

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
PERMIT
FOR HAZARDOUS WASTE FACILITY POST-CLOSURE

Permittee: Waste Management Disposal Services of Pennsylvania, Inc.
Facility: G.R.O.W.S. Landfill
Permit Number: EPA ID No. 000 429 589
Facility Location: Falls Township, Bucks County, Pennsylvania

The United States Environmental Protection Agency (EPA) under the authority of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA) and the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. §§ 6901-6992k, and regulations promulgated thereunder and set forth at 40 C.F.R. Parts 260-271, has prepared this Permit for Waste Management Disposal Services of Pennsylvania, Inc. (Permittee) for its G.R.O.W.S. Landfill facility located on 457 acres in Falls Township, Bucks County, Pennsylvania (Facility).

A. CORRECTIVE ACTION

Section 3004(u) of RCRA, 42 U.S.C. § 6924(u), requires corrective action for all releases of hazardous waste or constituents from any solid waste management unit (SWMU) for all permitted treatment, storage, or disposal facilities, regardless of the time the waste was placed in the unit. While the EPA has granted the Commonwealth of Pennsylvania (the Commonwealth) authorization to operate a state hazardous waste program in lieu of the federal program, pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), the Commonwealth has not received authorization for the Corrective Action Program. EPA is, therefore, issuing this permit (hereafter EPA Permit or Permit) so that the Permittee can satisfy its Corrective Action requirements at the Facility.

The complete RCRA permit for purposes of 3005(c) of RCRA, 42 U.S.C. § 6925(c), consists of two portions: this Corrective Action Permit, issued by EPA and which addresses the provisions of HSWA, and the Facility's RCRA Post-Closure Permit, No. PAD 000 429 589, issued by the Pennsylvania Department of Environmental Protection (PADEP), which addresses the provisions of Title 25 of the Pennsylvania Code, for which the Commonwealth has received authorization under Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), to administer and enforce in lieu of the federal hazardous waste management program under RCRA.

EPA has determined that protection of human health and the environment has been achieved at the Facility and will continue to be achieved at the Facility within the meaning of Section 3004(u) of RCRA as long as the necessary operation, maintenance and monitoring activities are performed, as required by the Facility's RCRA Post-Closure Permit, No. PAD 000 429 589, and Municipal Solid Waste Operating Permit, No. 100148, issued by PADEP to the Permittee (hereafter collectively referred to as PADEP Permits) and land and groundwater uses are restricted in order to minimize the potential for human exposure to contamination and protect the integrity of the groundwater monitoring system, landfill caps, and leachate collection system. To satisfy the Permittee's RCRA Section 3004(u) Corrective Action obligations at the Facility, this EPA Permit incorporates, and provides for the implementation of, all the provisions of the PADEP Permits and all attachments thereto. The PADEP Permits are hereby incorporated into this EPA Permit by reference and made a part hereof as Attachments A and B, respectively.

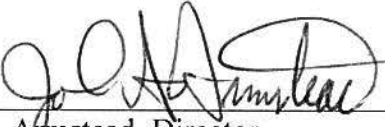
Any inaccuracies found in the information submitted by the Permittee in connection with this Permit may be grounds for the termination, modification, or revocation and reissuance of this Permit, and potential enforcement action (see 40 C.F.R. §§ 270.41, 270.42 and 270.43). The Permittee must inform EPA immediately of any deviation from, or changes in, the information which would affect the Permittee's ability to comply with applicable statutes, regulations, and/or Permit conditions.

The Permittee shall comply with all terms and conditions set forth in this Permit, including the attachments hereto. Additionally, the Permittee shall comply with all applicable federally enforceable hazardous waste regulations. Nothing in this Permit shall limit EPA's authority to undertake, or require any person to undertake, response action or corrective action under any law, including, but not limited to, Section 104 or 106 of CERCLA, 42 U.S.C. §§ 9604 or 9606, and Section 7003 of RCRA, 42 U.S.C. § 6973. Nor shall any permit condition relieve the Permittee of any obligations under any law, including, but not limited to, Section 103 of CERCLA, 42 U.S.C. § 9603, to report releases of hazardous wastes, constituents, or substances to, at, or from the Facility.

B. EFFECTIVE DATE

This EPA Permit is effective as of **September 30, 2014**, and shall remain in effect through **September 30, 2024**, unless revoked and reissued (per 40 C.F.R. § 270.41), terminated (in accordance with 40 C.F.R. § 270.43), or continued (in accordance with 40 C.F.R. § 270.51(a)).

C. SIGNATURE



 John A. Armstead, Director
 Land and Chemicals Division
 U.S. Environmental Protection Agency, Region III

Date: 9.29.14

Attachment A: Commonwealth of Pennsylvania
 Department of Environmental Protection
 Permit for Post-Closure
 Waste Management Disposal Services of Pennsylvania, Inc.
 PAD 000 429 589
 December 22, 2003

Attachment B: Commonwealth of Pennsylvania
 Department of Environmental Protection
 Municipal Solid Waste Operating Permit
 Waste Management Disposal Services of Pennsylvania, Inc.
 PAD 000 429 589
 February 9, 2000

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMIT FOR POST-CLOSURE**

Permittee: Waste Management Disposal Services of Pennsylvania, Inc. Permit Number: PAD000429589

Facility: G.R.O.W.S. Landfill (Old G.R.O.W.S.)

This permit is issued by the Commonwealth of Pennsylvania Department of Environmental Protection (Department) under authority of the Pennsylvania Solid Waste Management Act, the Act of July 7, 1980, Act 97, 35 P.S. Section 6018.101 et seq. (the Act), Department hazardous waste regulations and Federal hazardous waste regulations to Waste Management Disposal Services of Pennsylvania, Inc. (hereafter called the Permittee), to continue post-closure monitoring and maintenance at their facility located in Falls Township, Bucks County, at latitude 40°08'05" North and longitude 74°46'02" West.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (Parts I – III, consisting of pages 1 through 15 and Attachments 1 through 8) and the applicable regulations contained in 25 Pa. Code Chapters 260a-270a and 40 C.F.R. 260-270 as specified in the permit.

This permit is based on the assumption that the information submitted in the permit application attached to the Permittee's letter dated October 2, 2002, as modified by subsequent amendments dated October 28, 2002, (hereafter referred to as the application) is accurate and that the facility will be constructed and/or operated as specified in the application. Any inaccuracies found in this information may be grounds for the revocation or modification of this permit and potential enforcement action. The Permittee must inform the Department of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This permit is conditioned upon full compliance with all applicable provisions of the Act; Department regulations contained in 25 Pa. Code Chapter 260a – 270a; Federal regulations contained in 40 C.F.R. Chapters 260 – 270; the Clean Streams Law, 35 P.S. 691.1 et seq.; the Air Pollution Control Act, 35 P.S. 4001 et seq.; the Dam Safety and Encroachments Act, 32 P.S. 693.1 et seq.; the Surface Mining Conservation and Reclamation Act, 52 P.S. 1396.1 et seq.; the Coal Refuse Disposal Control Act, 52 P.S. 30.51 et seq.; all other Pennsylvania statutes related to the protection of the environment; and all Pennsylvania statutes related to the protection of public health, safety, and welfare.

This post-closure permit is issued effective as of December 22, 2003, and shall remain in effect until December 22, 2013, unless revoked and reissued, or terminated in accordance with 25 Pa. Code 270a.41, 270a.42, 270a.43 and 40 C.F.R. 270.41, 270.42, and 270.43, or continued.

GROWS permit for Haz. Waste Fac. Post-closure
Attachment A
-1-

PART I - STANDARD CONDITIONS

A. EFFECT OF PERMIT

This permit authorizes only the management of hazardous waste expressly described in this permit and does not authorize any other management of hazardous waste. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local laws or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under the Act or any other law governing protection of public health or the environment.

B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, terminated for cause as specified in 25 Pa. Code 270a.41, 270a.42, 270a.43 and 40 C.F.R. 270.41, 270.42, and 270.43 or suspended in accordance with the Act. The filing of a request for a permit modification, revocation and reissuance, or revocation or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay or supersede the applicability or enforceability of any permit condition.

C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held to be invalid, the application of such provision to other circumstances and the remaining provisions of this permit shall not be affected thereby.

D. DEFINITIONS

For the purpose of this permit, terms used herein shall have the same meaning as those in Title 25 of the Pennsylvania Code and Title 40 of the Code of Federal Regulations (25 Pa. Code Chapters 260a - 270a and 40 C.F.R. 260 - 270), unless this permit specifically states otherwise; where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. "The Department" is the Department of Environmental Protection of the Commonwealth of Pennsylvania.

E. REPORTS, NOTIFICATIONS AND SUBMISSIONS TO THE DEPARTMENT

All reports, notifications or other submissions which are required by this permit to be sent or given to the Department should be sent certified mail or given to

Regional Program Manager
Waste Management Program
Pennsylvania Department of Environmental Protection
Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428

F. SIGNATORY REQUIREMENTS

All reports or other information requested by the Department shall be signed and certified as required by 40 C.F.R. 270.11.

G. DOCUMENTS TO BE MAINTAINED AT THE FACILITY SITE

The Permittee shall maintain at the facility, until closure is completed and certified by an independent registered professional engineer, the following documents and amendments, revisions and modifications to these documents:

1. Personnel training documents and records required by 40 C.F.R. 264.16(d) and this permit.
2. Contingency plan required by 40 C.F.R. 264.53(a) and this permit.
3. Post-closure plan required by 40 C.F.R. 264.118 (a) and (b) and this permit.
4. Annually-adjusted cost estimate for facility post-closure required by 40 C.F.R. 264.144 and this permit.
5. Operating record, as applicable to post-closure activities, required by 40 C.F.R. 264.73 and Part II, Section G.1 of this permit
6. Inspection schedules and logs required by 40 C.F.R. 264.15(b)(2) and this permit.
7. Other documents required by Part I, II and III of this permit.

H. DUTIES AND REQUIREMENTS

1. Duty to Comply. The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and the regulations promulgated thereunder and is grounds for enforcement action; for permit revocation, termination and reissuance, or modification; or for denial of a permit renewal application.
2. Duty to Reapply. If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must submit a complete application for a new permit at least 180 days before this permit expires.
3. Permit Expiration. This permit and all conditions therein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application and through no fault of the Permittee, the Department has not issued a new permit.
4. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for the Permittee in an enforcement action to argue that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
5. Duty to Mitigate. In the event of noncompliance with the Act, the regulations, or this permit, the Permittee shall take all necessary steps to prevent and abate any releases to the environment, and shall carry out such measures as are necessary to prevent significant adverse impacts on human health or the environment.
6. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of storage, treatment and control (and related

appurtenances) which are installed or used by the Permittee to achieve compliance with the Act, the regulations, and the conditions of this permit. Proper operation and maintenance shall include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. The Permittee shall operate back-up or auxiliary facilities or similar systems if necessary to achieve compliance with the Act, the regulations and the conditions of the permit.

7. Duty to Provide Information. The Permittee shall furnish to the Department within a reasonable time, any relevant information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Department, upon request, copies of records required to be kept by the Permittee pursuant to the Act, the regulations, or any permit condition.
8. Inspection and Entry. The Permittee shall allow the Department, its agents and authorized representatives, upon the presentation of credentials and other documents as may be required by law, or without advance notice or a search warrant to:
 - a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records concerning the regulated facility or activity are kept;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the Act, the regulations, or this permit;
 - d. Sample or monitor any substances or parameters at any location for the purposes of assuring permit compliance or as otherwise authorized by the Act or the regulations; and
 - e. Engage in any other activities necessary or appropriate to the documentation of events or conditions at any locations.
9. Monitoring and Records
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 C.F.R. Part 261 - Criteria, Identification and Listing of Hazardous Waste or an equivalent method approved by the Department. Laboratory methods must be those specified in Appendix III of 40 C.F.R. Part 261; Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (U.S. EPA Document SW-846, most recent edition); Standard Methods of Waste Water Analysis (U.S. EPA; 15th ed.; 1980); or an equivalent method approved by the Department and as specified in the attached Waste Analysis Plan.
 - b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by the Act, the regulations, or this permit, and all records of all data used to complete the

application for this permit for a period of at least three years from the date of the sample, measurement, report or record, or application. These periods may be extended by request of the Department at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.

- c. The Permittee shall maintain records of all groundwater quality and groundwater surface elevations for the active life of the facility and during the post-closure care period as well.
 - d. The Permittee shall, at a minimum, keep monitoring records which include the following information:
 - (1) The dates, exact place, and times of sampling or measurements;
 - (2) The individuals who performed the sampling or measurements;
 - (3) The dates analyses were performed;
 - (4) The individuals who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses.
10. Reporting Planned Changes. The Permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. This notice must include a description of all incidents of noncompliance reasonably expected to result from the proposed changes. The Permittee shall not modify the facility without first obtaining a permit from the Department.
 11. Anticipated Noncompliance. The Permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
 12. Transfer of Permits. This permit shall not be transferred or assigned to any other person or municipality.
 13. Twenty-Four Hour Reporting. The Permittee shall report to the Department any noncompliance with the Act, the regulations or any condition of this permit or any occurrence or event at the facility which may endanger health or the environment.
 - a. Information shall be provided orally within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. This report shall include the following:
 - (1) Information concerning release or potential release of any hazardous waste from the facility that may endanger public drinking water supply sources.
 - (2) Any information of a release, potential release, or discharge of hazardous waste from the facility, or information of a potential or actual fire or explosion at the facility, which may threaten the environment or human health.
 - b. The description of the occurrence and its cause shall include:
 - (1) Name, address, and telephone number of the owner or operator;
 - (2) Name, address, and telephone number of the facility;

- (3) Date, time, and type of incident;
 - (4) Name and quantity of material(s) involved;
 - (5) The extent of injuries, if any;
 - (6) An assessment of actual or potential hazards to the environment and human health at or near the facility; and
 - (7) Estimated quantity and disposition of recovered material that resulted from the incident.
- c. A written submission shall also be provided to the Department within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of non-compliance (including exact dates and times); if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Permittee need not comply with the five (5) day written notice requirement if the Department extends it to fifteen (15) days.
14. Other Noncompliance. The Permittee shall report to the Department all other instances of noncompliance not otherwise required to be reported above, at the time monitoring reports are submitted. The reports shall contain the information listed in permit condition I.H.13.
 15. Other Information. Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Department, or whenever the Permittee becomes aware of circumstances which require a modification or clarification of any fact or representation made to the Department in connection with a permit application, it shall promptly submit such facts or information to the Department.

PART II - GENERAL FACILITY CONDITIONS

A. DESIGN AND OPERATION OF FACILITY

The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituents to air, soil, surface water, or groundwater which could threaten human health or the environment.

B. SECURITY

The Permittee shall comply with the security provisions of 40 C.F.R. 264.14(b) and (c).

C. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection plan set out in the inspection schedule, Attachment 1. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 40 C.F.R. 264.15(c). Records of inspections shall be kept as required by 40 C.F.R. 264.15(d).

D. PERSONNEL TRAINING

The Permittee shall conduct personnel training as required by 40 C.F.R. 264.16. This training program shall follow the attached outline, Attachment 2. The Permittee shall maintain training documents and records as required by 40 C.F.R. 264.16(d) and (e).

E. PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLAN

1. Implementation of PPC Plan. The Permittee shall immediately carry out the provisions of the PPC plan, Attachment 3, and follow the emergency procedures described by 25 Pa. Code 264a.56 and 40 C.F.R. 264.56 (a) – (j) whenever there is a fire, explosion, emission or discharge of hazardous waste or hazardous waste constituents which could threaten human health or the environment.
2. Copies of Plan. The Permittee shall comply with the requirements of 40 C.F.R. 264.53.
3. Amendments to Plan. The Permittee shall review and immediately amend, if necessary, the PPC plan, as required by 40 C.F.R. 264.54.
4. Emergency Coordinator. The Permittee shall comply with the requirements of 40 C.F.R. 264.55.
5. Emergency Procedures. The Permittee shall comply with the requirements of 40 C.F.R. 264a.56 and 40 C.F.R. 264.56(a-j).

F. RECORDKEEPING AND REPORTING

1. Operating Record. The Permittee shall maintain a written operating record at the facility in accordance with 40 C.F.R. 264.73.

2. Required Reports. The Permittee shall comply with all applicable reporting requirements as described in Part I, II and III of this permit.

G. CLOSURE

The closure plan shown in Attachment 4 provides a description of how the facility was closed and is included for informational purposes only.

H. COST ESTIMATE FOR FACILITY POST-CLOSURE CARE

1. Annual Adjustment. The Permittee shall adjust the post-closure cost estimate for inflation within 30 days after each anniversary of the date on which the first cost estimate was made as required by 40 C.F.R. 264.144(b).
2. Adjustment for Changed Conditions. The Permittee shall revise the cost estimate whenever there is a change in the facility's post-closure plan or in the measures necessary to prevent adverse effects upon the environment as required by 40 C.F.R. 264.144(c).
3. Availability. The Permittee must keep at the facility the latest cost estimate as required by 40 C.F.R. 264.144(d).
4. Incapacity of Permittee or Financial Institutions. The Permittee shall comply with 25 Pa. Code 264a.148 and 40 C.F.R. 264.148 whenever necessary.

I. BONDING REQUIREMENT

The Permittee shall maintain the bond submitted to and approved by the Department as required by 25 Pa. Code 264a.162. The Permittee shall comply with all applicable bond replacement requirements of 25 Pa. Code 264a.158.

J. LIABILITY INSURANCE

The Permittee shall comply with the liability insurance requirements of 25 Pa. Code 264a.147 and the documentation requirements of 40 C.F.R. 264.147(a) and (b). These include the requirements to have and maintain liability coverage for sudden accidental occurrences in the amount of at least \$1 million per occurrence with an annual aggregate of at least \$2 million, exclusive of legal defense costs, and for non sudden, accidental occurrences in the amount of at least \$3 million per occurrence with an annual aggregate of at least \$6 million, exclusive of legal defense costs. The Permittee shall submit new certificates of liability insurance 60 days prior to the expiration of the current certificate.

K. POST-CLOSURE

1. Monitoring and Maintenance. The Permittee shall monitor and maintain the facility as required by 40 C.F.R. 264.117(d) and 40 C.F.R. 264.118(a) and (b) and 40 C.F.R. 264.310(b) in accordance with the post-closure plan and groundwater monitoring plan, Attachments 5 and 6.

2. Amendment to Post-Closure Plan. The Permittee shall amend the post-closure plan in accordance with 40 C.F.R. 264.118(a) and (d) whenever necessary.

L. NOTICE TO LOCAL LAND AUTHORITY

The Permittee shall submit to the Department and to the municipality in which the facility is located a survey plat indicating the location and dimensions of landfill cells or other disposal areas with respect to permanently surveyed benchmarks in accordance with 40 C.F.R. 264.119(a). In addition, the Permittee shall satisfy the requirements of 40 C.F.R. 264.119(b)(1).

PART III- DETECTION MONITORING AND GROUNDWATER QUALITY ASSESSMENT

A. WELL LOCATION AND CONSTRUCTION

The Permittee shall install and maintain a groundwater monitoring system as specified below:

1. The Permittee shall install and maintain groundwater monitoring wells at the locations specified on the map presented in Attachment 6.
2. The Permittee shall construct and maintain the monitoring wells identified in condition III.A.1 in accordance with the plans and specifications presented in Attachment 6.

B. SAMPLING AND ANALYSIS PROCEDURES

The Permittee shall use the following techniques and procedures when obtaining samples and analyzing samples from the groundwater monitoring wells described in condition III.A.

1. Samples shall be collected by the techniques described in Attachment 6.
2. Samples shall be preserved and shipped (when shipped off-site for analysis) in accordance with the procedures specified in Attachment 6.
3. Samples shall be analyzed according to the procedures specified in Attachment 6.
4. Samples shall be tracked and controlled using the chain of custody procedures specified in Attachment 6.

C. GROUNDWATER ELEVATION

1. The Permittee shall determine for each monitoring well, the groundwater surface elevation each time groundwater is sampled in accordance with Condition III.F.
2. The Permittee shall at least annually by January 31st, evaluate the data from Condition III.C.1. to determine if monitoring wells are properly located.

D. BACKGROUND QUALITY AND MONITORING PARAMETERS

1. The Permittee shall monitor well Nos. GD11, GD22, GD25A, GU39, GW04R, GD33, GD44D, and GD54 quarterly as described in Condition III.A. Forms must be submitted in accordance with 25 Pa. Code 264a.97. Well Nos. GU20, GU41 and GU42 will be deactivated from quarterly monitoring but will remain in place for future monitoring. Well Nos. GD 11D, GW08R, and GW09RR have been decommissioned upon construction of the GROWS Eastern Expansion, and well Nos. GD31R and GW40 have been decommissioned upon construction of the GROWS Northeast/Southwest Expansions. The active wells listed in this paragraph are intended for use in monitoring the "Old GROWS" landfill that is the subject of this post closure permit.

2. "Background" levels for detection monitoring will be calculated for all parameters listed on the forms identified in Condition III.D.1 using the statistical procedure set forth in Attachment 7.
3. Detection limits for volatile organic compounds shall be consistent with EPA Publication SW 846.
4. "Old Hughes" Landfill Evaluation
 - a. Well Nos. GD51, GD52, GD53, and GD53D shall be monitored to evaluate the "Old Hughes" landfill utilizing the same assessment procedures utilized to assess the wells for the "Old GROWS" landfill, as required by the Department's July 6, 1999, letter regarding the 1998 Groundwater Assessment Report. The permittee shall make recommendations to the Department for further action relating to the "Old Hughes" landfill, including the need for continued assessment monitoring, based upon the findings of the evaluation required under this paragraph. Upon approval by the Department, the permittee shall implement the recommended actions regarding groundwater impacts from the "Old Hughes" landfill. Unless or until otherwise approved by the Department, these wells shall continue to be monitored and assessed on an annual basis.
 - b. In addition to, and as a part of, the evaluation pursuant to III.D.4.a. above, the monitoring wells shall be evaluated annually for the following parameters (which are also found in GROWS landfill leachate): ammonia-nitrogen, chemical oxygen demand, calcium, magnesium, potassium, sodium, chloride, sulfate, and total alkalinity.

E. STATISTICAL PROCEDURES

Attachment 7, titled "Statistical Procedures for Use in the Ground Water Monitoring Plan," for the RCRA Post- Closure Permit at GROWS Landfill, is to be followed.

F. MONITORING PROGRAM AND DATA EVALUATION

The Permittee shall determine groundwater quality as follows:

1. The Permittee shall collect, preserve and analyze samples pursuant to Condition III.B.
2. The Permittee shall determine the groundwater flow rate and direction at least annually, as required by 25 Pa. Code 264a.97(2)(iv).
3. Detection Monitoring Procedure
 - a. The Permittee shall determine whether there is a statistically significant increase for each indicator parameter referenced in Attachment 7 over the historical baseline data for that parameter each time groundwater quality is determined in accordance with the procedures

set forth in Attachment 7. In determining whether such an increase has occurred, the Permittee shall use the procedure described in Attachment 7.

- b. If there is a statistically significant increase for any indicator parameter referenced in Attachment 7 over the historical baseline data for that parameter, then the Permittee shall determine whether there has been a statistically significant increase for each alternate indicator parameter referenced in Attachment 6 over the historical baseline data for that parameter and whether any indicator volatile organic compounds (VOCs) have exceeded practical (or estimated) quantitation limits. In determining whether such an increasing trend has occurred, the Permittee shall use the procedure described in Attachment 7.
 - c. If the alternate indicator parameters exhibit a significant statistical increasing trend, as described in Attachment 7, then the permittee shall implement permit Condition III.F.4. and the assessment procedures set forth in Attachment 7.
4. Assessment Procedure
- a. While in assessment, the Permittee shall analyze a sample from the landfill leachate (GTPINF) annually for all parameters contained in the modified version of Appendix IX list included as Attachment 8 of the permit. The Permittee shall analyze samples from the affected monitoring wells listed in Condition III.D.1 at least annually, for all parameters from the modified version of Appendix IX detected in the leachate analysis to determine whether additional hazardous constituents are present. If the Permittee finds additional constituents present (ones not detected under the detection monitoring program) their concentrations shall be reported to the Department within seven (7) days after completion of the analysis.
 - b. The Permittee shall determine the rate, extent of migration and concentration levels of the hazardous waste, hazardous constituents or decomposition byproducts in the groundwater as required by Attachment 7.
 - c. The Permittee shall determine whether there is a statistically significant increase for each indicator parameter and alternate indicator parameter as identified in Attachment 7 of the permit, over the historical baseline data for that parameter and whether any indicator VOCs have exceeded PQLs each time groundwater quality is determined in accordance with the procedures set forth in Attachment 7. In determining whether such an increase has occurred, the Permittee shall use the statistical procedures specified in Attachment 7.
5. The Permittee shall submit the statistical evaluation required by Attachment 7 within 15 days after completing a quarterly statistical analysis and no later than 30 days after the end of a quarter.
6. The Permittee shall continue an assessment initiated pursuant to Condition III.F.3.c. for at least one year and submit a summary report at the end of that year containing an evaluation of that year's assessment data in relationship to the baseline data using the statistical method set forth in Attachment 7. The summary report shall also provide, for Departmental approval,

recommendations for further action consisting of a continuation of assessment for another year, a return to detection monitoring, or a determination to proceed to a compliance monitoring program under Condition III.G.2. Upon written approval from the Department, the permittee shall implement the recommended action.

G. REPORTING AND RECORDKEEPING AND RESPONSE

1. The Permittee shall enter all monitoring, testing, and analytical data obtained pursuant to III.F in the operating record, as required by 25 Pa. Code 264a.97.
2. If the Permittee determines, pursuant to condition III.F, that there is a statistically significant increase as described in Attachment 7, it shall:
 - a. Notify the Department in writing within seven days, as required by 40 C.F.R. 264.98(g)(1);
 - b. Within 90 days, develop and submit an application for permit modification, as required by 40 C.F.R. 264.98(g)(4), based on the outline required under 40 C.F.R. 264.99 for a compliance monitoring program.
 - c. Submit all reports, to the Department, as required by 25 Pa. Code 264a.97.
 - d. Begin to implement the compliance monitoring program within 30 days of Departmental approval or permit modification.
3. The Permittee shall make determinations, as required by 40 C.F.R. 264.99(d) and 264.99(f), within 180 days of implementation of the program or within any other timeframe as may be specified in a subsequent permit modification approved pursuant to III.G.2.
4. If the Permittee determines, pursuant to condition III.G.2. or G.3., that hazardous waste, hazardous constituents, or decomposition byproducts have entered the groundwater, the Permittee shall:
 - a. Notify the Department within 7 days indicating whether the permittee intends to comply with III.G.4.b., pursuant to 40 C.F.R. 264.99(h), or III.G.4.c., pursuant to 40 C.F.R. 264.99(i);
 - b. If the notice required pursuant to condition III.G.4.a. indicates a course of action in accordance with 40 C.F.R. 264.99(h), the permittee shall submit to the Department an application for a permit modification to establish a corrective action program as required by 40 C.F.R. 264.99(h)(2). The application shall be submitted within 180 days as required by 40 C.F.R. 264.99(h)(2);
 - c. If the notice required pursuant to condition III.G.4.a. indicates a course of action in accordance with 40 C.F.R. 264.99(i), the permittee shall submit to the Department a report making the demonstration required by 40 C.F.R. 264.99(i)(2). The report shall be submitted within 90 days as required by 40 C.F.R. 264.99(i)(2). Should the permittee fail to make the required demonstration, condition III.G.4.b. shall be implemented.

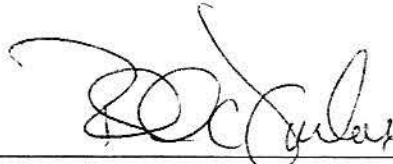
H. PERMIT MODIFICATION

If the Permittee determines that the detection monitoring or groundwater quality assessment required by this permit no longer satisfies the requirements of the regulations, an application for a permit modification must be submitted to make any appropriate changes to the program which will satisfy the regulations.

I. GROUNDWATER PROTECTION STANDARD

The Permittee must assure that monitoring and corrective action measures necessary to achieve compliance with the groundwater protection standard under 40 C.F.R. 264.98(b) are taken during the term of the permit.

22 December 2013



DATE

**FOR THE DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

LIST OF ATTACHMENTS

1. Inspection Plan/Schedule (Vol. 1, Section 6.0, of the application)
2. Personnel Training (Vol. 1, Section 7.0, of the application)
3. PPC Plan (Vol. 1, Section 8.0, of the application)
4. Closure Plan (Vol. 1, Sections 9.1 – 9.5, of the application)
5. Post-Closure Plan (Vol. 1, Section 9.6, of the application)
6. Groundwater Monitoring Plan (Vol. 2, Section 11.0, of the application)
7. Statistical Procedures for Use in the Groundwater Monitoring Plan (Vol. 2, Section 11.0, Appendix D, of the application)
8. Modified Appendix IX List (Vol.2, Section 11.0, Table 11-6, of the application)

Note: The above citations are only meant to give direction regarding where, in the application, the most direct references may be found and are not meant to be inclusive or exclusive in part or in whole.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8**

Permit No. 100148
Date Issued February 9, 2000
Date Expired February 9, 2010

Under the provisions of the Pennsylvania Solid Waste Management Act of July 7, 1980, Act 97, a permit for a solid waste disposal and/or processing facility at Falls Township in the County of Bucks is granted to Waste Management Disposal Services of Pennsylvania, Inc.
1121 Bordentown Road, Morrisville, PA 19067.

This permit is applicable to the facility named as G.R.O.W.S. Landfill, Northeast and Southwest Expansion and described as:

Latitude - 40° 08' 46"

Longitude - 74° 46' 00"

This permit is subject to modification, amendment and supplement by the Department of Environmental Protection and is further subject to revocation or suspension by the Department of Environmental Protection for any violation of the applicable laws or the rules and regulations adopted thereunder, for failure to comply in whole or in part with the conditions of this permit and the provisions set forth in the application no. 100148 which is made a part hereof, or for causing any condition inimical to the public health, safety or welfare.

See Attachment for waste limitations and/or special conditions



FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

GROWS Permit for Haz. Waste Fac. Post-closure
Attachment B

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8**

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

1. This waste management permit is issued based upon the two-phase waste application No. 100148 that was received in the Southeast Regional Office of the Department of Environmental Protection. The Phase I submission was received on December 18, 1997 and the Phase II submission was received on October 6, 1998. This permit is for the 28 acre Northeast expansion area and the 5.2 acre Southwest expansion area at GROWS Landfill located in Falls Township, Bucks County. Also included is approval for the construction and operation of a new scale house and waste sampling/screening area that is non-contiguous to the landfill, but is included as a part of the GROWS landfill permit area. Any and all approvals granted under this permit are limited to the Northeast and Southwest expansion areas. This approved application consists of the following documents.

Phase I

Form A received on December 23, 1997

Form B received on December 23, 1997

Form B1 received on December 23, 1997

Form HWC received on December 23, 1997

Form D received on December 23, 1997, revised on May 14, 1998

Form E received on December 23, 1997, revised on March 3, 1998

Form F received on December 23, 1997

Form 1 received on December 23, 1997, revised on May 14, 1998

Form 2 received on December 23, 1997, revised on May 14, 1998

Form 6 received on December 23, 1997

Form 7 received on December 23, 1997, revised on May 14, 1998 and September 9, 1998

Form 8 received on December 23, 1997, revised on May 14, 1998 and September 9, 1998

Form 11 received on December 23, 1997

Form 12 received on December 23, 1997, revised on May 14, 1998 and September 9, 1998

In Form 2, Figure 2-1, Sheet 1 to 4 received on December 12, 1997

In Form 6, Figure 6-1 to 6-7 received on December 12, 1997

In Form 7, Figure 7-1 to 7-12 received on December 12, 1997, Figure 7-6 and 7-12 revised on May 14, 1998 and Figure 7-6 revised on September 9, 1998

In Form D, Figure 1 and 1A received on December 23, 1997 and revised on May 14, 1998

The approved Phase I application includes a response to the Department's review letters dated March 12, 1998 and March 30, 1998, received on May 14, 1998, and a response to the Department's June 26, 1998 review letter received on September 9, 1998.

THIS PERMIT IS NON - TRANSFERABLE

Page 2 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No.	100148
Date Issued	February 9, 2000
Date Expires	February 9, 2010

Phase II

Form 3 received on October 6, 1998
 Form 14 received on October 6, 1998, revised on June 15, 1999 and September 15, 1999
 Form 18 received on October 6, 1998
 Form 24 received on October 6, 1998, revised on June 15, 1999 and September 15, 1999
 Form 25 received on October 6, 1998, revised on June 15, 1999
 Form 28 received on October 6, 1998, revised on June 15, 1999 and September 15, 1999
 Form 45 received on October 6, 1998
 Form 46 received on October 6, 1998
 Form G(A) received on October 6, 1998
 Form G(B) received on October 6, 1998
 Form I received on October 6, 1998, revised on June 15, 1999
 Form H received on October 6, 1998
 Form J received on October 6, 1998
 Form K received on October 6, 1998
 Form L and the PPC Plan received on October 6, 1998, revised on June 15, 1999
 Form Q with two equivalencies received on October 6, 1998, revised on June 15, 1999
 Bond documentation received on December 17, 1999

Drawing number 200390-01NE, indicating the permitted area received on October 6, 1998, revised on June 15, 1999.

Drawing number 200390-01NE to 36NE received on October 6, 1998 and Drawing number 01ANE, 01BNE and 09ANE received on June 15, 1999. Drawing number 200390-16NE-17NE, 28NE, and 32NE-36NE revised on March 17, 1999. Drawing number 200390-01NE-02NE, 04NE-12NE, 14NE-19NE, 21NE-22NE, 24NE, 27NE-30NE, and 32NE-36NE revised on June 15, 1999. Drawing number 200390-05NE, 14NE-15NE, 23NE and 30NE revised on September 15, 1999. Drawing number 200390-15NE-17NE & 32NE received on November 29, 1999.

Drawing number 200390-01SW to 28SW received on October 6, 1998 and Drawing 10ASW received on June 15, 1999. Drawing 200390-04SW, 06SW-08SW, 10SW-18SW, 22SW-24SW and 26SW revised on June 15, 1999. Drawing number 200390-15SW-16SW and 26SW revised on March 17, 1999. Drawing number 200390-08SW revised on September 15, 1999. Drawing number 200390-14SW-16SW revised on November 29, 1999.

THIS PERMIT IS NON - TRANSFERABLE

Page 3 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8**

Permit No.	100148
Date Issued	February 9, 2000
Date Expires	February 9, 2010

The approved Phase II application includes responses to the Department's review letter dated February 19, 1999, received on March 17, 1999 and June 15, 1999; a response to the Department's August 31, 1999 review letter received on September 15, 1999; and a response to the Department's issues raised during a November 22, 1999 meeting received on November 29, 1999, December 3, 1999 and December 17, 1999. Also included are supplemental submissions received on November 3, 1998 for proof of public notice; January 11, 1999, a Geotechnical Analysis of Liner Strains report; March 17, 1999, a partial response to the technical review letter dated February 19, 1999, a September 30, 1999 letter of approval for landfill operating hours issued by Falls Township; a revised Form Q list of previously approved equivalencies dated January 10, 2000; and a letter dated January 17, 2000 requesting inclusion of previously approved design and operating procedures.

The contents of all the above listed documents are hereby incorporated in the permit as conditions with which the permittee must comply.

2. Nothing in this permit shall be construed to supersede, amend, or authorize violation of, the provisions of any valid and applicable local law, ordinance, or regulation, provided that said local law, ordinance, or regulation is not pre-empted by the Pennsylvania Solid Waste Management Act, the Act of July 7, 1980, Act 97, 35 P.S. 6018.101, et seq. and Act 101, the Municipal Waste Planning, Recycling and Waste Reduction Act.
3. As a condition of this permit, and of the permittee's authority to conduct the activities authorized by this permit, the permittee hereby authorizes and consents to allow authorized employees or agents of the Department, without advanced notice or a search warrant, upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas on which solid waste management activities are being or will be conducted. The authorization and consent shall include consent to collect samples of waste, water or gases, to take photographs, to perform measurements, surveys and other tests, to inspect any monitoring equipment, to inspect the methods of operation, and to inspect and/or copy documents, books or papers required by the Department to be maintained. This permit condition is referenced in accordance with Section 608 and 610 (7) of the Solid Waste Management Act, 35 P.S. Sections 6018.608 and 6018.610 (7). This condition in no way limits any other powers granted under the Solid Waste Management Act.
4. Form 37, Certification of Facility Construction Activity, is to be submitted to the Regional Solid Waste Manager in the Department's Southeast Regional Office after each pad or cell of the landfill is constructed, in accordance with the approved design plans including the subbase preparation, preparation of the witness zone, installation of the primary liner, installation of the leachate collection pipes and the preparation of the protective layer for the primary liner, prior to the start of landfilling operations for each pad or cell of the landfill site.

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

5. A daily operational record is to be maintained in accordance with Section 273.311 of the municipal waste management rules and regulations.
6. A quarterly operations report is to be submitted on or before the 20th day of April, July, October and January for the three-month period ending the last day of March, June, September and December, in accordance with Section 273.312 of the Municipal Waste Rules and Regulations.
7. An annual operations report is to be submitted to the Department's Southeast Regional Office on or before June 30 of each year in accordance with the format indicated in Chapter 273.313 of the municipal waste management rules and regulations. The annual report submitted to the Department is to be accompanied by the annual permit administrative fee.
8. An annual topographic survey is to be conducted and is to be submitted to the Southeast Regional Office's Waste Management Program concerning the elevation and total volume of area that has been filled. This is due as part of the annual operations report due on June 30 of each year.
9. No more than 10,000 tons of solid waste may be received at this facility for disposal on any single operating day. This figure represents the maximum daily volume of the facility, set pursuant to section 1112 of the municipal waste planning, recycling and waste reduction act, 53 P.S. § 4000.1112 (Act 101 of 1988) and the regulations of the Department. The permittee is advised that this section also provides that a mandatory civil penalty of \$100 per ton applies to any excess volume received at this facility for any reason.
10. No more than an average of 10,000 tons of solid waste may be received at this facility for disposal per operating day during the standard calendar year quarter. This figure represents the average daily volume of the facility, set pursuant to Section 1112 of the Municipal Waste Planning, Recycling and Waste Reduction Act, 53 P.S. § 4000.1112 (Act 101 of 1988). The permittee is advised that this section also provide that a mandatory civil penalty of \$100 per ton applies to any excess volume received at this facility for any reason.

Compliance with this provision shall be calculated by dividing the total tons of solid waste received at this facility during a standard calendar year quarter, divided by the number of days during the quarter that the facility was permitted to operate, including partial days. Compliance during the quarter when this permit condition is modified shall be calculated by dividing the total tons of solid waste received during the partial quarter by the number of permitted operating days within that partial quarter.

THIS PERMIT IS NON - TRANSFERABLE

Page 5 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8**

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

11. The Northeast and Southwest Expansion areas are permitted to accept waste and conduct landfill operations Monday through Saturday between the hours of 5:00 AM to 6:00 PM except that, pursuant to an agreement between the permittee and the host municipality, the facility may remain open until 7:30 PM no more than two times a week with the maximum number of 7:30 PM closures per year established at 50 times. Operations may be extended due to extreme weather conditions in accordance with the following procedure. Prior to extending operations, justification for such an extension must be mailed or faxed to the Waste Management Program Manager or his designee. Written concurrence that the extension is justifiable needs to be received by the permittee from the manager or his designee before extended operations may be implemented. All other requests to extend operating hours must be requested in advance of need and be approved in writing in advance by the Department. Records documenting compliance with the above approved hours shall be provided in the facility's daily, quarterly and annual reports.
12. A) This facility may not operate to receive waste unless the operator has established at least one drop-off center for the collection or sale of at least three recyclable materials chosen from the following: clear glass, colored glass, aluminum, steel and bimetallic cans, high-grade office paper, newsprint, corrugated paper and plastics. The drop-off center must be located at the facility or at a location that is easily accessible to substantial numbers of persons generating municipal waste that is processed or disposed of at the facility. The drop-off center shall be operated in compliance with Section 1502(b) of the Municipal Waste Planning, Recycling and Waste Reduction act, 53 P.S. Section 4000.1502(b).
- B) The center shall be located at the facility or in a place that is easily accessible to persons generating municipal waste that is processed or disposed at the facility.
- C) The drop-off center shall contain bins or containers where recyclable materials may be placed and temporarily stored. If the operation of the drop-off center requires attendants, the center shall be open at least 8 hours per week, including 4 hours during evenings or weekends.
- D) Once every six months, the operator shall provide public notice of the availability of the drop-off center. The operator shall place an advertisement in a newspaper circulating in the municipality or provide notice in another manner approved by the Department in writing.
- E) On or before February 15 of each year, the operator shall inform the host municipality in writing, of the weight and type of materials that were recycled in the previous calendar year, so that the host municipality may comply with the requirements of Section 304(f) of the Municipal Waste Planning, Recycling and Waste Reduction Act.

THIS PERMIT IS NON - TRANSFERABLE

Page 6 of 32

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8**

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

13. Except to the extent this permit provides otherwise, the permittee shall conduct solid waste management activities as described in the approved application. The permittee shall file an application for a permit modification with the Department and shall receive approval from the Department prior to receiving any waste volumes in excess of the maximum or average daily volume stated in the permit, and prior to conducting solid waste management activities not described in the approved application.
14. The permittee shall not violate, or cause or assist in the violation of, any provision of the Municipal Waste Planning, Recycling and Waste Reduction Act, 53 P.S. §4000.101 et seq., or the terms or conditions of any municipal waste management plan approved by the Department under that Act.
15. The permittee shall not act in a manner contrary to any municipal waste management plan approval by the Department pursuant to the Municipal Waste Planning, Recycling and Waste Reduction Act, nor shall the permittee fail to act in a manner that is consistent with any Municipal Waste Plan approved by the Department pursuant to that act.
16. The permittee shall not allow solid waste generated outside the host county of the permitted facility to be received, disposed or otherwise managed at the facility if the transportation to, or management at, the facility would violate applicable laws in effect in the county or state in which the waste was generated, or state or local solid waste management plan in effect where the waste was generated.
17. This facility may not accept for disposal, or for processing, except for composting, truckloads composed primarily of leaf waste.
18. No lead acid batteries shall be placed into mixed waste or be disposed of at this facility.
19. Form 19, Quarterly and Annual Groundwater Analysis Form, must be submitted in triplicate for the quarterly and annual testing of monitoring well Nos. GD22, GD25A, GD33, GU34, GU34D, GD37, GU39, GD44R, GD46, GD47R, GD49, GD47DR, GUS101, GDS102, GDS103, GD11, GD36, GD50, GD54, GTPINF, and GTPEFF. The sampling is to be performed on a quarterly basis for analysis, and the analytical data for all parameters shall be submitted to the Department within 90 days of the date the last well is sampled for each quarterly sampling event which end on March 31st, June 30th, September 30th, and December 31st, respectively.
20. A report on the sampling of the influent leachate for all parameters on Form 19 shall be presented in tabular form and on a graph and shall be submitted to the Department quarterly and annually with the monitoring well data. This sampling is to be done at the GROWS Landfill leachate treatment plant influent point.

THIS PERMIT IS NON - TRANSFERABLE

Page 7 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8**

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

21. The sump areas of all landfill cells are to be tested to determine the integrity of the sump areas prior to certification and start of waste disposal operations in each cell.
22. The witness zone between the primary and secondary liner must be monitored on a weekly basis to determine the rate of flow, if any. These results must be submitted to the Department's Southeast Regional Office.
23. This condition constitutes the permittee's Waste Acceptance Plan for the Northeast and Southwest expansions:
- A) The Waste Acceptance Plan for disposal of municipal waste requiring special handling, municipal like residual waste, and residual waste was originally issued on July 8, 1993, revised on December 27, 1993, and is replaced in its entirety by this Sub-Condition A:
- I. The approved waste acceptance plan allows GROWS Landfill to accept the following categories of residual waste, municipal like residual waste, and municipal waste requiring special handling:
- a) Combustion Residues
- (1) Coal-Derived Bottom Ash
 - (2) Coal-Derived Fly Ash
 - (3) Flue Gas Desulfurization Residue (FGA)
 - (4) Incinerator Bottom Ash
 - (5) Incinerator Fly Ash
 - (6) Incinerator Mixed Ash
- b) Metallurgical Process Residues
- (1) Foundry Sand
 - (2) Slag
 - (3) Refractory Material
 - (4) Grindings, Shavings
 - (5) Ferrous Baghouse Dust
 - (6) Non-Ferrous Baghouse Dust
 - (7) Ferrous Scrap, including Auto Recycle
 - (8) Non Ferrous Scrap

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8**

Permit No. 100148

Date Issued February 9, 2000

Date Expires February 9, 2010

c) Sludges, Scales

- (1) Water Treatment Sludge
- (2) Industrial Wastewater Treatment Sludge, including Acid Mine Drainage Sludge
- (3) Metallurgical Sludge
- (4) Food Processing Sludge
- (5) Paint, Coating Sludge and Scale
- (6) Tank Bottoms
- (7) Still Bottoms
- (8) Oily Sludge, Petroleum Derived
- (9) Emission Control Sludge
- (10) Lime/Cement Kiln Scale, Residue
- (11) Lime-Stabilized Spent Pickle Liquor

d) Chemical Wastes

- (1) Acidic Chemicals (ph 2-6)
- (2) Basic Chemicals (ph 8-12.5)
- (3) Combustible Chemicals (flash point greater than 140°F)
- (4) Chemical Salts
- (5) Carbon Residues (e.g., Decoloring, Filtering)
- (6) Surface Coatings (e.g., Solid, Semi-Solid Paints, Polishes, Adhesives, Inks)
- (7) Filter Aids (e.g., Diatomaceous Earth, etc.)
- (8) Filter Media
- (9) Spent Dyes
- (10) Detergents, Cleaning Agents
- (11) Off-Specifications Products, Intermediates
- (12) Pharmaceutical Wastes

e) Generic, Manufacturing or Production Wastes

- (1) Leather Wastes
- (2) Rubber, Elastomer Wastes
- (3) Wood Wastes (including Particle Board, Sawdust, Shavings)
- (4) Paper, Cardboard Wastes

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

- (5) Textile Wastes (including Yarn, Fabric, Fiber, Elastic)
 - (6) Glass Wastes excluding Industrial Refractory Material
 - (7) Polyethylene, Polystyrene, Polyurethane and Other Non-Halogenated Plastics
 - (8) Glass Reinforced Plastics
 - (9) Halogenated Plastics (PVC, Teflon, CPE)
 - (10) Electronic Component Wastes (Off-Spec Semi-Conductors, Circuit Boards)
 - (11) Agricultural Wastes (Fertilizers, Pesticides, Feed Supplements)
 - (12) Photographic Wastes (Film, Photographic Paper)
 - (13) Asphalt (Bituminous)
 - (14) Ceramic Wastes
 - (15) Linoleum Wastes
 - (16) Thermal Insulation Wastes (cellulose, glass-wool)
 - (17) Wiring, Conduit, Electrical Insulation
- f) Special Handling Residues
- (1) Asbestos-Containing Wastes (Insulation, Brake Lining)
 - (2) PCB-Containing Waste (less than 50 PPM)
 - (3) Oil-Contaminated Waste (Soils, Spent Absorbent, Oily Rags)
 - (4) Paints (solidified)
 - (5) Spent Catalysts
 - (6) Spills Residues
 - (7) Virgin Petroleum Fuel-Contaminated Soil and Debris (no more than 1% TPH concentrations)
 - (8) Waste Tires
- g) Industrial Equipment, Scrap
- (1) Pumping, Piping, Vessels, Instruments, Storage Tanks
 - (2) Scrap Materials from Maintenance, Product Turnaround
- h) Municipal Sewage Sludge (stabilized or digested)
- i) Infectious Waste Incinerator Ash (less than 5% volatile solids)
- j) Sterilized Infectious and Chemotherapeutic Waste
- k) Incinerator Ash From Captive Incinerators (less than 5% volatile solids)
- l) Incinerator Ash From Commercial Resource Recovery Incinerators (less than 5% volatile Solids)
- m) Friable Asbestos Demolition Waste
- n) Non Mining Coal Residue

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

o) Municipal Like Residual Wastes

- (1) Animal Dropping (Manure)
- (2) Cured Asphalt (Solidified)
- (3) Carpet or Fabric Scraps (Yarn, Fiber, and Elastic)
- (4) Ceramic Insulation Waste
- (5) Cured Resin Waste
- (6) Dead Animals (Non-Experimental)
- (7) Empty Containers
- (8) Empty (Dried) Commercial Paint Cans
- (9) Fencing (Chain-Link, Barbed)
- (10) Incandescent Light Tubes/Bulbs
- (11) Foam Type Wastes (Rigid Plastic Foam, Expanded Polystyrene Foam, Polyurethane)
- (12) Food Waste
- (13) Fresh Air Intake Filters
- (14) Gaskets-Unused (Rubber, Cork)
- (15) Glass Reinforces Plastics (Fiberglass)
- (16) Glass Waste
- (17) Halogenated Plastics (PVC, CPE, Teflon)
- (18) Labels/Packaging Waste
- (19) Leather Scraps
- (20) Linoleum Waste
- (21) Metal Scrap
- (22) Non-Halogenated Plastics
- (23) Nylon Materials
- (24) Oil Filters, Used (Hot Drained, Non-Terne Plated)
- (25) Packing/Shipping Material
- (26) Paper, Cardboard Waste
- (27) Personal Protective Equipment Waste
- (28) Unused Piping Waste
- (29) Cured Rubber, Elastomer Waste
- (30) Screen Waste
- (31) Shingle Scrap
- (32) Thermal Insulation Waste (Cellulose, Glass, Wool)
- (33) Wire and Wire Scrap (Conduit, Electrical Insulation)
- (34) Non-Treated Wood Waste

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No.	100148
Date Issued	February 9, 2000
Date Expires	February 9, 2010

- p) Stabilized Waste (soil, sludge, sand blast, debris)
- q) Municipal/Residual Waste Landfill and Transfer Station leachate to be deposited at the head of the treatment plant not in the landfill
- r) Paint Filters
- s) Sandblast Material and/or Shot or Black Beauty Waste
- t) Landfill Leachate Treatment Sludge
- u) Water Softener Resins
- v) Quench Scale
- w) Filter Sand
- x) Wire Drawing Compound
- y) RCRA Empty Containers/Raw Material Bags/Storage Tanks
- z) Car/Truck Wastewater Grit/Sludge
- aa) Grinding Wheels
- bb) Animal Bedding and/or Research Animals
- cc) Laboratory Waste
- dd) Sterilized Laboratory Waste
- ee) Non-Asbestos Brake Linings
- ff) Pollution Control – Baghouse Dusts, Flue Dusts, etc.
- gg) Dredge Material
- hh) Railroad Ties/treated lumber
- ii) Contaminated Soils/Site Clean-up
- jj) Inorganic Ore and Raw Product Wastes
- kk) Acid Neutralization Sludge
- ll) Resin Waste
- mm) Soil Washing Material
- nn) Thermally Treated Soil
- oo) Bio Remediated Soil
- pp) Industrial Demolition Waste
- qq) Fluorescent Light Tubes/Bulbs (Hg analysis only)
- rr) Cathode Ray Tubes
- ss) Auto Shredder Fluff
- tt) Mill Scale Waste
- uu) Non-Mining Coal Residue

THIS PERMIT IS NON - TRANSFERABLE

Page 12 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

- II. The maximum total concentrations for non-TCLP organics in residual waste and municipal waste requiring special handling are not to exceed the following limits: 2,500 ppm for aromatic halogenated hydrocarbons, 5,000 ppm for aliphatic halogenated hydrocarbons, 10,000 ppm for aromatic hydrocarbons and 50,000 ppm for volatile and semi-volatile organics.
- III. For acceptance of virgin petroleum contaminated soil, Form U is to be substituted for Form FC-1 if the TPH concentration exceeds 1%, except as provided for in Condition 23.B. IX.
- IV. The permittee shall not accept any residual waste or municipal waste requiring special handling whose chemical constituents are not included or are in excess of the maximum acceptance concentrations as delineated in the waste analysis and classification plan unless a major permit modification is submitted and approved by the Department. Any new waste request within the 900 category must be submitted as a major permit modification.
- V. The permittee shall not accept, receive, dump, discharge, process or dispose hazardous waste as defined in 25 Pa. Code Chapter 261a or 40 C.F.R. Part 261.
- VI. All residual, municipal like residual waste and municipal waste requiring special handling from new generators must be consistent with requirements stated in the Form R and Form S waste analysis and classification plan.
- VII. The permittee must submit to the Department a waste disposal request and source reduction strategy from each individual large quantity residual waste generator. The permittee must submit a waste disposal request from each individual generator of municipal waste requiring special handling. Proof of submission to the Department would be dated certified mail return receipt cards, signed, dated, acceptance receipts for hand-delivered requests, or signed, dated receipt from overnight mail/federal express deliveries. The wastes indicated on Forms U, 35, 36, or 43 may be accepted for disposal by the permittee after fifteen (15) Department working days. If, at anytime, after the fifteen (15) working day period it is determined by the Department that the waste accepted is not consistent with the waste analysis and classification plan or the design of the landfill, or waste reduction strategy, the permittee shall be notified and acceptance of this waste may be prohibited until deficiencies have been corrected. The permittee may also be subjected to any and all applicable enforcement action to the solid waste management Act and the Rules and Regulations promulgated thereunder if waste is accepted not consistent with the waste analysis and classification plan.

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8**

Permit No.	<u>100148</u>
Date Issued	<u>February 9, 2000</u>
Date Expires	<u>February 9, 2010</u>

- VIII. All submissions covered by Condition No. VII must be sent to the Host municipality and the Host County at the same time they are submitted to the Department.
- IX. The permittee shall submit, to the Department's Southeast Regional Office, an amended appendix to the permit that lists all residual waste and municipal waste requiring special handling accepted for disposal at the facility. This amended appendix shall be submitted quarterly by April 20th, July 20th, October 20th and January 20th. This amended appendix shall include the information by generator including the waste type, approved quantity, quantity accepted, generator identification number and the identification number for each Form U, Form 35, Form 36, and Form 43 for all waste accepted at the landfill during the quarter covered by the report. The appendix must include the anniversary acceptance date for each generator of residual waste, and municipal waste requiring special handling.
- X. Form 26R, the annual analysis report and annual analysis data from generators of municipal waste requiring special handling (Form 35, 36, and 43) is to be kept on file for each waste generator at the landfill site. This is due at GROWS Landfill from the generator one year after the Department receives the Form U, Form 35, 36, or form 43 submissions. For small quantity residual waste generators analysis data and or certification pertaining to hazardous waste determination criteria is to be kept on file. The waste cannot continue being accepted if the landfill does not have an annual submission of Form 26R or annual analytical data from generators of municipal waste requiring special handling on file.
- XI. No more than 25% by weight of the total amount of waste accepted per day for disposal at the landfill site can be municipal sewage sludge. This must be documented in the daily operations report.
- XII. Any new large quantity generator of municipal like residual waste that proposes to use GROWS Landfill must submit Form S and Form 25R when notified in writing by the Department to GROWS Landfill.
- XIII. The landfill must keep certification documents from all small quantity generators on file indicating that their waste streams are not hazardous.
- XIV. The landfill annual report submitted by June 30th of each year must include documentation that the analysis or certification required under Section 273.313 for chemical analysis of waste for each waste stream from each individual generator utilizing the landfill for disposal is on file.

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8**

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

- XV. All Form U, Form 35, Form 36, Form 43, and FC-1 documents must be kept on file and each assigned a sequential identification number which is to be recorded on all forms submitted to the Department. Form S documents must be kept on file.
- XVI. Hazardous waste as defined under 25 Pa. Code 261a may not be accepted at the facility for disposal. Any residual waste generator whose analysis reaches 85% of the hazardous waste limit shall provide additional analysis and documentation to justify that the waste is below the hazardous waste limit.
- XVII. No residual waste is to be accepted from any facility bulking/mixing different categories of residual (Form U) waste unless such facility is permitted by the Department for this purpose.
- XVIII. Form U's from individual generators of friable asbestos waste do not have to be submitted.
- XIX. New sources of incinerator residue from resource recovery incinerators shall be tested in accordance with the following procedure. The analysis data shall be submitted to the Southeast Regional Office. Analyses data generated by resource recovery incineration permit requirements can be submitted to comply with Conditions XIX a, b, c, and d.
- a) A grab sample of resource recovery incinerator residue is to be taken from each incoming load of ash residue to be tested for pH. All of this sampling data shall be submitted with the data from the composite sampling below.
 - b) For a minimum of the first eight weeks of incinerator operation, testing shall be done on a weekly composite sample comprised of at a minimum daily grab samples. Each grab sample shall be tested for pH. The weekly composite sample shall be tested for pH, lead, chromium and cadmium. Also, for the initial sampling period, an analysis for all Form 41 parameters shall be run on each fourth week composite sample. All data from this sampling period shall be submitted to the Department at the conclusion of the eight-week period.
 - c) Upon receiving written approval from the Department, testing shall be done on monthly analyses for all Form 41 parameters and reserve alkalinity for a minimum of six months. The monthly composite sample is comprised of a minimum of one random grab sample from each day of operation. All grab samples shall be of an equal amount. Data from this sampling period is to be submitted to the Department on a monthly basis.

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

d) Upon receiving written approval from the Department, testing shall be done on a quarterly basis for all Form 41 parameters and reserve alkalinity. The quarterly composite sample is comprised of weekly random grab samples. All grab samples shall be of an equal amount. Data from this sampling is to be submitted to the Department on a quarterly basis.

B. The permit amendment issued on August 11, 1997, for approving various revisions to the Form R Waste Analysis and Classification Plan is reflected in the following sub-conditions:

- I) Infectious and chemotherapeutic incinerator ash must contain less than 5% volatile solids. Incinerator ash from other sources will have no volatile solids limit.
- II) Wastes for quantity increase requests for previously approved waste streams from specific generators may be accepted for disposal immediately. Each request must include the most recent generator's annual report and analytical data for submissions more than 12 months old.
- III) RCRA empty containers can be accepted as Form S waste.
- IV) All solid wastes excluded as a hazardous waste under 40 CRF § 261.4(b) may be accepted for disposal except for waste categories listed below and formerly known as 25 PA Code §§ 261.4(a)(4), (6), (8), (10), (18), and (20), prior to the May 1, 1999 revisions. The unacceptable wastes will read as follows:
 - a) Source, special nuclear or by product material as defined by the Atomic Energy Act of 1954.
 - b) Household hazardous waste collected by a collection contractor under Section 1512 of Act 101.
 - c) Coal refuse as defined in the Coal Refuse Disposal Control Act.
 - d) Treatment sludges from coal mine drainage treatment facilities.
 - e) Pulping liquors (black liquor) that are reclaimed in a pulping liquor furnace and then re-used in the pulping process.
 - f) Spent sulfuric acid used to produce virgin sulfuric acid.

THIS PERMIT IS NON - TRANSFERABLE

Page 16 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

- V) Corrosively and Ignitability as defined in 40 C.F.R. §§ 261.21 and 261.22 will replace pH and Flash point, respectively, as acceptance criteria for disposal.
- VI) If a specific waste stream has been found to be consistent based on 25 standard fingerprint analyses, then the frequency can be reduced to one standard fingerprint analysis per day for each waste stream from a specific generator.
- VII) Sampling frequencies for oil contaminated waste, contaminated soils, site cleanup waste, soil washing material, thermally treated soil and bioremediated soil must satisfy the requirements of SW-846 (or equivalent). If the sampling frequency does not meet the requirements of SW-846 (or equivalent), then the sampling frequency must be at least one sample per 500 cubic yards.
- VIII) All municipal sewage sludges must be digested or stabilized.
- IX) A Form FC-1 is to be submitted for virgin petroleum contaminated soil and debris containing up to 10% total petroleum hydrocarbons. A Form U is to be submitted for virgin petroleum contaminated soil and debris containing greater than 10% total petroleum hydrocarbons.
24. All mixed loads of municipal like residual waste and municipal waste are to be managed as municipal waste in accordance with Act 101, the Municipal Waste Planning, Recycling and Waste Reduction Act.
25. This permit does not authorize the discharge of air emissions unless the Bureau of Air Quality has approved the discharge of these emissions.
26. Failure to obtain other necessary permits may result in the suspension or revocation of this waste management permit.
27. D) The two equivalency requests received on October 6, 1998 for use of a GCL as a subbase and AASHTO No. 57 as a protective cover are approved subject to the conditions listed below:
- A) The Geosynthetic Clay Liner (GCL, a layer of sodium montmorillinite-bentonite between two layers of needle punched, non-woven geotextile) may be used in place of the six-inch thick sub-base layer on the disposal area floor and for a distance not to exceed five feet up the perimeter berm slopes on both the Northeast and Southwest Expansion areas. The GCL may not be used as a subbase equivalency as part of the proposed slope cap liner system in either of the expansion areas.

THIS PERMIT IS NON - TRANSFERABLE

Page 17 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT**Permit**
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No.	<u>100148</u>
Date Issued	<u>February 9, 2000</u>
Date Expires	<u>February 9, 2010</u>

This equivalency is approved subject to the following condition:

- i) The GCL may only be used in place of the standard six-inch thick sub-base layer (25 PA Code § 273.253(b)(1-4)) if the sub-base slope is not greater than 3.5% (except as may be needed to extend no more than five feet up the perimeter berm) and a minimum of 6 inches of granular soil with a permeability equal to or less than 1×10^{-3} cm/sec is placed immediately below the GCL as a subgrade for the GCL.
- B) Currently, the approved 18 inches of protective cover aggregate material used at GROWS landfill is classified as washed, rounded to sub-rounded AASHTO No. 57 stone obtained from the mining operation at Warner company. A proposed alternative to the currently approved protective cover aggregate is classified as a sub-angular to angular AASHTO No. 57 crushed traprock product. Under this equivalency approval, AASTHO No. 57 aggregates may be utilized in the leachate collection system (protective cover) subject to the following requirements:
- i) The maximum solid waste height shall not exceed 233.5 feet as shown in Form Q, Attachment A, Page 2;
 - ii) The maximum particle diameter of the AASTHO No. 57 aggregate shall be $d_{max}=38\text{mm}$;
 - iii) Two (2) 16 oz/sqyd layers of nonwoven geotextile shall be placed under the AASTHO No. 57 aggregate in order to meet the design requirements;
 - iv) The permittee shall provide in writing a notification to the Department of each source of the aggregate demonstrating compliance with condition (ii) above;
 - v) Nothing in this equivalency revises or amends final permitted elevations or slopes unless specifically approved by the Department in a separate major permit modification.

THIS PERMIT IS NON - TRANSFERABLE

Page 18 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8**

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

27. II) The two equivalency requests received on June 15, 1999 and revised on September 15, 1999 for a subbase slope of up to 33% and an alternate leachate collection system within the protective liner are approved subject to the conditions listed below:

- A) To install the slope cap liner system over the existing landfill slope, a gradient steeper than 25% (4H:1V), (25 PA Code § 273.253(b)(5)) is required. This equivalency for a subbase slope of greater than 25% is approved subject to the following conditions:
- i) Sub-base slope shall be greater than 2% and less than 33%.
 - ii) A GCL component must not be used anywhere within the slope cap liner system due to slope stability concerns.
 - iii) The existing clay cap on Old GROWS landfill shall not be removed or disturbed, but may be grade for smoothness in preparation as a sub-base for the Northeast and Southwest expansions. The permittee must provide certification documentation that the clay cap being used for a subbase liner system component, together with intimate contact with the secondary geomembrane liner component, satisfies the USEPA's requirements for a composite liner should the permittee intent to conduct leachate recirculation over the lined area subject to this equivalency.
- B) The equivalency request for the leachate collection piping system within the protective cover proposes to eliminate the need for leachate collection pipes within the slope cap liner system only. Because of the steepness of the slope of the slope cap liner system, the protective cover is intended to convey all the leachate above the primary liner via gravity flow to the cell floor that does incorporate leachate collection pipes as required by section 273.258(b). Because of the unique design features associated with this expansion over the slope cap liner area on top of Old GROWS landfill this equivalency approval is limited for the slope liner cap on existing Old GROWS landfill cap.

27. III) The following is a list of equivalencies that have been previously approved for GROWS Landfill and are also approved for the Northeast and Southwest expansions:

- A) The use of maximum particle size of 3/8 inch and AASHTO No. 8 stone for leachate collection zone (protective cover)
- B) The use of geonet material in the secondary leachate collection collection system (leachate detection zone) in place of standard material between primary and secondary liners.

THIS PERMIT IS NON - TRANSFERABLE

Page 19 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

- C) The use of gold anodized aluminum casing set 3 feet below ground surface to enclose monitoring wells instead of a steel casing set 10 feet below ground surface.
- D) The use of 2-inch diameter casing instead of 4-inch diameter casing on monitoring wells.
- E) The construction of a 40 foot wide bench for every 40 feet rise in elevation.
- F) Construction of a 22 foot wide bench for every 40 feet rise in elevation of the landfill.
- G) The utilization of 2% to max. 33% slope for subbase on perimeter berm and max. 50% slope on intermediate berm.

ADCM

28. The Alternate Daily Cover Materials (ADCM) listed in this condition are approved for the Northeast and Southwest expansions subject to the following subconditions:

- A.) All storm water runoff from alternate daily cover must be managed as leachate unless otherwise approved in writing by the Department. Stormwater runoff from soil, from non-specific borrows area and clay loam soils applied as daily cover will not have to be managed as leachate.
- B) No alternate daily cover is to be utilized on a side slope unless runoff from the alternate cover material is directed into the leachate collection system. Soils from non-specific off site borrow areas and clay loam soils can be placed on side slopes without directing runoff into the leachate collection system.
- C) The Department is to be notified one week prior to making any changes in types of alternate daily cover utilized at the site.
- D) The permit amendment issued to Waste Management of Pennsylvania for the utilization of Foam material as supplemental cover material, which was approved as an equivalency request can be utilized on the GROWS Landfill, Northeast and Southeast expansion areas.
- E) The following daily and intermediate covers, approved on July 11, 1991 with the following permit conditions, are included in this permit:

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8**

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

- I) A list of daily and intermediate cover material:
- a) Soils from nonspecific off-site borrow areas.
 - b) Clay loam soil from nonspecific off-site borrow areas.
 - c) Municipal sewage sludge treated with limekiln dust or cement kiln dust in accordance with the VFL technology process.
 - d) A mixture of lime and dewatered sewage sludge cake in accordance with the RDP sludge stabilization process.
 - e) Pasteurized municipal sewage sludge utilizing a lime additive in accordance with the Bio-gro/Bio-fix sludge process.
 - f) Water treatment plant sludge treated with limekiln dust or cement kiln dust in accordance with the VFL Technology process.
 - g) Municipal sewage sludge stabilized with fly ash.
 - h) Unscreened composted sewage sludge from the Philadelphia Water Department blended in a 1:1 ratio with soil containing coarse fragments no greater than three inches in diameter, with no more than 60 percent being retained on the No. 10 sieve.
 - i) Fly ash conditioned with cement kiln dust.
- II) Physical test results of a representative composite sample must be submitted to the Southeast Regional Office for the acceptance of soil and clay loam soil from each new nonspecific off-site borrow source before utilization of these soils as daily or intermediate cover.
- III) Physical test results of a representative composite sample for soil and clay loam soil from each nonspecific off-site borrow source must be submitted to the Southeast Region of the Department of Environmental Protection on an annual basis.
- IV) TCLP testing is to be submitted prior to receipt of alternate cover material from the VFL Technology process, the RDP sludge stabilization process, the Bio-gro/Bio-fix sludge treatment process, sewage sludge stabilized with fly ash, unscreened composted sewage sludge, and conditioned fly ash. TCLP testing is to be conducted whenever there is a significant change in any of the components or processes that produce these alternate cover materials or at least on an annual basis and the results are to be submitted to the Southeast Regional Office for each of these alternate cover materials.

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

- V) Physical test results are to be submitted prior to acceptance and annually to the Southeast Regional Office for alternate cover materials from the VFL Technology process, the RDP sludge stabilization process, the Bio-gro/Bio-fix sludge treatment process, sewage sludge stabilized with fly ash, unscreened composted sewage sludge, and conditioned fly ash. Physical testing must also be conducted whenever there is a significant change in any of the components or processes that produce this alternate cover materials.
- VI) Written approval from the Southeast Regional Office must be obtained prior to acceptance of the Chem Fix sludge material as alternate daily or intermediate cover.
- VII) GROWS Landfill is permitted to utilize non-site specific off site sources of soil for construction material and cover material subject to the following sub-conditions:
 - a) Chemical analysis data of dredge material must be submitted to the Department for a composite sample in accordance with sampling protocol outlined in the EPA SW846 Manual for each dredge disposal area, or replenished dredge disposal area, 30 days prior to excavation, for the following parameters: antimony, arsenic, nickel, lead, barium, cadmium, chromium, silver, copper, mercury, selenium, zinc, volatile organics (EPA Method 240), semi-volatile organics including pesticides and PCB's (EPA Method 8250), cyanide, sulfide, oil and grease, TOC, PH, and radioactivity. The TCLP procedure is to be utilized.
 - b) Physical Test Data of dredge material consisting of one composite sample in accordance with the sampling protocol outlined in the EPA SW846 Manual for every 10,000 yards of dredge material to meet Section 273.232 of the municipal waste regulations, must be submitted to the Department 30 days prior to excavation of any dredge disposal site or replenished dredge disposal site.
- VIII) A permit amendment application consisting of plans and an operational narrative for processing alternative cover material from the VFL Technology process, the RDP sludge stabilization process, the Bio-gro/Bio-fix sludge treatment process, sewage sludge stabilized with fly ash and conditioning fly ash with cement or lime kiln dust must be approved before any of these processes can be conducted within the permitted areas of GROWS Landfill.
- IX) A plan that includes combustibility testing must be approved for the processing of unscreened composted sewage sludge with soil at a specific location within the permitted area of GROWS Landfill prior to the acceptance of this waste as alternate cover material.

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No.	<u>100148</u>
Date Issued	<u>February 9, 2000</u>
Date Expires	<u>February 9, 2010</u>

- F) The following are the alternate daily cover materials approved on December 18, 1997 with the following permit conditions, are included in this permit:
- I) Processed Construction and Demolition (C & D) Material (NWRO). The source of processed C & D material approved in this permit modification will be the STAR ADC materials (sized at two (2) inch minus material) produced at STAR's Vorick II facility in Brooklyn, NY, and Recovermat (SCRO);
 - II) Cormier WP-1440 FR Geomembrane Tarp (SCRO);
 - III). Integra 12 FR Geomembrane Tarp (SCRO).
 - a) All categories of alternate daily cover material approved by this permit modification are to be only utilized as daily cover.
 - b) Areas upon which processed C & D material has been used, must be covered with either conventional daily cover (soil) or additional waste within seven (7) days.
 - c) Areas upon which the geomembrane tarps have been used, a six-inch soil cover meeting the requirements of 25 Pa. Code Section 273.232© shall be applied by the permittee whenever the working face is idle for more than 48 hours.
 - d) Storage or stockpiling of any approved processed C & D alternate daily cover as approved by this permit modification shall not occur off the lined area of the landfill without obtaining written Department approval. In addition, the stockpile areas must have appropriate erosion and sedimentation controls in place before stockpiling is initiated.
 - e) If Department inspections indicate an alternate daily cover approved by this permit modification is not meeting the daily cover performance standards specified in 25 Pa. Code § 273.232, the permittee must:
 - i) Upon notification by the Department, immediately cease the use of the alternate daily cover. Notification can be in the form of an inspection report.
 - ii) Submit a report to the Department which explains why the alternate cover material is not meeting the applicable performance standards, and what steps will be implemented to improve the quality of the alternate daily cover and prevent non - compliance with 25 Pa. Code § 273.232.

THIS PERMIT IS NON - TRANSFERABLE

Page 23 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

Under the above circumstances, the alternate daily cover may not be utilized until the Department is satisfied that the continued use of the alternate daily cover will not result in non-compliance with 25 Pa. Code § 273.232. In the event the alternate daily cover cannot meet the required performance standards, the Department reserves the right to revoke approval.

- f) Each source of the processed construction and demolition material must be pre-approved in writing by the Department. With the issuance of this permit, STAR and Recovermat are approved for use under this condition.
 - g) Testing of incoming C & D materials and MSW incinerator ash, whether for disposal or use as an ADCM, shall comply with waste acceptance procedures as contained in this permit, or as subsequently modified by the Department. The processed C & D materials and the MSW incinerator ash are wastes and not recyclable materials, and count towards the average daily volume (ADV) of the facility. These wastes are subject to the host municipality benefit fee(s) of Act 101.
 - h) The thickness of processed C&D layer applied as ADCM must be sufficient to provide adequate coverage of waste to meet the daily cover performance standards and shall be between six to twelve inches in depth. Where a twelve-inch depth is not sufficient to provide adequate coverage, better waste compaction shall be practiced or other approved daily cover materials shall be utilized in place of processed C & D.
- G Use of Posi-Shell, as an alternate daily cover material approved on June 22, 1998, with the following permit conditions:
- I) This approval is limited to the Posi-Shell material that received approval as an alternate daily cover material (ADCM) and is listed on the statewide approved equivalency list. Based upon the Department's Policy and Procedure for Municipal Waste Facility Equivalency Approvals, the permittee is authorized to utilize this product, subject to the terms and conditions of its original approval, at GROWS Landfill. Failure of this product to perform satisfactorily at GROWS Landfill or failure of the permittee to comply with the terms and conditions upon which the original issuing region based its approval shall be grounds for revocation of the approval herein granted.

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

- II) Areas where Posi-Shell has been used must be broken up (cracked) before additional waste is placed on top.
- III) Posi-Shell may not be used as an alternate daily cover in the following areas:
 - a) Each partial lift for which the operator intends to place no additional waste for three days.
 - b) Each partial or completed lift that represents final permitted elevations for that part of the facility.
- H) Use of Propat (Patented process for shredding metal waste) as an alternate daily cover material, approved on July 13, 1998 with the following permit conditions, is included in this permit:
 - D) This approval is limited to the Propat material that received approval as alternate daily cover material (ADCM) and is listed on the statewide approved equivalency list. Based upon the Department's Policy and Procedure for Municipal Waste Facility Equivalency Approvals, the permittee is authorized to utilize this product at the Pottstown Landfill. Failure of this product to perform satisfactorily at the Pottstown Landfill, or failure of the permittee to comply with the terms and conditions, upon which the original issuing region based its approval, shall be grounds for revocation of the approval herein granted.
 - II) The Propat material shall have a moisture content, and contain cementitious material, as described in the manufacturer's patented process information, sufficient at all times to allow the material to meet the daily cover performance standards, but at no time shall the moisture content be below 15%.
 - III) The Propat material as received must be shredded to particle size no greater than two (2) inches.
 - IV) Prior to utilizing the Propat material approved in this modification, the permittee shall obtain, and keep available at the site for Department review, copies of the applicable permit approvals from the original issuing region. The permittee is responsible for demonstrating compliance with the terms and conditions of the original approval of the Propat material.
 - V) Areas upon which Propat has been used as an alternate daily cover material must be covered with either conventional daily cover (soil) or additional waste within seven (7) days. Propat may also be used as an alternate daily cover material on the leading edge of the fluff lift layer of waste in newly constructed cells. The Propat material is considered waste received and disposed.

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

- VI) The storm water from this alternate daily cover shall be treated as leachate and be diverted into the landfill.
- D) Use of Non-Petroleum contaminated soil as an alternate daily cover material, approved on August 4, 1999 with the following conditions, is included in this permit:
- D) This approval is limited to the Non-Petroleum Contaminated Soil that received approval as an alternate daily cover material (ADCM) from the Southcentral Regional Office and is listed on the statewide approval equivalency list. Based upon the Department's policy and procedure for municipal waste facility equivalency approvals, this ADCM may be approved via a minor modification for use at GROWS landfill. Failure of this material to perform satisfactorily at GROWS landfill or failure of the permittee to comply with the terms and conditions upon which the original issuing region based its approval shall be grounds for revocation of the approval herein granted.
- II) All alternative daily cover material that does not meet the Department's current Clean Fill Policy must be managed and stored on a lined area of the landfill.
- III) Soil contaminated with residual waste listed in Attachment I qualifies for use as daily cover, under the following conditions:
- a) The primary source of soil contamination is approved for disposal in accordance with the facility's Form R, Waste Analysis and Classification Plan approval criteria.
 - b) It can be demonstrated that the soil meets the performance standards and design requirements of Section 273.232 of the Solid Waste Regulations.
 - c) Alternative daily cover material consists of primarily of soil, meeting the approximate maximum percentage of contaminants listed on Attachment I. Percentage may be calculated if actual quantities are known, or estimated using any available data.
- IV) In addition to the residual waste contaminated soils listed in Attachment I, soils containing approximately 25 percent or less of Construction and Demolition Waste may be used as daily cover, provided that the alternate daily cover is composed of materials that are primarily six inches in diameter or smaller.
- V) All Non-Petroleum Contaminated Soil used as an alternate daily cover material is a waste and not a recyclable material, and counts towards the average daily volume (ADV) of the facility. This waste is subject to the host municipality benefit fee(s) of Act 101.

THIS PERMIT IS NON - TRANSFERABLE

Page 26 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8**

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

- J) Use of Recycled Paper Deinking Sludge (RPDS), as an alternate daily cover material approved on October 6, 1998 with following permit conditions:
- I) This approval is limited to the recycled paper deinking sludge (RPDS) generated by Marcal Paper Mills, Inc.(KAOFIN) for use as alternate daily cover at this time. Other sources of RPDS may not be used as alternate daily cover without first obtaining written approval from the Department.
 - II) If the Department determines, upon inspection, that the RPDS is not meeting the daily cover performance standards specified in Section 273.232(b), the permittee must:
 - a) Upon notification from the Department, immediately cease the use of RPDS as landfill alternate daily cover. Notification can be in the form of an inspection report.
 - b) Submit to the Department a report which explains why the RPDS is not adequately meeting the performance standard(s) as well as what steps will be taken to improve the quality of the alternate daily cover and prevent noncompliance with Section 272.232(b).

Under the above circumstances, the RPDS may not be utilized until the Department is satisfied that the continued use of RPDS will not result in noncompliance with Section 273.232(b). In the event the alternate daily cover cannot meet the required performance standards, the Department reserves the right to revoke approval.
 - III) A five day supply of daily cover soil material shall also be maintained on the site as required by Section 272.232(d), in the event that the RPDS does not comply with the performance standards as outlined in Condition 5 above.
 - IV) RPDS may not be applied as alternate daily cover within 40 linear feet of an exterior sideslope. If in the judgment of the Department, the RPDS is determined to be a causative agent in the generation of leachate seeps, the Department may suspend the use of RPDS as landfill daily cover.
 - V) The RPDS material should be dewatered to 35% to 60% or greater solids contents. The permittee must verify the solids content of incoming RPDS.
 - VI) RPDS may not be stored/stockpiled at the landfill for greater than 24 hours, i.e. this material is intended to be utilized for daily cover purposes, as it is generated on a daily basis. All RPDS must be stored stockpiled on the lined landfill area.
 - VII) The RPDS material is used as an alternate daily cover material, is a waste and not a recyclable material, and counts towards the average daily volume (ADV) of the facility. This waste is subject to the host municipality benefit fees(s) of Act 101.

THIS PERMIT IS NON - TRANSFERABLE

Page 27 Of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

- K) All processed or unprocessed materials consisting of municipal waste(s), or commingled mixtures of municipal and residual wastes, utilized as ADCM under equivalency approvals granted in this permit or subsequent modifications, are wastes and not recyclable materials, and count towards the average daily volume (ADV) of the facility. The wastes are subject to the host municipality benefit fee(s) of Act 101
29. The PECO Energy high power tension line must be relocated prior to the start of construction of Cell 10B and 11 of the Northeast Expansion. If the proposed PECO power line's relocated right-of-way passes over permitted area, e.g. sediment basin E and/or its affiliated structures, then the permittee must submit a copy of the agreement between the permittee and PECO Energy for the Department's review to demonstrate both continued access to the underlying permitted area and compatible operations between the power line and the landfill's facilities.
30. The new scale house and waste sampling/screening facility, and associated new access road, must be constructed and operational prior to the construction of cell 10A of the Northeast expansion. This new area, while non-contiguous to the landfill proper, is considered part of the landfill's permitted area and shall be used only for GROWS landfill's operation, unless otherwise authorized by subsequent permit amendments.
31. Sediment basin E must be constructed and operational prior to the construction of Cell 10A of the Northeast expansion.
32. Form 37 must be submitted immediately after construction of the new leachate pump house and the leachate conveyance pipes from the existing (modified) leachate collection box (wet well) used to serve Old GROWS landfill, for Department's approval.
33. Inspection and cleaning of the wet well (leachate box) should be performed prior to the start of filling in Cell 10A of the Northeast expansion. In addition, a test shall be conducted after submission of Form 37 construction certifications, but prior to the start of disposal operations in Cell 10A, for the purpose of demonstrating the performance of the design for the leachate collection box, conveyance pipes and leachate collection suction pumping system. The Department shall be notified at least one week prior to the performance test.
- Inspection and cleaning of the wet well (leachate box) shall be performed annually for first two years and an annual report shall be submitted to the Department's Southeast Regional Office. Depending upon the findings of the annual inspections, the permittee may petition the Department to reduce the frequency to biennial (once every two years), including the submission of a biennial inspection report.

THIS PERMIT IS NON - TRANSFERABLE

Page 28 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No.	100148
Date Issued	February 9, 2000
Date Expires	February 9, 2010

34. The facility is approved to recirculate leachate only to the extent authorized by 25 PA Code § 273.274. Pursuant to 25 PA Code § 273.274(4), recirculation must be conducted with an approved piping system located under intermediate cover. No other method of leachate delivery or distribution, including the alternative methods discussed in the permit application, is approved at this time. Further, no alternate method of leachate recirculation, should one be allowed under future regulatory revisions, may be implemented without written Department approval. This approval may require the submission of a permit modification application. While approved for recirculation under Pennsylvania regulations as outlined above, the permittee is advised to obtain concurrence from the U.S.E.P.A. concerning the extent of compliance of the permittee's liner design with the U.S.E.P.A.'s composite liner requirements for leachate recirculation under 40 CFR Chapter 258.

35. According to the application, approximately 2.6 million gallons of leachate storage is required over a 30 day period for the GROWS Landfill. The landfill has over 3.6 million gallons of leachate storage available in the form of 0.76 million gallons of hard tankage at the leachate treatment plant, 0.5 million gallons of hard storage and 2.4 million gallons of modular tankage elsewhere at the facility. Any excess GROWS Landfill leachate storage capacity is utilized by the Tulltown Resource Recovery Facility Landfill, which has insufficient on-site leachate storage. Based upon the representations made in the application and supporting documentation, the Northeast and Southwest expansion areas have sufficient capacity to effectively manage anticipated 30 day leachate flows via on-site leachate storage, treatment and recirculation. Leachate hauling is not an approved method of leachate management and any off-site hauling of leachate shall be considered a violation of this permit.

In the event that the permittee determines that the hauling of leachate is necessary to address some unforeseen emergency situation, the permittee shall notify the Department in writing within twenty-four (24) hours of the initiation of leachate hauling. Said notification shall state the reason for the initiation of leachate hauling, the projected amount of leachate to be hauled (gallons and number of trucks) and the estimated duration of hauling. The written notification shall also state the current leachate treatment plant wastewater flow volume, the volume of leachate being recirculated, the amount of leachate contained in on-site storage and the current leachate generation flow rates. The Department shall also be notified in writing within twenty-four (24) hours of the termination of a hauling event. Said notice shall state the volume of leachate hauled (gallons and number of trucks), the actual duration of hauling, and the steps taken by the permittee to address the cause or reason for the emergency initiation of leachate hauling in violation of its permit. Should hauling be initiated due to the permittee's failure or inability to utilize all available leachate storage capacity, the permittee shall, upon written notification by the Department, take all steps necessary, and within the timeframe(s) allotted by the Department, to provide whatever additional storage, permanent replacement storage and/or additional on-site treatment capacity the Department determines is necessary to address violations of the leachate hauling prohibition. Nothing in this reporting and notification requirement shall be construed to authorize or sanction off-site hauling of leachate under this permit.

THIS PERMIT IS NON - TRANSFERABLE

Page 29 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT**Permit**
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 100148
Date Issued February 9, 2000
Date Expires February 9, 2010

36. The capping of the landfill must follow the "Cap as you Go" practice. The construction sequence of the landfill must be followed closely, as shown in Form 25, Appendix K, Table 2 rev. June 15, 1999, to insure this practice and to minimize open areas waiting to be capped.
37. Progress reports, including work performed, deviations from approved designs, and future work for construction, filling, and capping activities, shall be submitted to the Department on a weekly basis.
38. Any substitution of an equivalent material, which is not approved by the Department in the permit application for the landfill construction, shall be submitted to the Department for approval prior to its use.
39. The minor permit modification to the landfill gas system to allow for various gas well boot configurations, issued on October 22, 1998 with the following conditions, is included in this permit:
- I) This approval will permit the applicant to utilize the proposed alternate gas well boots in order to account for settlement around the wells.
 - II) The proposed alternate gas well boots must be closely monitored for the first two years for failure due to landfill settlement. Monthly inspection reports on the alternate gas well boots must be maintained on-site in accordance with air and waste permit requirements.
 - III) GROWS, Inc. shall perform the necessary correction procedures to maintain a riser cap height of less than six (6) feet as measured from the final cover near the well.
40. The permit amendment for a salvaging plan consisting of the screening of Municipal Solid Waste (MSW) ash on the double lined landfill area on GROWS landfill, issued on December 18, 1997 and revised on July 13, 1998 with the following permit conditions, is included in this permit:
- I) The minor modification permit application originally proposed to salvage different recyclable materials - cardboard, ferrous metals, non-ferrous metals, concrete, brick, asphalt shingles, wood - and to screen MSW ash on the active landfill area. The applicant withdrew the salvaging of all materials except for the screening of MSW ash in a response dated October 31, 1997. This permit modification is, therefore, limited to the screening of MSW ash to recover ferrous and non-ferrous metals. Operations shall be conducted on the intermediate cover of the double lined landfill as shown in Figure 1 and 2, Rev. 10/97.

THIS PERMIT IS NON - TRANSFERABLE

Page 30 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No.	100148
Date Issued	February 9, 2000
Date Expires	February 9, 2010

II) The location of the MSW ash processing area, as shown in Figure 3, Site Plan, dated August 1997, shall not be relocated unless the Department approves the new location. The applicant must submit a request, including a revised site plan, for the new location to obtain a letter of approval from the Department.

III) The demonstration of the ash screening operation has been satisfactorily completed pursuant to Permit Condition No. 6 contained in the modification on December 18, 1997. Final approval is granted to screen the MSW incinerator ash to recover ferrous and non-ferrous metal. The screened ash (<4" material) may be used for alternate daily cover, as governed under previous equivalency approvals and >4" rubble material (oversize - 4" to 12") may be used as temporary road surface material on traffic areas proximate to the landfill's active working face.

The storm water from this material shall be collected and treated as leachate and/or diverted into the lined area of the Landfill. Both processed and unprocessed MSW incinerator ash is a waste and not a recyclable material, and counts towards the average daily volume of the facility. This waste is subject to the host municipality benefit fee(s) of Act 101.

41. The permit amendment for the use of Glass Cullet material as gas extraction well backfill, gas system header backfill, leachate force main backfill, use in construction of landfill access road subbases and sub-grades, the use as general fill material and utilization beneath the final cap in areas of settlement and in the cap drainage layer, issued on December 22, 1993 with following permit conditions, is included in this permit:

- D) Temporary landfill access road subgrades and subbases will utilize no more than 40% glass cullet/soil mixture.
- II) Final landfill access road depicted on final development plans including subgrades and subbases will utilize no more than 10% glass cullet/soil mixture.
- III) For road construction utilizing glass cullet and soil the ratio of glass cullet to soil will be done by the use of individual loads during road construction. For a 40% mixture three loads of soil must be mixed with two loads of glass cullet utilizing bulldozer to incorporate the two materials. For a 10 % mixture 9 loads soil will be mixed with one load of glass cullet utilizing a bulldozer to incorporate the two materials.
- IV) For use of glass cullet in the landfill cap drainage layer engineering test must be performed to determine suitability including the permeability and grain size as required by the cap design criteria. As built documentation must be submitted with Form 37 pertaining to the use of glass cullet in the landfill cap drainage area.

THIS PERMIT IS NON - TRANSFERABLE

Page 31 of 32

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No.	<u>100148</u>
Date Issued	<u>February 9, 2000</u>
Date Expires	<u>February 9, 2010</u>

2. Landfill operating equipment used in construction or operation of the landfill (not including collection or transfer vehicles) may be washed within the limits of the active landfill. All wash water must be contained and directed to the landfill leachate collection system. All washing equipment will be of a high-pressure, low volume type to minimize the generation of wash water.

43. The surety bond dated December 8, 1999 between Waste Management Disposal Services of Pennsylvania, Inc. and the Department in the amount of \$25,435,093.00 is hereby approved as part of this permit. Upon receipt of written notice from the Department this bond must be updated within 90 days in accordance with Chapter 271 of the municipal waste regulations.

Re 30 (RN99)342-10

THIS PERMIT IS NON - TRANSFERABLE