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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
FAX: (302) 739-5060**

November 22, 2013

Mr. James Vescovi
Facility Manager
Southern Solid Waste Management Center
Delaware Solid Waste Authority
1128 S. Bradford Street
P.O. Box 455
Dover, Delaware 19903-0455

Subject: Modification of the Southern Solid Waste Management Center Landfill Permit
Reference: Solid Waste Facility Permit SW-00/01, File Code 02-B

Dear Mr. Vescovi:

I have attached a copy of permit SW-00/01 which we have modified to install new reporting requirements which we hope will better incorporate and clarify reporting by electronic media. If you have any questions concerning this letter or the permit modification, please contact Robert Hartman or me at 739-9403.

Sincerely,

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

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

NCM:RH:drb
RH13039

Enclosure

cc: Frank Gavas, Hydrologist, SHWMS (electronic copy only)
Ting Guo, Engineer, SHWMS (electronic copy only)
Daniel Fluman, DSWA (electronic copy only)

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**89 KINGS HIGHWAY
DOVER, DELAWARE 19901**

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

**Permit SW-00/01
Permit Type: Sanitary Landfill**

Effective Date: May 17, 2000

Last Modified: November 22, 2013

Expiration Date: March 19, 2020

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*, approval of the Department of Natural Resources and Environmental Control is hereby granted to operate the Southern Solid Waste Management Center sanitary landfill located at 28560 Landfill Lane in Georgetown, Delaware, near Jones Crossroads, subject to the terms and conditions of this permit. All terms and conditions of this permit are enforceable by the Department.

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

11/22/2013

Date

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

11/22/2013

Date

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I. GENERAL CONDITIONS:

A. Permit Issuance:

On May 17, 2000, the Department of Natural Resources and Environmental Control (Department) issued permit SW-00/01 to the Delaware Solid Waste Authority (DSWA), 1128 S. Bradford Street, Dover, DE 19901. The Department issued permit SW-00/01 for the continued operation of the sanitary landfill located at the Southern Solid Waste Management Center (SSWMC) 28560 Landfill Lane in Georgetown, Delaware pursuant to Sections 4.1.1.1 and 5 of the Delaware *Regulations Governing Solid Waste* (DRGSW). On March 19, 2010 following the DSWA's application for a major permit modification, the Department re-issued Permit SW-00/01 for the continued operation of the landfill and for the construction of Cell 5 at the SSWMC.

B. Applicability:

This permit applies to:

1. Construction of cell 5.
2. Operation and maintenance of the SSWMC, including cells 1, 2, 3, 4 and 5.
3. Environmental monitoring, recordkeeping, and reporting for SSWMC.
4. Long-term intermediate cover demonstration for cells 1 and 2.
5. Household hazardous waste collection.

C. Application Documents:

1. This permit was issued on May 17, 2000 in accordance with the following documents submitted by the DSWA:
 - a. *Cell 4 Disposal Area, Application to Construct and Operate Sanitary Waste Landfill*; prepared by Camp Dresser & McKee Inc. and dated September 1999, with revisions dated January 11, 2000, March 14, 2000, March 17, 2000 and May 2, 2000.
 - b. *Cell 4 Disposal Area and Related Facilities, Permit Drawings*; prepared by Camp Dresser & McKee Inc. containing drawings G-1, G-2, C-1 through C-15, D-1 through D-9, M-1, OP-1, and OP-2; dated September 27, 1999 with revisions submitted on March 15, 2000.

2. Following DSWA's request for a major modification, the Department modified and re-issued permit SW-00/01 on March 19, 2010 in accordance with the following documents:
 - a. *Cell 5 Disposal Area, Application to Construct and Operate Sanitary Waste Landfill*; prepared by Camp Dresser & McKee Inc. and dated January 2008, with revisions dated September, 2008 and February, 2009.
 - b. *Cell 5 Disposal Area and Related Facilities, Permit Drawings*; prepared by Camp Dresser & McKee Inc. containing drawings G-1 through G-7, C-1 through C-7, M-1, D-1 through D-11, GC-1 through GC-6, OP-1 through OP-8; dated January 2008, with revisions dated September, 2008 and February, 2009.
 - c. Secretary's Order No. 2010-A-0001.
 - d. Other plans, letters, procedures, and policy specifically referenced in this permit.

D. General Conditions:

This permit is issued subject to the following general conditions:

1. Construction and operations at SSWMC 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*, the Delaware *Surface Water Quality Standards*, and the Delaware air quality regulations.
2. Access to the SSWMC 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 the SSWMC to verify compliance with the permit and the DRGSW.
3. This Permit may be revoked upon violation of any condition of the permit or any requirement of the DRGSW after notice and opportunity for hearing in accordance with 7 Del. C., Chapter 60.
4. Permit SW-00/01 shall expire no later than March 19, 2020.
5. A copy of the most current version of this permit shall be maintained in both the scale house and the on-site office at SSWMC.

6. Yard waste diversion:

- a. DSWA shall ban disposal of all yard waste from the SSWMC effective no later than January 1, 2011.
- b. The DSWA shall advertise the SSWMC yard waste ban in a manner that successfully educates the public and the waste haulers of:
 - (1) the effective date of the ban,
 - (2) the fact that yard waste can no longer be commingled with trash as a means of disposal,
 - (3) the reasoning behind prohibiting the landfilling of yard waste,
 - (4) alternatives to manage yard waste as a result of the ban and,
 - (5) consequences of failing to comply with the ban.

This shall be accomplished using technical support from academic extension and composting experts, holdings public meetings regarding the yard waste ban and employing the use of print and electronic media.

- c. DSWA shall provide yard waste drop off for residents at all of its permitted solid waste facilities throughout Sussex County where home owners would be permitted to drop off their yard waste.
- d. "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.

II. CONSTRUCTION OF CELL 5:

A. Planning, Design, and Construction:

The planning, design, and construction of cell 5 shall be consistent with the requirements of the DRGSW.

B. Standards for Construction:

1. Engineering Report: DSWA shall construct cell 5 in accordance with the Engineering Report which encompasses *the Engineering Report for Cell 5 Disposal Area*, dated January 2008 with revisions dated September 2008 and February 2009, including the *Technical Specifications, Construction Quality Assurance Plan* and *Cell 5 Disposal Area and Related Facilities Permit Drawings*. Revisions to these documents related to leachate or landfill gas collection, transmission, storage or recirculation systems; construction within the limits of the landfill cell; or the stormwater management systems shall require Department approval in writing or by documentation of Department approval in the minutes of the construction progress meetings.

2. Additional Construction Requirements: DSWA shall construct cell 5 in accordance with the following additional requirements:
 - a. DSWA should not engage in clearing of the land between April 1st and July 31st. DSWA may continue ongoing clearing operations so long as significant disturbance, resulting in at least 50 percent of the targeted land area being cleared, is performed prior to April 1st.
 - b. Prior to clearing or construction activities, DSWA shall delineate the adjacent wetlands in a manner that identifies them for field staff and shall protect these wetlands from sediment and site activity throughout the construction of cell 5.
 - c. Prior to the receipt of geomembrane, geosynthetic clay liner, filter fabric, fabric cushion, or composite drainage net on site, DSWA shall provide the Department with the manufacturer's recommendations for storage and handling of these materials. DSWA shall also provide the manufacturer's installation instructions prior to the installation of these materials.

C. Final Report:

1. After construction has been completed and prior to the placement of solid waste, DSWA shall submit a final report for the Department's approval. The final report shall certify that the construction of the cell was completed in accordance with the Engineering Report including the *Technical Specifications, Construction Quality Assurance Plan and Cell 5 Disposal Area and Related Facilities Permit Drawings*. The DSWA shall not place solid waste into cell 5 until the Department has provided its written notification that the construction and the final report meet the requirements of the permit and the Delaware *Regulations Governing Solid Waste*. The final report shall include:
 - a. A cover letter presenting the final report and signed by the permittee after their review and concurrence.
 - b. Title page to include date, facility, project name, responsible party (DSWA), and preparing firm.
 - c. Signature page (in accordance with the DRGSW, Section 4.2.2.2).
 - d. Table of contents, to include a detailed list of the contents of the appendices
 - e. Introductory narrative with project overview.
 - f. Qualifications and responsible parties. The engineer shall make a determination if specified qualifications were met throughout the project for Quality Assurance Laboratories, the general contractor, the master seamer(s), all CQC and CQA staff, and the manufacturers and installers. This section shall also include a

listing of key personnel involved with the project with business contact information to include the DSWA project engineer, the design engineer, the CDM project engineer, the general contractor's representative(s) on-site, the installers representative(s) on-site, master seamer(s), surveyor, and all staff providing CQC and CQA oversight including those responsible for off-site conformance sampling.

- g. The engineer's discussion and certification or other determination for each major component of the cell 5 construction. The engineer shall certify if the component was completed in accordance with the permit requirements; if materials were manufactured/mined, tested, transported, stored on-site, installed and protected in accordance with the permit requirements; and whether the work achieved the performance standard intended by the design. Major components include:
 - (1) Earthwork and Subgrade, including materials, lines/grades, and the installation and status of instruments installed to monitor foundation settlement.
 - (2) Installation and quality of liner systems and materials.
 - (3) Installation and quality of leachate collection/detection, transport and recirculation systems, and materials, including pipes, drainage materials, composite drainage net, pumps, controls and alarms.
 - (4) Installation and quality of gas collection systems and materials.
 - (5) Installation and quality of sand drainage layer.
 - (6) Installation and quality of stormwater management systems, controls and materials.
- h. Site topographic drawing showing property boundaries, outlines of landfill cells, stormwater controls, stormwater flow directions and all environmental monitoring locations required by this permit.
- i. Supporting documents for Construction Quality Assurance to include manufacturer's quality control program manuals, manufacturer's installation recommendations (as required by the technical specifications), site visits to manufacturing facilities, CQA forms, logs, daily reports, record drawings, field quality control testing results, laboratory results, manufacturer's certifications and warranties, and project meeting minutes. The Permittee shall provide this information on compact disc(s) only, in a format acceptable to the Department and bookmarked by section to allow for easy retrieval and review.
- j. Record drawings including detail drawings for control components. The permittee shall provide this information on compact disc only, in a format acceptable to the Department and bookmarked to allow for easy review and retrieval.
- k. Project photographs. The permittee shall provide project photographs on compact disc(s) only. Images shall be sorted by date and labeled to include a description of the material or activity pictured.

2. DSWA shall provide one paper copy of the final report with compact disc(s) included as appendices (for supporting information, record drawings and photographs). Additionally, the DSWA shall provide one complete, web-ready copy of the final report on compact disc(s) in a format acceptable to the Department. The web-ready copy shall be organized by section in accordance with the table of contents and bookmarked to allow for easy review and retrieval.

III. MAINTENANCE OF LONG-TERM INTERMEDIATE COVER, CELLS 1 AND 2:

A. Closure Status of Cells 1 and 2:

Until otherwise demonstrated in writing, the exposed geomembrane shall be regulated as an alternative intermediate cover in accordance with the DRGSW, Section 5.9.2.3. Since these cells will not be considered closed during the demonstration project, the DSWA must continue to meet all regulatory requirements for non-closed cells (i.e., annual reports, annual closure and post-closure cost estimate updates, and financial assurance considerations).

B. Inspection of Long-term Intermediate Cover:

Inspection of the long-term intermediate cover shall include a monthly walkover inspection of the exposed geomembrane cap. Inspections shall, as a minimum, identify problems and initiate maintenance in accordance with the *Operations and Maintenance Manual, Geomembrane Cap, Cells 1 and 2* dated July 17, 2007.

C. Repair Procedures:

Repairs done on the geomembrane material shall be in accordance with the manufacturer's recommendations. Written procedures for repair of the geomembrane shall be available to, and used by staff designated to make repairs on the exposed geomembrane.

D. Record of Repairs:

DSWA shall record the location and size of all repairs made on the geomembrane. Repair location records shall be maintained to the scale and detail necessary to be able to actually locate each repair in the future.

E. Closure in the Event of Failure:

If the Department determines that the geomembrane has failed to comply with the requirements of the DRGSW, allows the migration of off-site odors, creates a health or safety risk, or its structures fail to properly manage stormwater, the DSWA shall close cells 1 and 2 in accordance with the DRGSW. Within 60 days of notification that closure

is required, the DSWA shall submit a closure plan and schedule for Department review and approval. The Department may require other interim measures to protect human health or the environment during this period.

F. Incorporation into a Standard Capping System:

Prior to its incorporation into a standard capping system required by the DRGSW, the geomembrane shall be evaluated to determine its quality and suitability for such use. Incorporation into a standard capping system shall proceed only after the approval of the Department.

G. Termination of the Demonstration Project:

The demonstration period shall expire no later than November 17, 2017. No later than July 5, 2016, DSWA shall complete an evaluation of the quality of the membrane material and its performance during the demonstration period and provide that evaluation along with recommendations to the Department for its review. Unless an extension of the demonstration project is approved by the Department, DSWA shall, no later than January 5, 2017, submit a plan and schedule to install a final cap in accordance with the requirements of the DRGSW.

IV. OPERATIONS:

A. General Operations:

DSWA shall operate the SSWMC in accordance with this permit and the *Southern Solid Waste Management Center Jones Crossroads Landfill, Georgetown, Delaware Plan of Operation* (the Plan of Operation) dated January 2008 and as revised in April 2010. DSWA shall operate the SSWMC in a manner that will preclude degradation of adjacent land, air, surface water, or groundwater.

B. Protection of Control Systems:

1. The DSWA shall operate the SSWMC in a manner that will protect landfill liner systems, gas control systems, landfill cap systems, and leachate collection, storage, and distribution systems.
2. The DSWA shall take special precautions while placing the first two feet of the first lift of solid waste. Incoming waste shall be screened to identify preferential loads to be used for the initial lift. Waste that contains materials that may be detrimental to the liner system shall be diverted to an active area where the initial first two feet of waste are already in place. A spotter shall be present during initial lift placement to identify and remove objects that may cause damage to the liner system.
3. The DSWA shall limit the height of the waste placed over tire chips in cell 4 (installed as part of the protective cover on the liner system) to 67 feet.

C. Staffing:

Sufficient numbers and types of personnel shall be available at the site to insure capability for operation in accordance with the DRGSW and the Plan of Operation.

D. Equipment:

Equipment necessary to ensure the operations of the landfill in accordance with the Plan of Operation and the requirements of the DRGSW shall be maintained at the site by the DSWA. This shall include at least one backup pump for each cell. Backup pumps must be compatible with the existing control and alarm systems and capable of withdrawing leachate from the leachate collection system and leak detection system.

E. Acceptable Wastes:

SSWMC is permitted to accept the following wastes for disposal at the facility in accordance with the 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*, adopted by the Board of Directors on December 7, 1995, and revised October 27, 2005.
3. Dry Waste.

F. Prohibited Wastes:

The 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. Hazardous waste.
2. Regulated infectious 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.

G. Asbestos:

The DSWA shall not accept asbestos containing material for disposal into any landfill cell at the SSWMC. Asbestos containing materials may be accepted and placed into designated rolloff containers for transfer to and disposal at an approved disposal facility. Asbestos receipt, storage, handling, and transfer shall be done in accordance with the DSWA's letter (Asbestos Disposal Plan for SSWMC) dated July 18, 1996 and the DNREC response letter (Re: Asbestos Disposal Plan for SSWMC) dated July 24, 1996.

H. Disposal of Tires:

The DSWA shall not accept for disposal at SSWMC, whole tires in quantities greater than ten (10) per truckload or as allowed by the Delaware *Regulations Governing Solid Waste*, whichever is more restrictive.

I. Waste Inspection/Waste Screening:

Waste inspection of all incoming loads as well as random waste screening shall be in accordance with the Plan of Operation. All landfill personnel responsible for waste inspection (including scale operators, bulldozer operators, compactor operators, and spotters) shall comply with these procedures.

J. Scavenging:

Scavenging on the landfill is prohibited.

K. Salvaging :

1. Salvaging shall be conducted in accordance with the Plan of Operation and in a manner protective of human health and the environment.
2. Salvaging operations shall not interfere with the proper disposal of wastes at the facility.
3. DSWA shall inspect stockpile areas at least once each operating day to insure that unwanted materials (such as trash) have not been deposited. Such materials shall be removed for proper disposal no later than the next business day. DSWA shall record the results of these inspections.
4. Loads of dry waste may be diverted to a designated area on the lined area of the landfill for salvaging. Salvaged dry waste shall not include materials prohibited by condition IV.F of this permit, special wastes or asbestos.

L. Daily Cover:

1. The DSWA shall place daily cover consisting of a six-inch layer of suitable material over all disposed solid waste by the end of each working day. Daily cover shall control odors, disease vector breeding, animal attraction, blowing litter, scavenging; as well as reduce the potential for fires. DSWA shall ensure that daily covers left in place under waste do not preclude leachate flow downwards towards the leachate collection system.
2. At least weekly, DSWA shall inspect exposed daily covers that remain in place for more than two days and shall record the results of these inspections. DSWA shall maintain these daily covers as necessary to control odors, disease vector breeding, animal attraction, blowing litter, scavenging and fires, and shall maintain adequate surface water management controls to prevent erosion of the cover. DSWA shall maintain these daily covers to prevent wastes from being exposed.
3. Department approved alternative daily covers may be used 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, the DSWA shall store, use, and maintain alternate daily cover material in accordance with the Plan of Operation. DSWA shall not use an alternative daily cover without the written approval of the Department's SHWMB, and the DSWA shall maintain written approvals for all alternative covers used at the landfill in accordance with Section VII.C of this permit.
4. DSWA may use tarps as daily cover in accordance with the Plan of Operation. When tarps are used, DSWA shall deploy them in a manner that ensures that all solid wastes on that day's working face are covered and remain covered until the next operating day. DSWA shall use soil or other approved daily covers as necessary to supplement tarps if needed to ensure coverage of solid wastes.

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 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 stormwater management systems or surface waters. If the intermediate cover has been placed to reduce infiltration of water into the landfill, DSWA shall remove or otherwise modify it to allow leachate to move downwards towards the leachate collections system prior to placement of additional solid waste on the intermediate cover.

2. At least weekly, DSWA shall inspect intermediate covers and shall record the results of these inspections. DSWA shall maintain all intermediate covers as necessary to control odors, disease vector breeding, animal attraction, blowing litter, scavenging and fires. DSWA shall maintain adequate surface water management controls to prevent erosion of intermediate covers. DSWA shall maintain these covers to prevent wastes from being exposed.
3. Tarps:
 - a. Tarps installed in accordance with the Plan of Operations may be used for alternative intermediate cover on cells 3, 4 and 5 as long as they are properly anchored, comply with the requirements of the DRGSW, and their use controls stormwater, odors, disease vector breeding, animal attraction, blowing litter, scavenging and reduces the potential for fires
 - b. In the event that the use of tarps for intermediate cover results in a violation of the permit or the DRGSW, the Department may require that the DSWA terminate the use of tarps for intermediate cover on all or part of the landfill cells. DSWA shall, within 30 days of such notification, install standard intermediate cover in those areas.
4. Department approved alternative intermediate covers may be used 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, the DSWA shall store, use, and maintain alternate intermediate cover material in accordance with the Plan of Operation. DSWA shall not use an alternative intermediate cover without the written approval of the Department's SHWMB, and the DSWA shall maintain written approvals for all alternative covers used at the landfill in accordance with Section VII.C of this permit.

N. Stormwater Management:

1. The goal of DSWA's stormwater management program shall be to prevent the generation or discharge of contaminated stormwater. For the purposes of this permit, contaminated stormwater means stormwater which comes in direct contact with landfill wastes or landfill wastewater. Landfill wastewater means all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated stormwater and groundwater from monitoring or production wells on-site. Landfill wastewater includes leachate, gas collection condensate, laboratory derived wastewater, contaminated stormwater and contact washwater used to wash solid wastes from equipment.
2. In accordance with the Plan of Operation and the conditions of this permit, DSWA shall properly operate, inspect and maintain all conveyances and ponds designed to manage stormwater. DSWA shall inspect stormwater conveyances and ponds at least monthly and shall record the results of the inspections. DSWA shall maintain records

of these inspections and of their findings and actions taken to correct deficiencies observed. DSWA should coordinate stormwater pond cleanout or maintenance involving structural repair of the ponds with the DNREC Sediment and Stormwater Program.

3. The DSWA shall take all reasonable steps to identify and prevent the discharge of stormwater contaminated from landfilling activities, including equipment maintenance, and salvage operations, into surface water, primarily Asketum Branch and Beaverdam Branch. In areas where waste is handled or stored off the landfill cells, and in areas where the permittee conducts equipment maintenance, washing or refueling DSWA shall use Best Management Practices to eliminate or reduce the contact of waste materials and petroleum products with stormwater.
4. The DSWA shall maintain a stormwater management system on the landfill to prevent erosion of the waste and cover, prevent the accumulation of standing water, and minimize stormwater water runoff into the waste. DSWA shall ensure that contaminated stormwater from operation on the landfill is directed to the leachate collection system. DSWA shall provide for, and maintain a permanent, long-lived vegetative cover on the final cover soils of the landfill. DSWA shall repair disturbed areas of final cover as soon as practical to prevent erosion. DSWA shall inspect the stormwater management system on the landfill each operating day and shall record the results of the inspections. DSWA shall maintain records of these inspections and of their findings and actions taken to correct deficiencies observed.
5. DSWA shall inspect for leachate seeps at least once each operating day and shall take all practical steps to prevent leachate from contaminating surface water, including stormwater ponds and conveyances located off the lined areas of the landfill. 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 surface water DSWA shall report this in accordance with Section D of this permit and shall initiate immediate corrective measures to stop the contamination and to manage the contaminated surface water as landfill wastewater. Until the 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 V.A.4 of this permit.
6. To ensure that stormwater has not been contaminated, DSWA shall inspect accumulated stormwater in secondary containment structures prior to releasing it. DSWA shall visually inspect the accumulated liquid for color, sheen, and odor. If the visual inspection indicates that the stormwater could be contaminated, DSWA shall conduct additional testing of the liquid to determine if it is wastewater, and DSWA shall not release wastewater to surface waters at the SSWMC. If field instruments are used during the monitoring, DSWA shall ensure that these instruments are maintained and utilized in accordance with manufactures instructions. DSWA shall maintain

records of these inspections and of their findings and actions taken to manage the accumulated liquids.

7. To ensure that stormwater held in unused portions of cell 5 has not been contaminated, each operating day DSWA shall inspect adjacent landfill slopes for leachate seeps. As part of this inspection, DSWA shall also inspect stormwater accumulating in the unused portions of cell 5 for color, sheen, and odor. If the visual inspection indicates that the stormwater could be contaminated, DSWA shall conduct additional testing of the liquid to determine if it is wastewater, and DSWA shall not release wastewater to surface waters at the SSWMC. If field instruments are used during the monitoring, DSWA shall ensure that these instruments are maintained and utilized in accordance with manufactures instructions. DSWA shall maintain records of these inspections and of their findings and actions taken to manage the accumulated liquids.

O. Gas Extraction and Odors:

1. The DSWA shall operate and maintain the gas extraction system and flares 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 maintain a permit for the operation of the extraction system and flares in accordance with the Delaware air quality regulations.
2. The DSWA shall record all odor complaints they receive concerning the SSWMC and shall investigate complaints in a timely manner. DSWA shall maintain records of the odor complaints as well as DSWA findings and any actions taken to preclude landfill odors from moving beyond the property boundary.

P. Leachate Management:

1. The DSWA shall operate and maintain the leachate collection, transmission, storage and recirculation system, including all alarm systems in accordance with this permit and the Plan of Operation. The DSWA shall clean-up all leachate spills immediately or within a time frame approved by the Department on a case-by-case basis.
2. The DSWA shall inspect secondary containment systems under leachate storage tanks each operating day and shall remove stormwater or other liquids as needed to maintain the holding capacity necessary to contain leachate from a tank rupture. DSWA shall release stormwater only in accordance with condition IV.N.7 of this permit.
3. Leachate recirculation shall be allowed only with prior written approval of the Department in accordance with the DRGSW, Section 5.4.3.7.
4. Leachate recirculation is prohibited on any landfill cell which does not contain an operable, permitted, active landfill gas collection system.

Q. Litter Control:

DSWA shall provide for litter removal and general cleanliness of the entire site to include litter controls cited in the Plan of Operation. DSWA shall implement the following minimum controls:

1. DSWA shall use effective operational controls to minimize wind-blown litter from the working faces, cleanout areas, the dry waste salvage area and the small load collection station.
2. DSWA shall inspect for litter on the facility, including the entrance road, daily (each operating day) and ensure that litter is collected quickly and properly disposed. DSWA shall record the results of the inspections.
3. DSWA shall not allow litter to migrate from the landfill site.
4. The DSWA shall collect any off-site litter attributable to landfill operations.

R. Dust Control:

1. DSWA shall provide for dust controls at the SSWMC to include dust controls cited in the Plan of Operation.
2. 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).
3. DSWA shall operate the landfill to minimize soil or daily 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. DSWA shall record the results of the inspections. In the event that the daily inspection finds that materials are being tracked onto public roads, at a minimum DSWA shall provide for street cleaning that same day.

S. Health and Safety:

1. Employees at the site shall work under appropriate health and safety guidelines established by the Occupational Safety and Health Administration.
2. Use of personal protective equipment shall be in accordance with 29 CFR Part 1910.132 as a minimum.
3. First aid equipment shall be maintained and available in the scale house and in the maintenance building.

V. MONITORING:

A. Surface Water Monitoring:

1. DSWA shall monitor surface water in accordance with the *Monitoring Plan for the Southern Solid Waste Management Center* dated March 2010 (Monitoring Plan), and the requirements of this permit.
2. DSWA shall maintain surface water staff gauges A-1 (Askeetum), A-3 (Askeetum) A-4 (borrow pond), B-1 (Beaverdam), B-2 (Beaverdam), B-3 (Beaverdam), SMB-3A (stormwater pond 3A), SMB-3B (stormwater pond 3B), and SMB-3C (stormwater pond 3C). Quarterly, during January, April, July, and October coincident with the measurement of groundwater levels in monitoring wells, the DSWA shall measure water levels at surface water staff gauges A-1, A-3, A-4, B-1, B-2, B-3, SMB-3A, SMB-3B, and SMB- 3C.
3. DSWA shall monitor stormwater ponds 3A, 3B, 3C and the borrow pond quarterly during January, April, July, and October. This quarterly monitoring shall include environmental sampling as well as visual monitoring of water being discharged from the stormwater ponds at the time of the sampling.
 - a. Visual monitoring shall document water elevation as well as the results of a visual inspection for obvious indicators of stormwater pollution. In the event there is no stormwater being discharged at the time of the quarterly environmental sampling, DSWA shall document that and shall repeat the visual monitoring as soon as practical after the next rain event(s) until discharge is observed, inspected and documented.
 - b. Environmental sampling shall consist of grab water samples of pond discharge taken at the outlet structures of the ponds or at the point in the pond where the water enters the outlet. DSWA shall estimate the flow rate at the pond outlets each time a sample is collected. DSWA shall measure and record field parameters and collect samples for indicator parameters in accordance with Exhibit B, Table C of the Monitoring Plan. Additionally, DSWA shall monitor for biological oxygen demand and hardness.
4. In the event leachate is found to be contaminating surface water, DSWA shall sample the impacted surface water and the downstream stormwater pond at both the inlet and the outfall (if discharging). DSWA shall record their visual observations and sample in accordance with the Monitoring Plan to include the parameters cited in Exhibit B, Table F of that plan.

B. Groundwater Monitoring:

1. DSWA shall monitor groundwater in accordance with the Monitoring Plan for the Southern Solid Waste Management Center dated March 2010, (the Monitoring Plan) and the requirements of this permit.

4. Emergency telephone numbers, including the number for the Emergency Coordinator, shall be prominently displayed by at least one telephone in each of the following on-site locations: the maintenance office, the scale house and the administrative office.
5. Any confined space entry done by employees or contractors shall be done in accordance with 29 CFR Part 1910.146.

T. Contingency:

1. Fire prevention and control shall be in accordance with the Plan of Operation.
2. There shall be one Emergency Coordinator and at least one alternate Emergency Coordinator appointed at the SSWMC to ensure that at least one Emergency Coordinator will be available at all times. The Emergency Coordinator shall be responsible for directing all emergency response measures necessary to protect human health and the environment in the event of fire, severe weather, explosion, or release of hazardous materials.
3. The Permittee shall maintain a current Spill Prevention, Control and Countermeasures Plan.

U. Training:

DSWA shall conduct training in accordance with Section 3.3 of the Plan of Operation.

V. Household Hazardous Waste (HHW) Collection Program:

1. Operation of any HHW collection event held at SSWMC shall be in accordance with the *Delaware Solid Waste Authority HHW Operating and Site Safety Plan*, as revised September 2002.
2. Wastes accepted as part of the HHW collection services shall not be stored on-site overnight.
3. While HHW is being accumulated on-site, each container shall be properly labeled with the date accumulation began and the contents of the container.
4. HHW wastes shall be transported from the site by a transporter permitted to transport solid or hazardous wastes within the State of Delaware.
5. Employees handling HHW must complete initial and annual training designed to ensure that site personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems.
6. The HHW collection site shall be maintained and operated to minimize the possibility of fire, explosion, or any unplanned, sudden or non-sudden release of waste to air, soil, or water that could threaten human health or the environment.

2. DSWA shall maintain and protect all monitoring wells in accordance with the Delaware *Regulations Governing the Construction and Use of Wells*. 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. Groundwater Sampling:
 - a. Quarterly, during January, April, July, and October, the DSWA shall measure water levels in the groundwater monitoring wells in accordance with Exhibit B, Table D of the Monitoring Plan.
 - b. DSWA shall monitor groundwater wells in accordance with the schedule in Exhibit B, Table D of the Monitoring Plan. DSWA shall measure field parameters, and indicator parameters in accordance with Exhibit B, Table D of the Monitoring Plan.
 - c. 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. Samples shall be collected, prepared, and shipped in accordance with the Monitoring Plan.

C. Leakage Detection System Monitoring for Cells 3, 4 and 5:

1. The DSWA shall monitor all leak detection system flowmeters, pumps, controls, and recording devices each operating day to ensure proper functioning and to record flows. The DSWA shall inspect for leakage from valves, flowmeters, and connections at riser locations each operating day. The results of the inspections shall be recorded in the facility log.
2. Cleaning and Assessment of the system:
 - a. The DSWA shall ensure that collection pipes are cleaned at least once every two years with a self-propelled, high pressure jetting system. The 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 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, collection pipes, or representative sections of collection pipes, in each cell 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.

3. The leak detection system shall be capable of measuring the rate and quantity of flow from each subcell or sump area on a daily basis, and shall be capable of sampling the liquid from each subcell or sump area.
4. The action leakage rate (ALR) for the leak detection system for each subcell or sump area at the SSWMC shall be based upon a monitoring period no longer than seven days. ALR's are as follows:
 - a. Cell 3: 20 gallons/acre/day
 - b. Cell 4: 20 gallons/acre/day
 - c. Cell 5: 28 gallons/acre/day
5. If the ALR is exceeded the DSWA shall:
 - a. Discontinue leachate recirculation in the affected area.
 - b. Sample and analyze the liquid in the leak detection system for the leachate parameters required in Section V.C.6.a of this permit.
 - c. Notify the Department in writing within seven days.
 - d. Monitor and record flows into the affected secondary sump on a daily basis to assess flow rate trends and variability. This increased monitoring shall continue until the flow rate into the sump is less than the ALR for four consecutive weeks. Once the affected sump demonstrates a flow rate below the ALR, the DSWA may resume weekly monitoring if approved by the Department.
 - e. Investigate the source and characteristics of the increased flow and provide the Department with a written report detailing the findings and recommendations. This report shall be submitted to the Department within 60 days from the date when the ALR was initially exceeded.
 - f. The Department may require corrective action in the event that flow rates in the secondary continue to exceed the ALR.
6. Quarterly Sampling:
 - a. DSWA shall monitor liquids in the leakage detection system in accordance with the Monitoring Plan including the schedule and list of parameters in Exhibit B, Table B of that plan. In the event that liquid was too low to be sampled during the monitoring event, DSWA shall document that and shall report it in both the quarterly and annual reports of monitoring results.

D. Leachate Collection, Treatment, Disposal and Monitoring:

1. The DSWA shall monitor all leachate collection system flowmeters, pumps, controls, recording devices and storage tanks each operating day to ensure proper functioning and to record flows. The DSWA shall inspect for leakage from valves, flowmeters, connections at riser locations, and storage tanks each operating day. The results of the monitoring and inspections shall be recorded in the facility log.

2. Cleaning and Assessment of the System:

- a. The DSWA shall ensure that collection pipes are cleaned at least once every two years with a self-propelled, high pressure jetting system. The 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 cleanings.
 - b. At least once every four years, collection pipes, or representative sections of collection pipes, in each cell 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.
3. Leachate recirculation shall be allowed only with prior written approval of the Department and only if it can be reasonably demonstrated that it will not result in significant increase in odors, contamination of groundwater, or release of methane or other landfill gases to the environment.
 4. The DSWA shall maintain all necessary permits and approvals for leachate storage and disposal management.
 5. The leachate collection system shall be capable of measuring the rate and quantity of leachate flow from each subcell or sump area on a daily basis, and shall be capable of sampling the leachate from each subcell or sump area.
 6. DSWA shall monitor leachate in accordance with Exhibit B, Table A of the Monitoring Plan. Additionally, DSWA shall collect monthly samples of leachate from each cell and analyze for the following parameters: alkalinity, biochemical oxygen demand, chemical oxygen demand, chloride, nitrate-nitrogen, ammonia-nitrogen, nitrite, pH, specific conductance, sulfate, total dissolved solids, iron, manganese, and total organic carbon. DSWA shall provide the results of the monthly monitoring quarterly along with sampling results from the quarterly monitoring.
 7. The DSWA shall measure and record the quantity of leachate pumped from each leachate sump on a weekly basis. The DSWA shall also record weekly the quantity of leachate recirculated in each cell and the quantity of leachate shipped.

E. Landfill Gas:

1. The operation, maintenance, and monitoring of the gas extraction and flare systems shall be done in accordance with the current permit(s) issued pursuant to the Delaware air quality regulations.

2. Gas migration monitoring (Section 5.5.1.3, DRGSW) shall be performed at least quarterly and shall be done in accordance with the *DSWA Southern Solid Waste Management Center (SSWMC) Gas Migration Monitoring Plan (Rev.1)*, dated September, 2010. The concentration of landfill gas in facility structures (except gas recovery systems) and at the facility boundary shall not exceed 25% of the Lower Explosive Limit (LEL).

F. Analytical Procedures:

All leachate, leak detection system liquid, groundwater and surface water analysis required by this permit shall be done in accordance with the most current legal edition of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication Number SW-846, or other tests approved in writing by the Department. All samples shall be taken using quality assurance and quality control procedures that ensure samples are representative of actual field conditions.

VI. REPORTING:

- A. Financial Assurance: No later than December 31st of each year, the 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 the SSWMC. 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 the SSWMC. DSWA shall provide the document in one paper copy plus one copy by way of electronic media acceptable to the 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. Annual Operations Report: No later than April 30th of each year, DSWA shall submit an Annual SSWMC 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 SSWMC Operations Report shall include the following information:
 1. The weight and types of wastes landfilled, and the weight of asbestos received for off-site disposal.
 2. The weights (or volumes) 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 Operation Plan.
7. All construction or corrective work conducted on the site in accordance with approved plans or to achieve compliance with the DRGSW and this permit.
8. A discussion of landfilling activities during the past year relevant to operation of the leak detection system, the leachate collection system and the gas collection system including the date of first waste placement in each subcell or sump area and:
 - (1) Modifications to the leachate collection, leak detection, or gas collection systems.
 - (2) Cleanings and inspections (with assessment) of the leachate collection and leak detection system.
9. HHW collection event data to include:
 - a. The weight or volume and types of Household Hazardous Waste collected.
 - b. Waste transporter(s) used.
10. Status of the exposed geomembrane (cell 1 and 2 long term intermediate cover). This shall describe construction, intrusions, damages, repairs, performance, compliance, and problems experienced. The DSWA shall also evaluate and report the geomembrane properties.

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 SSWMC*, 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 SSWMC* 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, leachate, and leak detection system monitoring done at SSWMC 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 SSWMC* which shall contain DSWA's historical environmental monitoring at the SSWMC, 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) Leak detection system flow and quality including field measurements.
 - (c) Groundwater elevation and quality data including field measurements.
 - (d) Surface water elevation, flow rate, and quality data including field measurements.
 - (e) Rainfall data from the site weather station.
 - (2) Graphical presentations (quality versus time plots) of leachate, groundwater, surface water, and leak detection system liquid quality parameters pH, TDS, COD, TOC, chloride, sulfate, ammonia-nitrogen and iron.
 - (3) Graphical presentations (flow rate or volume versus time plots) of leachate collected, leachate recirculated, and leak detection flows. Rainfall data shall also be plotted on each graph.
 - (4) Potentiometric maps for each aquifer for each quarter.
 - (5) Gas migration monitoring results.

2. Annual Environmental Monitoring Report. No later than April 30th of each year, DSWA shall submit an *Annual SSWMC Environmental Monitoring Report* package. DSWA shall provide this annual report in one paper copy and one copy on electronic media. The Paper copy shall consist of the DSWA cover letter, the narrative portion of the *Annual SSWMC Environmental Monitoring Report*, and any pertinent tables and drawings showing sampling locations for all groundwater, surface water, stormwater, leachate and gas migration monitoring required by this permit. The copy on electronic media shall include a single electronic file such as a Portable Document Format (.pdf) file which contains both the DSWA cover letter and the *Annual SSWMC Environmental Monitoring Report*. The electronic media submittal shall also include appendices and attachments to the narrative portion of the *Annual SSWMC Environmental Monitoring Report* to include field data sheets, laboratory analysis reports, and the *Historical Environmental Monitoring Database for SSWMC*. The *Annual SSWMC Environmental Monitoring Report* package shall consist of:
 - a. The DSWA's cover letter for the report.
 - b. The *Annual SSWMC 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 SSWMC*.
 - (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) A discussion of the leak detection system monitoring results, including whether the results indicate that the liner is performing with design specifications.
 - (4) 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. The DSWA shall inform the Department in writing if it is unable to comply with any of the reporting requirements.
4. Upon discovery, the 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 the following emergencies. If any of these emergencies occur 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 report the emergency to the Division of Air and Waste Management's TOLL-FREE 24-HOUR LINE 1.800.662.8802.

- a. Fire (including receipt of hot loads) or explosion involving the landfill or its control systems.
- b. Receipt of prohibited waste in the cell.
- c. Leachate spills exceeding ten gallons.
- d. Gas levels of 25% LEL or greater detected at the facility boundary or within any structures (as required by Condition V.E.2 of this permit).
- e. Damage to the landfill liner system.
- f. Landfill leachate found to be contaminating surface water.
- g. Household Hazardous Waste collection event spills: Any HHW waste spills outside of containment or HHW waste spills exceeding 1 gallon (or 10 lbs.) within containment.

2. The DSWA shall submit a written notification to the Department within 5 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.
- c. 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 or remedial actions required and schedule.

E. Assessment of Corrective Measures:

1. DSWA shall notify DNREC 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 indicator parameters and Table 1 analytes (Table 1 listed in Section 5.7.3.2 of the DRGSW) and any other parameters deemed appropriate by DSWA and DNREC. DSWA shall notify DNREC 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 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 DNREC 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.

VII. RECORDKEEPING:

A. General Recording and Maintenance:

The following information must be recorded and maintained by the 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 the 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.

B. On-site Records:

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, dust, or litter complaints received by the facility manager concerning the landfill during the last 3 years.
2. Records that document that required training has 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, the exposed geomembrane (cells 1 and 2), leachate seeps, landfill gas migration, and the salvaging stockpile areas.
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 retain these records for a period of three years.
5. Copies of all manifests used for the shipment of HHW for at least the last two years.
6. Current training records for personnel handling HHW at the HHW collection events.

C. Department Approvals for Alternate Covers

Department approvals for alternate covers (daily and intermediate) shall be incorporated into the Plan of Operation at least two days prior to the cover material first arriving at the facility. Incorporation shall be accomplished by inserting approvals into Appendix D of the plan of operations. Approvals which have been replaced or which have expired are invalid and shall be removed from Appendix D no later than close of business on the date of expiration, or receipt of the revised Approval.

VIII. LANDFILL CAPPING SYSTEM:

A. Capping Requirements:

1. Upon closure of the landfill or landfill cell, 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 designed in accordance with the DRGSW.
3. 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 or subcell has been completed.
4. In order to enhance controls for odors and reduce leachate generation, DSWA may install landfill cap in phases as part of their Cap-As-You-Go Program on portions of cells 3, 4 and 5 as long as the work does not interfere with landfill operations or control systems and the Department has approved the design and construction quality control measures. In order for the permittee to use Cap-As-You-Go caps for final closure, at the time of landfill closure, DSWA will need to demonstrate that these

portions of the landfill were installed in accordance with the DRGSW and were protected from damage between installation and time of landfill closure. This must include the DSWA's documentation in the final report required by Section 5.10.4.7 of the DRGSW certifying the proper construction and the protection of the Cap-As-You-Go portions of the cap.

IX. CLOSURE AND POST-CLOSURE CARE:

A. Closure in Accordance with the DRGSW:

The DSWA shall close the completed landfill or landfill cells in accordance with the DRGSW.

B. Notification:

Notification of intent to close the landfill shall be submitted to the Department at least 180 days prior to projected date when waste will no longer be accepted in the landfill.

C. Post-closure Care:

Post-closure care shall be in accordance with the DRGSW. Post-closure care shall be in accordance with the post-closure care permit and the approved post-closure care plan approved by the Department.

D. Post-closure Land Use:

The DSWA shall implement the post-closure land use plan approved by the Department.

E. Deed Notice:

The DSWA shall record an environmental covenant, per Delaware Code Title 7, Chapter 79, Subchapter II, with the deed to the facility property that will in perpetuity notify a potential purchaser of the property the land has been used as a solid waste disposal site and the use of the land is restricted under the DRGSW.

Permit SW-00/01

Modification Synopsis

October 6, 2000: The permit was modified to incorporate the *Delaware Solid Waste Authority Permanent HHW (and Conditionally Exempt Small Quantity Generator) Facility Operations, Maintenance and Safety Manual*, Revised August 4, 2000 (the HHW Operations, Maintenance and Safety Manual). The modification also prohibits HHW storage on-site overnight.

May 1, 2001: Permit SW-00/01 was modified to reflect the changes proposed in the Settlement Agreement executed by the Secretary of DNREC on February 22, 2001 (as a result of DSWA appeals to the Environmental Appeals Board 2000-06 and 2000-08).

July 11, 2001: The permit was modified to incorporate the DSWA's January 31, 2001 and June 29, 2001 revisions to the *Operations Plan (leachate recirculation and C&D waste salvaging)*. The modification also incorporated the DSWA's May 2001 revision to the *Monitoring Program for the Southern Solid Waste Management Center*. The modifications are considered minor in accordance with Section 4.A.7 of the DRGSW.

November 18, 2002: The permit was modified to incorporate the DSWA's November 14, 2002 revision to the *Operations Plan* which added a provision for salvaging of Mobile Home Units. The modification is considered minor in accordance with Section 4.A.7 of the DRGSW.

May 4, 2004: The permit was modified to include DSWA's April 12, 2004 revision to the *Operations Plan* (Section IV.A). This modification was initiated by the Solid & Hazardous Waste Management Branch to establish a formal recordkeeping requirement for written approvals obtained by the DSWA for alternate cover materials (Section VII.C). The modifications (Sections IV.P and Q) also establish performance standards for alternate cover materials. The modification is considered minor in accordance with Section 4.A.7 of the DRGSW.

June 14, 2006: Permit SW-00/01 was modified to reference the revised Operations Plan (Section IV.A.), which the DSWA updated to include the new Special Waste Policy and additional procedures for managing mobile home units. References to Conditionally Exempt Small Quality Generator waste was removed from the permit since DSWA no longer accepts such waste as part of the household hazardous waste (HHW) collection program (sections IV.X, VI.B, C, D, and VII.B). The permit was modified to extend the emergency reporting deadline (the written report only) from 1 business day to 5 business days. The permit was modified to be consistent with other DSWA permits regarding salvaging operations (Section IV.O). The permit was modified to reference the *HHW Operating and Site Safety Plan as revised September 2002* (Section IV.X.1). This was a minor modification in accordance with Section 4.A.7 of the DRGSW.

August 1, 2006: The Solid & Hazardous Waste Management Branch modified permit SW-00/01 to include the revised date of the Operations Plan. The Delaware Solid Waste Authority changed the revised date on the title page of the Operations Plan to June 14, 2006 and that date has now referenced in Section IV.A of permit SW-00/01. The Branch also updated the reference to Analytical Procedures in Section V.F. of the permit. This was a minor permit modification in accordance with Section 4.A.7 of the DRGSW.

March 19, 2010: In response to the DSWA's application to construct and operate a landfill (cell 5), the Solid & Hazardous Waste Management Branch modified permit SW-00/01 to include the construction of cell 5 and to extend the date of permit expiration until March 19, 2020 to allow for the operation of cell 5. This was a major permit modification in accordance with Section 4.1.7 of the DRGSW.

Permit SW-00/01

November 22, 2013. The Solid & Hazardous Waste Management Section modified permit SW-00/01 to install new reporting requirements in Section VI. The new requirements provide more direction to the permittee for reporting via electronic media. The modification also corrects the date cited for the Plan of Operations in Section IV.A. of the permit. The modification incorporates the revised Operations Manual used by DSWA for maintenance and inspection of the long term intermediate cover on cells 1 & 2 and cited in Section III.B. of the permit. This was a minor permit modification as defined by Section 4.A.7 of the DRGSW.