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
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RICHARD K. SULLIVAN JR.
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October 9, 2013

Mary O'Donnell, President
No Fossil Fuel, LLC
47 Marion Drive
Kingston, MA 02364

Edward Miller, Senior Project Manager
Washington Gas Energy Systems
6862 Elm Street, Suite 300
McLean, VA 22101

Keith Gallagher
SunDurance Energy, LLC
2045 Lincoln Highway
Edison, N.J. 08817-3334

RE: **APPROVAL with CONDITIONS**
Application for: BWPSW36 Post-Closure Use - Major
Solar Photovoltaic Array
Transmittal Number: X257485

AT: Sylvester Ray Construction & Demolition Debris Landfill
Clay Pit Road
Marshfield, Massachusetts 02050
Facility Master File ID Number: 39466

Dear Ms. O'Donnell, Mr. Miller and Mr. Gallagher:

The Massachusetts Department of Environmental Protection ("MassDEP"), Solid Waste Management Section, has completed its Administrative and Technical Review of the referenced Post-Closure Use permit application (the "Application") at the closed/capped Sylvester Ray Construction & Demolition Debris Landfill, (the "Landfill"). The Application contains information regarding the proposed installation of a 3.99 megawatt ("MW") solar photovoltaic ("PV") array electrical generating system on top of the Landfill located on the north side of Clay Pit Road, in Marshfield, Massachusetts (the "Site"). The Application was prepared and submitted on behalf of Mary O'Donnell (the Landfill "Owner"), Washington Gas (the Landfill "Lessee") and SunDurance

Energy, LLC (the Landfill Solar Array "Operator") by Sanborn Head & Associates (Timothy Reed P.E. #49465) (the "Consultant") of Plymouth, Massachusetts over Transmittal Number # X257485 on September 16, 2013. On December 30, 2011, MassDEP approved a prior application for a similar solar array project that is currently under construction (BWP SW 36, Transmittal No. X240565). The purpose of the current application is to address changes to the Landfill Owner, Lessee, Operator, Design Engineer, and for submittal, review, and approval of proposed design changes to the ballast system, access road design, and stormwater basins. Hereinafter, the Landfill Owner, Landfill Lessee, and Landfill Solar Array Operator will be referred to as the "Applicants".

MassDEP has reviewed the compiled Application and has determined that it is both Administratively and Technically Complete, and as a result hereby conditionally **approves** the proposed post-closure use Application.

The following is a description of the proposed activities as described in the Application and MassDEP's permit application review determination.

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:

The permit transmittal form, application forms for Post-Closure Use - Major (BWPSW36), narrative describing the proposed post-closure use activities, engineering calculations, five engineering drawings, and assorted supporting documents. The Application was received by MassDEP on September 16, 2013.

Supplemental information regarding ballast loading and stormwater control was submitted via e-mails to MassDEP on September 27, 2013. Details regarding an alternative grounding system were submitted via e-mail to MassDEP on October 2, 2013. Copies of stamped electrical drawings were e-mailed to MassDEP on October 6, 2013.

II. SITE DESCRIPTION & INVESTIGATIONS:

Landfill/Site Description: The Landfill is located on an approximately 27-acre parcel of land located off the north side of Clay Pit Road, Marshfield, Massachusetts (the "Site"). The Landfill is situated in an industrial area and is abutted by industrial operations toward the north, south and west, with undeveloped lands towards the east. The lateral limits of buried solid waste at the Landfill encompass approximately 20-acres of the Site, to which there is an "unused" buffer of non-solid waste around the perimeter of the Site.

Landfill Operations: The Landfill operated as an unlined construction and demolition debris ("C&D") landfill between 1977 and 1988. The Landfill was capped in 1989-1990. On February 1, 2006, MassDEP certified the Landfill's closure, thereby commencing the 30-year "post-closure" period.

Existing Landfill Design and Configuration: The vertical limits of the Landfill show that at its peak elevation, the Landfill is approximately 107-feet above mean sea level, and that its top-

slope is approximately two-percent (2%). The western and northern side-slopes of the Landfill display a three-to-one (3/1), horizontal to vertical ratio, whereas the eastern and southern side-slopes are nonexistent in that the Landfill laterally merges with the elevation of the surrounding terrain. The maximum depth of the buried solid waste is estimated to be approximately 30 feet deep. The Landfill is equipped with six passive goose-neck vents. Ground water at the Site flows in a southwest to northeast direction towards the ocean, to which the Landfill is equipped with five ground water monitoring wells that are routinely sampled/monitored on a semi-annual (i.e. 2x/yr) schedule. There are no surface waters around the Site that would require monitoring. It shall be noted that at the time of the Landfill's closure and capping, it was not equipped with storm water run-off controls and storm water run-off from the Landfill was described as "sheet-flow", for according to the regulatory requirements that were in effect at that time (i.e. circa 1989), such specific controls (e.g. detention basins) were not a stipulated regulatory landfill design requirement.

Existing Final Cover System Design: As described in MassDEP's certification approval dated February 1, 2006, the existing Landfill capping system consists of a layer of compacted clay having a hydraulic permeability coefficient of at least 1x10-5cm/sec that ranges in thickness between 18 inches and 39 inches. The clay cap is overlain by a layer of vegetated top-soil (i.e. loam) that ranges in thickness between 6 inches and 9 inches.

III. PROPOSED POST-CLOSURE USE SUMMARY:

According to the submitted Application, the Applicants are proposing to develop a 3.99 MW solar photovoltaic ("PV") array installation on the surface of the closed/capped Landfill. The proposed PV array will utilize and encompass approximately 14.5-acres of the top surface of the capped Landfill. As proposed, the existing elevation and grade of the Landfill will not be altered, and only limited portions of the Landfill's vegetative top-soil layer will be impacted as it will relate to the installation of the PV array's supporting structures (i.e. foundations), electrical conduit systems, construction "haul" and access roads. More specifically, the proposed solar system shall consist of the following components:

- One permanent 15 foot wide "haul" road will be constructed/utilized on the surface of the Landfill in order to install the solar array system. The permanent "haul" road will be constructed through: the placement of a woven silt film roadway stabilization fabric on top of the existing topsoil and then the placement of eighteen inches of crushed concrete.

- Approximately 1,412 precast concrete foundations (i.e. "ballasts") will be installed on the top-surface of the Landfill in order to support the solar array system.

- The "ballasts" will be sized in order to provide sufficient wind-shear, snow-load, and bearing strength and will have dimensions of 133 inches long x 24 inches thick x 25 inches wide. Each "ballast" will be installed by clearing the existing vegetation and the placement of six-inches of crushed concrete or clean stone (e.g. <3 inch diameter in size), whereupon the concrete ballast" will then be placed. The foundation "ballasts" will be individual pre-cast concrete units that will be delivered to the site and stockpiled on "non-landfilled" areas at the site prior to installation.

- The PV array system will be constructed in an inter-connected "modular" arrangement. More specifically, the interconnected modular system consists of 13,414 Yingli solar modules of 295 Watts each. The solar array modular system will be positioned in an east-west orientation facing towards the south, and will have a fixed angle of twenty-three degrees (i.e. 23^{o}) from the horizontal.

- Four inverters, each rated at 1MW, four transformers each rated at 1,000 kVA, and four switchgears will also be installed on the Landfill surface. The four inverters will be located along the western side of the haul road. The four transformers and the four switchgears will be positioned along the western side of the Landfill. The described electrical equipment will be installed on individual concrete support pads, with each pad having dimensions of: 20 feet long by 10 feet six inches wide by 6 inches thick. Each concrete support pad for the described electrical equipment (i.e. inverters, transformers and switchgears) will be constructed excavating the vegetative top-soil down to the top of the clay-cap; the placement of a woven silt film roadway stabilization fabric on top of the clay-cap; and then the placement of six-inches of crushed concrete or crushed stone (i.e. <3" diameter), whereupon the foundation will be installed. The described installation of the support foundations for the described electrical equipment shall be accomplished by in-place concrete pouring.

- The photovoltaic panel racks will be interconnected using above-grade wiring and cables.

- The "haul" road will be equipped with both an above-ground and a below-ground electrical conduit system that will connect the solar array electrical system to the inverter system(s). The electrical conduit system will be located above ground along the sides of the "haul" road and will be constructed in a sealed conduit. No conduit will be installed underground within the limits of the landfill cap, except beneath the haul road.

- All electrical connections from the solar array system to the four inverters and to the four transformer/switchgears will utilize above-ground electrical conduits.

- The solar array rack support system 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 the ground surface. The electrical wiring that will be placed underneath these temporary roads crossings at the "haul" road will be placed in sealed 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 all transition points. As proposed, there will be no subsurface penetrations at the inverters, transformers and switchgears concrete pads. All electrical work will be designed in compliance with 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 electrical output from the transformers/switchgears from the solar PV array system will be conveyed via above-grade electrical cables on conduit supports and will transition to overhead wiring for transmission of electricity, via several new utility poles to the existing overhead NSTAR primary system located towards the west of the Landfill/Site.

Geotechnical Evaluation: The solar array application approved by MassDEP on December 30, 2011, included a geotechnical evaluation for the installation of: the "ballasts" for the array; the construction of the supporting foundation structures for the inverters, transformers and switchgears; and the permanent "haul" road(s), on top of the Landfill's final cover system. The analysis evaluated potential impacts due to dead load, snow load and wind load, and also considered both short-term as well as long-term settlement. Based on this analysis, it has been determined that the complete PV solar array system will not cause adverse Landfill settlement. More specifically, the findings of the geotechnical evaluation are as follows:

- The individual "ballasts" have been designed to be of a sufficient size and weight to provided sufficient structural strength and stability to support the solar array racking system(s).

- The "ballast" structures have been determined to not exceed loading criteria for the Landfill capping system.

- The modular solar array systems have been determined to not exceed loading criteria for the Landfill capping system.

- The foundation structures for the inverters, transformers and switchgears have been determined to not exceed loading criteria for the Landfill capping system.

- Initial or short-term settlement from the installation of the solar array system and its appurtenant structures has been calculated to be in the range of one to three inches.

- Long-term settlement over the course of the entire 30 year post-closure period from the installation of the solar array system and its appurtenant structures has been calculated to range between seven to eleven inches.

On September 27, 2013, Sanborn Head submitted an e-mailed statement that the changes to the ballast sizes and the electrical equipment result in a reduction of the dead load bearing pressure and that that the current ballast design should not exceed the loading design criteria for the landfill capping system.

Storm Water Run-Off Controls: According to the submitted information, as a result of the installation of the complete PV solar array system, storm water run-off at the Site will increase due to the increase in impervious surfaces on top of the landfill. The Application contains information that describes the proposed installation of an enhanced storm water control system at the Site. The proposed storm water control system has been evaluated and designed to control storm water run-off from a 2-year, 10-year, 25-year and a 100-year rainfall event. According to

the submitted information, storm water run-off from the surface of the Landfill generally flows in a sheet-flow fashion across the surface of the Landfill in a north to south and east to west direction. The proposed storm water control system will consist of the installation of two new storm water detention basins and associated storm water run-off control swales that will direct storm water run-off from the landfill surface towards the strategically located detention basins. The two proposed detention basins will be designed and located as follows:

- Detention Basin #1 will be located off the landfill cap on the "front" southwest corner of the site. Detention Basin #1 will be of a rectangular shape that will be approximately 150-feet long x 80-feet wide x 2-feet deep in size and will be connected beneath the road using three 12 inch diameter culverts to Basin #2.

- Detention Basin #2 will be located on "non-landfilled" land located in the "front" southeast corner of the site. Detention Basin #2 will be of a rectangular shape that will be approximately 400-feet x 80-feet x 40-feet x 2-feet deep in size, and will be connected beneath the road to Basin #1.

Protection of Endangered Species: According to the submitted information, the proposed activities have been the subject of appreciative study by the Massachusetts Division of Fisheries & Wildlife, Natural Heritage and Endangered Species Program ("NHESP"), in that portions of the Site have been designated as a protected habitat for the "eastern box turtle" which is a designated endangered species. According to these discussions and evaluations, NHESP issued a conditional approval of the proposed activities on December 22, 2011. Pursuant to these matters, the Application contains information that indicates that in an effort to comply with the NHESP requirements and their conditional approval of December 22, 2011, an area of the Site, approximately 7.41-acres in size has been set-aside and designated as a "conservation-restriction" area. This "conservation-restriction" area is located along the eastern and northern perimeter of the Landfill/Site and encroaches "into" the Site to an average approximate distance that ranges between 100-120 feet. Accordingly, this area of the Site will not be utilized for any post-closure use activity. Additionally, and according to discussions with project proponents, the above-described site-security perimeter fence will be constructed/installed in such a fashion so as to provide an adequate means of access/egress for any migrating turtles. In other words, the actual chain-link component of the fence will be elevated above the ground surface in order to provide sufficient space for the turtle to move about at the site. The Application includes copies of an Eastern Box Turtle Protection Plan, Eastern Box Turtle Protection Guide, an Operations and Maintenance Plan related to the protection plan, and a Long Term Habitat Management Plan submitted to NHESP.

Post-Closure Operations, Maintenance and Environmental Monitoring and: There are no proposed changes to the Landfill's currently approved "post-closure" environmental monitoring and maintenance plan. The Landfill will continue to perform semi-annual (i.e.2x/yr) environmental monitoring pursuant to the requirements contained at 310 CMR 19.132 and its "closure certification approval dated February 1, 2006. The Applicants shall continue to perform routine maintenance (e.g. grass-mowing) and repairs (e.g. erosion, "bald" spot reseeding, etc.) at the Landfill/Site on an "as-needed" basis.

In addition, pursuant to the above-described endangered species protection matter, the described required mowing of the Landfill/Site shall be performed in accordance with whatever requirements that may be required by NHESP, and in particular and at a minimum, said mowing shall be performed at specified times of the year that would not "endanger" the named endangered species.

Site Security: Although the site is currently equipped with partial means of site security (i.e. partial fencing and gating), these security systems will need to be enhanced as a matter of protecting and securing the proposed PV solar array and its associated equipment. Accordingly, a new chain-link fence (e.g. 6' high) and locking gating system will be installed around the entire perimeter of the Site. In addition, this fence shall be of a design that complies with the standards and requirements that will be set forth through the NHESP compliance plan(s).

Decommissioning Plan: Should conditions arise or develop that the solar PV array system becomes no-functional, all solar equipment including all associated features and structures shall be removed from the Site, and all areas of the Site that have been disrupted from the described activities associated with the installation of the solar PV array and its appurtenant structures shall be completely restored to the same physical condition that existed prior to the installation of the solar PV array system.

Financial Assurance: Pursuant to the provisions of 310 CMR 19.051, the Applicants have established a Financial Assurance Mechanism ("FAM") in order that sufficient funds are available to properly decommission the described solar PV array system and all its appurtenant structures and features, and to properly restore the Landfill/Site to its original condition (prior to the implementation of the described post-closure use activity). The FAM for the Sylvester Ray, Inc. Landfill PV Array consists of the following: A Surety Bond issued by Travelers Casualty dated May 29, 2013, in the amount of $170,000.00, and a Standby Trust Agreement By and Between Washington Gas Energy Systems, Inc., the MassDEP and Wells Fargo Bank, as Trustee. Wells Fargo, as Trustee, holds the original Surety Bond and an original executed copy the STA. **Refer to Condition #16**.

IV. PERMIT DECISION:

MassDEP, having reviewed the submitted information and compiled Application, has determined the in total, the proposed post-closure use activity satisfies and complies with the applicable regulatory requirements contained at 310 CMR 19.000, and in accordance with its authority granted pursuant to M.G.L. c.111, s. 150A, hereby **APPROVES** the Post-Closure Use of the closed/capped Sylvester Ray Construction & Demolition Debris Landfill. This approval is subject to the conditions identified herein.

V. GENERAL PERMIT CONDITIONS:

1. Permit Limitations: The issuance of this approval is limited to the proposed Solar Photovoltaic Array at the Landfill as detailed in the Application and does not relieve the Applicants from the responsibility to comply with all other regulatory or permitting requirements. The described Post-Closure Use activities 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 Landfill Owner and assigns, from their responsibility to comply with all applicable post closure monitoring and maintenance requirements for the entire Landfill/Site.

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

3. Permit Compliance: There shall be no deviation from this Approval without prior written approval from MassDEP. As the project progresses, should there be a need to supplement, modify or alter the described design of the solar PV array system or any of it associated structures, equipment and/or appurtenances (as described in the compiled Application or as described herein), or should there a need to submit a new/revised design, a new and separate "BWPSW11- Major Modification of a Landfill" permit application shall be submitted fully describing the proposed changes in the design of the proposed post-closure use activity(ies). Further, there shall be no implementation of any such changes unless MassDEP has granted written approval of said changes.

4. Settlement Areas: Inspection and Repair: 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 top-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 greater. When this occurs, the final cover system must be repaired to prevent water from ponding above the low permeability layer. The applicant may either:

   - 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

   - Expose the low permeability clay in a trench around the perimeter of the settled area. Build area with soil to form slopes promoting runoff. The area with a new low permeability membrane, geosnthetic clay liner ("GCL"), or low permeability soil

layer that ties into the existing low permeability layer at the identified perimeter. Place new vegetative top-soil material over the repaired area.

Any proposal to repair minor settlement may be done as routine maintenance, provided that the Applicants' reports the settlement to MassDEP and states the 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 (BWPSW25) permit application since disruption of the final cover system will take place and repaired details must be submitted and approved.

5. Construction/Installation Oversight: All construction work shall be performed under the supervision of a Massachusetts Registered Professional Engineer who shall have sufficient staff on-site in order to provide quality assurance/quality control (QA/QC) oversight for all construction activities at the Landfill/Site.

6. Certification Report: **Within six (6) months of completing the installation** of solar photovoltaic array system and all of its associated equipment and appurtenances and structures, MassDEP shall be provided with a certification report detailing that the project was implemented in compliance with all applicable MassDEP regulations, requirements and the terms and conditions of this Post-Closure Use permit application approval. At a minimum, the report shall include certified "as-built" drawings clearly depicting all pertinent site features, installed equipment, and constructed features, and shall include a certifying statement from the supervising engineer complete with their seal and signature.

7. 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.

8. Health and Safety: The Applicants and their engineers, contractors, and assigns shall be 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 maintained at the site at all times. The health and safety plan shall include as a minimum:

    - protocols for monitoring of landfill gas (i.e. methane, hydrogen sulfide, etc.) as needed; and

    - protocols for modifying work practices if landfill gas is detected at levels deemed unsuitable.

9. Vehicles Operating on the Landfill Final Cover System: Vehicles operating on the surface of the Landfill and its underlying 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 pounds per square inch ("psi") or less) in accordance with the remaining conditions of this permit. Low-pressure construction equipment operating off the access road shall limit "turning" on the vegetative support layer as much as possible. If MassDEP determines the use of excavation equipment is creating the potential for damage to the underlying capping system, the use 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 all low ground pressure equipment that was used and their respective pressure rating(s) of each vehicle shall be indicated in the certification report.

10. 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 shall appropriately design and construct temporary ramps as deemed necessary.

11. Construction Precautions: All necessary precautions shall be taken to protect the Landfill's existing capping system, environmental monitoring network and 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' supervising engineer shall notify MassDEP **within twenty-four hours** and shall provide a written plan and schedule for repairs.

12. Integrity of the Final Cover System: All disturbances of the Landfill shall be limited to the proposed excavations and installations of the described equipment as depicted and described within the Application and submitted plans. Excavations shall be limited to the vegetative top-soil "down" to the top of the clay-capping layer. Caution shall be exercised in order that the clay-capping layer is not disturbed or penetrated as a result of: top-soil excavation, survey staking, concrete-form staking/installation. Additionally, and as indicated above, vehicles and activities operating on the Landfill surface shall not compromise the integrity of the Landfill's existing final cover system.

13. Personnel Training: The Applicants, their engineers, contractors, and assigns 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.

14. Landfill Gas Notification Requirements:

    a. As specified in solid waste management regulations at 310 CMR 19.132 (4) (g), and given the potential impact the electrical generating equipment could have in the presence of landfill gas, MassDEP hereby advises and cautions, the Applicants and all of their applicable engineers, contractors, etc affiliated with this project:

        "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 Applicants 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 their engineers, contractors, or assigns, shall notify MassDEP's Bureau of Waste Site Cleanup-Emergency Response Section (508) 946-2700 **within two hours** of the exceedance as per 310 CMR 40.0321(1) (a) of the regulations.

15. Post-closure Use Operation, Maintenance, and Inspections 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 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 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 or their engineers, contractors or assigns 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. Financial Assurance: Pursuant to the provisions of 310 CMR 19.051, the Applicants shall maintain a Financial Assurance Mechanism ("FAM") in order that sufficient funds are available to properly decommission the described solar PV array system and all its appurtenant structures and features, and to properly restore the Landfill/Site to its original condition (prior to the implementation of the described post-closure use activity).

17. Entries and Inspections: Pursuant to the provisions of *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.

LIMITATIONS

This approval pertains only to the Solid Waste Management aspects of the proposal does not negate the responsibility of the Applicants 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.

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.

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 Application Transmittal Number (X257485) 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

Philip Weinberg, Regional Director
Department of Environmental Protection
20 Riverside Drive
Lakeville, MA 02347

No allegation shall be made in any judicial appeal of a 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.

All correspondence regarding this matter should reference Transmittal Number X257485.

Should there be any questions, please contact MassDEP at the letterhead address or telephone me at (508) 946-2847 or Robert Johnson at (508) 946-2832.

Very truly yours,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Mark Dakers, Chief
Solid Waste Management Section

D/DC/rr
P:\M-N\marshfield\sylvester\Sylvester Ray PCU solar approval .doc

cc: Massachusetts Division of Fisheries & Wildlife
Natural Heritage and Endangered Species Program
North Drive
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