



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOLID AND HAZARDOUS WASTE MANAGEMENT PROGRAM
BUREAU OF LANDFILL & HAZARDOUS WASTE PERMITTING

P.O. BOX 414 401 E.STATE STREET

TRENTON, NEW JERSEY 08625-0414

TELEPHONE: 609-984-6985 TELECOPIER: 609-633-9839

<http://www.state.nj.us/dep/dshw>

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

AUG 05 2010

Mr. James Moran, Administrator
Stafford Township
260 East Bay Avenue
Manahawkin, NJ 08050-3329

Re: Modification to a Closure/Post-Closure Approval
STAFFORD TWP. LANDFILL
Stafford Twp., Ocean County
Facility ID No.: 132564
Permit No.: LCC100001

Dear Mr. Moran:

Enclosed please find a modified Closure and Post-Closure Plan Approval (Approval) for the Stafford Township Landfill. This Approval supersedes the Approval of January 7, 2008. This modification includes authorization for installation of a solar array on the landfill. The Approval has also been updated to account for completion of the original closure work and submittal of the existing as-built.

Conditions have been incorporated within this Approval that must be complied with in order for the Approval to remain valid. The Department will consider amendment or modification of the specific terms of this Approval if a written request is submitted by certified mail within twenty (20) calendar days of the date of this Approval. Said written request must clearly state the proposed amendment or modification and the factual basis for the request.

Note that in accordance with Condition 24 of the Approval, the Bureau of Solid Waste Compliance & Enforcement must be notified 72 hours prior to initiation of construction activities.

If you have any questions concerning this matter, please contact Mr. Rob E. Nitche of my staff at 609-633-1421, or by email at rob.nitche@dep.state.nj.us.

Sincerely,

Robert M. Confey, Chief
Bureau of Landfill & Hazardous Waste Permitting

Enclosure

LC10-8027

c: Rai Belonzi, Compliance and Enforcement Bureau Chief
Pat Ferraro, Compliance and Enforcement Supervisor
Mike Gerchman, Solid and Hazardous Waste Program

The Honorable John McMenamin, Mayor
Stafford Township
260 East Bay Avenue
Manahawkin, New Jersey 08050

Ernest Kuhlwein, Director, Ocean County Department of Solid Waste Management
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Ocean County Health Department
175 Sunset Avenue
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401 City Avenue
Bala Cynwyd, PA 19004



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Commissioner

SANITARY LANDFILL CLOSURE/POST-CLOSURE APPROVAL

Under the provisions of N.J.S.A. 13:1E-1 *et seq.*, known as the Solid Waste Management Act, this Solid Waste Closure and Post-Closure Care Plan Approval is hereby issued to:

STAFFORD TOWNSHIP

FACILITY TYPE:	Sanitary Landfill
FACILITY ID NO.:	132564
LOT & BLOCK NOS.:	Block No.-13, Lot No.-22.01 & 68 Block No.-25, Lot No.-39
MUNICIPALITY:	Stafford Township
COUNTY:	Ocean
CLOSURE YEAR:	2009
POST-CLOSURE PERIOD:	30 years, 2010-2039

This Approval is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection.

This Approval shall not prejudice any claim the State may have to riparian land, nor does it permit the registrant to fill or alter or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment areas or flood plains, or that are within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this state without prior acquisition of the necessary grants, permits or approvals from the Department of Environmental Protection.

October 26, 2006
Original Date of Issuance

June 7, 2007
Modification Date

January 2, 2008
Modification Date

AUG 05 2010
Modification Date


Robert M. Confer, Chief
Bureau of Landfill & Hazardous Waste Permitting

The original Closure and Post-Closure Care Plan Approval is based on the following documents that were submitted as the application documents:

1. Solid Waste Facility Permit Application Form signed Mr. Paul J. Shives, Township Administrator.
2. Report entitled "Landfill Closure Report for the Stafford Township Landfill" prepared by EMCON/OWT, Inc., NY including drawing sheets No. 1 to 14 dated January 2005.
3. Response dated August 3, 2005 to the "Notice of Technical Deficiencies" issued by the Department on May 13, 2005 attached with a report entitled "Revisions for Landfill Closure Report for the Stafford Township Landfill" including drawing sheets No. 1 to 14 revised in July 2005. Note that any portions of the engineering drawings (Sheets No. 1 to 14 revised July 2005) referencing the proposed composting facility are not included in this Closure and Post Closure Care Plan Approval.
4. "Test Pit Investigation" report dated September 9, 2005, prepared by EMCON/OWT, Inc., for the Old Stafford Township Landfill and the Stafford Township Landfill.

The June 7, 2007 Modification was also based on the following:

1. Solid Waste Facility Permit Application Form signed Mr. Paul J. Shives, Township Administrator.
2. Document entitled, "Request for Modification to Landfill Closure and Post-Closure Care Plan Approval dated March 19, 2007.
3. Document containing load analysis calculations signed by George H. Barstar, P.E., of Shaw Environmental, NJ License No. 33115, dated April 10, 2007.
4. Engineering Drawings entitled, "Closure of the Stafford Township Landfill" including drawing sheets No. 1 to 14 dated January 2005, revised on November 9, 2005, signed by Richard A. Peluso, P.E., NJ License No. 19780.

The January 2, 2008 is based on the following:

1. Letter dated November 26, 2007 from Edmond C. Speitel, P.E., from Speitel and Speitel, Inc. describing modifications.
2. Engineering Drawings entitled, "Closure of the Stafford Township Landfill" including sheets No. 1 and 6 through 27. The sheets were signed by George H. Barstar, P.E., NJ License No. 33115 on the following dates: sheet 1 on October 9, 2006; sheet 6, 8 and 15 on August 15, 2006; sheets 7 and 9-14 on July 24, 2006;

sheets 16, 17, 21-23 and 25-27 on October 16, 2006; sheets 18 and 19 signed on October 19, 2006; and sheet 25 on August 2, 2007.

3. Engineering Drawings entitled, "Soil Erosion and Sediment Control Sheets" sheets 1 through 26. The sheets were signed by Edmond C. Speitel, P.E., NJ License No. 27059 on the following dates: sheets 1 and 25 on May 22, 2007; sheets 2, 15, 16 and 21 on March 7, 2007, sheet 3 on January 15, 2007; sheets 4, 14, 17, 18 and 20 on March 19, 2007; sheets 5-7, 10 and 11 on April 25, 2007; sheets 8 and 12 on October 10, 2006; sheets 9, 13, 19, 22 and 23 on February 20, 2007; sheet 24 on September 25, 2007; and sheet 26 on July 3, 2007.

This modification to authorize installation of a solar array and to update the Approval for completed closure work is based on the following:

1. Solid Waste Facility Permit Application Form signed Mr. James Moran, Township Administrator.
2. Letter dated July 14, 2010 from Mark A. Swyka, P.E., from Cornerstone Engineering, PLLC describing proposed installation of solar arrays on the Stafford Landfill.
3. Engineering Drawings entitled, "Stafford Park Redevelopment Solar Field" including sheets No. 1 through 11. The sheets were signed by Edmond C. Speitel, P.E., NJ License No. 27059 on July 15, 2010.
4. A letter dated July 29, 2010 signed by Mark A. Swyka, P.E., showing the calculations for the design load for the concrete footers for the solar arrays proposed to be placed on the cap.
5. The as-built certification dated May 5, 2009 by David I. Calnan, P.E., New Jersey License No. 33120;
6. Drawings 1-5, entitled, Existing Conditions Plan Stafford Landfill, signed by Frank W. Blum, New Jersey License No. 37937, dated May 1, 2009;
7. The following Quality Control Documents:
 - a. Quality Control Submittal No. 1 dated January 18, 2007;
 - b. Quality Control Submittal No. 2 dated February 19, 2007;
 - c. Quality Control Submittal No. 3 dated May 17, 2007;
 - d. Quality Control Submittal No. 4 and 4A dated August 22, 2007;
 - e. Quality Control Submittal No. 4B (Geomembrane Liner Deployment) dated August 22, 2007;
 - f. Quality Control Submittal No. 5 dated January 30, 2009;
 - g. Quality Control Submittal No. 6 dated April 23, 2009.

In case of conflict, the provisions of N.J.A.C. 7:26-1 *et seq.* shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above.

Attachment

The conditions of this Approval are found in the attached document entitled "Stafford Township Landfill, 132564 LCC100001 SW Landfill (Class C) Closure - Closure Plan Minor Modification, Requirements Report".

STAFFORD TWP LANDFILL**132564 LCC100001 SW Landfill (Class C) Closure -Closure Plan Minor Modification
Requirements Report****Subject Item: PI 132564 -**

1. A passive methane gas venting system shall be installed and maintained as indicated on the closure plan. An Air Pollution Control Permit shall be obtained for the gas venting system pursuant to N.J.A.C. 7:27-8.2(a)16 and submitted to the Solid & Hazardous Waste Management Program. [N.J.A.C. 7:26-2A.7(f)]
2. A ground water monitoring system shall be maintained and the ground water shall be monitored in conformance with the New Jersey Pollutant Discharge Elimination System Permit issued pursuant to N.J.A.C. 7:14A-1 et seq. Monitoring results shall be reported to the Solid and Hazardous Waste Management Program as a condition of this Approval. [N.J.A.C. 7:26-2A.9(e)]
3. The owner shall monitor and maintain the landfill in accordance with the Post-Closure Care Plan through implementation of the following maintenance programs: (a) A program for the maintenance of final cover and final cover vegetation monitoring; (b) A program for the maintenance of side slopes; (c) A program for the maintenance of run-on and run-off control programs; (d) A program for the maintenance of groundwater monitoring wells; (e) A program for the maintenance of methane gas venting or evacuation system; (f) A program for the maintenance of the facility access control system; (g) A program for the maintenance of measures to conform the site to the surrounding areas. [N.J.A.C. 7:26-2A.9(e)]
4. Periodic inspections of the facility, as presented in the Closure and Post-Closure Care Plan, shall be conducted on a quarterly basis. Reports of the inspections shall be submitted to the Solid & Hazardous Waste Management Program as a condition of this Approval. [N.J.A.C. 7:26-2A.9(e)]
5. The following information shall be submitted on a quarterly basis (February, May, August and November of each calendar year) to the Solid & Hazardous Waste Management Program: methane monitoring results and facility inspection reports. Ground water monitoring results shall be submitted in accordance with the NJPDES permit. [N.J.A.C. 7:26-2A.9(e)]
6. The post-closure care period began in 2009 and shall extend for thirty (30) years. The Department may reduce the post-closure care period to less than thirty (30) years when it has been adequately demonstrated that the reduced period is sufficient to protect human health and the environment. Prior to the time that the post-closure care period is due to expire, the Department may extend the post-closure care period upon finding that such an extended period is necessary to protect human health and/or the environment. Any aggrieved person may petition the Department for an extension or reduction to the post-closure care period, based on good cause. [N.J.A.C. 7:26-2A.9(c)]
7. A copy of the approved Closure and Post-Closure Care Plan shall be filed with the municipal clerk after closure is complete. [N.J.A.C. 7:26-2A.9(d)]
8. A methane gas survey shall be performed around the perimeter of the landfill buffer zone on a quarterly basis. The survey shall be performed with a hand-held portable explosimeter or equivalent and the minimum sampling depth shall be three feet below the ground surface or above the water table, whichever is higher. The maximum interval between sampling points shall be 300 feet. Sampling shall be performed around the perimeter of all on-site structures. The maximum interval between sampling points for structures shall be 50 feet; however, there shall be at least one sampling point along each side of the structure. Survey results shall be submitted to the Solid & Hazardous Waste Management Program as a condition of this Approval. [N.J.A.C. 7:26-2A.8(h)9ii]

STAFFORD TWP LANDFILL**132564 LCC100001 SW Landfill (Class C) Closure -Closure Plan Minor Modification
Requirements Report****Subject Item: PI 132564 -**

9. A minimum of 6 inches of clean soil shall be placed over any exposed waste at the end of each workday or more frequently if odors or vectors are a problem. A minimum of 12 inches of clean soil shall be applied to all waste exposed for any period exceeding 24 hours and extending up to six months. Thereafter, final cover as described in this approval shall be applied and maintained over the waste material. [N.J.A.C. 7:26-2A.8(b)7]
10. An adequate water supply and adequate fire-fighting equipment shall be maintained at the facility or be readily available to extinguish any and all types of fires. The telephone numbers of local fire, police, ambulance and hospital facilities shall be known in advance. [N.J.A.C. 7:26-2A.8(j)]
11. Should the Department determine that methane gas is migrating off-site, a corrective action plan shall be developed by the owner/operator. Such action plan shall be submitted to the Department within 30 days of such determination and shall be implemented entirely immediately upon its approval by the Department. [N.J.A.C. 7:26-2A.9(e)3]
12. The contractor shall follow the Occupational Safety and Health Administration (OSHA) standards and the Health and Safety Plan submitted as part of the application during all on-site activities for the safety of employees and for others entering the site. A copy of the operating procedures shall be posted on-site. On-site air monitoring (OVA, HNU, etc.) shall be provided to ensure worker safety during all disruption activities. [N.J.A.C. 7:26-2A.9]
13. This modified Approval authorizes the installation of a solar array as described in the cited application documents and drawings. Construction/installation of the solar array shall be conducted in such a manner as to minimize impacts on the landfill closure systems including, but not limited to, the final cover system, the stormwater control system and the gas collection and venting system. Any damage due to construction activities must be repaired to approved design specifications in a timely manner. Within six (6) months of completion of construction of the solar array, the owner shall submit a report and as-built drawings signed and sealed by a New Jersey licensed Professional Engineer certifying that the construction was performed in accordance with the approved design. There shall be no deviation from the approved design without the prior approval of the Department. [N.J.A.C. 7:26-2A.9]
14. This authorization is not transferable. [N.J.A.C. 7:26-2A.8(j)]
15. The surface drainage system shall be implemented to hydraulically isolate the landfill from surface water drainage in a controlled manner. [N.J.A.C. 7:26-2A.9(e)2]
16. The main entrance to the landfill shall be fenced with a locked gate. The fencing shall be maintained to prevent unauthorized entry to the landfill. [N.J.A.C. 7:26-2A.8(b)]
17. The issuance of this Approval does not exempt the applicant from obtaining all other permits or approvals required by law or regulations. [N.J.A.C. 7:26-2A.8(h)]
18. The grades of the final slope shall be constructed in accordance with the following minimum standards: a. The top slope of the final grades shall be at a minimum 3 % to maximum 5 %. b. The side slopes of the final grades shall be no steeper than 3 horizontal to 1 vertical (3:1) distance and a minimum factor of safety of 1.5 shall be achieved throughout the landfill site. [N.J.A.C. 7:26-2A.7(i)5]

STAFFORD TWP LANDFILL**132564 LCC100001 SW Landfill (Class C) Closure -Closure Plan Minor Modification
Requirements Report**

Subject Item: PI 132564 -

19. The final cover shall completely isolate the landfilled solid waste from the surrounding environment.

The final cover for the landfill in the Compost Facility location, as depicted on engineering drawing No. 24, modified August 2, 2007, signed by George H. Barstar, P.E., New Jersey License No. 33115, shall comply with following standards in ascending order:

- a. 6-inch cap bedding layer/gas venting layer
- b. 40 mil LLDPE geomembrane with a permeability no greater than 1×10^{-7} cm/sec
- c. 12-inch drainage layer
- d. 18-fill/cover soil layer
- e. Geotextile layer; and
- f. 6-inch recycled concrete aggregate layer

The final cover for the remainder of the landfill shall comply with the following standards in ascending order:

- a. 6-inch cap bedding layer/gas venting layer
- b. 40 mil LLDPE geomembrane with a permeability no greater than 1×10^{-7} cm/sec
- c. 12-inch drainage layer
- d. 6-inch fill layer; and
- e. 6- inch top soil layer.

The final cover shall be graded in accordance with the approved Closure Plan. There shall not be any future use of the landfill that may result in the alteration of the final cover, subsequent to closure activities, without review and approval by the Department. [N.J.A.C. 7:26-2A.9(e)2ii]

20. The disruption of waste during any closure operations shall be conducted in accordance with N.J.A.C. 7:26-2A.8(j). [N.J.A.C. 7:26-2A.8(i)]
21. The disruption activities shall not cause any air contaminant to be emitted in violation of N.J.A.C. 7:27-5.2(a). Malodorous emissions shall be controlled by the use of daily cover. In the event that this is not satisfactory, a suitable deodorant shall be used. Malodorous solid waste shall be covered immediately after excavation, unloading or re-deposition with a minimum of six inches of cover material or approved alternative material. [N.J.A.C. 7:26-2A.8(i)4]
22. Written approval for any future disruption shall be obtained from the Department prior to any excavation, disruption, relocation or removal of any deposited material on the landfill. [N.J.A.C. 7:26-2A.8(I)]
23. Upon closure of the sanitary landfill, a detailed description of the landfill shall be recorded, along with the deed, with the appropriate recording office. The description shall include the general types, locations, and depths of wastes on the site, the depth and types of cover material, the dates the landfill was in use and all such other information as may be of interest to potential landowners, and shall remain in the record in perpetuity. A copy of the recorded deed description shall be submitted to this Program. The deed shall also provide notice that any future disruption of the closed landfill shall require prior approval from the Department in accordance with N.J.A.C. 7:26-2A.8(j). [N.J.A.C. 7:26-2A.9(c)]
24. The Bureau of Solid Waste Compliance and Enforcement shall be notified at (609) 292-6305 at least 72 hours prior to initiation of any construction activities. [N.J.A.C. 7:26-2A.9]

STAFFORD TWP LANDFILL**132564 LCC100001 SW Landfill (Class C) Closure -Closure Plan Minor Modification
Requirements Report****Subject Item: PI 132564 -**

25. An updated Financial Plan that addresses the newly associated costs of the Closure Plan Modification for installation of the solar array system must be submitted to the Bureau of Landfill and Hazardous Waste Permitting within sixty (60) days from the date of this approval. Thereafter, the owner shall review the cost estimate every two years and, if necessary, revise the Financial Plan. The updated Financial Plan shall be submitted on the second anniversary of the date the Financial Plan was last approved. [N.J.A.C. 7:26-2A.9(f)6]
26. Department inspectors shall have the right to enter and inspect the facility at any time. The right to inspect includes, but is not limited to: (a) Sampling materials on site; (b) Photographing any portion of the facility; (c) Investigating an actual or suspected source of pollution of the environment; (d) Ascertaining compliance or non-compliance with the statues, rules or regulations of the Department, including conditions or any permit or approval issued by the Department; (e) Reviewing and copying all applicable records, which shall be furnished upon request and made available at all reasonable times for inspection. [N.J.A.C. 7:26-2A.11(d)]
27. Failure to comply with any or all conditions of this Approval will result in the NJDEP seeking relief under the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. Specifically, each day of failure to so comply shall constitute a separate violation on the basis of which a penalty shall be assessed pursuant to N.J.S.A. 13:1E-9 and may subject the facility to regulation as a solid waste facility pursuant to N.J.S.A. 13:1E-1 et seq. and N.J.A.C. 7:26-1 et seq. [N.J.A.C. 7:26-2A.8(j)]
28. In case of conflict, the provisions of N.J.A.C. 7:26-1 et seq. shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above. [N.J.A.C. 7:26-2A.9(d)8]
29. In the event that chemical or hazardous waste materials are encountered during the disruption, operations shall cease immediately and the area shall be secured. The contractor shall notify the Department by calling the Environmental Action Hot Line at 1-877-WARN DEP and take all necessary precautions for the safe removal and disposal of the waste to an approved facility under the direction of the department. [N.J.A.C. 7:26-2A.8(b)4]
30. No work performed under this Approval shall be considered complete until New Jersey Professional Engineer's certification has been submitted to and accepted by the Solid & Hazardous Waste Management Program. In the event that said certification is not received or is not accepted, the work shall be considered incomplete. The certification shall bear the raised seal of the licensed professional engineer, his or her signature and the date of the certification. The certification shall include the following statement: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals under my supervision, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I understand that, in addition to criminal penalties, I may be liable for a civil administrative penalty pursuant to N.J.A.C. 7:26-5 and that submitting false information may be grounds for denial, revocation or termination of any solid waste facility permit for which I may be seeking approval or now hold. [N.J.A.C. 7:26-2A.9(d)10]