Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
Western Regional Office • 436 Dwight Street, Springfield MA 01103 • 413-784-1100

DEVAL L. PATRICK
Governor

MAEVE VALLELY BARTLETT
Secretary

DAVID W. CASH
Commissioner

Twiss Street Solar LLC
88 Black Falcon Ave., Center Lobby, Suite 342
Boston, MA 02210
Attention: Emma Kosciak, Manager

July 3, 2014

RE: Westfield-DSWM-14-329-001
Twiss Street Landfill
Post Closure Use – Solar Power
**Permit Approval**
BWPSW36
Transmittal #X259635

Dear Ms. Kosciak:

The Massachusetts Department of Environmental Protection (the MassDEP) is issuing this permit approval to Twiss Street Solar LLC (Twiss Street Solar) for the post closure use of the City's capped landfill (the landfill) located off Twiss Street in Westfield, MA, as a solar power farm (Solar Farm). On April 8, 2014 the MassDEP received from Twiss Street Solar the BWPSW36 Major Post Closure Use permit application, under transmittal #X259635 (the application). The application was completed on behalf of Twiss Street Solar by Tighe & Bond, Inc. (T&B), of Westfield, MA, in accordance with the MassDEP Solid Waste Regulations at 310 CMR 19.000. Twiss Street Solar is wholly-owned by Citizens Enterprises Corporation (Citizens), which is wholly-owned by Citizens Energy, 88 Black Falcon Ave., Boston, MA. The application form was signed by Emma Kosciak, Manager of Solar Development for Twiss Street Solar, and was also signed and stamped by Brian S. Huntley, Massachusetts-registered Professional Engineer (P.E.) #46273, of T&B.

The application consists of the completed transmittal form, application form, text describing the proposed use, engineering calculations, and seven engineering drawings. The Civil Engineering calculations of the application were signed and stamped by either James A. Clancy, Massachusetts-registered P.E. #46775 or Brian S. Huntley, Massachusetts-registered P.E. #46273. The Civil Engineering drawings of the application were signed and stamped by Brian S. Huntley or Francis J. Hoey III, Massachusetts-registered P.E. #40111. The Electrical Engineering One-Line Diagram of the application was signed and stamped by John P. Turner, Massachusetts-registered P.E. #37508.

The application includes a copy of a letter dated April 2, 2014, signed by Mayor Daniel M. Knapik of the City of Westfield, stating that the City supports the application by Twiss Street Solar for construction of the Solar Farm on the landfill.

Summary of Proposal

The City completed Final Closure (capping) of the landfill in 1997/1998 in accordance with engineering plans approved by MassDEP. The landfill cap consists of (from bottom to top) 6 inches of sand gas vent layer, a 40-mil high-density polyethylene (HDPE) impermeable geomembrane, 12 inches of sand drainage layer, and 12 inches of vegetative support material (topsoil). Smooth HDPE was used beneath the entire, upper portion of the cap where the Solar Farm will be located, while textured HDPE was used on the surrounding sloped area. The landfill cap covers the entire 40-acre municipal solid waste (MSW) landfill mound, and the former lagoon waste disposal area and ash disposal area located immediately east of the MSW landfill mound. An active landfill gas collection system collects landfill gas from vertical extraction wells within the landfill and conveys the landfill gas via header pipes buried beneath the HDPE geomembrane. Collected landfill gas is conveyed to a landfill gas to energy facility and a utility flare located just east of the landfill.

A six-foot tall, chain-link fence is present along the entire northern perimeter of the landfill, and a fence and locking gate is present at the eastern property perimeter at the Twiss Street landfill entrance. T&B states that the wetlands and floodplains of Powdermill Brook which abut the southern and western perimeters of the landfill also restrict public access to the landfill (and Solar Farm). The City performs the required post-closure maintenance and monitoring at the landfill in accordance with MassDEP's June 19, 1998 Closure Certification approval, including semi-annual monitoring of groundwater and surface water, and quarterly landfill gas (LFG) monitoring, during the 30-year post-closure maintenance and monitoring period.

The application proposes the construction and maintenance of a 2.3 megawatt (MW) photovoltaic solar farm on approximately 8.5 acres in the central and eastern portion of the capped MSW landfill mound, as follows:

- The solar array will be placed on the upper, flatter portion of the landfill, above the existing earthen stormwater diversion berms, on slopes not exceeding 6 degrees (10% slope);
- The existing access road along the northeast slope of the landfill is proposed to be improved by the addition of a woven geotextile and 6 inches of dense-graded crushed stone;
- Approximately 1,100 linear feet of new access road will be constructed on the landfill, extending from the existing access road, along the top of the landfill, by the addition of a woven geotextile on the vegetative support layer, 18 inches of processed gravel or clean, crushed asphalt, brick and concrete (ABC), and 6 inches of dense-graded crushed stone or crushed ABC. The processed gravel/crushed ABC/dense-graded stone will be compacted to a minimum of 92% of maximum dry density by the Modified Proctor Method;
- A total of approximately 2,024 concrete foundation footings (ballasts)will be cast in-place on the vegetative support layer of the cap;
- Approximately 2,024 photovoltaic panel racks will be installed on the foundation ballasts;
- Approximately 7,560 Yingli YL300 P-35b Solar Panels will be installed on the panel racks;
- Two concrete pads will be installed within the perimeter of the landfill cap, along the new

access road, which will hold electrical equipment. T&B states that the electrical equipment will not create nuisance sound conditions for abutting properties;

- The photovoltaic panel racks will be connected to the electrical equipment pad via above-ground electrical cables, strung on the panel racks and also on aluminum ladder-type racks between the panel racks; and
- The switchgear boxes of the electrical equipment pads will convey electrical power via electrical cables in ductbanks and above-ground conduits to an interconnection just off the eastern perimeter of the landfill cap with the existing overhead lines of the Westfield Gas & Electric utility grid.

All construction activities and long-term maintenance for the Solar Farm will be accessed via the existing access road at the eastern end of the landfill, west of the City DPW yard and transfer station off Twiss Street. The back portion of the City DPW yard will be used as a temporary, construction lay-down area during construction of the Solar Farm. Only low-ground pressure equipment, 7 pounds per square inch (PSI) or less, will operate on the landfill cap off the access road, and will be operated to minimize turning during operations and to minimize repeated travel over the same areas. If use of the equipment is determined to be detrimental to the cap vegetative support layer surface, a geotextile and a 6-inch layer of crushed stone will be placed on the vegetative support layer surface in problem areas for equipment use.

The concrete foundations (ballasts) for the photovoltaic racks will be cast in-place "Game Change" HDPE plastic tubs on the landfill cap, filled with concrete using low-ground pressure equipment (Bobcats) for concrete delivery, or concrete pumping trucks operating on the access road. Concrete delivery or pumper trucks will not operate on the landfill cap, off the access road. The ballasts will be 21 inches wide, 13 inches thick, and 81 inches long, and will be cast with two, upright, galvanized steel posts for the solar panel racks. T&B proposes to use either crushed stone or crushed, clean ABC material, as fill beneath each ballast, to provide a planar surface for the ballasts, with a maximum 5 degree finished slope beneath each ballast in the North-South direction. T&B proposes two alternative methods for placement of the crushed stone/ABC fill: placement of crushed stone/ABC fill only under each ballast; or, if muddy conditions cause rutting of the vegetative support material, placement of a geotextile fabric strip and crushed stone (not ABC) along the entire length of each panel rack line.

The photovoltaic racks will be bolted to the upright posts of the ballasts, and the solar panels will be attached to the racks in groups of four. The panels will be installed in East-West rows, with rows spaced approximately 7 feet apart, with the panels at a 25 degree angle from horizontal, facing South. The lower edge of the panels will be either 2 feet or 3 feet above ground surface, and the upper edge of the panels will be either 5 feet or 6 feet above the ground surface. The electrical transmission wiring from the racks to the electrical equipment pad will be run on aluminum-ladder type cable trays on the landfill surface. All photovoltaic rack assemblies and above-ground wiring will be kept at least 10 feet from any landfill gas extraction wells or vents.

The two electrical equipment pads will be constructed adjacent to the new access road, by placement of 16 inches of processed gravel on the vegetative support layer, and pouring of the concrete pads from the access road. The concrete pads will be 12 inches thick in the center, 18 inches thick on the exterior, 26 feet long, and 11.5 feet wide. Each equipment pad will contain

2 inverters, 2 transformers, combiner boxes, and a switchgear box, where electrical power from the solar panels will be initially conveyed within a concrete ductbank, to be installed beneath the new access road to the approximate center of the Solar Farm, then via an above-ground utility conduit through the Solar Farm, again in a ductbank under the existing access road, then again via above-ground conduit eastward off the landfill cap to the utility interconnection. T&B states that the construction details of the concrete ductbanks and above-ground conduits will be supplied by the contractor prior to installation.

The solar array will be grounded as required by electrical codes, including grounding to ballast blocks and the electrical equipment pad. No grounding wires or rods will extend down into the vegetative support layer of the cap.

T&B performed geotechnical analyses for the solar array as follows:

- Ballast blocks weigh 2100 pounds (lbs) each for the 2-foot ground clearance panels, and 2300 lbs each for the 3-foot ground clearance panels;

- All loadings (increased ground pressure) due to the ballast blocks, solar array, and equipment pads were compared to a guideline of a maximum additional 7 pounds per square inch (PSI) loading on the impermeable geomembrane (or top of sand drainage layer) of the landfill cap;

- Loadings from the ballasts, racks and panels, including weight loads, wind loads, and snow loads were calculated at the top of the sand drainage layer of the cap (wind loads were calculated at a maximum wind velocity of 100 MPH). T&B's calculations showed that total ground pressures from the solar arrays at the ballast blocks ranged from 2.4 to 2.9 PSI, below the guideline of 7 PSI.

- Loadings from the equipment pads were calculated to be 4.1 PSI, below the guideline of 7 PSI.

- Settlement of the ballast blocks was calculated to be in the range of 0.028 inches to 0.034 inches, and the strain on the geomembrane liner for this amount of settlement equates to approximately 0.01 %, significantly below the 5% maximum industry standard for strain on the geomembrane liner.

- T&B calculated that there are adequate Factors of Safety (FOS) to document that there will not be: uplift of the ballasts due to wind; sliding of ballasts due to wind; sliding of ballasts due to slope (including snow-covered ground); or seismic stability issues with the rack system.

- T&B concluded that all analyses, for the solar panels, racks and foundations, showed minimal loading and settlement, no stresses or settlement which would damage the impermeable layer of the landfill cap, and adequate Factors of Safety.

T&B states that the installation and operation of the Solar Farm will not impact the landfill gas

collection system. T&B states that the Solar Farm may be fenced separately from the existing fence, however no fence details were provided.

T&B states that there will be no significant changes in stormwater runoff at the landfill due to the Solar Farm installation, as all stormwater will flow off the panels onto the existing vegetative support layer, then to the existing landfill stormwater control system. The existing stormwater control system was designed to handle 24-hour, 25-year storm events. The new access road will be installed along the ridgeline of the landfill, so it should not alter stormwater flows.

T&B states that the project will not impact jurisdictional wetland resource areas. The application included a figure showing current Massachusetts Endangered Species Act (MESA) mapping, which shows no endangered species habitats at the landfill or in the immediate vicinity. T&B states that the project does not exceed any Massachusetts Environmental Protection Act (MEPA) thresholds, and therefore, no MEPA review is required. The application states that a USEPA National Pollution Discharge Elimination System (NPDES) General Construction stormwater permit will be required, as the project is more than one acre in size. Twiss Street Solar will obtain a zoning permit, building permit and an electrical permit for the Solar Farm from the City as needed. T&B states that a Financial Assurance Mechanism (FAM) is not required for the Solar Farm, as there will be a lease between the City and Twiss Street Solar.

T&B states that the proposed construction and operation of the Solar Farm will not create any risks to human health and the environment.

There are no proposed changes to the existing, semi- annual monitoring program for the landfill. Twiss Street Solar will be responsible for all landfill maintenance issues within the Solar Farm area, including semi-annual mowing of grass, inspections, and repair of any erosion or other maintenance issues. The City will continue to be responsible for environmental monitoring at the landfill, and maintenance of the remainder of the landfill (outside the Solar Farm area), including semi-annual inspections and mowing.

Twiss Street Solar will sign a 20-year lease (with options to renew) with the City for the use of the landfill property, and will complete a Power Purchase Agreement (PPA) with the Westfield Gas & Electric Company. If at the end of the lease, the option to renew is not exercised, Twiss Street Solar will be responsible for decommissioning of the Solar Farm, which would consist of removal of all structures, including solar panels, racks, foundations and associated crushed stone, and electrical equipment, and restoration of the landfill cap to its original condition.

The application included a draft Emergency Response Plan for the Solar Farm installation and operation, in the case of an emergency situation.

## MassDEP Determinations

Personnel of MassDEP have reviewed the Post-Closure Use permit application for the Twiss Street Landfill in accordance with MGL c. 111 s. 150A, MGL c. 30A, 310 CMR 19.000, and MassDEP's publication Landfill Technical Guidance Manual (the LAC), revised in May, 1997. MassDEP has determined that the application is approved in accordance with MGL c. 111, s. 150A and MGL c.

30A, subject to the conditions outlined below.

1. Twiss Street Solar is the Permittee for the Solar Farm construction and operation.

2. A third-party, independent Massachusetts-registered professional engineer knowledgeable in landfill design and construction (the "Engineer") shall supervise the overall construction of the Solar Farm. The Engineer and/or a qualified QA/QC officer shall be present at the site at all times during: fence installation; ballast construction; installation of the electrical equipment pad; rack/panel construction; and when construction equipment (including small, off-road vehicles) is operating on the landfill. The Engineer or QA/QC officer does not need to be on-site when construction equipment has ceased operating on the landfill, i.e. for wiring and electrical work performed without construction equipment. The QA/QC officer shall work under the direct supervision of the Engineer.

3. The Engineer's duties shall include, but not be limited to: oversee installation and construction of the components of the Solar Farm as outlined above; oversee quality assurance/quality control (QA/QC) testing and verify all data generated through the testing program; document all construction and QA/QC activities; and submit monthly construction progress reports to the MassDEP, which shall summarize the work performed during the month.

4. The Engineer's monthly construction report shall include at a minimum the following:

   (A) Any deviation from compliance with requirements approved or set forth in this Permit;
   (B) Any actions taken to correct such deviations, as required by MassDEP or recommended by the Engineer;
   (C) Schedules to correct identified problems;
   (D) Review of quality assurance/quality control (QA/QC) testing data generated, and documentation for construction and QA/QC activities;
   (E) The inspection report shall be signed and dated by the Engineer certifying that to the best of his/her knowledge all information is accurate and complete; and
   (F) The Engineer shall submit one copy of the monthly report to the MassDEP no later than seven (7) days following the end of the previous month.

5. Upon completion of the Solar Farm installation, the Engineer shall submit to MassDEP a completion report, signed and sealed by a Massachusetts-registered P.E., certifying that the work was completed in accordance with the application and the conditions of this permit.

6. Twiss Street Solar and the Engineer shall be considered operators with respect to the construction of the Solar Farm and compliance with plans and specifications. Twiss Street Solar shall also be considered an operator during the operational life and decommissioning of the Solar Farm. As such, the MassDEP may take enforcement action against Twiss Street Solar or the Engineer, consistent with its authority under applicable Massachusetts law and regulation, for any failure to construct the Solar Farm in accordance with approved plans and specifications of which Twiss Street Solar or the

Engineer were, or should have been, aware.

7. The Permittee and their contractor(s) are responsible to ensure that 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 Farm. A copy of the site-specific Health & Safety Plan for the construction and maintenance of the Solar Farm shall be submitted to the MassDEP prior to the beginning of any construction work, which shall include protocols for monitoring of landfill gas as needed, and protocols for modifying work practices if landfill gas is detected at levels deemed unsuitable.

8. All disturbance of the landfill cap shall be limited to the proposed installations on top of the vegetative support layer of the cap, i.e. - no excavations or other penetrations shall be performed into the vegetative support layer or sand drainage layer of the cap without separate written approval from the MassDEP. All concrete footings (ballasts) on the cap shall be placed on top of the vegetative support layer of the cap, unless otherwise approved by the MassDEP. There shall be no penetrations (utility, conduit or other) at the base of any rack ballasts. <u>There shall be no penetrations of any kind of the impermeable layer of the cap.</u>

9. The existing access road along the northeast slope of the landfill shall be improved to be identical to the new access road specifications, i.e. a non-woven geotextile, with at least 24 inches of processed gravel, clean crushed ABC, and/or dense-graded stone above. If sufficient test-pits/borings are completed in the road to document the thickness of the existing gravel surface, that gravel thickness may be included in the minimum, overall 24-inch thickness requirement. The access road, and construction entrance, shall extend to the eastern perimeter of the landfill cap, i.e. shall not end within the landfill cap perimeter.

10. The Permittee and their contractor(s) are responsible to ensure that the inverter and transformer boxes of the electrical equipment pad will not accumulate landfill gas within the boxes during the construction and operation of the solar farm. Any landfill gas levels exceeding 10% of the Lower Explosive Limit (% LEL) within any electrical equipment box shall trigger the requirements of 310 CMR 19.132(4)(g), for notification and action. A 6-foot tall chain-link fence with locking gate shall be installed surrounding each electrical equipment pad, and shall be equipped, at a minimum, with solid, plastic slats within the matrix of the chain-link fence. If MassDEP receives nuisance noise complaints or is concerned that noise conditions created by the electrical equipment are not in compliance with MassDEP's Noise Policy #90-001 (i.e. greater than 10 dB above background at the property line and the nearest residence) MassDEP reserves the right to require noise studies and/or the installation of additional noise mitigation measures.

11. Prior to the start of construction, Twiss Street Solar shall submit to MassDEP the following information for MassDEP review and approval:

    A. A specification, including gradation, for crushed ABC material proposed to be used in the existing and new access road;
    B. Construction details of the electrical power lines entering and exiting the electrical

equipment pad, and documentation that these lines will not penetrate greater than 6 inches into the vegetative support layer;

C. Construction details of the concrete ductbanks for the electrical power lines and documentation that the ductbanks will not fail under vehicular loads of the access road or damage the geomembrane layer of the cap;

D. Construction details of the above-ground conduits for carrying electrical power from the Solar Farm and documentation that these conduits meet local and state electrical codes;

E. Documentation that the installation and operation of the Solar Farm will not harm the landfill gas collection system, i.e. a plan showing the location of all landfill gas piping in the Solar Farm area, documentation that all landfill gas system piping has sufficient soil cover such that loadings from the Solar Array and vehicular loading (on and off the access road) will not damage the piping, and procedures for the removal of solar panels, racks and ballasts as needed to repair any broken, damaged or non-functional components of the landfill gas collection system, including extraction wells, valves, and piping;

F. Geotechnical calculations showing that there is an adequate Factor of Safety against sliding block failure at the smooth HDPE/sand drainage interface for the maximum loading and slope beneath the solar array;

G. Settlement calculations for the equipment pads;

H. Documentation that vehicular loading on the steepest portion of the access road at the eastern entrance will not damage the geomembrane layer of the cap;

I. A technical proposal, if installation of an additional fence is proposed to be installed immediately surrounding the Solar Farm; such proposal would need to specify a ballasted fence system if located anywhere on the landfill cap;

J. A written protocol for landfill gas monitoring during maintenance of the inverters/transformers, and for regular calibration and maintenance of landfill gas monitors used by workers on the site;

K. A written protocol for the use of cranes and concrete pumpers on the cap, including the use of outriggers or stabilizers; and

L. Documentation that an Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) has been completed for the Solar Farm relative to the Barnes Air National Guard Base in Westfield per Federal Aviation Administration (FAA) guidelines, and that the completed OE/AAA shows that the Solar Farm will meet the FAA guidelines.

12. All necessary precautions shall be taken to ensure that the proposed construction and maintenance work associated with the Solar Farm shall not in any way damage the impermeable layer of the landfill cap, landfill stormwater control swales and structures, landfill monitoring wells, landfill gas extraction wells, or landfill gas collection piping. If any damage occurs to any of the above-listed landfill components due to the installation or maintenance of the Solar Farm, Twiss Street Solar shall notify MassDEP immediately (within 2 hours maximum for landfill gas components, or within 24 hours maximum for all others). Twiss Street Solar shall submit a written plan for repair of the components to MassDEP within 48 hours (or on a shorter timeframe for landfill gas components, as directed by MassDEP), and any repair work shall be completed by Twiss Street Solar on

the schedule determined by MassDEP. Twiss Street Solar is responsible for the repair of any damage to the landfill cap or landfill cap components which may be caused by the installation or maintenance of the Solar Farm.

13. Prior to the commencement of construction activities, all landfill gas extraction wells, landfill gas system components, landfill gas monitoring wells, groundwater monitoring wells, and other existing, above-ground structures of the landfill cap and appurtenances shall be flagged for visibility, and protective barriers shall be placed around such structures to prevent damage by vehicles and equipment accessing the cap area. Any landfill cap and landfill gas system components which are found to be damaged shall be repaired prior to the completion of the Solar Farm installation.

14. **Only low ground pressure construction equipment (with ground pressures of 7 PSI or less) may operate on the landfill cap off of the access road, and only in accordance with the conditions of this permit**. Prior to use of any specific equipment off the access road on the cap, the Engineer shall submit documentation to MassDEP that the equipment, fully loaded, will have a ground pressure of less than 7 PSI.

15. The Site Contractor shall be clearly instructed by the Engineer and Twiss Street Solar of the requirements of this permit prior to the start of construction, to avoid damage to the landfill cap components. Low ground -pressure construction equipment shall limit turning by tracks on the vegetative support layer as much as possible. In no case shall rutting or other disturbance extend more than 6 inches down into the vegetative support layer. If MassDEP determines that the use of equipment is creating the potential for rutting greater than 6 inches in depth, or damage to the sand drainage layer or the impermeable layer, the usage of such equipment shall cease immediately upon notification by MassDEP, and alternative work practices for operation of equipment of the cap (i.e. placement of geotextile and crushed stone, as proposed) in the affected area(s) shall be instituted.

16. If Twiss Street Solar intends to use different ballasts, solar panels, panel racks, or ladder racks other than that detailed in the application, Twiss Street Solar shall submit to MassDEP, for review and approval, documentation that the alternative equipment does not increase calculated ground pressures or decrease calculated Factors of Safety for solar array stability.

17. Only clean, crushed asphalt, brick and concrete (ABC rubble), crushed to 3" diameter or less, which fully complies with the requirements at 310 CMR 16.03(2)(b)(5), may be substituted for processed gravel or dense graded stone in the access road, or for crushed stone beneath ballast blocks. Coated (painted or stained) ABC rubble, or ABC rubble containing any rebar, wire or other waste material shall **not** be used in the Solar Farm construction. Compaction of the crushed stone or clean ABC must not damage the geomembrane of the cap, and crushed stone or ABC shall not be compacted more than 6 inches into the vegetative support layer.

18. MassDEP specifically reserves the right to restrict or prohibit heavy vehicular loads from the access road on the landfill cap, either as a weight restriction or a usage restriction, should

inspections or other information reveal the potential for damage to the cap beneath the roads from heavy vehicle loads. Rutting shall not extend greater than 6 inches into the access road at any time during or following construction.

19. In accordance with 310 CMR 19.130(23) the City shall provide sufficient fencing and other barriers to prevent access to the facility except at designated points of entry and all points of entry shall be equipped with locking gates that are secured when the operator is not onsite.

20. Twiss Street Solar and their contractor(s) are responsible to ensure that the proposed work complies with all applicable local, state and federal electrical codes and permits, including the National Electrical Code (NEC), 2011 Edition, Article 690 –"Solar Photovoltaic (PV) Systems", and the requirements of Article 690 of the NEC for restriction of access.

21. Twiss Street Solar is responsible to ensure that the proposed work complies with all other applicable local, state and federal regulations, including applicable building and electrical permits from the City of Westfield. This permit does not in any way supersede applicable regulations or ordinances of the City of Westfield.

22. The Permittee is responsible to ensure that the use of the landfill entrance on Twiss Street by construction equipment during construction of the Solar Farm complies with applicable City regulations for traffic safety, and does not create traffic or safety hazards for the use of the City's Transfer Station.

23. Following completion of installation, inspections of the Solar Farm shall be performed on a quarterly basis by a qualified, third-party inspector, and quarterly inspection reports shall be submitted to MassDEP. After one year of quarterly inspections, Twiss Street Solar may petition MassDEP in writing to reduce the frequency of inspections. Environmental monitoring shall continue to be performed at the landfill by the City as outlined in the June 19, 1998 Closure Certification permit approval from MassDEP. The entire landfill shall continue to be maintained (inspected and mowed) semi-annually. Any erosion problems, settlement problems, or other issues observed on the landfill cap (inside or outside of the fenced Solar Farm) shall be reported to MassDEP and repaired immediately.

24. This post-closure use permit shall be valid for a period of 20 years from the date of this permit, provided that MassDEP may amend the term of the permit in accordance with an approved modification pursuant to 310 CMR 19.033. This permit is issued to Twiss Street Solar (the Permittee) for the Solar Farm construction and operation. If the Permittee intends to transfer this permit to any other entity for operation of the Solar Farm, the requirements at 310 CMR 19.044, Transfer of Permits, shall be satisfactorily completed. If the Permittee discontinues operation of the Solar Farm, the Permittee is responsible to perform decommissioning activities as outlined in the permit application, including removal of the solar array equipment and ballasts. A plan for such decommissioning shall be submitted to MassDEP for review and approval at least 90 days prior to the start of decommissioning. If the Permittee intends to operate the Solar Farm after the expiration of this permit, the Permittee is required to submit a request for a renewal of the permit at least 90 days prior to the expiration of the permit.

25. MassDEP and its agents and employees shall have the right to enter upon the landfill (including the Solar Farm) at all reasonable times, to inspect the landfill (including the Solar Farm) 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. This right of entry and inspection shall be in addition to MassDEP's access authorities and rights under applicable federal and states laws and regulations, as well as any permits or other agreements between the Permittee and MassDEP.

26. MassDEP reserves the right to require additional or increased monitoring or maintenance activities in the event that the post-closure use is or may be having a detrimental effect on the landfill cap or appurtenances. MassDEP reserves all rights to suspend, modify or rescind this permit, should the conditions of this permit not be met, should the Solar Farm create nuisance conditions or threats to public health, safety or the environment, or should MassDEP otherwise determine that continued post-closure use is negatively impacting the landfill cap or appurtenances.

Pursuant to 310 CMR 19.033(5), any person aggrieved by the issuance or denial of this permit decision, except as provided for under 310 CMR 19.033(4)(b), may file an appeal for judicial review of said decision in accordance with the provisions of M.G.L. c. 111, s. 150A and c. 30A not later than thirty [30] days following the receipt of the final permit. The standing of a person to file an appeal and the procedures for filing such appeal shall be governed by the provisions of M.G.L. c. 30 A. 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 30 day period.

Any aggrieved person intending to appeal the decision to the superior court shall provide notice to MassDEP of said intention to commence such action. Said Notice of Intention shall include the MassDEP File Number (14-329-001) and shall identify with particularity the issues and reason(s) why it is believed the approval decision was not proper. Such notice shall be provided to the Office of General Counsel of MassDEP and the Regional Director for the regional office which made the decision. The appropriate addresses to which to send such notices are:

General Counsel
Department of Environmental Protection
One Winter Street-Third floor
Boston, 02108

Regional Director
Department of Environmental Protection
436 Dwight Street - Fifth Floor
Springfield, MA 01103

No allegation shall be made in any judicial appeal of this decision unless the matter complained of was raised at the appropriate point in the administrative review procedures established in those

regulations, provided that 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 public health or environmental impact of the permitted activity. This approval pertains only to the Solid Waste Management aspects of the proposal and does not negate the responsibilities of the owners or operators to comply with any other local, state or federal laws and regulations now or in the future.

If you have any questions about this matter, please contact Larry Hanson or Jim Scheffler of this office at 413-755-2287, or 413-755-2127.

Sincerely,



Daniel Hall
Section Chief, Solid Waste Management

cc: Mayor Daniel M. Knapik
Westfield Health Dept.
Westfield Planning Dept.
Westfield Building Inspector
Westfield Gas & Electric Co.
Westfield Electrical Inspector
Barnes Air National Guard Base
Tighe & Bond, Inc. – Brian Huntley, P.E., Briony Angus