDPE pipes, and discharge into an existing drainage swale. The remaining stormwater from this area will flow south to the end of the road where a new riprap channel will convey stormwater to an existing drainage swale. The existing swale will be modified, using the original design as necessary, to accommodate the proposed PV array.

The Town has proposed to inspect for erosion of soil below the lower drip edge of the PV modules. If localized areas of damage are noted, the Town has proposed to stabilize the surface using organic material such as wood chips, mulch, coconut fiber matting or other long life organic erosion control material (**refer to condition #13**).

The Application included a "Solar Array Operation and Maintenance Health and Safety Plan" for MassDEP's files. The construction contractor is required to submit health and safety plan for construction related activities prior to commencement of construction work (**refer to condition #6**).

A qualitative health and environmental risk assessment for the Fairhaven landfill was previously performed as part of the closure activities. The findings of the previous assessment were that the Landfill "does not represent a significant threat to the environment". Weston and Sampson states that the proposed installation of the PV array will not impact the Landfill cap, surface water control system, and will not alter the integrity of the Landfill cover as a barrier to infiltration and is not likely to affect the landfill gas collection and management systems. Weston and Sampson concluded that the proposed post-closure use will not increase risk to human health and the environment (**refer to conditions #6 and #7**).

The Town and its consultants will continue to perform all post-closure monitoring on the entire Landfill site including areas occupied by the solar facility. Vegetation control and maintenance will be the responsibility of the developer and its contractors for all areas occupied by the array and approximately 15-feet beyond the array and appurtenances (**refer to condition #5**). Please note that MassDEP will hold the Town of Fairhaven, as the Landfill owner, responsible for Landfill final cover system maintenance should the post closure use solar facility operator fail to do so. The Landfill is currently mowed at least once a year by the Town and inspections are conducted annually by a third-party pursuant to 310 CMR 19.142. The post-closure use application included an operation and maintenance plan for the PV array. The plan specifies that during the first year of PV array operation the vegetative support layer will be inspected monthly to check for landfill erosion and changes in vegetative growth. Thereafter, the proposed operation and maintenance plan for the PV array calls for inspection of the vegetative support layer annually (**refer to condition #13**).

The Landfill is fenced and gated along Bridge Street. The Town currently uses the front portion of the Landfill property for Department of Public Works materials storage and handling. The Town does not propose to install additional fencing for the PV array. The permit application included a decommissioning plan. Decommissioning and site restoration will include dismantling and removal of all panels and supporting equipment, transformers, overhead cables, foundations and buildings and restoration of the roads and module site to substantially the same physical condition that existed prior to post-closure use construction. Disturbed soils will be graded and seeded.

III. SITE DESCRIPTION & INVESTIGATIONS:

The Fairhaven landfill is located on a 36-acre parcel. The 36-acre parcel is separated into two parcels; the Landfill located to the north and the Town's Department of Public Works ("DPW") storage area to the south. The 36-acre parcel is bounded by wetlands on the north and north-west sides of the Landfill. The 36-acre parcel is bounded; on the south by Bridge Street; to the west by a middle school; and to the north and east by vacant land adjacent to residential and commercial properties. The closest residential dwelling is located approximately 500-feet northwest of the Landfill. The middle school is located approximately 700-feet west and the nearest extent of the school's tennis court is approximately 250-feet west.

The 23-acre unlined Landfill, located on the northern parcel, is owned and was operated by the Town. Landfilling operations began in the 1920s and during its operational period an estimated 0.9 million tons of solid waste were disposed. In 1990, MassDEP promulgated regulations requiring unlined landfills to cease accepting waste by January 1994 and complete closure by July 1995. In anticipation of this deadline, the Town evaluated alternatives to closing the Landfill and in 1994 the Town elected to enter into an agreement with Biosafe International, Inc. ("Biosafe") for landfill reclamation and the development of a lined landfill.

In October 1995, MassDEP issued an approval for construction of the first lined cell and in August 1996 approved the Authorization to Operate the lined, one-acre Cell 1B North area of the Landfill. As of July 1997, the Cell 1B North area was near capacity and on July 1, 1997, the Town and Biosafe entered into an Administrative Consent Order (ACO-SE-97-4004) which required that the Town either notify MassDEP that Landfill reclamation would recommence to provide additional disposal capacity or the Landfill would be required to be closed and completely capped by December 30, 1999. The Town and Biosafe elected not to pursue further reclamation. The Landfill was closed and a partial final cover constructed pursuant to the Administrative Consent Order. One uncapped area of the landfill remains in the Southeast.

The Town conducted solid waste landfill operations at the Landfill until December 31, 1999. Capping and corrective actions were completed in 2000. The closure of the Landfill consisted of grading, filling, final cover system installation and contouring in accordance with the closure design plans approved by MassDEP on August 13, 1998.

Existing Final Cover System Design: The existing final cover system consists of the following components (bottom-up):

- a gas venting consisting of 6-inches of soils;
- an overlying 40 mil high density polyethylene (HDPE) membrane;

- an overlying 12-inch sand drainage layer with a perforated pipe sub-drain system constructed at 90-foot intervals within the drainage soils;
- an overlying vegetative support layer consisting of 12-inches of top soil.

The Landfill has a passive landfill gas venting system. Twenty-four passive gas vents constructed of 8-inch diameter perforated PVC pipe were installed in 24-inch bore holes. Twelve of the 24 vents were equipped with aboveground landfill gas flares (vent or solar flares) to minimize potential odors and emissions. Vertical gas vent wells were interconnected with horizontal 6-inch diameter perforated PVC header lines constructed in stone lined trenches below the final cover geomembrane.

The Town submitted a permit application in June 2009 to modify the post-closure monitoring plan and remove the gas vent solar flares. On September 18, 2009, MassDEP approved changes to the post-closure monitoring plan but did not approve the removal of the gas vent flares. The Town's consultant, Brown and Caldwell, screened the landfill gas vents for hydrogen sulfide in November 2009. Hydrogen sulfide was detected at concentrations between 1 part per million (ppm) and 27 ppm in 6 of the 24 landfill gas vents (GW-8, GW-9, GW-10, GW-14, GW-15 and GW-20). Brown and Caldwell concluded that the horizontal and vertical distances between the Landfill and off-site receptors were sufficient to alleviate any potential impact from hydrogen sulfide. The vent flares were replaced with ventilator turbines in 2010. With the exception of GW-20, all these vents are located adjacent to the proposed solar array (**refer to condition #6 and #7**).

Post-Closure Environmental Monitoring: A Comprehensive Site Assessment (the "CSA") was conducted in 1993 by DeFeo, Wait & Pare' Inc. An addendum to the CSA was prepared in 1994. MassDEP approved the CSA in April 1995. The Town has been conducting post-closure monitoring for 11 years. Post-closure environmental monitoring (groundwater, surface water and soil-gas monitoring) is currently conducted by the Town in accordance with the permit application approved by MassDEP on September 18, 2009 (transmittal# X227614). The Town has not proposed any changes to the post-closure environmental monitoring plan based on the proposed post-closure use.

The groundwater monitoring network consists of eleven groundwater monitoring wells. All groundwater monitoring wells are currently sampled on an annual basis for the analytical parameters specified at 310 CMR 19.132. Surface water quality is monitored at two locations annually.

The current landfill soil-gas monitor network consists of six gas monitoring probes located around the Landfill's perimeter. The depth to groundwater is generally less than 5-feet around the Landfill's perimeter. There is a forested wetland located along the northwestern margin of the Landfill. There are no structures on the northern parcel. There are four manholes associated with the leachate collection system for the lined landfill located on the northern parcel. The DPW storage area located on the southern parcel includes two structures (maintenance garage and animal shelter) various underground utilities (i.e. water, electrical and gas) and a truck scale. Two new soil-gas probes (GP-5 and GP-6) were installed in February 2010 between the eastern boundary of the Landfill and the developed properties located at 124 Alden Rd. and 132 Alden Rd., respectively.

MassDEP is not requiring any changes to the environmental monitoring plan due to the proposed post-closure use at this time.

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 Fairhaven 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 post-closure solar photovoltaic array at the Fairhaven landfill as detailed in the Application and does not relieve the Town 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 Applicant 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.
3. Inspection and Repair of Settlement Areas: Prior to construction of the solar array, any suspect settlement areas on the Landfill project area shall be surveyed to determine the lowest spot. The surrounding area should be then surveyed to find the "relief point" defined as the lowest surrounding area where ponded water would flow out. The elevation difference is defined as the "pond value". Minor settlement shall be defined as less than a 12-inches pond value. Any Landfill project area that has undergone minor settlement shall be corrected by the placement of addition vegetative support soil to promote runoff and the area shall be reseeded. Any area repaired should be surveyed and the location marked on a plan with the pond value. Any future settlement should be recorded cumulatively. If/when the total settlement reaches 12-inches the area will be considered to have suffered major settlement and appropriate repairs to eliminate ponding.

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 surface water ponding. The Applicant may either:

- 1) Strip off the final cover soils above the low permeability layer, inspect and repair the low permeability layer if/as necessary, place low permeability soil as necessary to promote runoff, replace final cover soils; or

- 2) Expose the low permeability soil or geomembrane in a trench around the perimeter of the settled area. Fill the area with soil to form slopes promoting runoff. Cap the area with a new low permeability membrane, GCL, or low permeability soil layer that ties into the existing low permeability layer at the identified perimeter. Place new drainage sand and vegetative support material over the new cap area.

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

Any proposal to do a major settlement repair must be submitted within a Corrective Action Design (BWP SW 25) 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 Applicant shall notify MassDEP in writing (e-mail is acceptable) when the post-closure use construction commences and is completed.
5. Certification Report: Within seven (7) months 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 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. Additionally, the certification report shall identify those areas on an as-built plan where vegetation control and maintenance are the responsibility of the solar array operator/developer and its contractors.
6. Health and Safety: The Town and their contractor(s) are responsible to ensure all necessary precautions are taken to protect the health and safety of workers and the general public during both construction and maintenance of the solar array. A copy of the site-specific health and safety plan for the construction of the solar array shall be submitted to MassDEP (for its files) prior to the beginning of any construction work which shall include 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, protocols for workers entering the inverter enclosures, and protocols for responding to any landfill gas alarm conditions within the inverter enclosure.
7. Personnel Training - Construction & Operation and Maintenance: The Town and their contractors shall be instructed regarding the potential hazards associated with landfill gas and shall instruct or give on-the-job training to all personnel involved in any activity authorized by this permit. Such instruction or on-the-job training shall teach personnel how to comply with the conditions of the permit to carry out the authorized activity in a manner that is not hazardous to public health, safety, welfare or the environment. PV array construction and operation and maintenance shall not include any excavations or penetrations of the sand

drainage layer of the final cover system. Training shall be provided to Town workers conducting maintenance activities at the Landfill regarding hazards associated with the PV array including electrical hazards.

8. Inverter Enclosure and Combustible Gas Alarm: There shall be no penetrations (utility, conduits or other) at the base of the inverter foundation. The inverter enclosure shall have a hard-wired landfill gas monitor within the enclosure, fully operational at all times (with battery backup), which shall: be calibrated to a methane standard; shall have an audible alarm; shall have a lighted beacon above the entrance door to the enclosure for alarm mode. At a minimum, the alarm shall be set to sound when the concentration of explosive gases exceeds 10% of the Lower Explosive Limit (LEL). The Town and the contractor shall calibrate, maintain and monitor the permanent landfill gas monitoring device located within the inverter building in accordance with the manufacturer's requirements.
9. Proposed Transformer Pad and Interconnection Equipment: A copy of the proposed final design for the transformer pad and any other electrical and protective switchgear (interconnection equipment) proposed on-site shall be submitted to MassDEP for review and approval. The Town and their contractors are responsible to ensure that utilities/structures will not accumulate landfill gas during construction and operation.

Please note, that during the post-closure monitoring period landfill gas has been detected in soil-gas monitoring probes located around the Landfill's perimeter. MassDEP will require that all subsurface utilities proposed to be installed in close proximity to the edge of waste be designed to address the safety concerns (explosion, fire, asphyxiation hazard, etc.) associated with subsurface landfill gas soil-gas migration. MassDEP requires that the transformer pad proposed design not create a potential safety hazard or compromise the integrity of the final cover system. Potential design features may include but are not limited to the installation of fully sealed conduits, explosion proof connections, and fittings. Utility trenches shall be designed so they do not act as a conduit for landfill gas migration.

10. Landfill Gas Notification Requirements:

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

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

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

- b. If at any time monitoring detects the presence of any combustible gases at or in excess of 10% of the lower explosive limit at any location within a building or within any utility conduits on site or off-site, the Town shall notify MassDEP's Bureau of Waste Site Cleanup-

Emergency Response Section (508) 946-2714 within two (2) hours of the exceedance as per 310 CMR 40.0321(1)(a) of the regulations.

11. Integrity of the Final Cover System: All disturbances of the Landfill shall be limited to the proposed excavations and installations within and above the vegetative support layer of the final cover system. No excavations or other penetrations, including staking for concrete forms, shall be performed into the sand drainage layer during construction or during operation and maintenance of the PV array without approval for MassDEP. The Applicant shall ensure that vehicles operating on the Landfill do not damage or compromise the Landfill final cover system integrity. There shall be no penetrations of any kind of the HDPE layer of the final cover system.
12. Construction Precautions: All necessary precautions shall be taken to ensure that the proposed construction and maintenance work associated with the PV array shall not damage the sand drainage layer and HDPE layer of the final cover system, including the landfill storm water control structures, environmental monitoring network and the landfill gas vents. Prior to the commencement of construction activities, landfill gas vents: GW-8, GW-9, GW-10, GW-14, GW-15 and GW-19 shall be flagged for visibility to prevent damage by vehicles during construction. If any damage occurs to the above listed Landfill components, the Town and its contractors shall notify MassDEP within 24 hours and provide a written plan with a schedule for repairs.
13. Post-closure Use Operation and Maintenance Plan: During the first year of operation of the PV array inspections of the Landfill final cover system shall be performed on a monthly basis. Monthly inspection reports shall be submitted to MassDEP within fourteen (14) days of completion. Following the first year of operation of the solar array, inspections of the Landfill shall be performed on an annual basis and shall be submitted to MassDEP within fourteen (14) days of completion. If erosion is identified beneath the drip edge of the PV modules, the area will be repaired and the surface stabilized. The Applicant shall monitor the effectiveness of the storm water management system which would 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.
14. Post Closure Inspection and Maintenance: The Town shall inspect the Landfill and submit the results with the biennial report. In all other respects, the Town shall continue to implement post closure inspection and maintenance requirements in accordance with *310 CMR 19.142 Landfill Post-Closure Requirements*. The Town shall maintain and repair environmental monitoring network in accordance with *310 CMR 19.133 Maintenance of Environmental Control and Monitoring System*.
15. Biennial Report: A biennial report for Fairhaven Landfill shall be submitted to the MassDEP's Solid Waste Section by February 15th of every second year beginning in the year 2011. Pursuant to 310 CMR 19.142(6) Reporting Requirements, the report shall describe any activity (i.e. repairs, non-routine maintenance, etc.) at the Landfill, summarize the results

of the environmental monitoring programs and annual inspections by third-party consulting Massachusetts Registered Professional Engineer, or other qualified solid waste professional.

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.

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 X235371 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, Acting 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 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

E/MD/DC

\\dep-fp-lak-001\Home\$\mdakers\Fairhaven\solar post closure use\Post closure use x235371 12 30 10.doc

ec: Fairhaven Board of Health, Patricia Fowle
boh@fairhaven-ma.gov

Weston and Samson, Duane Himes
Himesd@wseinc.com

Blue Sky Power, Jack Eggleston
Jackegg4@yahoo.com

Brown and Caldwell, Samuel Chapin
SChapin@Brwncald.com

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

DEP-Boston
ATTN: J. Doucett