

TAB 10

**Proof of Zoning Approval and Federal, State
and Local Environmental Permits**
(Checklist Item #10)

**Cherry Island Landfill
Sanitary Landfill Permit Renewal**

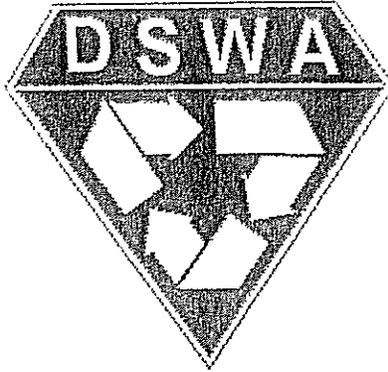
Section 4.2.1.7.5 of the Delaware Regulations Governing Solid Waste (DRGSW) requires proof that all applicable zoning approvals and all appropriate federal, state, and local environmental permits have been obtained. According to the regulations presented in Section 6406(a)(15) of the Delaware Environmental Protection Act, 7 Delaware Code, Chapter 64, the Delaware Solid Waste Authority (DSWA) is exempt from regulations governing zoning approval for solid waste facilities. Therefore, proof of zoning approval is not required for the Cherry Island Landfill.

The following permits are attached as proof that all appropriate federal, state and local environmental permits have been obtained for the Cherry Island Landfill:

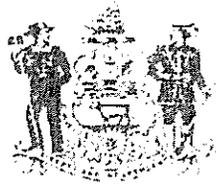
Permit	Permit Number
Sanitary Landfill Permit	SW-06/01
NPDES General Storm Water Permit	N/A
Wastewater Discharge Permit	W-88-02 (revision 8)
Title V Operating Permit	AQM-003/00111 – Renewal 2
Construction and Installation of LFG Collection And Removal System	APC-2012/0028 – Construction (NSPS)

SANITARY LANDFILL PERMIT

SW-06/01



**Cherry Island Landfill
Permit SW-06/01, File Code 02-B**



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
DIVISION OF WASTE AND HAZARDOUS SUBSTANCES
SOLID AND HAZARDOUS WASTE MANAGEMENT SECTION

88 KINGS HIGHWAY
DOVER, DELAWARE 19901

TELEPHONE: (302) 739-9403
FAX: (302) 739-5060

September 11, 2013

Ms Robin Roddy
Senior Facility Manager
Delaware Solid Waste Authority
1128 S. Bradford Street
P.O. Box 455
Dover, Delaware 19903-0455

Subject: Modification of the Cherry Island Landfill Permit
Reference: Solid Waste Facility Permit SW-06/01, File Code 02-B

Dear Ms Roddy:

I have attached a copy of permit SW-06/01 which we have modified in accordance with Secretary's Order 2013-WH-0034. If you have any questions concerning this letter or the permit, please contact Robert Hartman or me at 739-9403.

Sincerely,

A handwritten signature in black ink that reads "Nancy C. Marker".

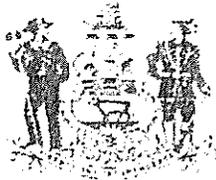
Nancy C. Marker
Environmental Program Administrator
Solid & Hazardous Waste Management Section

RH13620

Enclosure

cc: Mark Lyon, Environmental Compliance Specialist, SHWMS (electronic copy only)
Frank Gavas, Hydrologist, SHWMS (electronic copy only)
Ting Guo, Engineer, SHWMS (electronic copy only)
Daniel Fluman, DSWA (electronic copy only)

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STATE OF DELAWARE
 DEPARTMENT OF NATURAL RESOURCES
 AND ENVIRONMENTAL CONTROL
 DIVISION OF WASTE AND HAZARDOUS SUBSTANCES
 SOLID AND HAZARDOUS WASTE MANAGEMENT SECTION

89 KINGS HIGHWAY
 DOVER, DELAWARE 19901

TELEPHONE: (302) 739-9403
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Permit SW-06/01
 Permit Type: Sanitary Landfill

Effective Date: January 6, 2006
 Last Revised: September 11, 2013

Expiration Date: January 6, 2016

Permittee: Delaware Solid Waste Authority
 P.O. Box 455
 1128 S. Bradford Street
 Dover, Delaware 19901

Pursuant to 7 Del. C., Chapter 60, Section 6003 and the Delaware *Regulations Governing Solid Waste*, Delaware Solid Waste Authority (DSWA) is hereby granted approval to operate the Cherry Island Landfill (CIL) located at the Northern Solid Waste Management Center-2 (NSWMC-2), Cherry Island, Wilmington, Delaware, subject to the terms and conditions of this permit. All terms and conditions of this permit are enforceable by the Department of Natural Resources and Environmental Control (Department).

Scanned

 Robert Hartman
 Environmental Scientist IV
 Solid & Hazardous Waste Management Section
 (302) 739-9403

8/11/13

 Date

Scanned

 Nancy C. Miller
 Environmental Program Administrator
 Solid & Hazardous Waste Management Section
 (302) 739-9403

7/16/13

 Date

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I. GENERAL CONDITIONS:

- A. Pursuant to Sections 4.A and 5 of the Delaware *Regulations Governing Solid Waste* (DRGSW), the Department of Natural Resources and Environmental Control (Department) hereby issues Permit SW-06/01 to the Delaware Solid Waste Authority (DSWA), 1128 S. Bradford Street, Dover, DE 19901 for the continued operation of the Cherry Island Landfill (CIL) located at the Northern Solid Waste Management Center-2 (NSWMC-2), Cherry Island, Wilmington, Delaware. This permit incorporates the requirements of, and replaces permit SW-01/01.
- B. This permit applies to:
1. Operation and maintenance of NSWMC-2, including Phases I through Va.
 2. Environmental and geotechnical monitoring, recordkeeping, and reporting for the NSWMC-2.
 3. Disposal requirements for asbestos containing materials in Phase IA.
 4. Cherry Island Landfill Expansion Project to stabilize Phase III, IV and V using a mechanically stabilized earthen (MSE) berm.
 5. Solid waste management, including waste diversion and recycling.
- C. This permit was issued in accordance with the following documents:
1. Secretary's Order No. 2006-A-0002, issued by the Department on January 6, 2006.
 2. DSWA letter, *Major Modification Request for the Cherry Island Landfill...*, dated June 15, 2004 and supplemental information provided by the DSWA as follows:
 - a. *Responses to Comments to Permit Application Cherry Island Landfill Expansion Project, Wilmington, Delaware*, dated May 12, 2005.
 - b. *Responses (Addendum) to Comments to Permit Application Cherry Island Landfill Expansion Project, Wilmington, Delaware*, dated June 20, 2005.
 3. Other plans, letters, procedures, and policy specifically referenced in this permit.
 4. Secretary's Order No. 2004-A-0051, issued by the Department on October 21, 2004.
 5. *Permit Modification Application for Temporary Exposed Geomembrane Cover* dated May 2004 and revised November 10, 2004 in accordance with Secretary's Order No. 2004-A-0051.
- D. This permit is issued subject to the following general conditions:
1. Operations at NSWMC-2 shall be conducted in compliance with all federal, state, county, and municipal environmental statutes, ordinances, and regulations, including, but not limited to: Delaware *Regulations Governing Solid Waste*, Delaware *Regulations Governing Hazardous Waste*, Delaware *Regulations Governing the Control of Water Pollution*, Delaware *Surface Water Quality Standards*, and Delaware air quality regulations.

2. Access to NSWMC-2 site by unauthorized persons shall be prevented by barriers, fences, and gates, or other suitable means. Access for the purpose of disposal of solid waste shall be limited to those times when an attendant is on duty and to those persons authorized to use the site for the disposal of solid waste. The Department may, at any reasonable time, enter NSWMC-2 to verify compliance with the permit and DRGSW.
3. This Permit may be revoked upon violation of any condition of the permit or any requirement of DRGSW after notice and opportunity for hearing in accordance with 7 Del. C., Chapter 60.
4. A copy of the most current version of this permit shall be maintained in the scale houses and the on-site administrative office of NSWMC-2.
5. Permit SW-06/01 shall expire no later than January 6, 2016.
6. Solid Waste Management Plan responsibilities:
 - a. Outreach: Within 3 months of issuance of this permit, DSWA shall establish a Citizens Advisory Board (CAB) composed of residents who live near (preferably within 5 miles) the NSWMC-2.
 - (1) Members of the CAB shall be selected by (a) the Senator representing the district adjacent to NSWMC-2 (currently Senatorial District #2); (b) the Representative representing the district adjacent to the NSWMC-2 (currently Representative District #2); (c) Wilmington City Council; (d) Wilmington Mayor's Office; (e) New Castle County Executive; (f) New Castle County Council Chair; and (g) the Governor of Delaware.
 - (2) The Department and DSWA shall provide a regular "ex-officio" (i.e. non-voting) member.
 - (3) DSWA shall meet with this board at least quarterly, prepare meeting minutes and post the minutes on the DSWA web site, and present the issues discussed at these meetings to the DSWA Board of Directors for their consideration.
 - (4) Annually, the DSWA Chief Executive Officer or Chief Operating Officer shall present to the CAB an overview of the status of solid waste management in Delaware and the status of NSWMC-2 operations.
 - (5) The CAB will establish and abide by a charter for providing advice to DSWA and related state agencies and private sector companies on issues related to the operation of the NSWMC-2, minimizing impacts resulting from landfill operations and capacity, the role of NSWMC-2 in the overall state-wide Solid Waste Management Plan, and recycling and resource recovery options.

- b. Yard waste diversion: DSWA shall ban disposal of all yard waste from the NSWMC-2 effective no later than January 1, 2007. The NSWMC-2 yard waste ban shall be advertised in a manner to effectively educate the public and waste haulers, using technical support from academic extension and composting experts, regarding the ban's effective date and alternatives for yard waste management. To the extent no private sector alternatives for the sustainable management of the banned yard waste becomes available, DSWA will provide for a yard waste composting and mulching facility(ies) and operation(s) capable of managing diverted yard waste to that extent. If it is necessary for the DSWA to manage any yard waste generated as a result of the ban, the DSWA shall determine and implement a competitive tipping fee for the management of this material. The tipping fee shall be set at a rate to encourage recycling and discourage disposal, and not compete with private sector alternatives. "Yard waste" means plant material resulting from lawn maintenance and other horticultural gardening and landscaping activities and includes grass, leaves, prunings, brush, shrubs, garden materials, Christmas trees, and tree limbs up to 4 inches in diameter.
- c. Removal of household hazardous waste (HHW) from the waste stream: Beginning immediately, DSWA shall provide at least quarterly HHW collection events in New Castle County. The DSWA will coordinate these events to ensure they are done safely, in compliance with applicable regulatory requirements, and with a frequency and user-friendliness that maximizes the amount of HHW collected.
- d. Pine Tree Corners Transfer Station Waste: Within 6 months of issuance of this permit, wastes collected at the Pine Tree Corners Transfer Station (PTCTS) shall not be delivered to the NSWMC-2 for disposal, and DSWA shall not accept solid wastes from PTCTS for disposal at the NSWMC-2 after this date.
- e. DSWA shall provide funding to the Department for hiring and retaining an Environmental Compliance Specialist for inspecting operations at the NSWMC-2. The DSWA shall reimburse the Department for these costs within 30 days of the date of each itemized statement submitted by the Department.

II. OPERATIONS:

- A. Operations at NSWMC-2 shall be conducted in accordance with this permit and the *Cherry Island Landfill Plan of Operations*, dated January 2005 (the Operations Plan). Operations shall be conducted in a manner protective of human health and the environment.
- B. DSWA shall operate the NSWMC-2 in a manner that will protect the landfill liner system, the gas extraction system, the leachate collection and disposal system, the geotechnical installations, and the exposed temporary geomembrane cover. The DSWA shall take special precautions while placing the first lift of waste over areas lined with membrane liner to ensure that the liner is not damaged by operations or by waste placement.

- C. Staffing: Sufficient numbers and types of personnel, as specified in the Operations Plan, shall be available at the site to insure capability for operation in accordance with the DRGSW, the Operations Plan, and this permit.
- D. Equipment necessary to ensure the operations of the landfill in accordance with the Operations Plan and the requirements of DRGSW shall be maintained at the site by DSWA. All NSWMC-2 pump stations shall include one main pump and one back-up pump. DSWA shall rely on the capacity of the landfill collection system for the short-term power outages. For long-term power outages, DSWA shall use portable generators. Permitting of these generators shall be in accordance with the Delaware air quality regulations.
- E. Landfilling Plan:
 - 1. DSWA shall fill and grade the landfill in accordance with the *Permit Drawings For Landfill Expansion* dated April 2003 and revised May 2005, by GeoSyntec Consultants, Project MEO250, including drawing 78 of 89 (*Landfill Final Development and Grading Plan*, June 2004) which limits the maximum elevation of the landfill to no higher than 195 feet msl. DSWA shall incorporate the grading required for the installation of the temporary exposed geomembrane in accordance with the *Proposed Grading Plan (Phases III – V)*, File No. 0250F1211-2, Figure 2 of the *Permit Modification Application for Temporary Exposed Geomembrane Cover* dated May 2004, by GeoSyntec Consultants Project ME0250.
 - 2. Reserved.
 - 3. DSWA may allow the placement of dredge spoils by the U.S. Army Corps of Engineers over existing intermediate cover in expanded Wilmington North Spoils Basin on toe of slopes of Phase I, II, and V (reference DSWA letter dated August 19, 2003). The DSWA shall not allow placement of dredge spoils above elevation 67 feet msl in this area.
- F. Stormwater Management, Erosion and Sediment Control. DSWA shall provide for stormwater management, erosion and sediment control at the facility to include those controls cited in the Operations Plan (including Appendix E, *Stormwater/Surface Water Monitoring Plan...*) and the *Erosion and Sediment Control Plan for Cherry Island Landfill Expansion Project* (prepared by GeoSyntec Consultants and dated May 2005). DSWA shall implement the following minimum controls:
 - 1. DSWA shall take all necessary steps to identify and prevent the discharge of pollutants from the waste and cover into surface water, particularly the Delaware and Christina Rivers, and the DSWA shall initiate corrective actions to confirm, quantify and remediate such discharges. DSWA shall inspect for leachate seeps at least once each operating day and take all practical steps to prevent leachate from contaminating surface water. DSWA shall maintain records of the inspections and of their findings and actions taken to prevent leachate from contaminating surface water. If leachate is

found to be contaminating stormwater discharging from the lined area of the landfill, DSWA shall report this in accordance with Section IV.D.1 of this permit and shall initiate immediate corrective measures to stop the contamination and to manage the contaminated stormwater as landfill wastewater. Until DSWA has completed necessary corrective measures, they shall conduct daily visual inspections of impacted/potentially impacted surface waters. DSWA shall also initiate additional environmental sampling in accordance with Section III.A.4 of this permit.

2. DSWA shall maintain a surface water management system on the landfill to prevent erosion of the waste and cover, prevent the collection of standing water, prevent run-off from the waste and minimize run-on into the waste. Run-off from active landfill areas where waste is exposed shall be directed to the leachate collection system.
3. DSWA shall properly operate, manage, and maintain all devices, structures and ponds designed to monitor or manage stormwater.
4. The stormwater conveyance and discharge system (SCDS) shall be kept free of leachate (including condensate from the gas collection system), debris, waste, and sediment buildup. DSWA shall inspect the SCDS at a minimum frequency of once per month, and immediately after severe rainfall (e.g. rainfall capable of destroying SCDS components or causing significant erosion or sediment run-off). SCDS Inspection/Maintenance forms shall be completed for each inspection and included in the facility log. DSWA shall provide for the inspection of the SCDS as well as the correction of problems identified and inspections shall include:
 - a. Berms and swales shall be inspected for erosion, sedimentation and debris.
 - b. Silt fences shall be inspected for damage, accumulated debris and to ensure that fencing is firmly anchored.
 - c. Culverts and pipes shall be inspected for siltation, blockage and debris.
 - d. Control structures, including drop inlets 1A, 1B, 2, 3, 4, and 5, shall be inspected for siltation, debris, and damage. Note: Monthly SCDS inspections are required at drop inlets and at outlets from drop inlets once these structures begin to receive stormwater runoff from the landfill.
 - e. Outfalls from drop inlets 1A, 1B, 2, 3, 4, and 5. If stormwater is flowing at the time of the inspection, DSWA shall visually inspect that discharge for color, sheen, floating debris and sediment laden stormwater. DSWA shall record their observations from the visual inspection, describing any odor noted as well. Note: Monthly SCDS inspections are required at drop inlets and at outlets from drop inlets once these structures begin to receive stormwater runoff from the landfill.
 - f. Stormwater outfall SW6 (on the northwest corner of the site). If stormwater is flowing from this outfall, DSWA shall visually inspect that for color, sheen, floating debris and record any odor as well.
5. DSWA shall maintain automated stormwater monitoring systems designed to measure the flow of stormwater during precipitation events.

6. Additional stormwater management requirements and inspections for the temporary stormwater holding areas at the toe of the MSE berm within the landfill expansion area. DSWA shall monitor and operate these areas as part of the SCDS until waste placement and leachate generation commence in each area. While these stormwater holding areas are being used as part of the SCDS, DSWA shall take all practical steps to prevent sediment laden stormwater from discharging from these areas. If sediment-laden stormwater is observed reaching the Delaware or Christina Rivers from the outfalls from these areas, DSWA shall implement additional sediment controls such as increased settling times, additional filtration, or flocculants. Inspections in these areas shall include:
 - a. Toe drains (if visible) LP1, LP2, LP3, LP4, LP5, LP6, and LP-8 as well as any stormwater accumulated at the toe drain. If there is stormwater standing at the toe drain, DSWA shall visually inspect that for color, sheen, floating debris and record any odor.
 - b. Outfalls from toe drains LP1, LP2, LP3, LP4, LP5, LP6 and LP8. If stormwater is flowing at the time of the inspection, DSWA shall visually inspect that discharge for color, sheen, floating debris and signs of sediment laden stormwater. DSWA shall record any odor as well.
 - c. The pumping pit on the northeast corner of the landfill where stormwater will be accumulated temporarily. DSWA shall inspect any accumulated stormwater prior to pumping it from this area. DSWA shall visually inspect that accumulated stormwater for color, sheen, floating debris and record any odor. If there is any indication that the accumulated stormwater may be contaminated with landfill wastewater, DSWA shall conduct additional testing to determine if it is wastewater, and DSWA shall not release wastewater to surface waters.
 - d. While the stormwater holding areas are being used as part of the SCDS, DSWA shall inspect the temporary membrane in-place over protective cover soils along the inside of the MSE Berm to determine if the membrane continues to provide the intended coverage and that erosion of the protective cover soils is not occurring. DSWA shall maintain these temporary membranes for as long as they are needed to prevent the erosion of protective cover soils in order to preclude sediment laden stormwater from discharging to the Delaware or Christina Rivers.
7. If field instruments are used during SCDS monitoring or inspecting, DSWA shall ensure that these instruments are maintained, calibrated and utilized in accordance with manufacturer's instructions.

- G. Acceptable Wastes. NSWMC-2 is permitted to accept the following wastes for disposal at the facility in accordance with DRGSW.
1. Municipal solid waste defined as household waste and solid waste that is generated by commercial, institutional, and industrial sources and is similar to household waste.
 2. Non-hazardous industrial wastes or sludges, oil spill debris or other related wastes not included in the municipal solid waste stream which have been accepted in accordance with *the Delaware Solid Waste Authority Policy on Special Solid Wastes*, Revised 10/27/05.
 3. Only Phase IA is permitted to accept asbestos containing wastes for disposal. Asbestos containing wastes shall be managed in accordance with the "Asbestos Policy revised April 15, 2002, and in accordance with the *Delaware Regulations Governing the Control of Air Pollution*. Asbestos containing wastes from DSWA's Central Solid Waste Management Center (CSWMC) and Southern Solid Waste Management Center (SSWMC) are permitted to be disposed in Phase IA of NSWMC-2.
- H. Prohibited wastes: DSWA shall exercise reasonable care to ascertain whether waste accepted at the facility is prohibited waste, and shall not accept the following prohibited waste:
1. Regulated hazardous waste.
 2. Infectious waste (Regulated medical waste).
 3. Licensed radioactive material (as described in the Delaware Radiation Control Regulations), and any radioactive material considered source, special nuclear, or by-product material as defined by Atomic Energy Act of 1954.
 4. Liquid waste as restricted by 40 CFR Part 258.28
- I. Waste inspection of all incoming loads as well as random waste screening shall be in accordance with the *Delaware Solid Waste Authority Solid Waste Screening Program*, dated September 19, 1997 and the Operations Plan. All landfill personnel responsible for waste inspection, including weigh masters, heavy equipment operators, and inspector/spotters, shall comply with these procedures.
- J. Scavenging on the landfill is prohibited.
- K. Salvaging operations. Salvaging shall be conducted in accordance with the Operations Plan in a manner protective of human health and the environment and shall not interfere with the proper disposal of wastes at the facility. Conditions for salvaging operations include:
1. C&D Salvaging: Construction and demolition (C&D) debris consists of the materials generated during the construction, renovation, and demolition of buildings, roads and bridges. Acceptable C&D debris includes that portion of the C&D waste stream that is acceptable for the process where it is to be beneficially used.
 - a. The DSWA shall maintain adequate fire prevention measures for the C&D stockpile area.

- b. The DSWA shall take adequate measures to prevent the migration of wind-blown wastes from the C&D stockpile and shall remove litter and windblown trash from the salvaging area daily.
- c. Loads of acceptable C&D debris that are free from unacceptable materials may be diverted to the C&D stockpile. Prior to sending loads to the C&D stockpile, DSWA shall exercise reasonable care to ascertain whether the C&D materials are acceptable.
- d. The DSWA shall inspect all loads delivered to the C&D stockpile and shall reject or remove and properly dispose of unacceptable materials. Unacceptable materials, for the purpose of this permit, include: the contents of buildings, appliances, asbestos, liquids, garbage, municipal solid waste, batteries, mercury switches, lighting ballasts, loose paper, gas cylinders, mercury lamps, infectious waste, special waste, radioactive waste, explosives, and all hazardous waste. Unacceptable materials also include those materials specifically deemed by the processor or user as unacceptable.
- e. DSWA shall stage and manage the C&D stockpile as specified in the Operations Plan. DSWA shall manage the size of the C&D stockpile to limit the threat of fire, to enable adequate litter control, to limit visual impact to adjacent residences and to prevent stormwater runoff from the waste.

L. Daily Cover:

1. The DSWA shall place a six-inch layer of suitable material over all solid waste by the end of each working day. The material shall control odors, disease vector breeding, animal attraction, blowing litter, scavenging, and reduce the potential for fires. No solid waste shall remain exposed after the end of an operating day.
2. DSWA shall ensure that the daily cover layer which remains in place under waste shall not preclude leachate flow downwards towards the leachate collection system.
3. At least weekly, the DSWA shall inspect exposed daily covers that remain in place for more than two days and shall maintain daily covers as necessary to control odors, disease vector breeding, animal attraction, blowing litter, scavenging and fires. The DSWA shall implement adequate surface water management controls to prevent erosion of the cover and shall maintain cover soils to prevent wastes from being exposed.
4. Tarps may be used as alternate daily cover in accordance with the Operations Plan. DSWA shall ensure that adequate litter controls are used when the tarps are removed from wastes.
5. The DSWA may use alternate daily cover only if those covers perform as well as standard daily cover soil and are used and maintained in a manner that does not present an increased threat to human health or the environment. Additionally, DSWA shall store, use, and maintain alternate daily cover material in accordance with the Operations Plan and conditions specified in the written approval required from the

Department's Solid & Hazardous Waste Management Section. DSWA shall not use an alternative daily cover without the written approval of the Department, and the DSWA shall maintain written approvals of all alternative covers used at the landfill in accordance with condition V.C. of this permit.

M. Intermediate Cover:

1. DSWA shall apply intermediate cover to any area that receives daily cover and is not expected to receive either additional solid waste or a capping system within six months. Intermediate cover shall consist of at least 12 inches of compacted soil (total), or an appropriate alternative material approved by the Department for use as an intermediate cover. Intermediate cover shall control odors, disease vector breeding, animal attraction, blowing litter, scavenging and reduce the potential for fires. Intermediate cover shall prevent leachate from entering storm water management systems or surface waters.
2. DSWA shall ensure that intermediate cover layer which remains in place under waste shall not preclude leachate flow downwards towards the leachate collection system.
3. DSWA shall inspect intermediate covers weekly and shall maintain all intermediate cover as necessary to control odors, disease vector breeding, animal attraction, blowing litter, scavenging and fires. The DSWA shall implement adequate surface water management controls to prevent erosion of the cover and shall maintain cover soils to prevent wastes from being exposed.
4. Tarps:
 - a. DSWA may use tarps for alternative intermediate cover as long as they are properly anchored, comply with the requirements of DRGSW, and their use controls odors, disease vector breeding, animal attraction, blowing litter, scavenging, fires, and prevents leachate from entering storm water management systems or surface waters.
 - b. In the event that the use of tarps for intermediate cover results in a violation of the permit or DRGSW, the Department may require that DSWA terminate the use of tarps for intermediate cover. DSWA shall, within 30 days of such notification, install standard intermediate cover in those areas.
5. The DSWA may use alternate intermediate covers only if those covers perform as well as standard intermediate cover soil and are used and maintained in a manner that does not present an increased threat to human health or the environment. Additionally, DSWA shall store, use, and maintain alternate intermediate cover material in accordance with the Operations Plan and conditions specified in the written approval required from the Department's Solid & Hazardous Waste Management Section. DSWA shall not use an alternative intermediate cover without the written approval of the Department's Solid & Hazardous Waste Management Section, and the DSWA shall maintain written approvals of all alternative covers used at the landfill in accordance with condition V.C. of this permit.

- N. DSWA shall operate and maintain the gas extraction system, flares, and landfill gas processing and distribution project to control odors. Malodorous gaseous emissions from the landfill shall be controlled to the extent that there is no perceivable landfill odor beyond the property boundary. DSWA shall limit the concentration of landfill gas in facility structures and at the facility boundary in accordance with the requirements of section 5.5.1.3 of the DRGSW and shall report exceedances in accordance with Condition IV.D of this permit. DSWA shall maintain a permit for the operation of the extraction system and the landfill gas processing and distribution project in accordance with the Delaware air quality regulations.
- O. DSWA shall operate and maintain the leachate collection and disposal system, including the alarm system in accordance with this permit and the Operations Plan. DSWA shall clean-up all leachate spills immediately or within a time frame approved by the Department on a case-by-case basis.
- P. DSWA shall protect, maintain and properly utilize the geotechnical monitoring instruments at the facility.
- Q. Dust Control. DSWA shall operate the landfill in a manner to prevent dust emissions from causing a condition of air pollution (injurious to human, plant, or animal life or unreasonably interfering with the enjoyment of life and property).
1. DSWA shall provide for dust controls at the facility to include dust controls cited in the Operations Plan.
 2. DSWA shall operate the landfill to minimize soil/alternate cover material from being tracked onto public roads. DSWA shall inspect facility egress points at least daily to identify if materials are being tracked off-site and to gauge the extent of the problem (e.g. how far is mud/etc being tracked). In the event that soil/alternate cover material is tracked onto public roads, at a minimum, DSWA shall provide for street cleaning of that area on the day the problem is identified.
- R. DSWA shall provide for litter removal and general cleanliness of the entire site to include litter controls cited in the Operations Plan. DSWA shall implement the following minimum controls:
1. DSWA shall inspect for litter on the facility daily (each operating day) and ensure that litter is picked up quickly and properly disposed.
 2. DSWA shall collect any off-site litter attributable to landfill operations.
 3. DSWA shall inspect 12th Street (from Hay Road to Northeast Boulevard) and the on/off ramps to/from I-495 at 12th Street daily. DSWA shall remove litter along these roads as frequently as necessary to keep these areas clean. At minimum, DSWA shall remove litter daily (each operating day) from the I-495 on/off ramps, and from along 12th Street from Hay Road to the westernmost on/off ramps. At a minimum, DSWA shall remove litter at least two times per week along 12th Street, from the westernmost on/off ramps to Northeast Boulevard.

S. Health and Safety:

1. The DSWA shall operate in accordance with the Health and Safety Plan (Revision October 25, 2000) attached to the Operations Plan (Appendix J).
2. Employees at the site shall work under appropriate health and safety guidelines established by the Occupational Safety and Health Administration.
3. Use of personal protective equipment shall be in accordance with 29 CFR Part 1910.132 as a minimum.
4. First aid equipment shall be maintained and available in the scale house(s), in the administrative office and in the maintenance building.
5. Emergency telephone numbers of nearby ambulance, hospital, police and fire services shall be prominently displayed by at least one telephone in each of the following on-site locations: the scale houses and the administrative office.
6. Any confined space entry done by employees or contractors shall be done in accordance with 29 CFR Part 1910.146.

T. Contingency:

1. The DSWA shall provide for fire prevention and controls to include those measures cited in the Operations Plan.
2. The DSWA shall appoint and maintain at least one Emergency Coordinator and at least one alternate Emergency Coordinator at NSWMC-2. The Emergency Coordinator shall be responsible for directing all emergency response measures necessary to protect human health and the environment, and DSWA shall ensure that at least one Emergency Coordinator is available at all times.

U. Training: All personnel (except the secretary) assigned duties at NSWMC-2 shall receive, as a minimum, the training listed below. Unless otherwise specified by a nationally recognized training provider (for example, the American Red Cross as a training provider for First Aid), training shall be required initially and annually thereafter. Initial training for waste screening shall be completed within 60 days of hiring and all other initial training shall be completed within 180 days of hiring:

1. Operational and contingency procedures
2. Waste screening
3. Health and safety procedures
4. Fire prevention and protection
5. Emergency first aid
6. CPR training

V. Temporary Exposed Geomembrane Cover shall be installed and maintained in accordance with *Permit Modification Application for Temporary Exposed Geomembrane Cover* dated May 2004 and revised).

1. The DSWA shall install temporary geomembrane cover in Phases III, IV, and V as shown in the *Permit Modification Application for Temporary Exposed Geomembrane Cover* dated May 2004, Figure 3 (*Exposed Geomembrane Details*, File 0250F1217-2) and Figure 10 (*Exposed Geomembrane Installation Plan*, File 0250F1218-2). Sandbags or other anchoring devices shall be installed and maintained to prevent wind uplift from winds up to 78 mph (60 mph with no landfill gas vacuum applied) while not exceeding allowable strain on the geomembrane (as shown in Task 7 of the *Permit Modification Application for Temporary Exposed Geomembrane Cover* dated May 2004).
2. The temporary geomembrane cover shall be installed and maintained to minimize infiltration of precipitation, minimize soil erosion, and provide effective suppression of fugitive landfill gas emissions. The DSWA shall install the temporary geomembrane cover, landfill gas surface collectors, bird protection and replacement geotechnical instruments in accordance with the *Procedures for Temporary Exposed Geomembrane Cover Installation* described in Section 3.2 and *Implementation Sequence and Schedule* described in Section 3.3 of the *Permit Modification Application for Temporary Exposed Geomembrane Cover* dated May 2004.
3. DSWA shall install and repair the temporary geomembrane cover in accordance with manufacturer's recommendations.
4. DSWA shall inspect the temporary geomembrane cover monthly for mechanical damage, signs of distress, UV damage, and tears or punctures. Within 7 days of discovery, DSWA shall repair damaged geomembrane or replace missing geomembrane.

III. MONITORING:

A. Surface Water Monitoring:

1. The DSWA shall conduct surface water and stormwater monitoring in accordance with the *Monitoring Program for the Northern Solid Waste Management Center at Cherry Island*, Revision 1, dated October 10, 2012 (the CIL Environmental Monitoring Program).
2. Quarterly, during January, April, July, and October surface water elevations shall be obtained from the USGS gauge on the Delaware River, immediately south of the mouth of the Christina River.
3. Reserved.
4. In the event leachate is found to be contaminating surface water discharging from the lined area of the landfill, DSWA shall, as soon as practical, sample that surface water at the point of discharge from the landfill and downstream prior to outfall to the river.

DSWA shall analyze the samples for parameters specified for spills in Attachment B, Table 6 of the CIL Environmental Monitoring Program. DSWA shall also document their visual observations of the waters sampled.

B. Groundwater Monitoring:

1. The DSWA shall maintain and protect all monitoring wells in accordance with the Delaware *Regulations Governing the Construction and Use of Wells*.
2. Installation of new wells and abandonment of any monitoring well due to construction activities shall be performed in accordance with the Delaware *Regulations Governing the Construction and Use of Wells*.
3. Prior to the initial sampling event, DSWA shall determine the locations and elevations of new groundwater monitoring wells. The location of each well shall be tied into the Delaware State Coordinate Plane and the elevation of each well shall be tied into the National Geodetic Vertical Datum.

4. Groundwater Sampling:

- a. DSWA shall conduct groundwater monitoring, including the quarterly and annual sampling events, in accordance with the CIL Environmental Monitoring Program.
- b. Quarterly, during January, April, July, and October, the DSWA shall measure water elevations in the monitoring wells as specified in Attachment C, Table 1 of the CIL Environmental Monitoring Program. Equi-potential showing maps shall be prepared for each aquifer showing the location of each well, the contoured potentiometric surface and the directions of groundwater flow in each zone. These maps shall include an outline of the site boundaries and each active and closed landfill areas.
- c. Reserved.
- d. Reserved.
- e. All samples shall be collected in a manner that minimizes sample turbidity. All wells to be sampled shall be maintained as necessary so that they will produce low turbidity samples.
- f. Samples shall be collected, prepared, and analyzed in accordance with the CIL Environmental Monitoring Program.

C. Leachate Collection, Treatment, Disposal and Monitoring:

1. The DSWA shall monitor leachate in accordance with the CIL Environmental Monitoring Program.

2. DSWA shall monitor all leachate collection system flowmeters, pumps, controls, recording devices and wet-wells each operating day to ensure proper functioning and to record flows. DSWA shall inspect for leakage from valves, flowmeters, connections at riser locations, and wet-wells each operating day. The results of the monitoring and inspections shall be recorded in the facility log.
 3. Cleaning and Assessment of the system:
 - a. DSWA shall ensure that all accessible collection pipes are cleaned at least annually with a self-propelled, high pressure jetting system. DSWA shall be responsible for the identification, assessment, and reporting of all blockages encountered as well as identification of any areas found to be inaccessible during the annual cleanings. The Department may, at its discretion, waive the annual cleaning event for any particular year if, after demonstration by the DSWA, it determines that cleaning is not required.
 - b. At least once every four years, all accessible leachate collection pipes shall be inspected by camera to assess their condition. This shall include a written assessment of the condition of the leachate collection pipes to include an assessment of clogging of pipe perforations and the location, cause, and effect of blockages encountered. In the event that such an assessment supports the DSWA claim that less frequent cleanings are needed, the DSWA may initiate a request for a permit modification to reduce the cleaning frequency.
 4. Reserved.
 5. Reserved.
 6. DSWA shall maintain all necessary permits and approvals for leachate storage and disposal.
 7. The leachate collection system shall be capable of measuring the rate and quantity of leachate flow from the Main Pump Station and North-Central Pump Station on a daily basis, and shall be capable of sampling the leachate from these two pump stations.
 8. DSWA shall measure and record the quantity of leachate pumped to the City of Wilmington's wastewater treatment plant (WWTP) on a weekly basis.
 9. DSWA shall record the quantities of leachate being transferred from CSWMC and SSWMC to NSWMC-2 for disposal in the City of Wilmington's WWTP.
- D. Analytical Procedures: All leachate, groundwater and surface water analysis required by this permit shall be collected, prepared, shipped and analyzed in accordance with the most current legal edition of EPA Publication Number SW 846. If SW 846 does not contain a test method for a required parameter, DSWA shall follow the *Analytical Methodology* specified by the CIL Environmental Monitoring Plan.

E. Landfill Gas Monitoring:

1. The operation, maintenance, and monitoring of the gas extraction system and the landfill gas processing and distribution project shall be done in accordance with the current permit(s) issued pursuant to the Delaware air quality regulations.
2. Gas migration monitoring shall be performed at least quarterly and shall be done in accordance with Cherry Island Landfill, Landfill Gas Migration Monitoring Plan, dated June 13, 2012.

F. Geotechnical Monitoring:

1. DSWA shall conduct a geotechnical monitoring program under the direction of a Professional Engineer registered in the State of Delaware who specializes in geotechnical engineering.
2. DSWA shall carry out the geotechnical monitoring plan in accordance with *Geosyntec Consultants Geotechnical Monitoring Plan for Cherry Island Landfill*, last revised February 2012 (the GMP). DSWA shall monitor the structural integrity and stability of the landfill and MSE berm foundation in accordance with the GMP and shall take all necessary measures to identify and preclude unintended slope movement.

IV. REPORTING:

- A. Financial Assurance: No later than December 31st of each year, DSWA shall submit their financial statements for the most recently completed fiscal year along with an updated and reasonably accurate cost estimate of closure and post-closure care for NSWMC-2. Cost estimates shall be adjusted for inflation except for new cost estimates not previously made. DSWA shall provide a detailed listing of all projected costs used to estimate the closure and post-closure care costs for NSWMC-2. DSWA shall provide the document in one paper copy plus one copy by way of electronic media acceptable to both the DSWA and the Department. The electronic media copy shall be provided as a single electronic document such as a Portable Document Format (.pdf) file.
- B. No later than April 30th of each year, DSWA shall submit an Annual CIL Operations Report. The DSWA shall provide this report in one paper copy plus one copy by way of electronic media acceptable to both the DSWA and the Department. The electronic media copy shall be provided as a single electronic document such as a Portable Document Format (.pdf) file. The Annual CIL Operations Report shall include the following information:
 1. The weight and types of wastes landfilled.
 2. The weights and types of daily and intermediate landfill cover materials.
 3. A list of transporters that hauled waste to or from the facility. The list shall include only those transporters with at least one vehicle having a gross vehicle weight of over 26,000 pounds.

4. The weight (or volume) and types of materials salvaged.
5. The estimated remaining landfill capacity (volume and time), showing calculations used.
6. Any deviations from the Operations Plan.
7. All construction or corrective work conducted on the site in accordance with approved plans or to achieve compliance with DRGSW and this permit.
8. A discussion of landfilling activities during the past year relevant to operation of the leachate collection system, the gas collection system, the exposed geomembrane and including:
 - a. Modifications, if any, to the leachate collection, or gas collection systems.
 - b. Cleanings and inspections (with assessment) of the leachate collection system.
 - c. A drawing showing the location and extent of the surface collectors and exposed geomembrane.
 - d. A discussion of the general procedures used for repair of the exposed geomembrane, and identification and discussion of all significant repairs or replacements required during the year.
9. A discussion of the leachate collection system monitoring results, including whether the results indicate that the system is performing within design specifications.

C. Additional Reports:

1. Quarterly Environmental Monitoring Report package. DSWA shall submit the results of the quarterly groundwater monitoring within 60 days of the sampling event. The Quarterly Environmental Monitoring Report package shall be provided on electronic media in a format acceptable to both the DSWA and the Department and shall include:
 - a. A single electronic file such as a Portable Document Format (.pdf) file containing:
 - (1) The DSWA's cover letter for the report. The cover letter shall include a statement confirming that the accompanying data submittal, the *Historical Environmental Monitoring Database for CIL*, has been provided with no changes to previously submitted data or, in the event that administrative corrections must be made to previously submitted data, the DSWA must document the details of such changes in the cover letter. The DSWA shall also include a table of contents for the *Historical Environmental Monitoring Database for CIL* in the cover letter. The DSWA shall also summarize the results of the gas migration monitoring conducted during the quarter reported, if that summary has not been included in the Quarterly Environmental Monitoring Report.
 - (2) The Quarterly Environmental Monitoring Report. The narrative portion of report shall summarize the results of the groundwater, surface water, and stormwater monitoring done at NSWMC-2 during the quarter reported. As part of this report, DSWA shall include drawings showing potentiometric surface elevations and drawings showing sampling locations for all groundwater, surface water, stormwater, leachate, and gas migration

monitoring required by this permit. This report shall also include field data sheets, laboratory reports, and chain of custody forms for the quarter reported as well as a discussion of any problems encountered during fieldwork, any deviations from the sampling procedures and of any problems with QA/QC procedures.

- b. The *Historical Environmental Monitoring Database for CIL* which shall contain DSWA's historical environmental monitoring at the NSWMC-2, updated with the quarterly monitoring data for groundwater, surface water, stormwater, gas migration, and leachate and include the following:
 - (1) Tabulation of the following data from all preceding years, updated with the latest quarterly monitoring results:
 - (a) Leachate flow and quality including field measurements.
 - (b) Groundwater elevation and quality data including field measurements.
 - (c) Surface water elevation, flow rate, and quality data including field measurements.
 - (d) Storm water flow and quality data including field measurements.
 - (2) Graphical presentations (quality versus time plots) of leachate, groundwater, stormwater and surface water quality measurements and analytes.
 - (3) Graphical presentations (flow rate or volume versus time plots) of leachate collected from all preceding years, updated with the latest quarterly monitoring results. Rainfall data shall also be plotted on each graph.
 - (4) Potentiometric maps for each aquifer for each quarter.
 - (5) Gas migration monitoring results.
 - (6) Meteorological data from the on-site weather station, updated through the quarter being reported.
2. Annual Environmental Monitoring Report package. No later than April 30th of each year, DSWA shall submit an Annual Environmental Monitoring report package. DSWA shall provide the Annual Environmental Monitoring Report package in one paper copy and one copy on electronic media. The copy on electronic media shall consist of a single electronic file such as a Portable Document Format (.pdf) file which contains both the DSWA cover letter and the Annual Environmental Monitoring Report. The Annual Environmental Monitoring Report package shall consist of:
 - a. The DSWA's cover letter for the report.
 - b. The Annual Environmental Monitoring Report, which shall include:
 - (1) Discussions of the groundwater, stormwater, surface water, leachate and gas migration monitoring results with reference to the data provided in the *Historical Environmental Monitoring Database for CIL*.

- (2) An evaluation of the significance of the results including whether they indicate a contaminant release has occurred and any recommendations for corrective measures, if appropriate.
 - (3) Recommendations for future monitoring, maintenance and modifications needs for the groundwater monitoring wells, gas migration monitoring system, the surface water/stormwater monitoring systems, and the leachate collection system.
3. Within sixty days of the end of each quarter, the DSWA shall submit a Geotechnical Monitoring Report to the Department. The Geotechnical Monitoring Report shall be provided on electronic media in a format acceptable to both the DSWA and the Department. The Geotechnical Monitoring Report shall be provided as a single electronic file document such as a single Portable Document Format (.pdf) file and contain both the DSWA's cover letter and the full monitoring report. The Geotechnical Monitoring Report shall also include a discussion of any in-situ shear strength assessments completed or determinations made regarding updating shear strength parameters during the quarter reported (Reference Section 3.5 of the GMP).
4. If DSWA is unable to comply with any of the reporting requirements listed within the permit, DSWA must provide written notice and justification to the Department two weeks prior to the reporting deadline.
5. Upon discovery, DSWA shall report to the Department any intentional or accidental deviation from any approved plan.

D. Emergency Reporting:

1. The DSWA shall notify the Department immediately in the event of:
 - a. Fire or explosion involving the landfill or its control systems.
 - b. Receipt of prohibited waste at any CIL disposal area.
 - c. Leachate spills exceeding ten gallons.
 - d. Gas levels exceeding the limits established by section 5.5.1.3 of the DRGSW.
 - e. Damage to the landfill liner system.
 - f. Landfill leachate found to be contaminating surface water.
2. If any event listed in Section IV.D.1 of this permit occurs during business hours, DSWA should report to the Department's Solid and Hazardous Management Section by telephone to 302-739-9403. At all other times the report is to be made to the Department's TOLL-FREE 24-HOUR LINE 1-800-662-8802.
3. DSWA shall submit a written notification to the Department no later than five business days following any event requiring "Emergency Reporting". The notification shall include the following:
 - a. Date and time of occurrence/discovery.
 - b. Date and time of reporting.

- e. Agencies notified.
- d. Materials and quantities involved.
- e. Narrative describing how the incident occurred and the actions taken by the DSWA and other response personnel.
- f. Report of injuries/damage.
- g. Proposal for follow-up, repair, or remedial actions required and a schedule.

E. Assessment of Corrective Measures:

1. DSWA shall notify the Department within seven (7) days after verified analytical data has confirmed that a release has taken place. Confirmation samples shall be collected from the appropriate monitoring points within 14 days of receipt of written approval by the Department. These samples shall be analyzed under a priority schedule for the field measurements and analytes listed in Attachment B, Table 5 of the CIL Environmental Monitoring Plan, and any other measurements or analytes deemed appropriate by the DSWA and the Department. DSWA shall notify the Department of the results of the confirmation sampling within seven (7) days of receipt of the results.
2. If confirmation sampling does not indicate that a release has taken place, another round of sampling shall take place to determine whether the results of analysis from the first or second sampling events were anomalous. This re-sampling event shall take place within two (2) weeks of DSWA sending written notification to the Department of their intent to re-sample. The samples shall be analyzed under a priority schedule. DSWA shall notify the Department of the results of the re-sampling within seven (7) days of receipt of the results.
3. If the re-sampling indicates that no release has taken place, no further action shall be taken by the Department, and monitoring of the sampling location(s) shall be returned to its/their normal monitoring schedule. If the confirmation or re-sampling round of sampling does indicate that a release has taken place, DSWA shall perform an assessment of corrective measures within ninety (90) days of confirmation of the release. This assessment shall include:
 - a. Identification of the nature and extent of the release (which may require construction and sampling of additional wells, geophysical surveys or other measures).
 - b. Re-assessment of contaminant fate and potential contaminant receptors (wells and/or receiving streams).
 - c. Evaluation of feasible corrective measures to:
 - (1) Prevent exposure to potentially harmful levels of contaminants (exceeding performance standards).
 - (2) Reduce, minimize or prevent further contaminant releases.
 - (3) Reduce, minimize or prevent the off-site migration of contaminants.

V. RECORDKEEPING:

- A. The following information must be recorded and maintained by DSWA until the end of the post-closure period. This information must be available for inspection, with reasonable notice, by representatives of the Department:
1. Monitoring, testing, and analytical data required by this permit and DRGSW.
 2. Copies of field notes, laboratory data sheets and chain of custody forms for each sample analyzed.
 3. The quantity and type of wastes received quarterly.
 4. Locations of monofilled wastes.
 5. Drawings showing the locations and extent all intermediate covers and of daily covers left in-place.
 6. Surveys showing the lines and grades of the landfill and indicating remaining capacity.
- B. The following information shall be kept on site or made available to the Department within a reasonable period of time after being requested by the Department:
1. Records of odor complaints received by the facility manager concerning the landfill during the last 3 years.
 2. Records that document that required training have been provided to all staff.
 3. Records of DSWA's periodic inspections of the facility during the last three years to include inspections of the leachate and gas systems, leachate seeps, landfill gas migration, the salvaging stockpile areas, daily and intermediate covers, and the temporary exposed geomembrane cover.
 4. A record of the transporters (company name, address, and telephone number) hauling wastes to and from the facility. Records shall include only those transporters with at least one vehicle having a gross vehicle weight of over 26,000 pounds. DSWA shall begin generating these records on May 1, 2001. DSWA shall retain these records for a period of three years.
 5. Current environmental permits, including the wastewater discharge permit.
- C. DSWA shall incorporate Department approvals for alternate covers (daily and intermediate) into the Operations Plan at least two days prior to the cover material first arriving at the facility. Incorporation shall be accomplished by inserting approvals into Appendix K of the Operations Plan. Approvals which have been replaced or which have expired are invalid and shall be removed from Appendix K no later than close of business on the date of expiration, or receipt of the revised Approval. For the purpose of the issuance of Permit SW-06/01, DSWA shall replace all missing or expired approvals in Appendix K no later than July 6, 2006 and may continue to use alternative cover materials previously cited in conditions II.P.2 and II.Q of permit SW-01/01 until that date.

VI. LANDFILL CAPPING SYSTEM:

A. Capping Requirements:

1. Upon closure of NSWMC-2 or part thereof, a capping system shall be installed that will control emissions of gas, promote vegetative cover, and minimize infiltration and percolation of water into, and prevent erosion of the waste throughout the post-closure care period.
2. The capping system shall be in place 180 days following final waste disposal activity.
3. The capping system shall be designed in accordance with DRGSW and must be approved by the Department prior to installation.
4. All components of the cap, including the gas control system, shall be constructed in accordance with a Construction Quality Assurance Plan, Closure Plan, and Closure Schedule approved by the Department. A Certification Final Report shall be completed by a third party CQA Consultant and submitted for Department review within 60 days after the landfill has been completed.

VII. CLOSURE AND POST-CLOSURE CARE:

- A. The DRGSW limit the duration of an operating permit for a landfill to 10 years. Since the NSWMC-2 expansion will result in landfill operations at this facility in excess of 10 years, the following conditions are hereby imposed for any renewal of this permit. If the Department determines that the DSWA is operating the landfill protective of public health and the environment, the permit shall be renewed subject to the requirements of the DRGSW (or successor). The Department will grant no further permit renewals for expansion of the landfill greater than the lines and grades shown on the Final Grading Plan, (GeoSyntec Consultants *Landfill Final Development and Grading Plan*, drawing 78 of 89, Project ME0250, dated June 2004) which limits the elevation of the landfill to 195 feet msl. If the DSWA wishes to renew this permit they shall submit the following to the Department no later than July 6, 2015.
1. A permit application form for renewal including a detailed summary of all violations, enforcement actions, and corrective actions completed or ongoing at the facility.
 2. The latest annual environmental monitoring report showing the results of surface water and groundwater monitoring. This report shall include an assessment of the landfill's impact on groundwater and surface water and whether current waste containment measures and stormwater controls are adequate to protect public health and the environment.
 3. The latest annual geotechnical monitoring report showing the results of the geotechnical monitoring. This report shall include an assessment of the stability of the landfill, and whether current stability measures and monitoring are adequate to protect public health and the environment.
 4. Landfill capacity estimate as compared to the Final Grading Plan.

- B. One year prior to the anticipated closure of the facility, the DSWA shall provide a written notice of intent to close the landfill, anticipated post-closure use of the facility and a proposed schedule. At least 180 days prior to the expected date when wastes will no longer be accepted for disposal at the NSWMC-2, DSWA shall submit a comprehensive closure plan to the Department.
- C. DSWA shall close the landfill in accordance with the requirements of the DRGSW in a manner that will minimize the need for further maintenance and that will minimize the post-closure escape of solid waste constituents, leachate, and landfill gas. The DSWA shall close the facility in accordance with the approved closure plan and the approved closure schedule. The DSWA shall include in the closure plan:
1. A description of the methods, procedures, and processes that will be used to close the landfill in accordance with the performance standard listed above (condition VII.C.)
 2. Construction and material technical specifications and design drawings.
 3. A construction quality assurance plan.
 4. A closure schedule.
 5. A description of the capping system to be used and the construction and installation methods.
 6. A plan for control or recovery of landfill gas.
 7. Stormwater controls.
 8. A post-closure care plan. The DSWA shall include the following in the post-closure care plan:
 - (a) A detailed description of the monitoring and maintenance activities required including maintenance of the landfill gas and leachate management system, maintenance of the vegetation, and maintaining the environmental monitoring systems on the site.
 - (b) An environmental sampling plan with performance criteria to demonstrate when the post-closure care period should be allowed to end.
 - (c) Contact information for all parties responsible for post-closure care at the facility.
 - (d) A description of the planned uses of the facility during the post-closure care period.
 - (e) Description and plan for corrective actions, if applicable.
- D. The DSWA shall not commence closure activities before receiving the necessary permit modification to the solid waste permit.
- E. DSWA shall close the landfill in accordance with the lines and grades shown on the Final Grading Plan which limit the elevation of the landfill to 195 feet msl (GeoSyntec Consultants *Landfill Final Development and Grading Plan*, Project ME0250, dated June 4, 2004; Drawing 78 of 89 of the *Permit Drawings for Landfill Expansion, contract SO1445AC*; and also contained in Volume 8, Appendix VIb-A of the permit application package).
- F. When closure is completed, DSWA shall submit a final report for the Departments approval. The final report shall certify that the closure of the landfill was completed in

accordance with the closure plan. The final report shall be certified correct by the construction quality assurance engineer who must be a Professional Engineer registered in Delaware. The landfill will not be considered closed until the Department has provided its written notification that the closure has met the requirements of the solid waste permit and the DRGSW.

- G. DSWA shall record a notation on the deed to the facility property, or on some other instrument that is normally examined during the title search, that will in perpetuity notify any potential purchaser of the property that the land has been used as a solid waste disposal site, and the use of the land is restricted under DRGSW.
- H. Any permit renewal for the operation of the NWMC-2 shall include specific conditions for the closure of the facility to include all the items listed in conditions VII.B. through VII.G. above.

VIII. LANDFILL EXPANSION CONSTRUCTION:

- A. The planning, design, and construction of the landfill expansion shall be consistent with the requirements of the DRGSW.
- B. The expansion shall be constructed in accordance with the *Design Report Permit Document Revisions for Cherry Island Landfill Expansion Project*; dated June 2004 and revised May 2005, the approved *Technical Specifications* and the approved *Construction Quality Assurance Plan*. Revisions to these documents related to leachate or landfill gas collection and transmission, waste containment systems, foundation improvements, stormwater management systems, environmental monitoring systems or devices, or geotechnical monitoring systems or devices, shall require Department approval in writing or by documentation in the minutes of the construction progress meeting or similar record approved by the Solid and Hazardous Waste Management Section.
- C. DSWA shall submit a final report for the Department's approval, after construction has been completed and prior to the placement of solid waste outside of the current limit of disposal as shown on GeoSyntec Consultants, *Site Plan-Existing Conditions*, (Project ME0250, Drawing 3 of 89, dated April 3, 2003, and part of the *Permit Drawings for Landfill Expansion, contract SO1445NC*, and also contained in Volume 8, Appendix VIb-A of the permit application package). The final report shall certify that the construction of the cell was completed in accordance with the *Design Report Permit Document Revisions for Cherry Island Landfill Expansion Project*; dated June 2004 and revised May 2005, the approved *Technical Specifications, Construction Quality Assurance Plan*, and the *Permit Drawings for Landfill Expansion* (dated April 2003 and Revised May 2005). The final report will include conclusions regarding the structural stability the landfill. The final report shall be certified correct by the construction quality assurance engineer, who must be a Professional Engineer registered in Delaware. The DSWA shall not place wastes outside the current limits of disposal until the Department has provided its written notification that the construction and the final report meet the requirements of the permit and the DRGSW.

PERMIT SYNOPSIS

January 6, 2006. Permit SW-06/01 was issued to the Delaware Solid Waste Authority for the continued operation of the NSWMC-2. This permit incorporates the requirements of, and replaces permit SW-01/01 and limits the height expansion of the landfill to 23 feet above the limits imposed by that permit.

September 11, 2013. Permit Modification: The Department modified section I.D.6.a. of the permit to allow Citizen Advisory Board (CAB) sponsors more flexibility with selection of CAB members and to accommodate the CAB Charter. Section I.D.6. was also modified to account for Delaware's Universal Recycling, now in effect. Other modifications include more definitive stormwater management requirements in section II.F incorporation of revised monitoring plans including the Geotechnical Monitoring Plan (condition III.F), the Gas Migration Monitoring Plan (condition III.E), and the revised Monitoring Program for the Northern Solid Waste Management Center at Cherry Island (condition III.A, B, and C.). The Department modified section IV of the permit to clearly define the requirements for providing reports and data electronically. Condition IV.E was also modified in this section of the permit to remove two geotechnical reporting requirements (now covered in the Geotechnical Monitoring Plan), and to add a new requirements for reporting damage to the landfill liner and leachate contamination of surface water. Additionally, the Department removed the Air Quality reports required by section IV.B.8. of this permit, since the information is already reported to the Division of Air Quality by DSWA. Other administrative changes included spelling corrections, changing references to the Solid & Hazardous Waste Management Branch (from "Branch" to "Section"), and the addition of I495 "on ramps" (from 12th Street) as areas where DSWA inspects for/removes litter (condition II.R.3). The Department considers this a major modification of the permit in accordance with section 4.1.7. of the Delaware *Regulations Governing Solid Waste*.

NPDES GENERAL STORM WATER PERMIT



RECEIVED
JUL 14 2011
DSWA

SURFACE WATER
DISCHARGES SECTION

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL
DIVISION OF WATER
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

PHONE: (302) 739-9946
FAX: (302) 739-8369

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL STORM WATER PERMIT PROGRAM**

July 7, 2011

DSWA-Cherry Island Landfill
Robin Roddy P.E.
1128 South Bradford Street
Dover, DE 19901

RE: Authorization to Discharge Under the NPDES General Storm Water Permit Program at DSWA-Cherry Island Landfill

Dear Ms. Roddy:

The Department of Natural Resources and Environmental Control (DNREC) has approved your request for Full Coverage under the NPDES Storm Water General Permit Program. This approval means the site, located at 1706 E. 12th St., Wilmington, DE 19809 is authorized to discharge storm water to a surface water body of the State, and must comply with Section 9.1 of "The Regulations Governing Storm Water Discharges Associated with Industrial Activities", 7 Del. Admin. C. §7201. Permit coverage began on December 15, 2010 and will expire on December 14, 2015, upon which a new Notice of Intent (NOI) form must be submitted to DNREC for review and approval within 60 days of the expiration date in order to continue permit coverage.

Any changes in facility operations or contact information will require the Storm Water Plan (SWP) to be amended. A signed copy of the SWP must be maintained at the facility and on file at DNREC (digital or hard copy accepted). NOI forms and other resources can be found online at:
<http://www.wr.dnrec.delaware.gov/Information/SWDInfo/Pages/SWDSStormWater.aspx>.

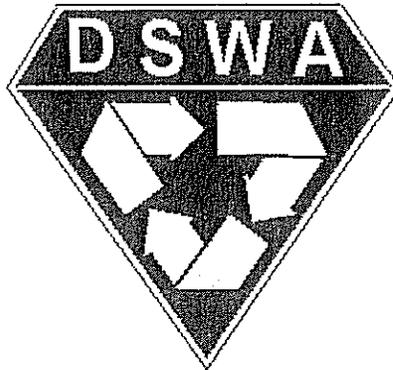
Please maintain this approval on file at the facility at all times. If you have any questions or require further assistance, please contact Steve Mann at (302) 739-9946 or by e-mail at Stephen.Mann@state.de.us.

Sincerely,

Robert G. Underwood
Program Manager
Surface Water Discharges Section

WASTEWATER DISCHARGE PERMIT

W-88-02 (revision 8)

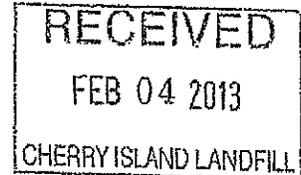


Waste Water Discharge Permit
#W-88-02 (revision 8)

BENNIS F. WILLIAMS
MAYOR

City of Wilmington
Delaware

LOUIS L. REDDING - CITY/COUNTY BUILDING
800 FRENCH STREET
WILMINGTON, DELAWARE
19801-3537



January 25, 2013

Robin M. Roddy, P.E., BCEE
Senior Facility Manager
Delaware Solid Waste Authority
Cherry Island Landfill
1706 East 12th Street
Wilmington, DE 19809

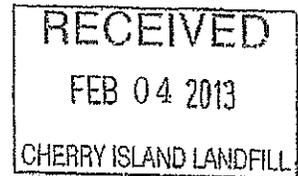
RE: Final Revised Wastewater Discharge Permit # W-88-02 (revision 8)

Dear Ms. Roddy:

Enclosed you will the final version of your revised wastewater discharge permit which has been updated per the comments received on the draft permit. This permit is effective February 1, 2013 through February 28, 2016. If you have any questions, I can be reached in my office at (302) 576-2556.

Sincerely,

Mary Neutz
Environmental Programs Manager



DEPARTMENT OF PUBLIC WORKS
CITY OF WILMINGTON, DELAWARE
800 FRENCH STREET, WILMINGTON, DELAWARE 19801

WASTEWATER DISCHARGE PERMIT # W-88-02 (revision 8)

In accordance with the provisions of the General Pretreatment Regulations 40 CFR Part 403, and pursuant to the City of Wilmington Code, Chapter 4, Subchapter 4, Section 4-131, Chapters 2-5 regulating non-domestic wastewater discharge into the Public Sewer System, and any applicable Federal or State Law or Regulation:

Delaware Solid Waste Authority
1128 South Bradford Street
P. O. Box 455
Dover, DE 19903-0455

is granted the discharge of wastewater from the facility located at

Cherry Island Landfill
1706 East 12th Street
Wilmington, Delaware 19809

to the City of Wilmington Sewer System subject to the permit conditions established herein.

EFFECTIVE DATE: February 1, 2013

EXPIRATION DATE: February 28, 2016

Signed: 
Kash Srinivasan, Commissioner
Department of Public Works
Wilmington, Delaware

Date: 1/28/13

PERMIT CONDITIONS

A. General

1. The named permit holder shall be expressly subject to all provisions of Chapter 4, Section 4-131 of the City of Wilmington Code and all other regulations, user charges, and fees established by the City.
2. This Wastewater Discharge Permit is issued in the name of the permit holder and shall not be reassigned or transferred or sold to a new owner, new user, different premises, or a new or changed operation.
3. The permit holder shall report to the Department of Public Works, City of Wilmington (the Department) any changes (permanent or temporary) to the premises or operations that significantly change the quantity or quality of the wastewater discharge described in the Wastewater Discharge Permit Application submitted by the permit holder, or deviate from the terms and conditions under which this permit is granted.
4. The permit holder shall be held liable for any actual damages and/or extraordinary expenses incurred by the Publicly Owned Treatment Works (POTW) caused in full or in part by the permit holder as determined from the investigation and the findings by the Commissioner of Public Works. The Commissioner shall seek to recover reasonable attorney's fees, court costs, monitoring costs, and other expenses associated with cost recovery and enforcement activities.
5. This permit may be modified for good causes including, but not limited to, the following:
 - a. To incorporate any new or revised Federal, State, or local pretreatment standards or requirements;
 - b. Material or substantial alternations or additions to the discharger's operation processes, or discharge volume or character which were not considered in drafting the effective permit;
 - c. A change in any condition in either the industrial user or the POTW that requires either a temporary, permanent reduction or elimination of the authorized discharge;
 - d. Information indicating that the permitted discharge poses a threat to the city's collection and treatment systems, POTW personnel or the receiving waters;
 - e. Violation of any terms or conditions of the permit;

- f. Misrepresentation or failure to disclose fully all relevant facts in the permit application or any required reporting;
 - g. Revision of or a grant of variance from such categorical standards pursuant to 40 CFR 403.13;
 - h. To correct typographical or other errors in the permit;
 - i. Upon request of the permittee, provided such request does not create a violation of any applicable requirements, standards, laws, or rules and regulations.
6. This permit may be terminated for the following reasons:
 - a. Falsifying self-monitoring reports;
 - b. Tampering with monitoring equipments;
 - c. Refusing to allow timely access to the facility premises and records;
 - d. Failure to meet effluent limitations;
 - e. Failure to pay fines;
 - f. Failure to pay sewer charges;
 - g. Failure to meet compliance schedule.
 7. The permit holder is subject to all enforcement actions to include penalties and/or revocation of permit, as established in Chapter 4, Section 4-131 of the City of Wilmington Code, for violating permit conditions.
 8. All reports and correspondence shall be submitted to the following address:

Pretreatment Coordinator, Department of Public Works
800 N. French Street, Wilmington, DE. 19801

B. Effluent Limitations

1. Permissible Concentrations.

During the period beginning on the effective date and lasting through the expiration date, the discharge from the designated location shall be limited to the effluent quality and quantity specified below. The permittee has been designated as a "non-contributory" discharger of those parameters listed in the table that are marked with asterisk. Those "non-contributory" parameters will be monitored by the City of Wilmington.

<u>POLLUTANT</u>	<u>LIMIT</u>	<u>TYPE LIMIT</u>
PH	6 – 9 su	Monthly Avg.
Arsenic**	1.0 lbs/day	Daily Max
Chromium	16.0 lbs/day	Monthly Avg.
Copper	3.79 lbs/day	Monthly Avg.
Nickel	4.17 lbs/day	Monthly Avg.
Lead	8.0 lbs/day	Monthly Avg.
Zinc	14.5 lbs/day	Monthly Avg.
Cyanide	2.0 lbs/day	Monthly Avg.
Ammonia-N**	2477 lbs/day	Daily Max
BOD	2085 lbs/day	Monthly Avg.
TSS	2085 lbs/day	Monthly Avg.
Total Phenolics	10.0 mg/L	Monthly Avg.
PCB Congeners	n/a	n/a
VOCs	10 mg/L	Monthly Avg.
Cadmium*	0.07 mg/L	Monthly Avg.
Mercury*	0.0057 mg/L	Monthly Avg.
Selenium*	0.65 mg/L	Monthly Avg.

** - see special conditions for variance information

2. Non-Categorical Limitations

Discharge is subject to the General Pretreatment Standards as established under 40 CFR 403. These standards shall be in addition to the general prohibitions of the City of Wilmington Code, and in cases where the same constituent is addressed; the more stringent limitation will apply.

3. General Prohibitive Standards

The Permittee shall comply with all general prohibitive discharge standards as defined in Chapter 4, Section 4-131, Article P-301.0 of the City of Wilmington Code.

4. RATE OF DISCHARGE

- a. The daily average discharge shall mean the total discharge in gallons during a six-month monitoring period divided by the number of days in the period in which production was occurring or the commercial facility was operating. The daily average discharge permitted at the facility shall not exceed:

500,000 GPD

- b. The maximum instantaneous discharged flow rate shall not exceed:

N/A

- c. A meter to measure the wastewater discharge shall be located at the Master Pump Station. Metering devices pertinent to the discharge(s) shall be maintained in good working order and calibrated at least annually.

FACILITY LAYOUT AND DISCHARGE LOCATION

C. Monitoring, Sampling, Inspections, Reporting and Records Retention.

1. Monitoring

The permitted discharge shall be monitored by the permit holder in accordance with the following schedule:

Monitoring Requirements

<u>Effluent Constituent</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Continuous	Recording and Totalizing
pH	Once/month	24 Hr. Composite
Arsenic	Once/month	24 Hr. Composite
Chromium (total)	Once/month	24 Hr Composite
Copper	Once/month	24 Hr Composite
Lead	Once/month	24 Hr Composite
Zinc	Once/month	24 Hr Composite
Nickel	Once/month	24 Hr Composite
Cyanide (total)	Once/month	Grab
Total Phenols	Once/month	24 Hr composite
VOCs	Once/6 Months	Composite of 4 Grabs
PCB Congeners (1668A)	Once/6 Months	24 Hr composite
Ammonia – N	Once/month	24 Hr composite
BOD	Once/month	24 Hr composite
TSS	Once/month	24 Hr composite

2. Sampling and Inspections.

a. Sampling:

- i) Samples taken in compliance with the monitoring requirements above shall be collected at the following location:

Wet well at the Master Pump Station

- ii) All sampling and analysis performed during the respective reporting periods shall be based upon data obtained through sampling and analysis performed during the period covered by the reports. The samples collected must be representative of conditions occurring during the respective reporting periods.

- iii) The required monthly sampling must alternate waste streams (e.g. month 1 sample Cherry Island only leachate, month 2 mixed leachate, month 3 Cherry Island, etc.). This must be noted on the semi-annual self-monitoring report.

b. Inspections:

The Commissioner and other duly authorized employees of the City, bearing proper credentials and identification, shall be permitted to enter all premises in compliance with Chapter 4, Section 4-131 of the City of Wilmington code for the purpose of inspection of processes, records, and the like.

3. Periodic Discharge Reports and Progress Reports on Compliance Schedule:

A report containing the results of the monitoring program and progress on compliance schedule (if any) shall be filed with the City of Wilmington Department of Public Works by every January 31 and July 31 of each year. Reports shall be submitted in the attached format (Attachment A).

The report shall include at a minimum the following:

Nature and concentration of regulated pollutants, average and maximum daily flow rates, methods of sampling and analysis, sample site, certification of meter calibration, and a certification that the methods used conform to those approved by the U.S. EPA. Reports shall be signed in compliance with signatory requirements in 40 CFR 403.12(l). If analysis results indicate a particular pollutant is not detected, the detection limit shall be reported.

4. Additional Monitoring by Permittee

If the Permittee monitors any pollutant at the location(s) designated herein more frequently than by this permit, using approved analytical methods as specified in this permit, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form (Attachment A of this permit). Such increased frequency shall also be indicated.

5. Definitions

- a. The daily average discharge shall mean the total discharge in gallons during a six month monitoring period divided by the number of days in the period in which production was occurring or the commercial facility was operating.
- b. Monthly Average Discharge Concentration - The arithmetic average of all measured concentrations of a regulated constituent during any calendar month. It shall be calculated by taking the sum of all the measurements of a regulated constituent made during a given calendar month and dividing that sum by the number of samples analyzed. When only one sample is collected and analyzed in a given calendar month, the monthly average concentration is equivalent to the maximum daily concentration.
- c. Maximum Daily Discharge Concentration - The highest measured concentration of a regulated constituent during any calendar day of a given calendar month.
- d. Measured flow - any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

6. Test Procedures

Test procedures for the analysis of pollutants shall conform to the applicable test procedures identified in 40 C.F.R., Part 136, unless otherwise specified in this permit. See Section D.4.

7. Records Retention

The Permittee shall maintain records of all information resulting from any monitoring activities required by this permit. Such records shall include for all samples:

- a. The date, exact place, method, time of sampling, and the names of the person or persons taking the samples;
- b. The dates the analysis were performed;
- c. Lab performing the analysis and name(s) of person(s) doing the analysis;
- d. The analytical techniques/methods use; and
- e. The results of such analysis.

The Permittee shall maintain records of all calibration and maintenance of instrumentation and equipment such as samplers and/or flow meters.

The Permittee shall maintain records of all reports filed with the City of Wilmington.

The period of records retention shall be three (3) years. The period of retention shall be extended automatically during the course of any unresolved litigation regarding activity or regarding control standards applicable to the permittee, or as required by the department. These records shall be available for inspection and copying by the Commissioner or authorized representative.

8. Non-Compliance Notification.

If the permitted discharge does not comply with any effluent limitations specified in this permit or in the Code of City of Wilmington, the Permittee shall inform the Department via telephone to 576-3081 or 576-3074 within 24 hours of becoming aware of the violation. The Permittee shall also provide the department with the following information, in writing within five (5) days of becoming aware of such conditions:

- a. A description of the discharge and cause of noncompliance.
- b. The period of noncompliance, including the dates and times.
- c. Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

The Permittee shall also repeat the sampling and analysis, and submit the results to the Department within 30 days of becoming aware of the violation.

9. Discharge of Hazardous Waste

The Permittee shall notify the City of Wilmington, the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities in writing of any known discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other).

10. RCRA Notification.

Your facility may be subject to hazardous waste requirements under the Resource Conservation & Recovery Act, Subtitles C and D. The State of

Delaware Department of Natural Resources & Environmental Control,
Division of Waste and Hazardous Substances, 89 Kings Highway, P.O.
Box 1401, Dover, DE. 19903 regulate hazardous wastes in the State and
should be contacted to determine your obligation, if any, under this Act.

11. Notice of Slug Loading.

The Permittee shall notify the Department and the POTW immediately of all discharges that could cause problems to the POTW, including any slug loadings, as defined by 403.5(b). The phone numbers to call in the case of a slug loading are as follows:

From 8am to 5pm Mon-Fri

City of Wilmington at 576-2556 or 576-3074 AND
POTW at 764-6610 x1002

All other hours

POTW at 764-6610 x1016 AND
City of Wilmington at 293-7773 (leave message)

D. SPECIAL CONDITIONS:

1. This Permit supersedes any other Wastewater Discharge Permit and / or approval issued to this facility previous to the effective date of this permit.
2. Disposal of Hauled Leachate at Cherry Island Landfill (CIL)

The Approval of disposal of hauled leachate, from the Central Solid Waste Management Center (CSWMC) located in Kent County and Southern Solid Waste Management Center (SSWMC) located in Sussex County, at CIL is subject to the following conditions:

- a. All leachate hauled by tank truck from CSWMC and SSWMC shall be discharged into the final effluent pump station.
- b. Leachate delivery, by a duly licensed hauler, to CIL shall be permitted seven days a week, between 6:00 a.m. to 6:00 p.m.
- c. The discharge of the hauled leachate into CIL pumping stations shall be in accordance to the City of Wilmington Industrial Pretreatment Regulations and shall meet the effluent limitations specified on page 4, section B.1. of this permit.

- d. Total quantity for the hauled leachate shall be reported to the Department of Public Works (DPW) on a quarterly basis. These results shall be mailed to the DPW at the following address before 15th day of each month following the end of each quarter (i.e. First Quarter report is due by April 15).

Pretreatment Coordinator, Department of Public Works
City of Wilmington, 800 N. French Street, Wilmington, DE 19801

- e. Each truck entering at CIL facility to deliver the leachate must arrive with a manifest and a copy of weight ticket generated at the CSWMC and SSWMC scale houses for the outgoing trucks. The manifest form shall contain information regarding the origin of the leachate and the signature of the authorized representative of CSWMC and SSWMC.
 - f. A proper method of leachate volume measurement, the accuracy of which has been previously demonstrated in engineering practice or for which a relationship to absolute volume has been obtained, shall be used.
 - g. The permittee shall retain records of all monitoring information, waste manifest forms, copies of all reports required by this permit, and records of all data pertaining to hauled leachate loads from CSWMC and SSWMC for a period of at least three years.
3. DSWA has been issued a variance for the ammonia-N and arsenic concentration limits published in the City of Wilmington Code. The limits in Section B.1 are based on the following information:

Ammonia-N – 594 mg/L at 0.5 MGD

Arsenic – 0.24 mg/L at 0.5 MGD

The City reserves the right to re-evaluate these variances at any time.

4. DSWA has been issued a variance allowing the use of “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846)” where applicable for analysis of wastewaters from Cherry Island Landfill, CCSWMC, and SSWMC. **The City reserves the right to re-evaluate this variance at any time.**

TITLE V OPERATING PERMIT
AQM-003/00111 – Renewal 2

Permit AQM-003/00111-
Renewal 2



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR QUALITY
655 S. Bay Road, Suite 5N
DOVER, DELAWARE 19901

Telephone: (302) 739 - 9402
Fax No: (302) 739 - 3106

June 29, 2012

Delaware Solid Waste Authority
P.O. Box 455
Dover, DE 19903

Certified Mail # 7002 2030 0006 7674 0677
Return Receipt Requested

ATTENTION: Pasquale S. Canzano, P.E., BCEE
Chief Executive Officer

SUBJECT: **Permit: AQM-003/00111-Renewal 2**
Final 7 DE Admin. Code 1130 Permit Renewal

Dear Mr. Canzano:

The Department (DAQ) has completed processing Delaware Solid Waste Authority's (DSWA's) Cherry Island Landfill's AQM-1001 series permit renewal application with a cover letter dated January 11, 2011. It was submitted to DAQ on January 14, 2011 pursuant to **7 DE Admin. Code 1130**. Attached is Cherry Island Landfill's "Final" **7 DE Admin. Code 1130** Operating Permit. Please note that this permit will expire on **June 29, 2017**. An application for renewal must be submitted no later than **June 29, 2016**.

As the designated responsible official for DSWA, it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission unit subject to any term or condition of the attached permit reviews, understands, and abides by the conditions of the attached permit that are applicable to that particular unit.

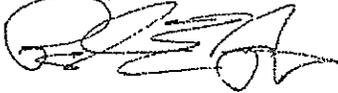
The attached permit specifies the terms and conditions, Conditions 2 through 6, under which Cherry Island Landfill will be permitted to operate the emission units listed in Condition 1. In addition to the emission units listed in Condition 1, Cherry Island Landfill will be permitted to operate all activities with air emissions that are not listed in Condition 1 and that are designated as insignificant activities under **7 DE Admin. Code 1130** or designated as trivial activities under Appendix "A" of the Department's summary of the July 10, 1995, EPA "White Paper for Streamlined Development of Part 70 Permit Applications," notwithstanding **7 DE Admin. Code 1102**.

The attached permit covers only the operating permit requirements of **7 DE Admin. Code 1102** and **1130**. The attached permit does not satisfy future construction permit obligations. Prior to initiating any construction or modification activity DSWA must evaluate the applicability of, and, if required, secure necessary construction permit(s) pursuant to **7 DE Admin. Code 1102** or **1125**, and/or initiate necessary permit revision procedures pursuant to **7 DE Admin. Code 1102** and **1130**.

Permit: AQM-003/00111-Renewal 2
Delaware Solid Waste Authority
June 29, 2012
Page 2

Please contact Shaikh A. Tayeb at (302)323-4542 if you have any questions or comments regarding the attached permit.

Sincerely,



Paul E. Foster, P.E.
Managing Engineer
Engineering & Compliance Branch

Attachment

Permit: AQM-003/00111-Renewal 2

PEF:TMH:SAT:sb
F:\sat\sat12065

pc: Dover File
Tammy M. Henry
Shaikh A. Tayeb

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Condition 1-Emission Units Identification.
 [Reference: 7 DE Admin. Code 1130 Section 3.3 dated 11/15/93]

a. Emission Units Information.

Emission Units	Emission Unit Description
Emission Unit 1	Twelve (12) portable passive flares.
Emission Unit 2	ZULE -A ("Zink-A"): Low-NOx enclosed flare with a maximum rated gas flow rate of 4500 scfm.
Emission Unit 3	ZULE -B ("Zink-B"): Low-NOx enclosed flare with a maximum rated gas flow rate of 4500 scfm.
Emission Unit 4	Landfill gas collection and control system.
Emission Unit 5	Gas Treatment Plant ("Gas Plant").
Emission Unit 6	55 KW Diesel fired emergency generator.

- b. 7 DE Admin Code 1102 Permit Identification.**
 This table identifies the underlying permits whose provisions have been incorporated into this Title V permit and specifies the reference number that will be used to identify the source of the underlying permit condition throughout this Title V permit.

Reference	Full 7 DE Admin Code 1102 Permit Designation
APC-95/0466	APC-95/0466-Operation, dated May 15, 1995. Twelve (12) passive flares.
APC-2004/0746	APC-2004/0746-Operation (NSPS)(MACT), dated February 4, 2008. Two Low-NOx enclosed flares (with a maximum rated gas flow rate of 4500 scfm each)

Condition 2 - General Requirements

a. Certification.

- Each document submitted to the Department/EPA as required by this permit shall be certified by a Responsible Official as to truth, accuracy, and completeness. Such certification shall be signed by a Responsible Official and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." [Reference: 7 DE Admin. Code 1130 Section 5.6 dated 11/15/93 and 6.3.1 dated 12/11/00]
- Any report of deviations required under Conditions 3(c)(2)(ii) or 3(c)(2)(iii) that must be submitted to the Department within ten calendar days of discovery of the deviation, may be submitted in the first instance without a certification provided a certification meeting the requirements of Condition 2(a)(1) is submitted to the Department within ten calendar days thereafter, together with any corrected or supplemental information required concerning the deviation. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.3.4 dated 12/11/00]
- Each document submitted to the Department/EPA pursuant to this permit shall be sent to the following addresses except as noted in Condition 2(a)(4):

State of Delaware – DNREC Division of Air Quality Blue Hen Corporate Center 655 S. Bay Road, Suite 5 N Dover, DE 19901 ATTN: Division Director	United States Environmental Protection Agency Associate Director of Enforcement (3AP00) 1650 Arch Street Philadelphia, PA 19103
No. of Originals: <u>1</u> & No. of Copies: <u>1</u>	No. of Copies: <u>1</u>

Condition 2- General Requirements (Cont.)

4. In lieu of submitting a physical copy of the Compliance Certification report specified in Condition 3(c)(3) of this permit to the EPA, the Owner and/or Operator may, and is encouraged to, submit an electronic copy of the report to R3_APD_Permits@epa.gov as a PDF document. The signed original annual General Certification report must be submitted to the Department at the address in Condition 2(a)(3).

b. Compliance.

1. The Owner and/or Operator shall comply with all terms and conditions of this permit. Any noncompliance with this permit constitutes a violation of the applicable requirements under the Clean Air Act, and/or 7 DE Admin. Code 1100, and is grounds for an enforcement action; for permit termination, revocation, and reissuance or modification; or for denial of a permit renewal. *[Reference: 7 DE Admin. Code 1130 Section 6.1.7.1 dated 12/11/00]*
2.
 - i. For applicable requirements with which the source is in compliance, the Owner and/or Operator shall continue to comply with such requirements. *[Reference: 7 DE Admin. Code 1130 Sections 5.4.8.3.1 dated 11/15/93 and 6.3.3 dated 12/11/00]*
 - ii. For applicable requirements that will become effective during the term of this permit, the Owner and/or Operator shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. *[Reference: 7 DE Admin. Code 1130 Sections 5.4.8.3.2 dated 11/15/93 and 6.3.3 dated 12/11/00]*
3. Nothing in Condition 2(b)(1) of this permit shall be construed to preclude the Owner and/or Operator from making changes consistent with Condition 2(m)(3) [Minor Permit Modifications] or Condition 4(a) [Operational Flexibility]. *[Reference: 7 DE Admin. Code 1130 Sections 6.8 dated 12/11/00 and 7.5.1.5 dated 12/11/00]*
4. The fact that it would have been necessary to halt or reduce an activity in order to maintain compliance with the terms and conditions of this permit shall not constitute a defense for the Owner and/or Operator in any enforcement action. Nothing in this permit shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations. *[Reference: 7 DE Admin. Code 1130 Section 6.1.7.2 dated 12/11/00]*
5. The Owner and/or Operator may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency or malfunction if both the record keeping requirements in Condition 3(b)(2)(iii) and the reporting requirements in Condition 3(c)(2)(ii)(A) are satisfied. *[Reference: 7 DE Admin. Code 1130 Section 6.7.2 dated 12/11/00]*
6.
 - i. In any enforcement proceeding, the Owner and/or Operator seeking to establish the occurrence of an emergency or malfunction has the burden of proof. *[Reference: 7 DE Admin. Code 1130 Section 6.7.4 dated 12/11/00]*
 - ii. The provisions of 7 DE Admin. Code 1130 pertaining to Emergency/Malfunctions as defined in Conditions Nos. 2(b)(5); 2(b)(6); 3(b)(2)(iii); and 3(c)(2)(ii)(A) of this permit are in addition to any emergency or malfunction provision contained in any applicable requirement. *[Reference: 7 DE Admin. Code 1130 Section 6.7.5 dated 12/11/00]*

Condition 2- General Requirements (Cont.)

7. Reserved.
 8. If required, the schedule of compliance in Condition 5 of this permit is supplemental to and shall not sanction noncompliance with the applicable requirements upon which it is based. *[Reference: 7 DE Admin. Code 1130 Section 5.4.8.3.3 dated 11/15/93]*
 9. Nothing in this permit shall be interpreted to preclude the use of any credible evidence to demonstrate noncompliance with any term of this permit. *[Reference: 62 FR 8314 dated 2/24/97]*
 10. All terms and conditions of this permit are enforceable by the Department and by the U.S. Environmental Protection Agency ("EPA") unless specifically designated as "State Enforceable Only" *[Reference: 7 DE Admin. Code 1130 Section 6.2.1 dated 12/11/00]*
- c. Confidentiality.** The Owner and/or Operator may make a claim of confidentiality for any information or records submitted to the Department. However, by submitting a permit application, the Owner and/or Operator waives any right to confidentiality as to the contents of its permit, and the permit contents will not be entitled to protection under 7 Del. C., Ch 60, § 6014. *[Reference: 7 DE Admin. Code 1130 Sections 5.1.4 dated 11/15/93, 6.1.3.3.5 dated 12/11/00, and 6.1.7.5 dated 12/11/00]*
1. Confidential information shall meet the requirements of 7 Del. C., Ch 60, § 6014, and 29 Del. C., Ch 100. *[Reference: 7 DE Admin. Code 1130 Section 5.1.4 dated 11/15/93]*
 2. If the Owner and/or Operator submits information to the Department under a claim of confidentiality, the Owner and/or Operator shall also submit a copy of such information directly to the EPA, if the Department requests that the Owner and/or Operator do so. *[Reference: 7 DE Admin. Code 1130 Section 5.1.4 dated 11/15/93]*
- d. Construction, Installation, or Alteration.** The Owner and/or Operator shall not initiate construction, installation, or alteration of any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department under 7 DE Admin. Code 1102, and, when applicable, 7 DE Admin. Code No. 1125, and receiving approval of such application from the Department; except as exempted in 7 DE Admin. Code 1102 Section 2.2. *[Reference: 7 DE Admin. Code 1102 Section 2.1 dated 6/1/97 and 7 DE Admin. Code 1130 Section 7.2.3 dated 12/11/00]*
- e. Definitions/Abbreviations.** Except as specifically provided for below, for the purposes of this permit, terms used herein shall have the same meaning accorded to them under the applicable requirements of the Clean Air Act and 7 DE Admin. Code 1100.
1. "Act" means the Clean Air Act, as amended by the Clean Air Act Amendments of November 15, 1990, 42 U.S.C. 7401 *et seq.* *[Reference: 7 DE Admin. Code 1130 Section 2 dated 11/15/93]*
 2. "AP-42" means the Compilation Of Air Pollutant Emission Factors, Fifth Edition, AP-42, dated January 15, 1995, as amended with Supplements "A" dated February 1996, "B" dated November 1996, "C" dated November 1997, "D" dated August 1998, "E" dated September 1999, and "F" dated September 2000 and the December 2001 update, the December 2002 update and the December 2003 update.
 3. "CFR" means Code of Federal Regulations.
 4. "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the sources, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a

Condition 2- General Requirements (Cont.)

technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. [Reference: 7 DE Admin. Code 1130 Section 6.7.1 dated 12/11/00]

5. "Malfunction" means any sudden and unavoidable failure of air pollution control equipment or of a process to operate in a normal or usual manner, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the malfunction. A malfunction shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. [Reference: 7 DE Admin. Code 1130 Section 6.7.1 dated 12/11/00]

6. "Number 2 fuel oil" and "No. 2 fuel oil" means distillate oil.

7. "Reg." and "Regulation" mean the regulations covered under 7 DE Admin. Code 1100.

8. "Regulations Governing the Control of Air Pollution" means the codification of those regulations enacted by the Delaware Department of Natural Resources and Environmental Control, in accordance with 7 Del. C., Ch 60, § 6010.

f. Duty to Supplement.

1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the Owner and/or Operator shall promptly submit to the Department such supplementary facts or corrected information. [Reference: 7 DE Admin. Code 1130 Section 5.2 dated 11/15/93]

2. The Owner and/or Operator shall promptly submit to the Department information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to the release of a corresponding draft permit. [Reference: 7 DE Admin. Code 1130 Section 5.2 dated 11/15/93]

3. The Owner and/or Operator shall furnish to the Department, upon receipt of a written request and within a reasonable time specified by the Department:

i. Any information that the Department determines is reasonably necessary to evaluate or take final action on any permit application submitted in accordance with Condition 2(l) or 2(m) of this permit. The Owner and/or Operator may request an extension to the deadline the Department may impose on the response for such information. [Reference: 7 DE Admin. Code 1130 Section 5.1.2.3 dated 11/15/93]

ii. Any information that the Department requests to determine whether cause exists to modify, terminate, or revoke this permit, or to determine compliance with the terms and conditions of this permit. [Reference: 7 DE Admin. Code 1130 Section 6.1.7.5 dated 12/11/00]

iii. Copies of any records required to be kept by this permit. [Reference: 7 DE Admin. Code 1130 Section 6.1.7.5.7 dated 12/11/00]

g. Emission Trading. No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit. [Reference: 7 DE Admin. Code 1130 Section 6.1.9 dated 12/11/00]

Condition 2- General Requirements (Cont.)

- h. **Fees.** The Owner and/or Operator shall pay fees to the Department consistent with the fee schedule established by the Delaware General Assembly. *[Reference: 7 DE Admin. Code 1130 Section 6.1.8 dated 12/11/00 and Section 9.0 dated 11/15/93]*
- i. **Inspection and Entry Requirements.** Upon presentation of identification, the Owner and/or Operator shall allow authorized officials of the Department to perform the following:
1. Enter upon the Owner and/or Operator's premises where a source is located or an emissions-related activity is conducted, or where records that must be kept under the terms and conditions of this permit are located. *[Reference: 7 DE Admin. Code 1130 Section 6.3.2.1 dated 12/11/00]*
 2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.3.2.2 dated 12/11/00]*
 3. Inspect, at reasonable times and using reasonable safety practices, any facility, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.3.2.3 dated 12/11/00]*
 4. Sample or monitor, at reasonable times, any substance or parameter for the purpose of assuring compliance with this permit or any applicable requirement. *[Reference: 7 DE Admin. Code 1130 Section 6.3.2.4 dated 12/11/00]*
- j. **Permit and Application Consultation.** The Owner and/or Operator is encouraged to consult with Department personnel before submitting an application or, at any other time, concerning the operation, construction, expansion, or modification of any installation, or concerning the required pollution control devices or system, the efficiency of such devices or system, or the pollution problem related to the installation. *[Reference: 7 DE Admin. Code 1130 Section 5.1.1.7 dated 11/15/93]*
- k. **Permit Availability.** The Owner and/or Operator shall have available at the facility at all times a copy of this permit and shall provide a copy of this permit to the Department upon request. *[Reference: 7 DE Admin. Code 1102 Section 8.1 dated 6/1/97]*
- l. **Permit Renewal.** This permit expires on **June 29, 2017** except as provided in Condition 2(i)(4) below. *[Reference: 7 DE Admin. Code 1130 Section 6.1.2 dated 12/11/00]*
1. Applications for permit renewal shall be subject to the same procedural requirements, including those for public participation, affected state comment, and EPA review, that apply to initial permit issuance under 7 DE Admin. Code 1130 Section 7.1, except that an application for permit renewal may address only those portions of the permit that the Department determines require revision, supplementing, or deletion, incorporating the remaining permit terms by Reference: from the previous permit. The Department may similarly, in issuing a draft renewal permit or proposed renewal permit, specify only those portions that will be revised, supplemented, or deleted, incorporating the remaining permit terms by Reference: *[Reference: 7 DE Admin. Code 1130 Section 7.3.1 dated 12/11/00]*
 2. The Owner and/or Operator's right to operate shall cease upon the expiration date unless a timely and complete renewal application has been submitted to the Department by **June 29, 2016**. *[Reference: 7 DE Admin. Code 1130 Section 7.3.2 dated 12/11/00]*
 3. The Department shall review each application for completeness and shall inform the applicant within 60 days of receipt if the application is incomplete. Unless the Department requests additional information or otherwise notifies the applicant of incompleteness within 60 days of an application, an application will be deemed complete if it contains the information required by the

Condition 2- General Requirements (Cont.)

application form and 7 DE Admin. Code 1130 Section 5.4. [Reference: 7 DE Admin. Code 1130 Section 5.1.2.1 dated 11/15/93]

4. If a timely and complete application for a permit renewal is submitted to the Department pursuant to 7 DE Admin. Code 1130, Section 5.1.2.4 (dated 11/15/93) and Section 7.3.1 (dated 12/11/00) and the Department, through no fault of the Owner and/or Operator, fails to take final action to issue or deny the renewal permit before the end of the term of this permit, then this permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time. [Reference: 7 DE Admin. Code 1130 Section 7.3.3 dated 12/11/00]

m. Permit Revision and Termination.

1.
 - i. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. [Reference: 7 DE Admin. Code 1130 Section 6.1.7.3 dated 12/11/00]
 - ii. Except as provided under Condition 2(m)(3) ["Minor Permit Modification"], the filing of a request by the Owner and/or Operator for a permit modification, revocation and reissuance, or termination, or of a modification of planned changes or anticipated noncompliance does not stay any term or condition of this permit. [Reference: 7 DE Admin. Code 1130 Section 6.1.7.3 dated 12/11/00 and 7.5.1.5 dated 12/11/00]
2. "Administrative Permit Amendment." When required, the Owner and/or Operator shall submit to the Department a request for an administrative permit amendment in accordance with 7 DE Admin. Code 1130 Section 7.4. [Reference: 7 DE Admin. Code 1130 Section 7.4 dated 12/11/00]
3. "Minor Permit Modification." When required, the Owner and/or Operator shall submit to the Department an application for a minor permit modification in accordance with 7 DE Admin. Code 1130 Section 7.5.1 and 7.5.2. [Reference: 7 DE Admin. Code 1130 Section 7.5.1 dated 12/11/00 and 7.5.2 dated 12/11/00]
 - i. For a minor permit modification, during the period of time between the time the Owner and/or Operator makes the change or changes proposed in the minor permit modification application and the time that the Department takes action on the application, the Owner and/or Operator shall comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this period the Owner and/or Operator, at its own risk, need not comply with the existing terms and conditions of this permit that it seeks to modify. [Reference: 7 DE Admin. Code 1130 Section 7.5.1.5 dated 12/11/00 and 7.5.2.5 dated 12/11/00]
 - ii. If the Owner and/or Operator fail to comply with its proposed permit terms and conditions during this time period, the existing terms and conditions of this permit may be enforced against the Owner and/or Operator. [Reference: 7 DE Admin. Code 1130 Section 7.5.1.5 dated 12/11/00 and 7.5.2.5 dated 12/11/00]
4. "Significant Permit Modification." When required, the Owner and/or Operator shall submit to the Department an application for a significant permit modification in accordance with 7 DE Admin. Code 1130 Section 7.5.3. [Reference: 7 DE Admin. Code 1130 Section 7.5.3 dated 12/11/00]
5.
 - i. When the Owner and/or Operator is required to meet the requirements under Section 112(g) of the Act or to obtain a preconstruction permit under 7 DE Admin. Code 1100, the Owner

Condition 2- General Requirements (Cont.)

and/or Operator shall file a complete application to revise this permit within 12 months of commencing operation of the construction or modification. *[Reference: 7 DE Admin. Code 1130 Section 5.1.1.4 dated 11/15/93]*

ii. When the Owner and/or Operator is required to obtain a preconstruction permit, the Owner and/or Operator may submit an application to revise this permit for concurrent processing. The revision request for this permit when submitted for concurrent processing shall be submitted to the Department with the Owner and/or Operator's preconstruction review application or at such later time as the Department may allow. Where this permit would prohibit such construction or change in operation, the Owner and/or Operator shall obtain a permit revision before commencing operation. *[Reference: 7 DE Admin. Code 1102 Sections 11.2.10, 11.5 and 12.4, dated 6/11/06, and 7 DE Admin. Code 1130 Section 5.1.1.4 dated 11/15/93]*

iii. Where an application is not submitted for concurrent processing, the Owner and/or Operator shall obtain an operating permit under 7 DE Admin. Code 1100 prior to commencing operation of the construction or modification to cover the period between the date operation is commenced and until such time as operation is approved under 7 DE Admin. Code 1130. *[Reference: 7 DE Admin. Code 1102 Section 2.1 dated 6/11/06]*

6. "Permit Termination." The Owner and/or Operator may at any time apply for termination of this permit in accordance with 7 DE Admin. Code 1130 Section 7.8.4 or Section 7.8.5. *[Reference: 7 DE Admin. Code 1130 Sections 7.8.4 dated 12/11/00 and 7.8.5 dated 12/11/00]*

n. Permit Transfer.

1. A change in ownership or operational control of this facility shall be treated as an administrative permit amendment where the Department has determined that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new owner has been submitted to the Department. *[Reference: 7 DE Admin. Code 1130 Section 7.4.1.4 dated 12/11/00]*

2. In addition to any written agreement submitted by the Owner and/or Operator in accordance with Condition 2(n)(1), the Owner and/or Operator shall have on file at the Department a statement meeting the requirements of 7 Del. C., Ch 79, Section 7902. *This permit condition is state enforceable only.* *[Reference: 7 Del. C., Ch 79 Section 7902 dated 8/28/2007]*

3. The written agreement required in Condition 2(n)(1) of this permit shall be provided to the Department within a minimum of 30 calendar days prior to the specific date for transfer and shall indicate that the transfer is agreeable to both the current and new owner. *[Reference: 7 DE Admin. Code 1102 Section 7.1 dated 6/1/97]*

o. Property Rights. This permit does not convey any property rights of any sort, or any exclusive privilege. *[Reference: 7 DE Admin. Code 1130 Section 6.1.7.4 dated 12/11/00]*

p. Risk Management Plan Submissions.

1. In the event this stationary source, as defined in the State of Delaware 7 DE Admin. Code 1201 "Accidental Release Prevention Regulation" Section 4.0, is subject to or becomes subject to Section 5.0 of 7 DE Admin. Code 1201 (as amended March 11, 2006), the owner or operator shall submit a risk management plan (RMP) to the Environmental Protection Agency's RMP Reporting Center by the date specified in Section 5.10 and required revisions as specified in Section 5.190. A certification statement shall also be submitted as mandated by Section 5.185.

Condition 2- General Requirements (Cont.)

[Reference: 7 DE Admin. Code 1130 Section 6.1.4 dated 12/11/00, 7 DE Admin. Code 1201 as amended March 11, 2006 and Delaware; Approval of Accidental Release Prevention Program, Federal Register Vol. 6, No. 11 pages 30818-22 dated June 8, 2001]

2. If this stationary source, as defined in 7 DE Admin. Code 1201 Section 4.0, is not subject to Section 5.0 but is subject or becomes subject to Section 6.0 (as amended March 11, 2006), the owner or operator shall submit a Delaware RMP to the State of Delaware's Accidental Release Prevention group by the date as specified in Section 6.6.10 and required revisions as specified by Section 6.6.1. *Note: State enforceable only. [Reference: 7 DE Admin. Code 1201 as amended March 11, 2006]*

q. Protection of Stratospheric Ozone.

When applicable, this Facility shall comply with the following requirements: *[Reference: 40 CFR Part 82 "Protection of Stratospheric Ozone" revised as of 7/1/97 and 7 DE Admin. Code 1130 Section 2.0 dated 11/15/93]*

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - i. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a process that uses a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - ii. The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - iii. The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - iv. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
2. Any person servicing, maintaining, or repairing appliances, except for motor vehicles, shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B. In addition, Subpart F applies to refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment.
 - i. Persons owning appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to §82.154 and §82.156.
 - ii. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - iii. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - iv. Persons performing maintenance, service, repair, or disposal of appliances must certify with the Administrator pursuant to §82.158 and §82.162.
 - v. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like appliance" as defined at §82.152)

Condition 2- General Requirements (Cont.)

- vi. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
- 3. Owners/Operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR Part 82, Subpart F §82.166.
- 4. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, "Production and Consumption Controls".
- 5. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners".
 - i. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. These systems are regulated under 40 CFR Part 82, Subpart F.
- 6. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed as acceptable in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program.
- r. **Severability**. The provisions of this permit are severable. If any part of this permit is held invalid, the application of such part to other persons or circumstances and the remainder of this permit shall not be affected thereby and shall remain valid and in effect. *[Reference: 7 DE Admin. Code 1130 Section 6.1.5 dated 12/11/00]*

Condition 3- Specific Requirements

- a. **Emission Limitations Emission Standards, Operational Limitations, and Operational Standards**. The Owner and/or Operator shall comply with the limitations and standards detailed in Condition 3 – Table 1 of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.1.1 dated 12/11/00]*
- b. **Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)**. The Owner and/or Operator shall maintain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all original strip-chart recordings, where appropriate, for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, the permit may specify that records may be maintained in computerized form. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.2 dated 12/11/00]*
 - 1.
 - i. **Specific Requirements**. The Owner and/or Operator shall comply with the operational limitations, monitoring, testing, and record keeping requirements detailed in Condition 3 – Table 1 which are in addition to those in Conditions 3(b)(1)(ii) and 3(b)(2) of this permit. *[Reference: 7 DE Admin. Code 1130 Sections 6.1.1 dated 12/11/00, 6.1.3.1 dated 12/11/00, and 6.1.10 dated 12/11/00]*

Condition 3- Specific Requirements (Cont.)

- ii. General Testing Requirements. Upon written request of the Department, the Owner and/or Operator shall, at the Owner and/or Operator's expense, sample the emissions of, or fuel used by, an air contaminant emission source, maintain records, and submit reports to the Department on the results of such sampling. *[Reference: 7 DE Admin. Code 111/ Section 2.2 dated 7/17/84]*
2. General Record Keeping Requirements. The Owner and/or Operator shall record, at a minimum, all of the following information:
 - i. If required, for each operating scenario identified in Condition 3 – Table 1 of this permit, a log that indicates the operating scenario under which each particular emission unit is operating. The Owner and/or Operator shall, contemporaneously with changing from one operating scenario to another, record in this log the time at which the operating scenario under which it is operating is changed. *[Reference: 7 DE Admin. Code 1130 Section 6.1.10 dated 12/11/00]*
 - ii. The following information to the extent specified in Condition 3 – Table 1 of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1 dated 12/11/00]*
 - A. The date, place, and time of the sampling or measurements. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.1 dated 12/11/00]*
 - B. The dates analyses were performed. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.2 dated 12/11/00]*
 - C. The Owner and/or Operator or entity that performed the analyses. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.3 dated 12/11/00]*
 - D. The analytical techniques or methods used. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.4 dated 12/11/00]*
 - E. The results of such analyses. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.5 dated 12/11/00]*
 - F. The operating conditions as existing at the time of sampling or measurement. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.6 dated 12/11/00]*
 - iii. If the Owner and/or Operator is claiming the affirmative defense of emergency or malfunction as provided in Condition 2(b)(5); a properly signed, contemporaneous operating logs, or other relevant evidence which indicates that: *[Reference: 7 DE Admin. Code 1130 Section 6.7.5 dated 12/11/00]*
 - A. An emergency or malfunction occurred and the causes of the emergency or malfunction. *[Reference: 7 DE Admin. Code 1130 Section 6.7.3.1 dated 12/11/00]*
 - B. The facility was at the time of the emergency or malfunction being operating in a prudent and professional manner and in compliance with the generally accepted industry operations and maintenance procedures. *[Reference: 7 DE Admin. Code 1130 Section 6.7.3.2 dated 12/11/00]*
 - C. During the period of the emergency or malfunction the Owner and/or Operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.7.3.3 dated 12/11/00]*

Condition 3- Specific Requirements (Cont.)

- iv. A copy of the written notice required by Condition 3(c)(2)(iii) for each change made under Condition 4(c) [Operational Flexibility] of this permit shall be maintained with a copy of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*

c. Reporting and Compliance Certification Requirements.

1. **Specific Reporting/Certification Requirements.** The Owner and/or Operator shall comply with the Reporting/Certification Requirements detailed in Condition 3- Table 1 of this permit, which are in addition to those of Conditions 3(c)(2) and 3(c)(3) of this permit. Each report that contains any deviations from the terms of Condition 3- Table 1 shall identify the probable cause of the deviations and any corrective actions or preventative measures taken. *[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3 dated 12/11/00, 6.1.3.3.3 dated 12/11/00, and 6.1.3.3.4 dated 12/11/00]*
2. **General Reporting Requirements.**
 - i. The Owner and/or Operator shall submit to the Department a report of any required monitoring not later than the **first day of August** (covering the period from January 1 through June 30 of the current calendar year) and the **first day of February** (covering the period July 1 through December 31 of the previous calendar year) of each calendar year. Each report shall identify any deviations from the monitoring, record keeping, and reporting requirements under this permit; and the probable cause of the deviations; and any corrective actions or preventative measures taken. If no deviations have occurred, such shall be stated in the report. *[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.1 dated 12/11/00, 6.1.3.3.2 dated 12/11/00, and 6.1.3.3.4 dated 12/11/00]*
 - ii. In addition to the semiannual monitoring reports required under Condition 3(c)(2)(i), the Owner and/or Operator shall submit to the Department supplemental written reports and/or notices identifying all deviations from permit conditions, probable cause of the deviations, and any corrective actions or preventative measures as follows: *[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.3 dated 12/11/00 and 6.1.3.3.4 dated 12/11/00]*
 - A. If the Owner and/or Operator is claiming the affirmative defense of emergency or malfunction as provided in Condition 2(b)(5) of this permit, a notice of any deviation resulting from emergency or malfunction conditions shall be reported to the Department within two working days of the time when the technology-based emission limitations were exceeded. Such notice shall contain a description of the emergency or malfunction, any steps taken to mitigate emissions, and any corrective actions taken. *[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.3.1 dated 12/11/00 and 6.7.3.4 dated 12/11/00]*
 - B. Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner: *[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.3.3 dated 12/11/00 and 6.1.3.3.3.2 dated 12/11/00]*
 1. Emissions that pose an imminent and substantial danger to public health, safety or the environment must be reported by calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802. *[Reference: 7 DE Admin. Code No 1130, Section 6.1.3.3.3.2 dated 12/11/2000]*
 2. Emissions in excess of any permit condition or emissions which create a condition of air pollution but do not pose an imminent and substantial danger to public health, safety or the environment must either be called in to the Environmental Emergency Notification

Condition 3- Specific Requirements (Cont.)

and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax notifications to the Department may be revoked by the Department upon written notice to the Company and at the Department's sole discretion. *[Reference: 7 DE Admin. Code No 1130, Section 6.1.3.3.3.2 dated 12/11/2000]*

- C. All emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department in a written report pursuant to Condition 3(c)(2)(1) and/or the specific reporting requirements listed in Condition 3 – Table 1 of this permit. *[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.3.3 dated 12/11/00 and 6.1.3.3.3.4 dated 12/11/00]*
- D. Discharges to the atmosphere in excess of any quantity specified in the 7 DE Admin. Code 1203 ("Reporting of a Discharge of a Pollutant or an Air Contaminant") shall be reported, immediately upon discovery and after activating the appropriate site emergency plan, either in person or to the Department's 24-hour Environmental Emergency Notification and Complaint line (1-800-662-8802). Discharges in compliance with this permit and excess emissions previously reported under Condition 3(c)(2)(ii)(B) of this permit are exempt from this reporting requirement. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.3.3.5 dated 12/11/00 and 7 DE Admin. Code 1203]*
- iii. Prior to making a change as provided in Condition 4 [Operational Flexibility] of this permit the Owner and/or Operator shall give written notice to the Department and EPA at least seven calendar days before the change is to be made. *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*
 - A. The seven day period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*
 - B. If less than seven calendar days notice is provided because of a need to respond more quickly to such unanticipated conditions, the Owner and/or Operator shall provide notice to the Department and EPA as soon as possible after learning of the need to make the change, together with the reasons why advance notice could not be given. *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*
 - C. The written notice shall include all of the following information: *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*
 - 1. The identification of the affected emission units and a description of the change to be made.
 - 2. The date on which the change will occur.
 - 3. Any changes in emissions.
 - 4. Any permit terms and conditions that are affected, including any new applicable requirements.
- iv. The Owner and/or Operator shall submit to the Department an annual emissions statement in accordance with 7 DE Admin. Code 1117 Section 7.0 not later than April 30 of each year, or other date as established by the Department, unless an extension by the Department is

Condition 3- Specific Requirements (Cont.)

granted. Such emissions statement shall cover the preceding calendar year. [Reference: 7 DE Admin. Code 1117 Section 7.0 dated 1/11/93]

- v. If required, the Owner and/or Operator shall submit to the Department a progress report for applicable requirements identified in Condition 5 – Table 1 of this permit. Such reports shall be submitted not later than the first day of August (covering the period from January 1 through June 30 of the current calendar year) and the first day of February (covering the period July 1 through December 31 of the previous calendar year) of each calendar year. Each progress report shall include the following: [Reference: 7 DE Admin. Code 1130 Sections 5.4.8 dated 11/15/93 and 6.3.4 dated 12/11/00]
 - A. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved. [Reference: 7 DE Admin. Code 1130 Section 6.3.4.1 dated 12/11/00]
 - B. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. [Reference: 7 DE Admin. Code 1130 Section 6.3.4.2 dated 12/11/00]
- vi. Nothing herein shall relieve the Owner and/or Operator from any reporting requirements under federal, state, or local laws. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.3.3.5 dated 12/11/00]

3. General Compliance Certification Requirements.

- i. Compliance with terms and conditions of this permit shall be certified to the Department not later than the first day of February of each year unless the terms or conditions in Condition 3– Table 1 of this permit require compliance certifications to be submitted more frequently. Such certification shall cover the previous calendar year and shall be submitted on Form AQM-1001BB. The Compliance Certification shall include the following information: [Reference: 7 DE Admin. Code 1130 Section 6.3.5.1 dated 12/11/00]
 - A. The identification of each term or condition of the permit that is the basis of the certification. [Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.1 dated 12/11/00]
 - B. The Owner and/or Operator's current compliance status, as shown by monitoring data and other information reasonably available to the Owner and/or Operator. [Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.2 dated 12/11/00]
 - C. Such certification shall indicate whether compliance was continuous or intermittent during the covered period. [Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.3 dated 12/11/00]
 - D. The methods used for determining the compliance status of the Owner and/or Operator, currently and over the reporting period as required by the monitoring, record keeping, and reporting required under Condition 3. [Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.4 dated 12/11/00]
 - E. Such other facts as the Department may require to determine the compliance status of the source. [Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.5 dated 12/11/00]
- ii. Each compliance certification shall be submitted to the Department and EPA and shall be certified in accordance with Condition 2(a) of this permit. [Reference: 7 DE Admin. Code 1130 Section 6.3.5.4 dated 12/11/00]

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Condition 3- Specific Requirements (Cont.)

- iii. Any additional information possessed by the Owner and/or Operator that demonstrates non-compliance with any applicable requirement must also be used as the basis for compliance certifications. *[Reference: 62 FR 8314 dated 2/24/97]*

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>a. Emission Unit No. 1 Twelve (12) Portable Passive Flares for Odor Control</p> <p>1. Standards</p>		
<p>i. <u>Emission Standards</u> The flares shall be operated with no visible emissions as determined by Reference Method 22 (RM 22), except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours. [Reference: 40 CFR Part 60.18(c)(1) dated 1/21/86]</p>	<p>v. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00]</p>	<p>x. <u>Reporting</u> In addition to that required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall provide the following: [Reference: Permit APC-95/0466, Condition 7]</p> <p>A. A notification to the Department within 24 hours after relocation of flares within or to any DSWA landfill sites. This notification can be made via email or fax which includes the following information: 1. Which flare(s) is (are) being relocated. 2. The site of the relocated flare(s). 3. The reason for the flare(s) relocation. 4. The date and time the flare(s) was (were) relocated. 5. The intended period of time the flare(s) is(are) proposed for use at that location.</p> <p>B. The Company shall calculate/estimate the emissions from all passive flares used at the site based on actual hours of operation and include this information in the annual emissions inventory report. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 5.2.1 dated 12/11/00]</p>
<p>ii. <u>Emission Limitations</u> None.</p>	<p>vi. <u>Monitoring</u> At a minimum, the owner/operator shall monitor the following: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p> <p>A. The number of hours and days each flare is in use. B. The operational limitations of Condition 3-Table 1(a)(1)(iv).</p>	
<p>iii. <u>Operational Standards</u> None.</p>	<p>vii. <u>Testing</u> In addition to that required by Condition 3(b)(1)(if) of this permit, the owner/operator shall conduct a daily visible emissions observation at least for ten (10) minutes when landfill is in operation. [Reference: 7 DE Admin Code 1130 Sections 6.1.3 dated 12/11/00]</p>	
<p>iv. <u>Operational Limitations</u> A. Each portable passive flare shall be used for temporary installation and operation only as odor control device. The passive flares do not in any way relieve the Company of the requirements of Condition 3-Table 1(b), (c) & (d), and cannot be used as a substitute control device. [Reference: Permit APC-95/0466-Operation dated 5/15/95, Conditions 3 and 7; DE Admin Code 1130 Sections 6.1.1 & 6.2.1 dated 12/11/00] B. Each portable passive flare assembly shall be tagged with a permanent identification that designates and identifies an individual flare unit. This designation shall be used in all relocation correspondence. [Reference: Permit APC-95/0466 -Operation dated 5/15/95, Condition 5]</p>	<p>viii. <u>Quality Assurance/Quality Control</u> None.</p> <p>ix. <u>Record Keeping</u> In addition to the requirements of Conditions</p>	<p>xi. <u>Compliance Certification</u> In addition to that required by Condition</p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>C. The identification tag shall be of a physical form approved by the Department, such as a welded or riveted plate or engraving. [Reference: Permit APC-95/0466 Operation dated 5/15/95, Condition 5]</p> <p>D. Each flare unit and connected piping system shall be maintained in proper operating condition. [Reference: Permit APC-95/0466 Operation dated 5/15/95, Condition 8]</p> <p>E. Each flare unit shall be equipped with a flame arrester to prevent flashback to the landfill. [Reference: Permit APC-95/0466 Operation dated 5/15/95, Condition 9]</p> <p>F. Each flare unit relocation shall be for a period of time not to exceed 180 days unless another time period is submitted to and approved by the Department. Any request to extend that time period shall be submitted to the Department a minimum of 30 days prior to expiration of the 180 days. [Reference: Permit APC-95/0466- Operation dated 5/15/95, Condition 5]</p>	<p>3(b)(1)(ii) and 3(c)(2) of this permit, the Company shall maintain records of the information monitored in Condition 3 –Table 1(a)(1)(vi). [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p>	<p>3(c)(3) of this permit, compliance shall be based on monitoring, records keeping and reporting requirements of this section. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00]</p>
<p>b. Emission Unit Nos. 2 and 3 Two Low-NO_x enclosed flares designated as ZULE-A ("Zink-A") and ZULE-B ("Zink-B") with rated burner capacity of each flare 136.62 MMBTU/hr @ 50% CH₄ in landfill gas (LFG).</p>		
<p>1. Pollutants</p>		
<p>i. <u>Emission Standards</u> The flare shall be operated with no visible emissions as determined by RM 22, except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours. [Reference: 40 CFR Part 60.18(c)(1) dated 1/21/86]</p> <p>ii. <u>Emission Limitations</u> Air contaminant emission limitations from the</p>	<p>v. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00]</p>	<p>x. <u>Reporting</u> A. In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the owner/operator shall submit to the Department semi-annual reports of all operational exceedances that contain the value and length of time for exceedance of parameters monitored under Condition 3-</p>

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>combustion flares shall not exceed the following: [Reference: Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08; 7 DE Admin Code 1.130 Sections 6.1.1 dated 12/11/00]</p> <p>A. Nitrogen Oxide (NO_x) Emissions</p> <ol style="list-style-type: none"> 1. A rate of 0.025 pound per million BTU for each Low-NOx enclosed flare. 2. 11.95 tons per 12-month rolling period for each Low-NOx enclosed flare, and a total of 23.9 tons per 12-month rolling period for both flares combined. <p>B. Carbon Monoxide (CO) Emissions</p> <ol style="list-style-type: none"> 1. A rate of 0.06 pound per million BTU for each flare. 2. 57.4 tons per 12-month rolling period for both flares combined. <p>C. Particulate Matter (PM) Emissions</p> <ol style="list-style-type: none"> 1. A rate of 2.3 pounds per hour for each flare. 2. 16 tons per 12-month rolling period for both flares combined. <p>D. Non-Methane Organic Compound (NMOC) Emissions</p> <p>0.61 tons per 12-month rolling period for both flares combined.</p> <p>E. Sulfur Oxide (SO_x) Emissions</p> <ol style="list-style-type: none"> 1. A rate of 19.7 pounds per hour for each flare. 2. 77 tons per 12-month rolling period for both flares combined. <p>F. Hydrochloric Acid (HCl) Emissions</p> <ol style="list-style-type: none"> 1. A rate of 0.28 pounds per hour for each flare. 2. 1.11 tons per 12-month rolling period for 	<p>vi. Monitoring The owner/operator shall monitor the following: [Reference: 7 DE Admin Code 1.130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00; 40 CFR Part 60.18(f)(2) dated 7/1/05; Permit APC-2004/0746-(NSPS)(MACT) dated 2/4/08, Conditions 4.2, 4.4, 4.5 & 4.9]</p> <p>A. The flare to ensure that it is operated and maintained in conformance with its design.</p> <p>B. The presence of a flare pilot flame by using a thermocouple or any other equivalent device to detect the presence of a flame.</p> <p>C. The flare flame monitoring equipment shall be inspected monthly.</p> <p>D. The flow rate of landfill gas to the flare each day.</p> <p>E. The operational standards and limitations of Condition 3-Table 1(b)(1)(iii) & (iv).</p> <p>F. Compliance with the opacity requirements of Condition 3-Table 1(b)(1)(i) shall be determined once per quarter using RM 22 while flares are in operation from 40 CFR 60, Appendix A, dated 7/1/05. If visual emissions are determined to be in excess of the limitation in Condition 3-Table 1(b)(1)(i), the Company shall take all means necessary to minimize emissions and to operate the flare without visible emissions.</p> <p>G. While in operation, a flow meter shall be used to continuously monitor and record the gas flow rate to the flare. The owner/operator shall follow all</p>	<p>Table 1(b)(1)(vi). [Reference: 40 CFR Part 60.257(f) dated 7/1/05, 40 CFR Part 63.1990 dated 1/16/03 and Permit APC-2004/0746-Operation (NSPS)(MACT), Condition 6]</p> <p>B. The owner/operator shall report actions within 2 working days, followed by a letter within 7 working days, following actions that are not consistent with the startup, shutdown, or malfunction plan. [Reference: Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08, Condition 6.4]</p> <p>xi. Compliance Certification In addition to that required by Condition 3(c)(3) of this permit, the owner/operator shall:</p> <p>A. Use RM22 of Appendix A 40 CFR Part 60 to determine compliance with the visible emissions provision of Condition 3-Table 1(b)(1)(i). [Reference: 40 CFR Part 60.18(f)(1) dated 7/1/05]</p> <p>B. Calculate the net heating value of the gas being combusted in the flare using the method specified in 40 CFR Part 60.18(f)(3). [Reference: 40 CFR Part 60.18(f)(3) dated 7/1/05]</p> <p>C. Demonstrate compliance with the emission limitations of Condition 3 – Table 1(b)(1)(i) each month based on the amount of gas combusted, actual NMOC, H₂S, and methane concentrations, approved emission factors and good engineering assumptions. [Reference: 7 DE Admin Code 1.130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00; Reference: Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08,</p>

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>both flares combined.</p> <p><u>Operational Standards</u></p> <p>A. The flares shall be operated with a flame present at all times and shall be operated at all times when collected landfill gas is routed to the system. [Reference: 40 CFR Part 60.18(c)(2) dated 1/21/86 and Permit APC-2004/0746-Operation (NSPS)(MACT); Condition 3.2.4]</p> <p>B. The flare flame detection device shall be in proper operation whenever the flare is in operation. [Reference: Permit APC-2004/0746-Operation (NSPS)(MACT), Condition 3.2.5]</p> <p>C. The owner/operator shall adhere to the flare gas heat content specifications in 40 CFR 60, Subpart A, §60.18(c)(3)(ii) and the flare exit velocity specifications in §60.18(c)(4) dated 7/1/05.</p> <p>D. Landfill gas flow shall be diverted to the flare system for combustion within one (1) hour of gas compression plant shutdown during normal operating hours and within four (4) hours outside of normal operating hours. Normal operating hours shall mean Monday through Friday, 0700 hours until 1500 hours, excluding holidays and weather-related landfill closings. [Reference: Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08, Condition 3.4]</p> <p>E. The flares shall be operated according to the latest startup, shutdown, and malfunction plan (SSMP) during all periods of startup, shutdown, and malfunction. [Reference: 40 CFR 63, Subpart A, §63.6(e)(3), dated 7/1/05 and Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08, Condition 3.3]</p>	<p>applicable requirements for the landfill outlined by 40 CFR Part §60.756- Monitoring of operations and 40 CFR Part 60.18(c)-General control device requirements (for flares).</p> <p><u>Testing</u></p> <p>A. The performance of the flow monitor shall be demonstrated at least once each year by passing the tests given in 40 CFR 60 Appendix B, Performance Specification 6 except for calibration drift. [Reference: Permit APC-2004/0746- (NSPS)(MACT)) dated 2/4/08, Condition 4.6.1]</p> <p>B. The owner/operator shall notify the Department at least thirty (30) days prior to any flow monitor test to give the Department the opportunity to witness the test. [Reference: Permit APC-2004/0746- (NSPS)(MACT)) dated 2/4/08 , Condition 4.6.2]</p> <p>C. DSWA may use GEM testing and lab sample analysis results to perform calculations referred by Condition 3- Table 1(b)(iii)(C) quarterly basis. The Company shall perform calculations once per calendar year as identified by federal regulation 40 CFR 60, Subpart A, §60.18(f)(3). [Reference: 40 CFR Part 60.18(f)(3) dated 7/1/05 and Permit APC-2004/0746- (NSPS)(MACT), Condition 4.7]</p> <p>vii. Quality Assurance/Quality Control None.</p>	<p><u>Condition 4.9J</u></p> <p>D. Calculate emissions from the flares as identified by Condition 3-Table 1(b)(x)(F) by the end of each month for the previous month. [Reference: 7 DE Admin Code 1.130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00 and Permit APC-2004/0746- (NSPS)(MACT) dated 2/4/08, Condition 5.3]</p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>F. All structural and mechanical components of the flare and gas collection and treatment system shall be maintained in proper operating condition. [Reference: Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08, Condition 3.5]</p> <p>G. The flare shall have an NMOC destruction efficiency of at least 98%. [Reference: 40 CFR Part 60.752(b) dated 7/1/05]</p>	<p>ix. <u>Record Keeping</u> In addition to the requirements of Conditions 3(b)(1)(i) and 3(b)(2) of this permit, the owner/operator shall keep and maintain the following records. Any written log shall be initialed. The log shall include details addressing any deficiencies noted and the corrective action(s) taken. [Reference: 40 CFR Part 60.758(c)(4) dated 7/1/05 and Permit APC-2004/0746- (NSPS)(MACT) dated 2/4/08, Conditions 3.2.8, 5.2, 5.3 & 5.4]</p> <p>A. Periods of operation for each flare. B. Reason flare is not in operation. C. Daily, monthly and 12-month rolling usage of landfill gas to each flare. D. RM 22 records. E. Inspection and maintenance records of flares including flame and pilot flame monitoring. F. The monthly and rolling twelve (12) month total emissions shall be calculated by using landfill gas flow rate to each flare, hours of flare operation, site specific data, stack test results and AP-42 factors as appropriate, and recorded each month in a log for each of the following pollutants: 1. Nitrogen oxides; 2. Carbon monoxide; 3. Particulates Matter; 4. Non-methane organic compounds; 5. Sulfur oxides; and 6. Hydrochloric acid</p> <p>G. The Company shall keep copies of the following: 1. Data showing flame presence;</p>	
<p>iv. <u>Operational Limitations</u> [Reference: Permit APC-2004/0746- (NSPS)(MACT) dated 2/4/08, Conditions 3.1, 3.2.8, 3.2.1, 3.2.2 & 3.2.3; 7 DE Admin Code 1130 Sections 6.1.1 dated 12/11/00]</p> <p>A. The flares shall be operated in conjunction with the gas collection system to control odors as its top priority.</p> <p>B. The total amount of landfill gas burned through ZULE-A and ZULE-B shall be no more than 3,780 MMscf (million standard cubic foot) per 12-month rolling period.</p> <p>C. The maximum flow to the each flare shall be no more than 4,500 scfm (standard cubic foot per minute).</p> <p>D. The flare shall be operated as per the manufacturer's recommendation. Flare operating parameters shall include but are not limited to flare flow rate, flame temperature and residence time.</p>		

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	<ol style="list-style-type: none"> 2. Inspections of flare monitoring equipment; 3. Flare velocity and landfill gas BTU content data; 4. A statement of qualifications of personnel performing RM 22. 5. Calibration records for all flow meters; 6. Landfill gas test information, including test protocol, raw data and final report; and 7. All parts of the startup, shutdown and malfunction plan, including: <ul style="list-style-type: none"> • The occurrence and duration of each startup, shutdown, or malfunction of operation. • The occurrence and duration of each malfunction of the air pollution control and monitoring equipment. • All required maintenance performed on the air pollution control and monitoring equipment. • Actions taken during period of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the startup, shutdown, and 	

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>c. Emission Unit Landfill Gas Collection and Control System (This may include but is not limited to vertical LFG extraction wells, horizontal LFG collection trenches, header pipes including newly constructed 18" and 24" headers, various wellhead components, LFG condensate handling system, surface collectors. Flares are addressed by Emission Units 2 and 3 on Pages 18-23.)</p>	<ul style="list-style-type: none"> malfunction plan. All information necessary to demonstrate compliance with the startup, shutdown, and malfunction plan when actions are consistent with the plan. 	
<p>1. Standards</p> <p>i. Emission Standards None.</p> <p>ii. Emission Limitations None.</p> <p>iii. Operational Standards</p>	<p>v. Compliance Methods Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/1/00]</p> <p>vi. Monitoring The owner/operator shall:</p> <p>A. Measure gauge pressure in the gas collection header at each individual well, monthly. [Reference: 40 CFR Part 60.755(a)(3) & 60.756(a)(1), 7/1/01 edition]</p> <p>B. Monitor each well for temperature and nitrogen or oxygen, monthly. [Reference: 40 CFR Part 60.755(a)(5) & 60.756(a)(2), 7/1/01 edition]</p> <p>C. Monitor surface concentrations of methane along the entire perimeter of the collection area and along a serpentine pattern spaced 30 meters apart (or a site-specific established spacing) for each collection area on a</p>	
<p>A. Operate the collection system such that gas is collected from each area, cell, or group of cells in the landfill in which the solid waste has been in place for a period of:</p> <ol style="list-style-type: none"> 5 years or more if active; or 2 years or more if closed or at final grade. <p>[Reference: 40 CFR 60.753(a), 7/1/01 edition]</p> <p>B. Operate the collection system to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment. [Reference: 40 CFR 60.752(b)(2)(iv)(A), 7/1/01 edition]</p> <p>C. Operate the system such that all collected gases are vented to the gas treatment plant that processes the collected gas for</p>	<p>x. Reporting In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall submit to the Department the following reports:</p> <p>A. An amended design capacity report when there is an increase in the design capacity of the landfill, whether the increase results from an increase in the area or depth of the landfill, a change in the operating procedures of the landfill or any other means. The amended design capacity report shall be submitted within 90 days of the issuance of an amended construction or operating permit, or the placement of waste in additional land, or the change in operating procedures which will result in an increase in maximum design capacity, whichever occurs first. [Reference: 40 CFR Part 60.757(a)(1) & 60.757(a)(3), 7/1/01 edition]</p>	

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>subsequent sale or use and/or to permitted landfill gas flares that are designed and operated in accordance with §60.18 [Reference: 40 CFR Parts 60.753(e) and 60.752 (b)(2)(ii)(A) & (C), 7/1/01 edition]</p> <p>D. Operate the control or treatment system at all times when the collected gas is routed to the system [Reference: 40 CFR 60.753(f), 7/1/01 edition]</p> <p>E. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour. [Reference: 40 CFR 60.753(e), 7/1/01 edition]</p> <p>F. The provisions of this permit apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices. [Reference: 40 CFR 60.755(e), 7/1/01 edition]</p> <p>G. The owner/operator shall implement a program to monitor for cover integrity and implement cover repairs as per permit SW-06/01 dated 1/6/06 issued by the Solid and Hazardous Waste Management Branch, DNREC or as the permit is modified or renewed in future.</p> <p>H. Wellhead pressure standards</p> <p>1. Operate the collection system with negative pressure at each wellhead except under condition the following conditions: [Reference: 40 CFR Part 60.753(b), 7/1/01 edition]</p>	<p>quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 60.755(d). [Reference: 40 CFR Part 60.753(d) & 60.755(c)(1), 7/1/01 edition]</p> <p>1. Monitoring shall also be performed where visual observations, such as distressed vegetation and cracks or seeps in the cover, indicate elevated concentrations of landfill gas.</p> <p>2. Areas with steep or otherwise dangerous areas may be excluded from the surface testing.</p> <p>3. All penetrations from the landfill, by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells. [Reference: 40 CFR Part 60.755(c)(2), 7/1/01 edition]</p> <p>E. Develop a surface monitoring plan for methane that includes: [Reference: 40 CFR Part 60.753(d), 7/1/01 edition]</p> <p>1. A topographical map with the monitoring route identified and spaced at 30 meter intervals.</p> <p>2. The rationale for any site-specific deviations from the 30 meter intervals.</p> <p>3. All penetrations from the landfill.</p> <p>F. Implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [Reference: 40 CFR Part 60.755(c)(5), 7/1/01 edition]</p>	<p>B. MACT requirement: The owner/operator shall submit to the Department compliance reports every 6 months (semi-annually) as specified in 40 CFR Parts 63.1980(a) and (b), and Condition 3-Table 1(c)(4)(x) including information on all deviations as defined in 40 CFR Part 63.1990 that occurred during the 6-month reporting period. The semi-annual reports are due by February 1 and August 1 of each calendar year. [Reference: 40 CFR Parts 63.1980(a) & (b), 7/1/01 edition]</p> <p>C. In addition to the information outlined in MACT requirement of this section, the owner/operator shall submit to the Department semi-annual reports of the recorded information in (1.) through (5) below: [Reference: 40 CFR Part 60.757(f), 7/1/01 edition and 40 CFR Part 63.1980 dated 1/16/03]</p> <p>1. Value and length of time for exceedance of applicable parameters monitored under Condition 3-Table 1(c)(1)(vi) and (c)(2)(vi).</p> <p>2. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow.</p> <p>3. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.</p> <p>4. All periods when the collection system</p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<ul style="list-style-type: none"> ▪ A fire or increased well temperature. ▪ Use of geomembrane or synthetic cover, in which case the operator shall develop acceptable pressure limits in the design plan. ▪ A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Department. <p>2. If a positive pressure exists, action shall be initiated by the Company to correct the exceedance within 5 calendar days, except for the three conditions allowed under paragraph H(1) above. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. [Reference: 40 CFR Part 60.755(a)(2) and 60.753(b), 7/1/01 edition]</p> <p>I. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55°C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The Company may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value</p>	<p>G. <i>7/1/01 edition</i> Monitor training records for all personnel performing landfill gas monitoring and update records as needed. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p> <p>vii. <u>Testing</u> In addition to that required by Condition 3(b)(1)(ii) of this permit, the owner/operator shall: <i>(40 CFR Part 60, dated 7/1/97, 7 DE Admin Code 1120, Section 28, dated 4/11/98)</i> [Sections A through E below address surface emissions monitoring equipment] A. Perform surface emission monitoring in accordance with section 'individual source survey' of Method 21 of 40 CFR Part 60, Appendix A, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions. [Reference: 40 CFR Part 60.755(c)(2), 7/1/01 edition] B. The portable analyzer shall meet the instrument specifications provided in section 'apparatus' of Method 21 of 40 CFR Part 60, Appendix A, except that "methane" shall replace all references to VOC. [Reference: 40 CFR Part 60.755(d)(1), 7/1/01 edition] C. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air. [Reference: 40 CFR Part 60.755(d)(2), 7/1/01 edition]</p>	<p>was not operating in excess of 5 days.</p> <p>5. The location of each exceedance of the 500 parts per million methane concentration and the concentration recorded at each location for which an exceedance was recorded in the previous quarter.</p> <p>6. The date of installation and the location of each well or collection system expansion added along with new plot maps that indicate the locations of all new equipment.</p> <p>D. The owner/operator shall submit an NMOC emission rate report to the Department annually, except as provided for in paragraph (3) below. The Department may request such additional information as necessary to verify the reported NMOC emission rate. [Reference: 40 CFR 60.757(b), 7/1/01 edition and 7 DE Admin Code 1120, Section 28(a) dated 4/11/98]</p> <p>1. The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.754 (a) or (b), as applicable.</p> <p>2. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.</p> <p>3. The Company subject to the requirements of this subpart, is exempted from the requirements of paragraphs 1 and 2 of this section,</p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens. [Reference: 40 CFR Part 60.753(c), 7/1/01 edition]</p> <p>Approval of gas wellhead operating temperature increase will be evaluated case-by-case basis.</p> <p>2. If a well exceeds one of the operating parameters specified in Condition 3-Table 1 (c)(iii)(1), action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. [Reference: 40 CFR Part 60.755(a)(5), 7/1/01 edition]</p> <p>3. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. [Reference: 40 CFR Part 60.755(a)(5), 7/1/01 edition]</p> <p>4. If corrective actions are taken as specified in paragraph (b) above, the monitored exceedance is not a violation of the operational requirements in this section. [Reference: 40 CFR Part 60.753(b), 7/1/01 edition]</p> <p>J. Methane Standard Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct</p>	<p>D. Follow performance evaluation requirements and instrument evaluation procedures of Method 21 of 40 CFR Part 60, Appendix A. [Reference: 40 CFR Part 60.755(d)(3), 7/1/01 edition]</p> <p>E. The calibration procedures provided in Method 21 of Appendix A shall be followed immediately before commencing a surface monitoring survey. [Reference: 40 CFR Part 60.755(d)(4), 7/1/01 edition]</p> <p>F. The nitrogen level shall be determined using Method 3C of 40 CFR Part 60, Appendix A. [Reference: 40 CFR Part 60.753(c)(1), 7/1/01 edition]</p> <p>G. The oxygen level shall be determined by an oxygen meter using Method 3A of 40 CFR Part 60, Appendix A except that: [Reference: 40 CFR Part 60.753(c)(2), 7/1/01 edition]</p> <p>1. The span shall be set so that the regulatory limit is between 20 and 50 percent of the span. 2. A data recorder is not required. 3. Only two calibration gases are required, a zero and a span, and ambient air may be used as the span. 4. A calibration error check is not required. 5. The allowable sample bias, zero drift, and calibration drift are plus/minus 10 percent. H. The NMOC emission rate shall be calculated using the appropriate</p>	<p>after the installation of a collection and control system in compliance with Condition 3-Table 1(a), (c), (d) and (e), during such time as the collection and control system is in operation and in compliance with Condition 3-Table 1(a), (c), (d), and (e). [References: 40 CFR 60.757(b)(3), 7/1/01 edition]</p> <p>E. The owner or operator shall submit the quarterly H₂S concentration in LFG analysis results identified by Condition 3-Table 1(c)(1)(vi)(I) by the end of each quarter for the previous quarter.</p> <p>xi. <u>Compliance Certification</u> In addition to that required by Condition 3(c)(3) of this permit, the Company shall: A. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with Condition 3-Table 1(c)(1)(ii)(B), the appropriate equation from 40 CFR Part 60.755(a)(1) shall be used. The k and L₀ kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Department. If k has been determined as specified in 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age</p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>surface testing around the perimeter of the collection area along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing. [Reference: 40 CFR Part 60.753(d), 7/1/01 edition]</p> <p>IV. <u>Operational Limitations</u> All landfill gas monitoring shall be performed by trained personnel. [Reference: 7 DE Admin Code 1130 Sections 6.1.1 & 6.2.1 dated 12/11/00]</p>	<p>equation provided in 40 CFR Part 60.754(a). [Reference: 40 CFR Part 60.754(a), 7/1/01 edition]</p> <p>I. Each month, the owner or operator shall sample the landfill gas using Department approved test methods to determine methane and H₂S content. A dräger tube (or equivalent) test can be accepted for monthly determination of H₂S in landfill gas along with a quarterly test by ASTM D5504 or EPA Method 15/16. The owner or operator shall take measure to complete a quarterly test, and provide time for a repeat test within that quarter, if necessary. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p> <p>J. Each quarter, the owner or operator shall sample the landfill gas using Department approved test methods to determine NMOC content. EPA Method 25c can be used as the Department approved test method. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p> <p>viii. <u>Quality Assurance/Quality Control</u> Training shall include but not be limited to such things as sampling methods, instrument calibration, instrument response time, instrument response factors, and calibration gases. [Reference: 7 DE Admin Code 1130 Sections 6.1 & 6.2.1 dated 12/11/00]</p> <p>ix. <u>Record Keeping</u> In addition to the requirements of Conditions</p>	<p>of the landfill plus the estimated number of years until closure. [Reference: 40 CFR Part 60.755(a)(1)], 7/1/01 edition]</p> <p>B. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under Condition 3–Table 1(c)(1)(iii)(I). [Reference: 40 CFR Part 60.755(a)(3), 7/1/01 edition]</p> <p>C. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measurement shall not cause exceedances of other operational or performance standards. [Reference: 40 CFR Part 60.755(a)(3)], 7/1/01 edition]</p> <p>D. Installation of additional wells is not required during the first 180 days after gas collection system start-up. [Reference: 40 CFR Part 60.755(a)(4), 7/1/01 edition]</p> <p>E. If a well exceeds one of the operating parameters of Condition 3–Table 1(c)(1)(iii)(I), action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the</p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall:</p> <p>A. Keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. [Reference: 40 CFR Part 60.758(a), 7/1/01 edition]</p> <p>B. Keep readily accessible records for the life of the control equipment of the data listed in the following as measured during the initial performance test or compliance determination. [Reference: 40 CFR Part 60.758(b), 7/1/01 edition]</p> <ol style="list-style-type: none"> 1 The maximum expected gas generation flow rate as calculated in §60.755(a)(1). 2 The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR Part §60.759(a)(1). 3 The flare type (i.e., steam assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in §60.18; continuous records of the flare pilot flame or 	<p>exceedance within 120 days of the initial exceedance. Any attempted corrective measurements shall not cause exceedances of other operational or performance standards. [Reference: 40 CFR Part 60.755(e)(5), 7/1/01 edition]</p> <p>F. Any reading of 500 ppm or more above background at any location shall be recorded as a monitored exceedance and the following actions shall be taken. As long as the following specified actions are taken, the exceedance is not a violation of the operational requirements. [Reference: 40 CFR Part 60.755(c)(4), 7/1/01 edition]</p> <ol style="list-style-type: none"> 1 The location of each monitored exceedance shall be marked and the location recorded. 2 Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance. 3 If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in Condition 3 – Table 1(c)(1)(x)(F)(5) shall be taken, and no further monitoring of 	<p>exceedance within 120 days of the initial exceedance. Any attempted corrective measurements shall not cause exceedances of other operational or performance standards. [Reference: 40 CFR Part 60.755(e)(5), 7/1/01 edition]</p> <p>F. Any reading of 500 ppm or more above background at any location shall be recorded as a monitored exceedance and the following actions shall be taken. As long as the following specified actions are taken, the exceedance is not a violation of the operational requirements. [Reference: 40 CFR Part 60.755(c)(4), 7/1/01 edition]</p> <ol style="list-style-type: none"> 1 The location of each monitored exceedance shall be marked and the location recorded. 2 Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance. 3 If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in Condition 3 – Table 1(c)(1)(x)(F)(5) shall be taken, and no further monitoring of

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent.</p> <p>C. Keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Conditions 3 – Table 1(c)(1)(iii) & (vi) as well as up-to-date, readily accessible records for periods of during which the parameter boundaries established during the most recent performance test are exceeded. [Reference: 40 CFR Part 60.758(c)(1), 7/1/01 edition]</p> <p>D. Keep up-to-date, readily accessible continuous records of the indication of flow to the control device or indication of bypass flow. [Reference: 40 CFR Part 60.758(c)(2), 7/1/01 edition]</p> <p>E. Records of subsequent tests or monitoring including monitoring of H₂S concentration in landfill gas shall be maintained for a minimum of 5 years. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p> <p>F. Records of the control device vendor specifications shall be maintained until removal. [Reference: 40 CFR Part 60.758(b), 7/1/01 edition]</p> <p>G. Keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and provide a unique identification location label for each collector. [Reference: 40 CFR Part</p>	<p>that location is required until the action specified in Condition 3 – Table 1(c)(1)(xi)(F)(5) has been taken.</p> <p>4. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in Condition 3 – Table 1(c)(1)(xi)(F)(3) or (5) shall be taken.</p> <p>5. For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Department for approval.</p> <p>G. Compliance with all standards and</p>	<p>that location is required until the action specified in Condition 3 – Table 1(c)(1)(xi)(F)(5) has been taken.</p> <p>4. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in Condition 3 – Table 1(c)(1)(xi)(F)(3) or (5) shall be taken.</p> <p>5. For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Department for approval.</p> <p>G. Compliance with all standards and</p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>H.</p>	<p><i>60.758(d), 7/1/01 edition</i> Keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors. [Reference: <i>40 CFR Part 60.758(d)(1), 7/1/01 edition</i>]</p> <p>I.</p> <p>Keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as well as any nonproductive areas excluded from collection. [Reference: <i>40 CFR Part 60.758(d)(2), 7/1/01 edition</i>]</p> <p>J.</p> <p>Keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards, the reading in the subsequent month whether or not the second reading is an exceedance, the location of each exceedance and any corrective actions taken on monitored exceedances. [Reference: <i>40 CFR Part 60.758(e), 7/1/01 edition</i>]</p> <p>K.</p> <p>Record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports. [Reference: <i>40 CFR Part 60.753(b)(1), 7/1/01 edition</i>]</p> <p>L.</p> <p>The operational standards and limitations monitored in accordance with Conditions 3-Table 1(c)(1)(iii) & (iv). [Reference: <i>7 DE Admin Code 1.130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00</i>]</p>	<p>limitations of Condition 3 – Table 1(c)(1)(iii) and (iv) shall be based upon record keeping. [Reference: <i>7 DE Admin Code 1.130 Sections 6.1.3.2.3 & 6(b)(1) dated 12/11/00</i>]</p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>2. Well Decommissioning</p>		
<p>i. <u>Emission Standards</u> None.</p>	<p>v. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1.130 Section 6.3 dated 12/11/00]</p>	<p>x. <u>Reporting</u> In addition to that required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the owner/operator shall: [Reference: 7 DE Admin Code 1.130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00]</p> <p>A. Provide the Department with written notification at least 15 days prior to beginning well decommissioning that includes the following:</p> <ol style="list-style-type: none"> 1. The reason for well decommissioning. 2. A plot map that clearly identifies all nearby active wells and the wells to be decommissioned. 3. Estimated approximate radius of influence (ROI) of the well to be decommissioned and the ROIs of the nearby active wells or LFG collection trenches. 4. Documentation that demonstrates that the wells have been unproductive. <p>B. Provide a summary report of the results and details of the plans to abandon the decommissioned well(s) to the Department for approval prior to formal abandonment.</p> <p>C. Provide a summary report of landfill gas flow rate and surface emissions monitoring outlined by Condition 3-Table 1(c)(2)(vi)(A)&(B).</p>
<p>ii. <u>Emission Limitations</u> None.</p>	<p>vi. <u>Monitoring</u> [Reference: 7 DE Admin Code 1.130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p> <p>A. The owner/operator shall monitor the average weekly flow rate of landfill gas collected at the flare/gas station for three (3) months after the well(s) decommissioning and compare with the three (3) months prior to well(s) decommissioning to determine if gas collection has increased, decreased or remained constant as a result of the decommissioning of the extraction points.</p> <p>B. The Company shall conduct monthly surface monitoring in the vicinity of the decommissioned well(s) for three (3) consecutive months after initial well decommissioning to determine if additional wells are needed to control fugitive gas emissions or if the decommissioned well(s) need to be returned to service.</p>	
<p>iii. <u>Operational Standards</u> None.</p>		
<p>iv. <u>Operational Limitations</u> [Reference: 7 DE Admin Code 1.130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p>	<p>A. The wellhead valve(s) shall be closed.</p> <p>B. The remaining gas collection system shall be rebalanced and checked during the remainder of the current month and the following two months after valve closure to allow the collection system to adapt without the contribution of the decommissioned well(s).</p> <p>C. After DNREC review of data and upon written approval from the Department for final abandonment, remove wellhead(s), cut and cap the vacuum line and gas well casing a minimum of three (3) feet below ground, backfill with soil as appropriate, and repair cap. The initial approval for well decommissioning from the Division of Air Quality does not preclude any requirements by the Department's Solid and Hazardous Waste Management Branch (SHWMB).</p>	

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>vii. <u>Testing</u> That required by Condition 3(b)(1)(ii) of this permit.</p> <p>viii. <u>Quality Assurance/Quality Control</u> None.</p> <p>ix. <u>Record Keeping</u> In addition to the requirements of Condition 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall maintain records of the monitoring required by Condition 3-- Table 1(c)(2)(vi). [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p>	<p>x. <u>Compliance Certification</u> In addition to that required by Condition 3(c)(3) of this permit, compliance shall be demonstrated by record keeping and reporting. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6(b)(1) dated 12/11/00]</p>	<p>x. <u>Reporting</u> In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(i), and 3(c)(2) of this permit, the owner/operator shall: A. Submit a closure report to the Department within 30 days of waste acceptance cessation. The Department may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of Section 258.60 of 40 CFR Part 60. [Reference: 40 CFR Part 60.757(d), 7/1/01 edition] B. Submit an equipment removal report to the Department 30 days prior to removal or cessation of the control equipment that includes the following: [Reference: 40 CFR Part 60.757(e), 7/1/01 edition] 1. A copy of the closure report submitted in</p>
<p>v. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00]</p> <p>vi. <u>Monitoring</u> The company shall monitor the operational standards of Condition 3--Table 1(c)(3)(iii). [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p> <p>vii. <u>Testing</u> In addition to that required by Condition 3(b)(1)(ii) of this permit, the owner/operator shall calculate the NMOC emission rate using the equation provided in</p>	<p>v. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00]</p> <p>vi. <u>Monitoring</u> The company shall monitor the operational standards of Condition 3--Table 1(c)(3)(iii). [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p> <p>vii. <u>Testing</u> In addition to that required by Condition 3(b)(1)(ii) of this permit, the owner/operator shall calculate the NMOC emission rate using the equation provided in</p>	<p>3. <u>Closure and Equipment Removal</u></p> <p>i. <u>Emission Standards</u> None.</p> <p>ii. <u>Emission Limitations</u> None.</p> <p>iii. <u>Operational Standards</u> A. The collection and control system may be capped or removed provided that all the following conditions are met: [Reference: 40 CFR Part 60.752(b)(2)(vi), 7/1/01 edition] 1. The landfill shall be no longer accepting solid waste and be permanently closed; 2. The collection and control system shall have been in a minimum of 15 years; and 3. The calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive</p>

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.</p> <p>B. If a closure report has been submitted to the Department, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR Part 60.7(a)(4) provided that none of the conditions of this permit are violated. [Reference: 40 CFR Part 60.757(d), 7/1/01 edition]</p> <p>C. Any closed landfill that has no monitored exceedances in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane readings of 500 parts per million or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. [Reference: 40 CFR Part 60.755(f), 7/1/01 edition]</p>	<p>40 CFR Part 60.754(b). [Reference: 40 CFR Part 60.754(b), 7/1/01 edition]</p> <p>viii. <u>Quality Assurance/Quality Control</u> None.</p> <p>ix. <u>Record Keeping</u> In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall keep records of the monitoring required by Condition 3–Table 1(c)(3)(vi). [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 2/1/00]</p>	<p>accordance with Condition 3–Table 1(c)(3)(x)(A):</p> <p>2. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired, and</p> <p>3. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.</p> <p>xi. <u>Compliance Certification</u> In addition to that required by Condition 3(c)(3) of this permit, compliance with the operational standards shall be based upon record keeping. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6(b)(1) dated 12/1/00]</p>
<p>iv. <u>Operational Limitations</u> None.</p> <p>4. MACT Requirements</p> <p>i. <u>Emission Standards</u> None.</p> <p>ii. <u>Emission Limitations</u> None.</p> <p>iii. <u>Operational Standards</u> <i>Startup, Shutdown and Malfunction plan</i> The owner/operator shall develop and implement a written startup, shutdown and malfunction plan (SSM) that describes, in detail, procedures for</p>	<p>v. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference 7 DE Admin Code 1130 section 6.3 dated 12/11/00]</p> <p>vi. <u>Monitoring</u> In addition to the requirements of all</p>	<p>x. <u>Reporting</u> In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the owner/operator shall submit to the Department the following reports: [Reference: 40 CFR Part 63.10(c)(5), 7/1/01]</p> <p>A. A SSM report shall be submitted semiannually.</p> <p>B. If actions taken during a SSM are consistent with the procedures specified</p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>operating and maintaining the collection and control system and the continuous monitoring system during periods of SSM and a program of corrective action for malfunctioning process and air pollution control equipment according to the provisions of 40 CFR Part 63.6(e)(3). [Reference: 40 CFR Part 63.1960, 1/16/03 edition]</p> <p>iv. <u>Operational Limitations</u> None.</p>	<p>monitoring conditions specified under Condition 3-Table 1(c), the Company shall monitor the time, date, and length of all SSM and any actions taken at such times. [Reference 7 DE Admin Code 1.130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00 and 40 CFR Part 63.1960, 7/1/01 edition]</p> <p>vii. <u>Testing</u> None</p> <p>viii. <u>Quality Assurance/Quality Control</u> None.</p> <p>ix. <u>Record Keeping</u> In addition to the requirements of Conditions 3(b)(1)(i) and 3(b)(2) of this permit, the Company shall: [Reference 40 CFR Part 63.10(b)(2), 7/1/01 edition]</p> <p>A. Keep the written Startup Shutdown and Malfunction Plan (SSM Plan) on record to be made available for inspection upon request, for the life of the affected source.</p> <p>B. Keep previous versions of the SSM Plan on record if the SSM Plan is revised, for a period of 5 years after each revision to the plan.</p> <p>C. Maintain records of the occurrence and duration of each SSM of operation, and of the air pollution control equipment.</p> <p>D. Record all maintenance performed on the air pollution control equipment.</p> <p>E. Record actions taken during periods of SSM (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual</p>	<p>in the SSM Plan, the owner or operator shall state such information in the report.</p> <p>C. The SSM report shall consist of a letter, containing the name, title, and signature of the responsible official certifying to its accuracy.</p> <p>D. SSM reports shall be delivered or postmarked by the 30th day following the end of each calendar half.</p> <p>E. Anytime an action taken by an owner/operator during a SSM is not consistent with the procedures specified in the SSM plan, the owner/operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event.</p> <p>1. The immediate report shall consist of a telephone call or facsimile transmission within 2 working days after commencing actions.</p> <p>2. The letter shall contain the name, title and signature of the responsible official certifying its accuracy, explaining the circumstances of the event, the reasons for not following the SSM plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.</p> <p>xi. <u>Compliance Certification</u> In addition to that required by Condition</p>

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>1. Standards</p> <p>i. <u>Emission Standards</u> The gas plant shall not be a source of emissions. [Reference: 7 DE Admin Code 1130 Section 6.1.1 dated 12/11/00]</p> <p>ii. <u>Emission Limitations</u> None</p> <p>iii. <u>Operational Standards</u> None</p> <p>iv. <u>Operational Limitations</u> A. Route all the collected gas to: 1. the gas compression plant that processes the collected gas for subsequent sale or use; or 2. permitted flare(s) designed and operated in accordance with 560.18(c). [Reference: 40 CFR Parts 60.752(b)(2)(i)(A)&(C), 7/1/01 edition]</p> <p>B. The gas plant shall: 1. be operated at all times when the collected</p>	<p>manipulation of operation) when such actions are different from the procedures specified in the SSM Plan.</p> <p>F. Maintain all information necessary to demonstrate conformance with the affected source's SSM Plan when all actions taken during periods of SSM are consistent with the procedures specified in such plan.</p> <p>G. Record each period during which a CMS is malfunctioning or inoperative.</p>	<p>3(c)(3) of this permit, compliance with the operational standards shall be based upon record keeping and reporting requirements outlined above. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6(b)(1) dated 12/11/00]</p>
<p>d. Emission Unit No. 5 Gas Treatment Plant ("Gas Compressor Plant" or "Gas Plant")</p> <p>1. Standards</p> <p>v. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00]</p> <p>vi. <u>Monitoring</u> The owner/operator shall monitor operational limitations of this section. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p> <p>vii. <u>Testing</u> None</p> <p>viii. <u>Quality Assurance/Quality Control</u> None.</p>	<p>x. <u>Reporting</u> A. Any changes to the operational manual shall be submitted to the Department within one (1) month. [Reference: 7 DE Admin Code 1130 Section 6.1.3 dated 12/11/00] B. In addition to Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the owner/operator shall submit to the Department annual reports of the following information: 1. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under 40 CFR Part 60.756. [Reference: 40 CFR Part 60.757(f)(2), 7/1/01 edition] 2. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour during normal operating hour and 4</p>	<p>3(c)(3) of this permit, compliance with the operational standards shall be based upon record keeping and reporting requirements outlined above. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6(b)(1) dated 12/11/00]</p>

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>gas is routed to the system. [Reference: 40 CFR Part 60.553(f), 7/1/01 edition]</p> <p>2. be maintained and operated in a manner consistent with the specifications in the operation manual. Any changes to the manuals shall be submitted to the Department.</p> <p>[Reference: Permit APC-90/0133-Operation (Amendment 2) dated 9/26/97, Condition 9]</p> <p>C. DSWA shall upgrade the landfill gas collection system, including gas lines, process skid, and compressor so it is capable of processing and transmitting processed landfill gas at the rate of 9,000 scfm. When the landfill gas flow rate exceeds a daily average of 8,000 scfm for two (2) consecutive months, DSWA shall upgrade the system so it is capable of processing and transmitting processed landfill gas at the rate of 12,000 scfm. In any event, all landfill gas collected at the landfill either shall be processed by the gas compressor system or burned at a flare or flares. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00 and Permit 2004/0710-Operation (MSPS)(MACT) dated 9/28/05, Condition 3.1.3]</p>	<p>ix. <u>Record Keeping</u></p> <p>A. The owner/operator shall maintain all records specified under Condition 3-Table 1(d)(1)(vi) including the following information: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p> <ol style="list-style-type: none"> 1. The date and time the gas plant was shut down; 2. The date and time the gas flow was restored to the plant. 3. The date and time the flare was fired; and <p>B. Records of the control device vendor specifications shall be maintained until removal. [Reference 40 CFR Part 60.758(b), 7/1/01 edition]</p> <p>C. The daily exit gas flow rate from gas plant as specified in Condition 3-Table 1 (d)(1)(iv)(A).</p>	<p>hours outside normal operating hour, and length of time the control device was not operating. [Reference: 40 CFR Part 60.757(f)(3), 7/1/01 edition]</p> <p>xi. <u>Compliance Certification</u></p> <p>In addition to that required by Condition 3(c)(3) of this permit, compliance will be determined based on records keeping and reporting requirements of this section. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00]</p>
<p>e. Emission Unit No 6 Insignificant Activities: 55 KW Diesel Fired Emergency Generator</p>		
<p>1. Criteria Pollutants</p>		
<p>i. Emission Standards</p> <p>The generator shall be operated in conformance with the generator manufacturer's instructions, such as following maintenance and operating requirements to help minimize emissions. [Reference: 7 DE Admin Code 1144 Section 3.1.1]</p>	<p>v. <u>Compliance Methods</u></p> <p>Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code</p>	<p>x. <u>Reporting</u></p> <p>A. In addition to that required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, if the emergency generator is to be reclassified from an emergency generator to a distributed</p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p><i>dated 1/11/06</i></p> <p>ii. <u>Emission Limitations</u> None.</p> <p>iii. <u>Operational Standards</u> A. The emergency generator may be operated for an unlimited number of hours during an emergency as described in Condition 3--Table 1(e)(1)(iii)(C). [Reference: 7 DE Admin Code 1144 Section 4.1 dated 1/11/06] B. The emergency generator may operate for an unlimited number of hours during testing or for maintenance purposes, pursuant to the definition of an emergency generator as defined in the 7 DE Admin Code 1144, except as restricted by Condition 3--Table 1(e)(1)(iii)(D). [Reference: 7 DE Admin Code 1144 Section 4.2 dated 1/11/06] C. The emergency generator may only operate during an emergency as defined below: [Reference 7 DE Admin Code 1144 Section 4.2 dated 1/11/06] 1. An electrical power outage due to: a failure of the electrical grid; on-site disaster; local equipment failure; or public service emergencies such as flood, fire, natural disaster, or severe weather conditions (e.g. hurricane, tornado, blizzard, etc.); or 2. When there is a deviation of voltage or frequency from the electrical provider to the premises of three percent: (3%) or greater above, or five Percent (5%) or greater below, standard voltage or frequency.</p>	<p><i>1130 Section 6(a)(2)(c), dated 12/11/00</i></p> <p>vi. <u>Monitoring</u> A. The Company shall monitor, for each operating period: [Reference: 7 DE Admin Code 1130 Sections 6(a)(3)(i)(B) and 6.2.1 dated 12/11/00] 1. The type of fuel used to fire this Emission Unit. 2. The monthly amount of fuel combusted. 3. The sulfur content of the fuel oil for each shipment. 4. The date, time, duration, and reason for each startup. [Reference: 7 DE Admin Code 1144 Section 6.1.3 dated 1/11/2006] B. The hours and minutes of operation. [Reference: 7 DE Admin Code 1144 Section 6.1.2 dated 1/11/06]</p> <p>vii. <u>Testing</u> That required by Condition 3(b)(1)(ii) of this permit.</p> <p>viii. <u>Quality Assurance/Quality Control</u> None.</p> <p>ix. <u>Record Keeping</u> In addition to the requirements of Condition 3(b)(1)(i) and 3(b)(2) of this permit, the Company shall maintain records of the following information: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00] A. The monitoring required in Condition 3 – Table 1(e)(1)(vi). B. For each shipment of fuel, shipping</p>	<p>generator, the owner or operator shall submit a letter stating that the generator is to be reclassified. Reclassification shall not occur without written permission from the Department. [Reference: 7 DE Admin Code 1144 Section 1.3.3 dated 1/11/2006] B. The Company shall calculate the emissions from emergency generator and include this information to yearly emissions inventory report. [Reference: 7 DE Admin Code 1130 Section 6.1.1 & 6.2.1 dated 12/11/00]</p> <p>xi. <u>Compliance Certification</u> In addition to that required by Condition 3(c)(3) of this permit, compliance with the operational standards shall be based upon record keeping and reporting requirements outlined above. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6(b)(1) dated 12/11/00]</p>

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>D. No emergency generator shall be used during testing or for maintenance purposes before 5 p.m. on a day which has a Ground Level Ozone Pollution Forecast or Particle Pollution Forecast of "Code Red" or "Code Orange" as announced by the Department. [Reference: 7 DE Admin Code 1144 Section 4.4 dated 1/11/06]</p> <p>E. Despite Condition 3-Table 1(e)(1)(ii)(D), an emergency generator may be tested on any day that such testing is required to meet National Fire Protection Association (NFPA) standards. [Reference: 7 DE Admin Code 1144 Section 4.5 dated 1/11/06]</p> <p>F. The emergency generator shall only combust diesel fuel or biodiesel blend having a sulfur content equal to or less than 0.05% by weight. [Reference: 7 DE Admin Code 1144 Section 5.1 dated 1/11/06]</p> <p>G. The emergency generator shall be equipped with a properly functioning non-resettable hour metering device. [Reference: 7 DE Admin Code 1144 Section 6.1.1 dated 1/11/06]</p> <p>H. The emergency generator shall not be operated in conjunction with a voluntary demand reduction program or any other interruptible power supply arrangement with a utility, other market participant, or system operator (e.g. Delmarva Power, Delaware Electric Cooperative, P.M, etc.). [Reference: 7 DE Admin Code 1144 Section 4.2 dated 1/11/06]</p> <p>I. The emergency generator shall not be transferred off-site without first notifying the Department. Whoever becomes the new owner or operator of this generator within the State of Delaware shall apply for a construction permit. [7 DE Admin Code 1102</p>	<p>receipt and fuel supplier certifications of fuel sulfur content that state: [Reference: 7 DE Admin Code 1144 Section 6.1.4 dated 1/11/06]</p> <p>1. The type of fuel delivered.</p> <p>2. The percentage of sulfur in the fuel and the method used to determine the sulfur content.</p> <p>C. As an alternative to Condition 3-Table 1(e)(1)(x)(B), the owner may have a the fuel in the generator's fuel tank certified by a third party laboratory, after each shipment of liquid fuel. This certification shall identify: [Reference: 7 DE Admin Code 1144 Section 6.1.5 dated 1/11/06]</p> <p>1. The type of fuel delivered.</p> <p>2. The percentage of sulfur in the fuel and the method used to determine the sulfur content.</p> <p>D. A copy of the initial notification as required by 7 DE Admin Code 1144. [Reference: 7 DE Admin Code 1144 Section 1.4 dated 1/11/06]</p> <p>E. A copy of the manufacturer's maintenance and operational recommendations. [Reference: 7 DE Admin Code 1144 Section 3.1.1 dated 1/11/06]</p> <p>F. Monthly, the hours of operation on a monthly and cumulative twelve (12) month basis. [Reference: 7 DE Admin Code 1144 Section 6.1.1 dated 1/11/06]</p> <p>G. Monthly, the total fuel usage on a monthly and cumulative twelve (12) month basis. [Reference: 7 DE Admin</p>	

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p><i>Section 7.1 dated 6/1/1997</i></p> <p>iv. <u>Operational Limitations</u> <i>[Reference: 7 DE Admin Code 1130 Sections 6.1.1 & 6.2.1 dated 12/11/00]</i> The emergency generator shall be serviced annually by a manufacturer's representative or by personnel trained to perform maintenance according to the manufacturer's recommendations.</p>	<p><i>Code 1144 Section 6.1.1 dated 1/11/06]</i></p> <p>H. A copy of the annual service performed in accordance with Condition 3-Table 1(e)(1)(v)(A). <i>[Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</i></p>	
<p>f. Facility Wide</p>		
<p>1. General</p>		
<p>i. <u>Emission Standards</u> None</p>	<p>v. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and record-keeping requirements. <i>[Reference: 7 DE Admin Code 1130 Section 6.1.7, dated 12/11/00]</i></p>	<p>x. <u>Reporting</u> In addition to that required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the owner/operator shall calculate the rolling 12-month emissions from passive flares based on actual hours of operations and best engineering assumptions. The owner/operator shall include the passive flare emissions to yearly emissions inventory report. <i>[Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00]</i></p>
<p>ii. <u>Emission Limitations</u> <i>[Reference: 7 DE Admin Code 1130 Sections 6.1.1 & 6.2.1 dated 12/11/00]</i> The facility's rolling 12-month emission limitations are based on two low-NO_x enclosed flares and all permitted passive flares as shown below:</p>	<p>vi. <u>Monitoring</u> A. The owner/operator shall monitor the following: <i>[Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</i> Monthly and rolling 12-month emissions of NO_x, CO, PM, NMOCS, SO_x, and HCl from the facility. B. The owner/operator shall monitor unit-specific visible emissions as outlined by this permit. <i>[Reference: 7 DE Admin Code 1130 Section 6.1.3 dated 12/11/00]</i></p>	<p>xi. <u>Compliance Certification</u> <i>[Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00]</i> In addition to that required by Condition 3(c)(3) of this permit, A. Compliance with the emission limitations identified by the unit-specific emissions shall be demonstrated each month based on the amount of gas combusted, actual NMOC, actual H₂S concentrations, actual</p>
<p>iii. <u>Operational Standards</u> None.</p>	<p>vii. <u>Testing</u> That required by Condition 3(b)(1)(ii) of this</p>	
<p>iv. <u>Operational Limitations</u> As outlined by the unit-specific operational</p>		

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>limitations by this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p>	<p>permit.</p> <p>vii. <u>Quality Assurance/Quality Control</u> None.</p> <p>ix. <u>Record Keeping</u> That required by Conditions 3(b)(1)(ii) and 3(b)(2) and Condition 3-Table 1(f)(1)(vi) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p>	<p>methane content in landfill gas, approved emission factors and good engineering assumptions.</p> <p>B. Any noncompliance with the restrictions of Condition 3-Table 1(f)(x)(A) shall be evaluated in accordance with the requirements of 7 DE Admin Code 1125, <i>Requirements for Preconstruction Review</i>. Any emission exceedances which trigger the requirements of 7 DE Admin Code 1125 shall subject the facility to full review under this regulation as though construction had not yet commenced at the facility.</p>
<p>2. State-Enforceable Only-Odors and perimeter H₂S survey</p> <p>i. <u>Emission Standards</u> Odor: The owner/operator shall not cause or allow the emission of odorous air contaminants such as to cause a condition of air pollution. [Reference: 7 DE Admin Code 1119 Section 2.1 dated 2/1/81 and Permit: APC-2004/0746-Operation(NSPS)(MACT) dated 2/4/08, Condition 2.3]</p> <p>ii. <u>Emission Limitations</u> None</p> <p>iii. <u>Operational Standards</u> None.</p> <p>iv. <u>Operational Limitations</u> None.</p>	<p>iv. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00]</p> <p>v. <u>Monitoring</u> A. Conduct daily odor survey at the perimeter of the facility on days the facility is operational. The daily surveys shall be conducted 6 days a week (Monday through Saturday). The owner or operator shall resume off day monitoring if there are any verified odor complaints on any off day in any subsequent quarter. If a landfill gas odor sufficient to cause or create a condition of air pollution is detected, the</p>	<p>x. <u>Reporting</u> [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00; Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08; Condition 6; : 7 DE Admin Code 1103, Section 9 dated 2/1/81] In addition to that required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the owner/operator shall comply with the following: A. Notify the Department immediately if daily or other odor surveys detect odors beyond the landfill perimeter. The owner/operator shall submit an odor survey summary log by the end of each calendar month for the previous month. The odor survey summary log shall include all information outlined by Condition 3-Table 1(f)(2)(v)(A). B. Research and explore various H₂S generation reduction strategies and</p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>owner/operator shall take immediate action to correct landfill gas odor problem. The following information shall be recorded and maintained in written or electronic log. Any written log shall be initialed.</p> <ol style="list-style-type: none"> 1. Start and end time of survey. 2. Presence or absence of odor. 3. Wind direction. 4. Ambient air temperature. 5. Location monitored. <p>In the event when odor is detected along the perimeter exterior of the landfill, the odor survey log shall include the following additional information:</p> <ol style="list-style-type: none"> 1. Humidity content of ambient air. 2. Average wind speed. 3. Actions taken in response to odor found. <p>[Reference: 7 DE Admin Code 1130 Sections 6.1.1.1 dated 12/11/00; Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08, Condition 4.10 dated 2/4/08]</p> <p>8. The owner/operator shall conduct perimeter H₂S survey (measurement) if H₂S concentration in LFG exceeds 450 ppm in two consecutive quarters by laboratory analysis (ASTM). The perimeter H₂S measurements shall be conducted within seventy two (72) hours upon receiving the laboratory results and maintain this information for the Department's reviews. [Reference: 7 DE Admin Code 1103, Section 9 dated 2/1/81]</p>	<p>control options and implement these strategies as necessary so that the H₂S concentration in the landfill gas remains consistently low and meets the Ambient Air Quality Standard (AAQS) outlined by 7 DE Admin Code 1103, Section 9 for this pollutant. The facility must submit an annual report to the Department by the end of March of each calendar year for the previous year summarizing its findings including which strategies and control options have been implemented for H₂S generation reduction.</p> <p>xi. Compliance Certification In addition to that required by Condition 3(c)(3) of this permit, compliance is demonstrated if the owner/operator has no knowledge to the contrary and has no prior history of exceedances. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2, 3 & 6.2.1 dated 12/11/00]</p>	<p>control options and implement these strategies as necessary so that the H₂S concentration in the landfill gas remains consistently low and meets the Ambient Air Quality Standard (AAQS) outlined by 7 DE Admin Code 1103, Section 9 for this pollutant. The facility must submit an annual report to the Department by the end of March of each calendar year for the previous year summarizing its findings including which strategies and control options have been implemented for H₂S generation reduction.</p> <p>xi. Compliance Certification In addition to that required by Condition 3(c)(3) of this permit, compliance is demonstrated if the owner/operator has no knowledge to the contrary and has no prior history of exceedances. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2, 3 & 6.2.1 dated 12/11/00]</p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	<p>vii. <u>Testing</u> That required by Condition 3(b)(1)(ii) of this permit.</p> <p>viii. <u>Quality Assurance/Quality Control</u> None.</p> <p>ix. <u>Record Keeping</u> In addition to that required by Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the owner/operator shall maintain records of the following: <i>[Reference: Permit APC-2004/0746-Operation (NSFS) (MACT) dated 2/4/08, Condition 5.2.5; 7 DE Admin Code 1103, Section 9 dated 2/1/81]</i> A. Odor: 1. Presence or absence of odor. 2. Wind direction and ambient air temperature. 3. Location monitored. 4. Actions taken in response to odors found. B. H₂S monitoring: 1. Method used for perimeter monitoring (survey). 2. Monitoring results. 3. Monitoring location.</p>	
<p>3. <u>Operations/Maintenance</u></p> <p>i. <u>Emission Standards</u> None.</p> <p>ii. <u>Emission Limitations</u> None.</p>	<p>v. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping</p>	<p>X. <u>Reporting</u> That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
<p>iii. <u>Operational Standards</u> A. All structural and mechanical components of the equipment covered by this permit shall be maintained in proper operating condition and such equipment shall be operated at all times in a manner consistent with good air pollution control practice. [Reference: 7 DE Admin Code 1101 Section 3 dated 2/1/81 and Permit APC-2004/0746-Operation(NSPS)(MACT) dated 2/4/08, Condition 3.5] B. No person shall cause or allow land clearing, land grading (including grading for roads), excavation, or use of non-paved roads on private property unless methods, such as the application of water or the use of other techniques approved by the Department, are employed to control dust emission. [Reference: 7 DE Admin Code 1106 Section 3 dated 2/1/81]</p>	<p>requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00] vi. <u>Monitoring</u> [Reference: 7 DE Admin Code 1101 Section 3 dated 2/1/81 and APC-2004/0710-Operation(NSPS)(MACT) dated 2/4/08, Condition 3.2] A. Each month, the owner/operator shall monitor the operational standards specified under Condition 3-Table 1(f)(3)(iii). The Company monitor all of the maintenance performed on equipment covered by this permit, and update records as needed. B. Each day, the Company shall monitor the methods used to store and transport material and the methods used for control of fugitive dust from loading, unloading, clearing, grading, and excavation.</p>	<p>xi. <u>Compliance Certification</u> In addition to that required by Condition 3(c)(3) of this permit, compliance with the operational standards shall be demonstrated by the following: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00] A. Compliance with the Condition 3-Table 1(f)(3)(iii)(A) shall be demonstrated by adherence to good engineering operations and work practices, and based upon record keeping for the proper operation and maintenance of the equipment covered by this permit. B. Compliance with the Condition 3 – Table 1(f)(3)(iii)(B), (C), and (D) shall be demonstrated by record keeping.</p>
<p>iv. <u>Operational Limitations</u> None.</p>	<p>vii. <u>Testing</u> That required by Condition 3(b)(1)(ii) of this permit. viii. <u>Quality Assurance/Quality Control</u> None. ix. <u>Record Keeping</u> In addition to that required by Conditions 3(b)(1)(i) and 3(b)(2) of this permit, the Company shall maintain records of the monitoring performed in Condition 3-Table 1(f)(3)(vi). [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]</p>	

Condition 4- Operational Flexibility

- a. In addition to the operational flexibility specifically provided in the terms and conditions detailed in Condition 3-Table 1 of this permit, the Owner and/or Operator is authorized to make any changes within the facility which contravenes the terms and conditions of this permit without a permit revision if the change:
 1. Is not a modification or otherwise prohibited under any provision of Title I of the Act or the State Implementation Plan (SIP); and *[Reference: 7 DE Admin. Code 1130 Section 6.8 dated 12/11/00]*
 2. Does not involve a change in any compliance schedule date; and *[Reference: 7 DE Admin. Code 1130 Section 6.8 dated 12/11/00]*
 3. Does not result in a level of emissions exceeding the emissions allowable under this permit, whether expressed herein as a rate of emissions or in terms of total emissions. *[Reference: 7 DE Admin. Code 1130 Section 6.8 dated 12/11/00]*
- b. Before making a change under the provisions of Condition 4(a) of this permit, the Owner and/or Operator shall provide advance written notice to the Department and to the EPA in accordance with Condition 3(c)(2)(iii) of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*
- c. The Owner and/or Operator shall keep records of any changes made under Condition 4 of this permit in accordance with Condition 3(b)(2)(iv) of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*

Condition 5- Compliance Schedule

This permit does not contain a compliance schedule. *[Reference: 7 DE Admin. Code 1130 Section 6.3.3 dated 12/11/00]*

Condition 6. Permit Shield.

This permit does not provide a permit shield and shall not be presumed to provide such a shield. *[Reference: 7 DE Admin. Code 1130 Section 6.6.3 dated 12/11/00]*

Permit: AQM-003/00111-Renewal 2
Delaware Solid Waste Authority-Cherry Island Landfill
7 DE Admin Code 1130 Operating Permit
June 29, 2012
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Attachment "A"- Revision History

<u>Date</u>	<u>Number</u>	<u>Revision Type</u>	<u>Description</u>	<u>Pages Revised</u>
12/2/98	AQM-003/00111	None	Initial TV issuance	All
1/19/07	AQM-003/00111(R1)	Renewal 1	Renewal 1 of TV Permit Incorporated open flares into the Title v permit	All
5/13/08	AQM-003/00111(R1) Rev. 1	MPM	Added a second responsible official	Title Page
1/7/10	AQM-003/00111(R1) Rev. 2	SPM	With other miscellaneous changes, incorporated conditions of <i>enclosed flares with a H₂S pretreatment system</i> into TV permit	All
6/29/12	AQM-003/00111-R 2	Renewal 2	Incorporates several changes including comments received on draft/proposed permit.	Pages 17, 19, 25, 27, 39, 40, 41

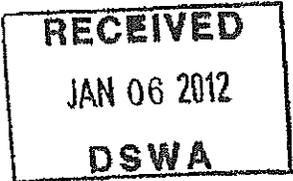
R=Renewal

PEF:TMH:SAT:sb
F:\sat\sat12064

pc: Dover File
EPA Region III

**CONSTRUCTION AND INSTALLATION OF LFG
COLLECTION AND REMOVAL SYSTEM
APC-2012/0028 – Construction (NSPS)**

Permit APC-2012/0028-
Construction (NSPS)



STATE OF DELAWARE
 DEPARTMENT OF NATURAL RESOURCES
 & ENVIRONMENTAL CONTROL
 DIVISION OF AIR & WASTE MANAGEMENT

Air Quality Management
 Section

Blue Hen Corporate Center
 655 S. Bay Road, Suite 5 N
 Dover, Delaware 19901

Telephone: (302) 739-3402
 Fax No.: (302) 739-3106

January 6, 2012

Permit: APC-2012/0028-Construction (NSPS)

Construction of a landfill gas collection and removal system at DSWA-Cherry Island Landfill.

Delaware Solid Waste Authority
 1128 S. Bradford Street
 P.O. Box 455
 Dover, DE 19903

ATTENTION: Richard P. Watson, P.E., BCEE
 Chief Operating Officer

Dear Mr. Watson:

Pursuant to Pursuant to 7 DE Admin. Code 1102, Section 2, approval by the Department of Natural Resources and Environmental Control (the Department) is hereby granted for the construction and installation of the landfill gas (LFG) collection and removal system as part of ongoing expansion project at the Delaware Solid Waste Authority's Cherry Island Landfill (the facility), New Castle County, Delaware, in accordance with the application dated October 6, 2011 signed by Richard P. Watson, Chief Operating Officer, and the additional information on this application received from DSWA on October 10, 2011 and December 6, 2011. The current landfill gas collection and removal system includes the newly constructed eighteen-inch (18") and twenty-four inch (24") header pipes at the site.

This permit is issued subject to the following conditions:

1. General Provisions

- 1.1 This permit expires on **January 6, 2015**. If the equipment covered by this permit will not be constructed by January 6, 2015, an application for a new construction permit must be submitted to the Department by October 6, 2014.
- 1.2 The project shall be constructed in accordance with the application described above. If any changes are necessary, revised plans must be submitted and supplemental approval issued prior to actual construction.
- 1.3 Representatives of the Department may, at any reasonable time, inspect this facility.
- 1.4 This permit may not be transferred to another location or to another piece of equipment or process.
- 1.5 This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. Approval (or disapproval) of the permit transfer will be provided by the Department in writing. A request for a permit

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Construction of a landfill gas collection and removal system at DSWA Cherry Island Landfill.

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transfer shall be received by the Department at least thirty (30) days before the date of the requested permit transfer. This request shall include:

- 1.5.1 Signed letters from each person stating the permit transfer is agreeable to each person; and
 - 1.5.2 An Applicant Background Information Questionnaire pursuant to 7 Del.C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous five (5) years.
- 1.6 The applicant shall, upon completion of each section/phase of construction (including construction of major header systems and horizontal LFG collection trenches), installation, or alteration, request in writing that the Department grants approval to operate.
- 1.6.1 A separate application to operate pursuant to 7 **DE Admin. Code** 1102 does not need to be submitted to the Department for the equipment or process covered by this construction permit. Upon a satisfactory demonstration by an on-site inspection that the equipment or process complies with all of the terms and conditions of this permit, the Department shall issue written approval to operate. Approval to operate an equipment, which is subject to ongoing construction project under this construction permit, shall be evaluated on a case-by-case basis.
 - 1.6.2 The applicant shall notify the Department sufficiently in advance of the demonstration and shall obtain the Department's prior concurrence of the operating factors, time period, and other pertinent details relating to the demonstration.
 - 1.6.3 The provisions of 7 **DE Admin. Code** 1102 Sections 2.1 and 11.3 shall not apply to the operation of equipment or processes for the purposes of initially demonstrating satisfactory performance to the Department following construction, installation, modification, or alteration of the equipment or processes.
- 1.7 The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 **DE Admin. Code** 1102, and, when applicable 7 **DE Admin. Code** 1125, and receiving approval of such application from the Department; except as exempted in 7 **DE Admin. Code** 1102 Section 2.2.

2. Emission Limitations

- 2.1 Air contaminant emission levels shall not exceed those specified in 7 **DE Admin. Code** 1100.
- 2.2 The flares shall be designed for and operated with no visible emissions as determined by Reference Method 22, except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours.

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- 2.3 Odors from this source shall not be detectable beyond the facility property line in sufficient quantities such as to cause a condition of air pollution.
- 2.4 The design and installation of the landfill gas collection and control system shall meet the emission guidelines established under 40 CFR Part 60.752 dated July 1, 2001 (or as it revised) - *Standards for air emissions from municipal solid waste landfills.*
 - 2.4.1 The landfill gas collection system shall be designed and installed to be capable of controlling and extracting gas from all portions of the landfill and to meet all applicable operational and performance standards, including:
 - 2.4.1.1 Compliance with the specifications for active collection systems identified in 40 CFR Part 60.759 dated July 1, 2001 (or as it is revised).
 - 2.4.2 The collection system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment and:
 - 2.4.2.1 Collect gas at a sufficient extraction rate so as to maintain compliance with the methane emissions standard set for the Condition 3.4.
 - 2.4.2.2 Minimize off-site migration of subsurface gas.

3. Operational Limitations

- 3.1 The owner or operator shall comply with the following operational limits:
 - 3.1.1 The owner or operator of the facility shall operate and maintain the landfill gas collection and removal system that may include but are not limited to landfill gas extraction wells/trenches, headers, flares, and landfill gas processing and distribution plant to control odors. Malodorous gaseous emissions from the landfill shall be controlled to the extent that there is no perceivable landfill odor beyond the property boundary.
 - 3.1.2 In the event the LFG collection and control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one (1) hour.
 - 3.1.3 The owner or operator of the facility shall comply with the provisions of 40 CFR Part 60.753 dated July 1, 2001 (or as it is revised)- *Operational standards for collection and control systems.*
 - 3.1.4 The owner or operator of the facility shall design and operate a collection and treatment system such that gas is collected from each area, cell/section, or group of cells in the Municipal Solid Waste (MSW) landfill in which solid waste has been in place for 5 years or more if active; or 2 years or more if closed or at final grade.
 - 3.1.5 DSWA shall upgrade the landfill gas collection system, including gas lines, process skid, and compressor so it is capable of processing and transmitting

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processed LFG at the rate of 9,000 scfm. When the LFG flow rate exceeds a daily average of 8,000 scfm for two (2) consecutive months, DSWA shall upgrade the system so it is capable of processing and transmitting processed LFG at the rate of 12,000 scfm. In any event, all LFG collected at the landfill either shall be processed by the gas compressor system or burned at the flare or flares.

- 3.1.6 The owner or operator of the facility shall evaluate, replace and maintain the lateral system as needed to ensure the maximum expected gas flow rate can be transferred through the gas collection system.
- 3.1.7 Landfill gas flow shall be diverted to the flare system for combustion within one (1) hour of gas compressor plant shutdown during normal operating hours and within four (4) hours outside of normal operating hours. The landfill gas shall be combusted by the flares until the gas flow is restored to the gas compressor plant. Normal operating hours shall mean Monday through Friday, 0700 hours until 1500 hours, excluding holidays and weather related closings.
- 3.1.8 The provisions of the Subpart WWW of 40 CFR Part 60-*Standards of Performance for Municipal Solid Waste Landfills* apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed five (5) days for the collection system and shall not exceed one (1) hour for the treatment or control devices.
- 3.1.9 The owner or operator of the facility shall operate the landfill in a manner to prevent dust emissions from causing a condition of air pollution.

3.2 Wellhead Pressure

- 3.2.1 The gas collection system shall be operated with negative pressure at each wellhead except under the following conditions:
 - 3.2.1.1 A fire or increased well temperature.
 - 3.2.1.2 A decommissioned well.
- 3.2.2 If a positive pressure exists, action shall be initiated by the owner or operator to correct the exceedance within five (5) calendar days, except for the reasons allowed under Condition 3.2.1 above. If negative pressure can not be achieved without excess air infiltration within fifteen (15) calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within one hundred twenty (120) days of the Initial measurement of positive pressure.
- 3.2.3 If corrective actions are taken as specified in Condition 3.2.2 above, the monitored exceedance is not a violation of the operational requirements in this section.

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3.3 Temperature and Wellhead Gas Standards

3.3.1 The owner or operator shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55° C and with either nitrogen level less than 20% or an oxygen level less than 5%. In addition, the owner or operator shall install a sampling port and a thermometer or other temperature measuring device at each wellhead and monitor monthly. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fire or significantly inhibit anaerobic decomposition by killing methanogens.

3.3.2 If a well exceeds one of the operating parameters in Condition 3.3.1, action shall be initiated to correct the exceedances within five (5) calendar days. If correction of the exceedances cannot be achieved within fifteen (15) calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measures shall not cause exceedances of other operational or performance standards.

3.3.3 If corrective actions are taken as specified in Condition 3.3.2 above, the monitored exceedance is not a violation of the operational requirements in this section.

3.4 Methane Standards

3.4.1 The owner or operator shall operate the collection system so that the methane concentration is less than 500 ppm above background at the surface of the landfill. Areas with steep slopes or other dangerous areas may be excluded from the surface testing. For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Department for approval.

3.5 At all times, including periods of startup, shutdown, and malfunction, the owner or operator shall, to the extent practicable, maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating procedures are being used will be based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

3.6 The provisions of this air permit do not exclude the requirements of the Permit SW-06/01 dated January 1, 2006 issued by the Solid and Hazardous Waste Branch (SHWMB) of the Department or as the SHWMB permit is modified in the future.

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Construction of a landfill gas collection and removal system at DSWA-Cherry Island Landfill.

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- 3.7 All structural and mechanical components of the equipment or process covered by this permit shall be maintained in proper operating condition.

4. Testing Requirements

- 4.1 The Department reserves the right to require that the owner or operator perform emission tests using methods approved in advance by the Department.
- 4.2 Nitrogen levels shall be determined using Method 3C, unless an alternative test method is established as allowed by 40 CFR Part 60.752(b) (2) (i) dated July 1, 2001 (or as it is revised).
- 4.3 Unless an alternative test method is established as allowed by 40 CFR Part 60.752(b) (2) (i) dated July 1, 2001 (or as it is revised), oxygen levels shall be determined using Method 3A, except that:
- 4.3.1 The span shall be set so that the regulatory limit is between 20 and 50 percent of the span.
- 4.3.2 A data recorder is not required.
- 4.3.3 Only two calibration gases are required, a zero and span, and ambient air may be used as the span.
- 4.3.4 A calibration error check is not required.
- 4.3.5 The allowable sample bias, zero drift, and calibration drift are +/- 10 percent.
- 4.4 Methane concentrations as measured while performing surface emission monitoring shall be measured using an organic vapor analyzer, flame ionization detector, or other portable monitor.
- 4.4.1 The portable analyzer shall meet the instrument specifications provided in 40 CFR Part 60, Appendix A, Section 3 of Method 21 dated July 1, 2001 (or as it is revised), except that "methane" shall replace all references to VOC.
- 4.4.2 The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.
- 4.4.3 The instrument evaluation procedures of 40 CFR Part 60, Appendix A, Section 4.4 of Method 21 dated July 1, 2001 (or as it is revised) shall be used to meet the performance evaluation requirements in 40 CFR Part 60, Appendix A, Section 3.1.3 of Method 21 dated July 1, 2001 (or as it is revised).
- 4.4.4 The calibration procedures provided in 40 CFR Part 60, Appendix A, Section 4.2 of Method 21 dated July 1, 2001 (or as it is revised) shall be followed immediately before commencing a surface emission monitoring survey.
- 4.5 Background methane concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

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Construction of a landfill gas collection and removal system at DSWA Cherry Island Landfill.

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- 4.6 Surface emission monitoring shall be performed in accordance with 40 CFR Part 60, Appendix A, Section 4.3.1 of Method 21 dated July 1, 2001 (or as it is revised), except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.
- 4.7 The owner or operator shall sample the landfill gas using Department approved test methods to determine methane and H₂S content. A dräger tube test is acceptable for monthly determination of H₂S in landfill gas along with a quarterly test as per ASTM D5504. The owner or operator of the landfill shall take every measures to complete the quarterly test in time should a repeat test be necessary.
- 4.8 Each quarter, the owner or operator shall sample the landfill gas using Department approved test methods to determine non-methane organic compounds (NMOC) content. EPA Method 25c can be used as the Department approved test method.

5. Monitoring and Record Keeping Requirements

- 5.1 The owner or operator shall maintain all records including all monitored parameters, exceedances, and corrective actions for a period of not less than five (5) years. Records shall be available to the Department upon verbal or written requests within reasonable time frame.
- 5.2 A surface emission monitoring design plan shall be developed and submitted to the Department that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. The surface emission monitoring plan shall include all penetrations from the landfill.
- 5.3 The owner or operator shall conduct and record methane surface emissions monitoring along the entire perimeter of the collection area and along a serpentine pattern spaced 30 meters intervals (or a site-specific established spacing) on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR Part 60.755(d). Monitoring shall also be performed where visual observations indicate distressed vegetation and cracks or seeps in the cover, indicate elevated concentrations of landfill gas. The surface emissions monitoring shall include all possible penetrations into the landfill surface that may cause fugitive LFG emissions.
- 5.4 The owner or operator shall conduct daily odor survey at the perimeter of the facility on days the facility is operational. The daily surveys shall be conducted 6 days a week (Monday through Saturday). The owner or operator shall resume off day monitoring if there are any verified odor complaints on any off day in any subsequent quarter. The following information shall be recorded and maintained in written log and any written log shall be initialed:
 - Start and end time of survey.
 - Presence or absence of odor.
 - Wind direction.
 - Location monitored.

In the event when landfill gas odor is detected along the perimeter exterior of the landfill, the odor survey log shall include the following additional information:

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- Humidity content of ambient air.
- Ambient air temperature.
- Average wind speed.
- Actions taken in response to odor found.

5.5 The following information shall be recorded, initialed and maintained in a log:

5.5.1 Instances when positive pressure occurs in efforts to avoid a fire.

5.5.2 The gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR Part 60.755(a) (3) dated July 1, 2001 (or as it is revised).

5.5.3 Nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40 CFR Part 60.755(a)(5) dated July 1, 2001 (or as it is revised).

5.5.4 The temperature of the landfill gas on a monthly basis as provided in 40 CFR Part 60.755(a)(5) dated July 1, 2001 (or as it is revised).

5.6 If monitoring demonstrates that the operational requirements in Conditions 3.2, 3.3 and 3.4 are not met, corrective action shall be taken as specified in 40 CFR Part 60.755(a)(3) through (5) dated July 1, 2001 (or as it is revised) or 40 CFR Part 60.755(c) dated July 1, 2001 (or as it is revised).

5.7 The owner or operator shall maintain an up-to-date, readily accessible plot map showing each existing and planned well, horizontal collector, surface collector and other gas extraction device in the system and providing an unique identification location label for each collector.

5.8 The owner or operator shall keep up-to-date, readily accessible records of the following: 1) installation date and location of all newly installed wells and horizontal collectors; 2) date and location of each well and horizontal LFG collector decommissioned; and 3) any other gas extraction devices as specified under 40 CFR Part 60.755(b) dated July 1, 2001 (or as it is revised).

5.9 The owner or operator shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR Part 60.759(a) (3) (i) dated July 1, 2001 (or as it is revised), as well as any nonproductive areas excluded from collection as provided in 40 CFR Part 60.759(a) (3) (ii) dated July 1, 2001 (or as it is revised).

5.10 The owner or operator shall maintain log of dust control measures to comply with Condition 3.1.9.

6. Reporting Requirements

6.1 Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery by calling the Environmental Emergency Notification and Complaint number, (800) 662 8902.

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- 6.2 In addition to complying with Condition 6.1 of this permit, any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" Regulation, and any other reporting requirements mandated by the State of Delaware, the owner or operator shall, for each occurrence of excess emissions, within thirty (30) calendar days of becoming aware of such occurrence, supply the Department in writing with the following information:
- The name and location of the facility;
 - The subject source(s) that caused the excess emissions;
 - The time and date of the first observation of the excess emissions;
 - The cause and expected duration of the excess emissions;
 - For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
 - The proposed corrective actions and schedule to correct the conditions causing the excess emissions.
- 6.3 The owner or operator shall submit to the Department an amended design capacity report, as provided for 40 CFR Part 60.757(a)(3) dated July 1, 2001 (or as it is revised), when there is any increase in the design capacity of a landfill subject to the provisions of this subpart, whether the increase results from an increase in the area or depth of the landfill, a change in the operating procedures of the landfill, or any other means.
- 6.4 In addition to the reporting requirements of the Title V Permit: AQM-003/00111-Renewal 1 dated January 19, 2007 (or as it is revised), the owner or operator shall submit to the Department annual reports of all operational exceedances. The annual reports shall contain the following information:
- Date, value and length of time for all exceedances of parameters monitored.
 - The location of each exceedance of the methane concentration as per Condition 5.3 and the concentration recorded at each location for which an exceedance was recorded in the previous month.
 - The date of installation and the location of each well or collection system expansion.
- 6.5 The owner or operator shall submit an odor survey summary report as outlined by Condition 5.4 to the Department by the end of each month for the previous month. Odor detected beyond the landfill perimeter shall be reported to the Department immediately.
- 6.6 The owner or operator shall submit a summary report on quarterly H₂S concentration analysis as outlined by Condition 4.7 to the Department within forty-five (45) calendar days of the end of each quarter.
- 6.7 The Company shall submit an NMOC emission rate report to the Department annually, except as provided by 40 CFR 60.757(b), 7/1/01 edition (or as it is revised).
- 6.8 The owner or operator shall keep for at least five years, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate.

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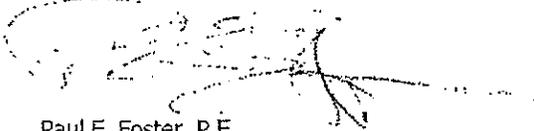
- 6.9 One (1) original and one (1) copy of all required reports shall be sent to the address below:

Division of Air Quality
Blue Hen Corporate Center
655 S. Bay Road, Suite 5N
Dover, DE 19901

7. Administrative Conditions

- 7.1 This permit shall be made available on the premises.
- 7.2 Failure to comply with the provisions of this permit may be grounds for suspension or revocation.

Sincerely,



Paul E. Foster, P.E.
Program Manager
Engineering & Compliance Branch

PEF:TMH:SAT:sb
F:\sat\sat11136

pc: Dover File
Tammy M. Henry
Shaikh A. Tayeb