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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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217/524-3300

DOUGLAS P. SCOTT, DIRECTOR

August 5, 2009

Certified Mail
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Clinton Landfill, Inc.
Attn: Mr. Ron L. Edwards
P.O. Box 9071
Peoria, Illinois 61612

Re: 0390055036 – DeWitt County
Clinton Landfill 3
Permit No. 2005-070-LF
Log No. 2009-310
Modification No. 7
Expiration Date: February 15, 2012
Permit Landfill 810-817 File
Permit Approval

Dear Mr. Edwards:

Permit is hereby granted to Clinton Landfill, Inc. as owner and operator, approving the development of a new municipal solid waste and non-hazardous special waste landfill all in accordance with the application and plans prepared by George L. Armstrong, P.E. of PDC Technical Services, Inc. Final plans, specifications, application, and supporting documents, as submitted and approved, shall constitute part of this permit and are identified in the records of the Illinois Environmental Protection Agency (Illinois EPA), Bureau of Land, Division of Land Pollution Control by the permit number and log number designated in the heading above.

Specifically, Permit No. 2005-070-LF issued March 2, 2007 approved:

a. The development of this landfill so as to comply with the applicable requirements of Title 35, Illinois Administrative Code (hereinafter 35 Ill. Adm. Code), Subtitle G, Parts 811 and 812, pursuant to 35 Ill. Adm. Code, Section 813.104;

b. The development of a new Municipal Solid Waste Landfill (MSWLF) unit consisting of a 266.533 acre facility with a single waste disposal unit of approximately 157.451 acres with a gross airspace of approximately 32,014,225 cubic yards, including daily cover and intermediate cover; and excluding leachate sand drainage layer, sidewall liner protective soils and final cover. The maximum final elevation shall be approximately 870 feet above mean sea level. Based on the anticipated waste acceptance rate of 426,000 tons

per year (compacted in place density of 1,200 lbs/cubic yard) the facility is estimated to have an operating life of 45 years;

c. The lower waste boundaries and the waste footprint approved by this permit are shown on Drawing No. P-LCS1 entitled "Leachate Drainage and Collection Plan". The lower waste boundaries approved by this permit are defined by the top of liner grades shown on Drawing No. P-LCS1 plus 1-foot for the leachate sand drainage layer on the floor liner and 1.5-feet for the protective soils on the sidewall liner. The final contours approved by this permit are shown on Drawing No. P-FG4 entitled "Final Waste Grade Plan". Both Drawings are in the addendum dated June 9, 2006; and

d. Acceptance of special waste streams without individual special waste stream authorizations, in accordance with the special conditions listed in Part III of this permit.

Permit Modification No. 7 is hereby granted to Clinton Landfill, Inc. as owner and operator, allowing modification of an existing municipal solid waste and non-hazardous special waste landfill all in accordance with the application prepared by William N. Bicher, P.E., of PDC Technical Services, Inc. and signed and sealed by George L. Armstrong, P.E., also of PDC Technical Services, Inc. on May 28, 2009 and identified in the Illinois EPA records as Log No. 2009-310.

The application approved by Modification No. 7 consists of the following documents:

Permit Application Log No. 2009-310

| DOCUMENT | DATED | DATE RECEIVED |
|---|---|---|
| Original Permit Application | May 28, 2009 | May 29, 2009 |
| Additional Information | May 29, 2009 | June 1, 2009 |
| Additional Information | July 22, 2009 | July 23, 2009 |

Modification No. 7 to Permit No. 2005-070-LF approves the annual update to the closure and post-closure care cost estimates.

Except for the difference described in the table below, the special conditions in Modification No. 7 are identical to the special conditions in permit letter for Modification No. 6 to Permit No. 2005-070-LF, issued May 12, 2009.

| Special Condition No. in Modification No. 6 | Special Condition No. in Modification No. 7 | Description of Modification |
|---|---|---|
| X.6 | X.6 | Revised to note the cost estimates approved in this permit. |

Pursuant to Section 39(a) of Illinois Environmental Protection Act (Act) [415 ILCS 5/39(a)] and 35 Ill. Adm. Code, 813.104(b), this permit is issued subject to the development, operating and reporting requirements for non-hazardous waste landfills in 35 Ill. Adm. Code, Parts 810, 811, 812 and 813, the standard conditions attached hereto, and the following special conditions. In case of conflict between the permit application and these conditions (both standard and special), the conditions of this permit shall govern.

I. CONSTRUCTION QUALITY ASSURANCE

1. All necessary surface drainage control facilities shall be constructed prior to other disturbance in any area.

2. No part of the unit shall be placed into service or accept waste until an acceptance report for all the activities listed below has been submitted to and approved by the Illinois EPA as a significant modification pursuant to 35 Ill. Adm. Code, Sections 811.505(d) and 813.203.

   a. Preparation of the subgrade and foundation to design parameters;

   b. Installation of the compacted earth/synthetic liner;

   c. Installation of the leachate drainage, collection and management systems;

   d. Placement of final cover;

   e. Installation of leachate re-circulation system;

   f. Installation of gas control facilities, except as provided in Condition No. IX.11 of this permit; and

   g. Construction of ponds, ditches, lagoons and berms.

3. The permittee shall designate an independent third party contractor as the Construction Quality Assurance (CQA) Officer(s). The CQA Officer(s) shall be an Illinois Certified Professional Engineer who is independent from and not under the control or influence of the operator, any employee of the operator, or any other corporation, company or legal

entity that is a subsidiary, affiliate, parent corporation or holding corporation associated with the operator.

4. Except as provided below, the CQA Officer(s) designated pursuant to Condition I.3. shall personally be present during all construction and testing that is subject to CQA certification pursuant to 35 Ill. Adm. Code, Section 811.503(a). If the CQA Officer(s) is unable to be present as required, then a written explanation and signed statement must be provided for each absence pursuant to 35 Ill. Adm. Code, Section 811.503(b).

5. The clay liner shall be tested for density and moisture content a minimum of five tests per lift per acre.

6. A minimum of one laboratory hydraulic conductivity test shall be performed for every 10,000 cubic yards of soil placed in the liner. Additionally, each lift of the soil liner shall be tested for hydraulic conductivity at least once for each phase of construction.

7. If the clay portion of the liner is exposed to freezing conditions, it must be recertified. The designated CQA Officer(s) shall then certify that the clay portion of the liner and all necessary repairs to the liner geomembrane and leachate drainage layer meet the required design standards. This certification must be provided to the Illinois EPA prior to disposal of waste on the subject portion of the liner. If operating authorization has not yet been issued for that area, the recertification shall be included in the application for Significant Modification of Permit to obtain Operating Authorization for that area.

8. Pursuant to 35 Ill. Adm. Code, Section 811.505(d), upon completion of construction of each major phase, the CQA Officer(s) shall submit an acceptance report to the Illinois EPA. The acceptance report shall be submitted before the structure is placed into service and shall contain the following:

   a. A certification by the CQA Officer(s) that the construction has been prepared and constructed in accordance with the engineering design;

   b. As-built drawings; and

   c. All daily summary reports.

9. Construction of Sidewall Liner:

   a. The operator shall maintain a minimum "freeboard" of one (1) foot between the top of the sidewall liner and the top of the waste;

b. Prior to installing an increment of the sidewall liner, the sidewall liner in that area shall be inspected. Any areas damaged by desiccation, frost action, etc. shall be excavated and reconstructed in accordance with the Construction Quality Assurance program approved by this permit;

c. After each increment of the composite liner up the sidewall is completed, the operator shall provide written notification of its completion to the Illinois EPA's Champaign Regional Office. Upon receipt of the notification, the inspector shall be allowed fifteen working days to examine the construction. The Illinois EPA is not obligated to approve the construction or certification. The operator may dispose of refuse in the subphase after the fifteen day period if, having complied with the terms of this condition, the operator is not informed of a problem by the Illinois EPA or its agents; and

d. At the same time the Champaign Regional Office or delegated government is given notification that an increment of the sidewall liner has been completed, the Permit Section shall be provided with the information required in an Acceptance Report pursuant to 35 Ill. Adm. Code, 811.505(d) on its construction.

10. Applications for operating authorization shall not be made for areas of less than 1.5 acre increments of constructed liner.

11. All stakes and monuments marking the facility boundary and the permitted disposal area shall be maintained, inspected annually and surveyed no less frequently than once in five years by a professional land surveyor. Any lost or damaged monuments shall be replaced.

12. All standards for testing the characteristics and performance of materials, products, systems and services shall be those established by the American Society for Testing and Materials (ASTM) unless otherwise stated in the permit application.

13. Effective upon issuance of Modification No. 6 (Log No. 2009-148), all conformance testing of the geomembrane used shall meet Geosynthetic Research Institute's requirements with the following exceptions: For the geomembrane used in the bottom liner, the minimum thickness must be within 5% of nominal for all samples, i.e. 60 mil liner must be at least 57 mil; and UV resistance testing is not necessary unless the geomembrane is exposed for more than 30 days.

## II. OPERATING CONDITIONS

1. Pursuant to 35 Ill. Adm. Code, Sections 811.107(a) and 811.107(b), throughout the operating life of this landfill, waste shall not be placed in a manner or at a rate which

results in unstable internal or external slopes or interference with construction, operation or monitoring activities.

2. The operator of this solid waste facility shall not conduct the operation in a manner which results in any of the following:

   a. refuse in standing or flowing waters;

   b. leachate flows entering waters of the State;

   c. leachate flows exiting the landfill confines (i.e., the facility boundaries established for the landfill in a permit or permits issued by the Illinois EPA);

   d. open burning of refuse in violation of Section 9 of the Act;

   e. uncovered refuse remaining from any previous operating day or at the conclusion of any operating day, unless authorized by permit;

   f. failure to provide final cover within time limits established by Board regulations;

   g. acceptance of wastes without necessary permits;

   h. scavenging as defined by Board regulations;

   i. deposition of refuse in any unpermitted (i.e., without an Illinois EPA approved significant modification authorizing operation) portion of the landfill;

   j. acceptance of a special waste without a required manifest and identification record;

   k. failure to submit reports required by permits or Board regulations;

   l. failure to collect and contain litter from the site by the end of each operating day; and

   m. failure to submit any cost estimate or any financial assurance mechanism for the facility as required by Section 21.o.13 of the Act.

3. Movcable, temporary fencing shall be used to prevent blowing litter when the refuse is above the natural ground line.

4. At the end of each day of operation, all exposed waste shall be covered with:

a. Clean soil at least six (6) inches thick (i.e., conventional daily cover); or

b. An alternate cover as described below.

5. Polypropylene non-woven and woven geotextile such as Fabrisoil, Typar 3601, Amoco 2002 or their equivalents are approved as alternate daily cover pursuant to 35 Ill. Adm. Code, Sections 811.106(b) and 812.111(b). Use of alternate materials as daily cover shall be subject to the following conditions:

a. If any alternate daily cover other than those approved by this permit are to be used, their use must be approved by the Illinois EPA through the permit process;

b. At any one time, the total area, using alternate daily cover, shall be no more than 2,500 square yards. Beyond this maximum, daily cover soil shall be used on all areas where waste has been disposed and to which intermediate or final cover has not been applied;

c. Areas upon which alternate daily cover has been used must be covered with either conventional cover or additional waste within six days;

d. Conventional daily cover in accordance with 35 Ill. Adm. Code 811.106(a) shall be used if weather or other conditions adversely affect the ability of the alternate daily cover to prevent problems with blowing litter, fire, odors, or vectors;

e. Geotextile fabric shall be anchored adequately to prevent wind damage. If the alternate daily cover is torn during or after placement, it must be repaired immediately or the damaged area must be covered with six inches of daily cover soil;

f. When an alternate daily cover is applied, the operator shall keep a record including a description of the weather conditions, the type of alternate daily cover used and its performance. A summary of this information shall be provided with this facility's annual reports; and

g. Any alternate daily cover which has been used for daily cover may not be reused for any purpose (including road underlayment and erosion control) outside of permitted disposal boundaries.

6. No later than 60 days after placement of the final lift of waste in any area, the area shall receive a final cover system meeting the design specifications approved in this permit application. The final cover system for the entire facility consists of the following layers from bottom of cover to top of cover:

- 12-inches of soil foundation layer
- 12-inches of compacted clay with hydraulic conductivity no greater than 1 x $10^{-7}$ cm/sec.
- 40-mil HDPE geomembrane (textured on the sideslopes)
- Drainage layer consisting of a geotextile and HDPE geonet. [Alternatively, a geocomposite drainage layer can be used.]
- 3-foot thick protective cover capable of supporting vegetation.

7. All waste not covered within sixty days of placement with additional waste or final cover shall have an intermediate cover of compacted clean soil with a minimum thickness of one foot applied to it.

8. The operator shall implement a load checking program that meets the requirements of 35 Ill. Adm. Code, Section 811.323. If regulated hazardous waste is discovered, the Illinois EPA shall be notified no later than 5:00 p.m. the next business day after the day it is detected. The load checker shall prepare a report describing the results of each inspection. A summary of these reports shall be submitted to the Illinois EPA as part of this facility's annual report.

9. Asbestos containing wastes shall not accepted until a revised operating plan including appropriate National Emission Standards for Hazardous Air Pollutants (NESHAPS) requirements has been submitted to and approved by the Illinois EPA. The revised operating plan shall be submitted to the Illinois EPA in the form of an application for significant modification.

10. Management of Unauthorized Waste

a. Landscape waste found to be mixed with municipal waste will be removed the same day and transported to a facility that is operating in accordance with the Act, Title V, Section 21;

b. Lead-acid batteries will be removed the same day and transported either to a drop-off center handling such waste, or to a lead-acid battery retailer;

c. Potentially infectious medical waste (PIMW) found to be mixed with municipal waste shall be managed in accordance with 35 Ill. Adm. Code, Subtitle M;

d. Tires found to be mixed with municipal waste shall be removed and managed in accordance with 35 Ill. Adm. Code, Part 848;

e. White good components mixed with municipal waste shall be removed and managed in accordance with Section 22.28 of the Act;

f. This facility is prohibited from disposing any waste containing polychlorinated biphenyls (PCBs) in concentration greater than allowed, pursuant to the Toxic Substance Control Act (TSCA);

g. No liquid waste (special or non-special) as determined by the Paint Filter Test shall be disposed unless the waste is from a household or is in a small container similar in size to that normally found in household waste and the container was designed for use other than storage. The prohibition applies to on-site generated wastes except for leachate or gas condensate that is specifically approved by permit for recirculation into the landfill. However, minor amounts of liquid resulting from precipitation (rain, sleet, hail or snow) during transport and disposal operations shall not be construed as a violation of this condition;

h. In accordance with Section 21.6 of the Act, beginning July 1, 1996, no owner or operator of a sanitary landfill shall accept liquid used oil for final disposal that is discernable in the course of prudent business operation; and

i. After the unauthorized waste has been removed, a thorough cleanup of the affected area will be made according to the type of unauthorized waste managed. Records shall be kept for three (3) years and will be made available to the Illinois EPA.

11. Operating hours are those hours during which waste may be accepted. For this facility, the operating hours shall be limited to 6:00 a.m. to 6:00 p.m., Monday through Friday, and 6:00 a.m. to 3:00 p.m. on Saturday. Adequate lighting shall be provided for outdoor activities at the landfill occurring before sunrise or after sunset.

12. If it is required for the facility to be open beyond normal operating hours to respond to emergency situations, a written record of the date(s), times and reason the facility was open shall be made part of the operating record for the facility. The Illinois EPA-Champaign Regional Office and, when applicable, the county authority responsible for inspections of this facility per a delegation agreement with the Illinois EPA shall be notified no later than 5:00 p.m. the next business day following the acceptance of waste outside the specified operating hours.

13. Road building materials used to construct roads at the facility that are not solid waste may be stockpiled on-site in the amount estimated to be needed within the next construction season provided they are managed in accordance with 35 Ill. Adm. Code, Section 811.108(c)(1).

14. Equipment shall be maintained and available for use at the facility during all hours of operation to allow proper operation of the landfill. If breakdowns occur that would prevent proper facility operation, back-up equipment shall be brought onto the site.

15. All utilities, including but not limited to heat, lights, power, communications equipment and sanitary facilities necessary for safe, efficient and proper operation of the landfill shall be available at the facility at all times.

16. Waste shall be deposited at the fill face and compacted upward into the fill face unless precluded by extreme weather conditions or for reasons of safety.

17. The operator shall implement methods for controlling dust so as to prevent wind dispersal of particulate matter off-site.

18. The facility shall be constructed and operated to minimize the level of equipment noise audible outside the facility. The facility shall not cause or contribute to a violation of 35 Ill. Adm. Code, Parts 900 through 905.

19. The operator shall implement measures to control the population of disease and nuisance vectors.

20. The operator shall institute fire protection measures in accordance with the proposed Hazard Protection and Emergency Response Plan.

21. The operator shall implement methods to prevent tracking of mud by hauling vehicles onto public roadways.

22. Access to the active area and all other areas within the boundaries of the facility shall be controlled by use of fences, gates and natural barriers to prevent unauthorized entry at all times.

23. A permanent sign shall be maintained at the facility entrance containing the information required under 35 Ill. Adm. Code, Section 811.109(b)(1) through (5).

24. Waste disposal operations shall be restricted to areas of the landfill specifically approved by the Illinois EPA for operation or granted operating authorization pursuant to 35 Ill. Adm. Code, Section 813.203. Such areas of the landfill are presently limited to:

    a. The approximately 6.65 acres of Phase 1A, in accordance with the application and plans provided in permit application Log No. 2008-063 and approved by Modification No. 5.

## III. SPECIAL WASTE

### A. DISPOSAL OF SPECIAL WASTE

1. The permittee is authorized to accept non-hazardous special waste that meets the definition of industrial process waste or pollution control waste as found in Sections 3.235 and 3.335, respectively, of the Illinois Environmental Protection Act, in accordance with the following requirements:

   a. The waste is analyzed in accordance with the requirements described below and complies with the acceptance criteria in the approved waste analysis plan;

   b. The waste is delivered by an Illinois licensed special waste hauler or an exempt hauler as defined in 35 Ill. Adm. Code, Section 809.211; and

   c. The waste is accompanied by a manifest, if required.

2. The permittee shall obtain a completed Special Waste Preacceptance Form (enclosed along with Permit No. 2005-070-LF) and a preacceptance analysis from each generator for each waste to be accepted. In addition, the Annual Generator Special Waste and Recertification for Disposal of Special Waste form (enclosed along with Permit No. 2005-070-LF), which certifies the waste has not changed since the last analysis, must be completed and included in the operating record. A complete laboratory analysis must be provided with the exceptions listed below.

   Analysis shall be conducted using SW-846 test methods. The waste shall be reanalyzed at least every five years and must identify the actual concentration of each chemical constituent and state of each physical parameter. In all cases, a copy of the lab analysis (on lab letterhead and signed by a responsible party such as the person conducting the analysis or his/her supervisor) must be included in the operating record with the Special Waste Preacceptance Form (Profile Identification Sheet). The analysis may not be greater than one year old at the time. A new analysis is required if the composition of the waste changes (normal variations in waste composition are expected and are not included in this requirement). All waste must be analyzed as follows:

   a. The permittee shall obtain the following lab analyses to determine the concentrations of the following parameters.

      Paint Filter Test
      Flash point
      Sulfide (reactive)
      Cyanide (reactive)

Phenol (total)
pH
Toxicity Characteristic Constituents

b. The permittee shall obtain analysis for reactive sulfides ($H_2S$) and cyanides (HCN). Waste containing 250 ppm or greater reactive cyanide or 500 ppm or greater reactive sulfide is presumed to be hazardous waste pursuant to 35 Ill. Adm. Code, Section 721.123(a)(5) unless specific information to show it does not present a danger to human health or the environment is provided. Analysis for total sulfide and/or cyanide may be substituted for reactive concentrations if they are equal to or less than 10 ppm. For wastes containing greater than 10 ppm reactive cyanide or reactive sulfide, the permittee shall not accept the waste unless the generator provides a signed and dated statement indicating the following:

i. The waste has never caused injury to a worker because of $H_2S$ and/or HCN generation;

ii. That the OSHA work place air concentration limits for $H_2S$ and/or HCN have not been exceeded in areas where the waste is generated, stored or otherwise handled; and

iii. That air concentrations of $H_2S$ and/or HCN above 10 ppm have not been encountered in areas where the waste is generated, stored or otherwise handled.

c. The permittee shall obtain analysis for phenols. If the total phenol concentration is greater than 1000 ppm, the waste will be required to be drummed and labeled, unless justification that this precaution is not necessary is provided. The justification must demonstrate skin contact is unlikely during transport or disposal.

d. The permittee shall obtain metals and organics analysis. Either procedure may be utilized (i.e., total or TCLP), but any constituent whose total concentration exceeds the TCLP limit specified in 35 Ill. Adm. Code, Section 721.124 must be analyzed using the TCLP test and the results reported, unless an alternative test has been approved by the Illinois EPA. TCLP test methods must be in accordance with SW 846-1311.

e. EXCEPTIONS:

i. The generator may certify that the eight pesticides (D012, D013, D014, D015, D016, D017, D020 and D031) would not reasonably be expected to

be present in the waste based on the nature of the process generating the waste.

ii. Petroleum contaminated media and debris from LUST sites subject to corrective action regulation under 35 Ill. Adm. Code, Parts 731 and 732 are temporarily exempt from complete TCLP analysis and the generator may limit analyses to flashpoint, paint filter test and TCLP lead.

iii. For off-specification, unused or discarded commercial or chemical products, an MSDS to determine the hazardous constituents present may be provided in lieu of analytical results.

f. CLARIFICATIONS:

Notwithstanding the exception for manufactured gas plant waste contained in 35 Ill. Adm. Code 721.124(a), no manufactured gas plant waste shall be disposed in a non-hazardous waste landfill, unless: i) the waste has been tested in accordance with subsection (d) of this special condition, and ii) the analysis has demonstrated that the waste does not exceed the regulatory levels for any contaminant given in the table contained in 35 Ill. Adm. Code 721.124(b).

g. Pursuant to 35 Ill. Adm. Code 722.111, the generator of a solid waste is required to determine if the waste is hazardous and comply with all applicable hazardous waste regulations. For any waste that has been determined to be hazardous, the results of quality assurance testing for the treatment program, taken at an appropriate frequency to demonstrate the waste is no longer hazardous, must be obtained. Verification that the waste meets the land disposal restrictions must also be documented. These requirements are in addition to the other standard special waste test requirements.

3. An individual waste stream permit is no longer required by the Illinois EPA for this facility. Therefore, a waste stream permit number will no longer be required on the manifest when shipping waste to this facility as authorized by this permit.

4. Special waste generated due to an emergency situation may be disposed without complete TCLP analysis if:

a. The permittee receives authorization from the Emergency Response Unit of the Illinois EPA at 1-217-782-3637;

b. The permittee ensures that the generator has received an incident number from the Illinois Emergency Management Agency at 1-800-782-7860 within Illinois, or 1-217-782-7860 outside of Illinois; and

c. The waste is analyzed for the chemical constituents required by the Emergency Response Unit.

5. The permittee shall conduct the following analyses for waste received in labeled containers in lab packs, including commingled wastes:

a. Compatibility review in accordance with the procedures identified in USEPA document EPA-600/2-80-076; and

b. MSDS review to determine the hazardous constituents present and appropriate USEPA hazardous waste class.

6. RCRA empty containers received as a special waste are subject to the following conditions:

a. Containers have a rated capacity of less than 110 gallons only.

b. Containers which formerly held 'P' listed hazardous waste or TSCA regulated quantities of PCBs or empty compressed gas cylinders are not included under this permit.

c. All containers must meet the definition of empty as described in 35 Ill. Adm. Code, Section 721.107(b).

d. Additionally, where possible, a copy of the material safety data sheets for products last present in the container shall be obtained and kept on file.

e. For drums, at least one end must be removed and the drums must be crushed flat.

7. The Special Waste Preacceptance Form shall be utilized for the special waste profile identification requirements of 35 Ill. Adm. Code, Section 811.404(a).

8. The Annual Generator Special Waste Recertification for Disposal Special Waste form (enclosed along with Permit No. 2005-070-LF) shall be utilized for the special waste recertification requirements of 35 Ill. Adm. Code, Section 811.404(b).

9. The operator shall retain all special waste records until the end of the post-closure period in accordance with 35 Ill. Adm. Code, Section 811.405.

B. SOLIDIFICATION OF SPECIAL WASTE

1. Waste solidification shall take place in liquid tight and structurally sound inspectable containers like steel drums and roll-off containers placed over an area that has both a certified liner and an operating leachate collection system that meet the standards of 35 Ill. Adm. Code 811.306, 811.307 and 811.308. The solidification area shall be at least 10-feet above the landfill floor, and at least 30-feet from the landfill sidewall liner. Berms shall be constructed around the solidification area to prevent run-off from the area.

2. Solidification containers shall be adequately spaced to allow inspections and equipment access. No more than 10 drums and 10 roll-off containers shall be used at any one time.

3. All special waste generators which send liquid waste to this facility for solidification and disposal must have an Illinois EPA generator number.

4. Only non-hazardous wastes as defined in 35 Ill. Adm. Code 722.111 may be received for solidification at this facility.

5. This permit approves the use of the following reagents and absorbents in the solidification process:

   a. Reagents

      i Lime

      ii. Pozzalime

      iii. Fly ash from coal combustion

      iv. Bottom ash from coal combustion

   b. Absorbents

      i. Soil

      ii. Oil Dry

      iii. Sawdust

      iv. Corn cobs

All reagents and absorbents used must not exhibit any characteristic which would classify it as a hazardous waste. Use of other materials or wastes other than those listed above shall be subject to approval by the Illinois EPA permit process.

6. Absorbents and reagents will be stockpiled on site in accordance with the facility's Storm Water Pollution Prevention Plan. Absorbent stockpiles shall not contain more than 500 cubic yards of absorbent materials. Reagent stockpiles shall be covered to protect the reagents from precipitation and wind. Reagent stockpiles shall not contain more than 120 cubic yards of reagents. Storage of reagents and absorbents shall not contribute to a violation of Section 21(a), Section 12, or Section 9 of the Act.

7. The solidification unit must be operated so as to minimize spilling reagents/absorbents and waste. Any spilled reagents/absorbents and waste shall be removed on a daily basis.

8. The following conditions are applicable to any waste containing a liquid phase(s) (fails paint filter):

   a. Each phase must be analyzed for total organic halogen (TOX) using the test method specified in 35 Ill. Adm. Code, Part 729. Any waste containing 10,000 ppm or greater of TOX must be analyzed to determine the specific constituents, and their concentrations, that make up TOX. These constituents and their concentration should be reported on the lab analysis report. Any liquid containing multiple phases must include individual analyses for each phase;

   b. The preacceptance documentation must include a description of the solidification method used at the generating site (or off-site permitted treatment facility) with test results demonstrating that the solidified waste passes the paint filter test; and

   c. If a waste is used to solidify the liquid (i.e., two or more wastes are mixed) all required testing must be performed on the solidified waste. Otherwise, all testing (except paint filter) may be performed on the waste before solidification and a statement from the generator may be accepted certifying that the additives used have been evaluated and there is no reason to believe they would cause the waste to become hazardous.

9. The permittee shall not perform solidification if the bench-scale reactivity test(s) determines incompatibility of the waste and reagent.

10. The following information shall be documented in the facility's operating record for each load of waste received for solidification:

    a. Date the load was received;

b. Manifest number associated with the waste load;

c. Waste name;

d. Volume of waste received;

e. Generator name, location and Illinois EPA generator number or hauler number, if not a special waste;

f. Results of all analyses conducted on the waste load;

g. Type of reagent and/or absorbent used to solidify the waste; and

h. Documentation that the solidified waste does not exhibit hazardous characteristics as defined in 35 Ill. Adm. Code 721 Subpart C, e.g., result of the compatibility test done in accordance with the facility's waste analysis plan.

11. Each load of the solidified waste shall be sampled and tested by the paint filter test described in 35 Ill. Adm. Code 729.320 prior to disposal. Waste that yields fluid may not be disposed.

12. A complete TCLP analysis shall be performed on solidified waste resulting from a liquid waste with a pH $\leq$5 to demonstrate that no hazardous waste has been produced.

13. By the end of each day of the operation, all waste received for treatment shall be solidified. Solidified wastes shall be removed from the solidification unit and disposed of at the active disposal face of the landfill no later than the end of next business day.

14. All wash water generated from the solidification unit shall be managed in the same manner as leachate.

15. The solidification unit may be operated from 6:00 a.m. to 6:00 p.m. Monday through Friday and 6:00 a.m. to 3:00 p.m. on Saturday.

16. In the event of a spill, such materials and equipment necessary must be available on site in order to prevent leachate migration from the contaminated area.

## IV. RECORDKEEPING

1. Information developed by the operator but not yet forwarded to the Illinois EPA in a quarterly or annual report shall be kept at or near the facility for inspection by the Illinois EPA upon request during normal working hours.

2. Information and observations derived from load checking inspections shall be recorded in writing and retained at the facility for at least three years.

3. Every person who delivers special waste to a special waste hauler, every person who accepts special waste from a special waste hauler and every special waste hauler shall retain a copy of the special waste transportation record as a record of each special waste transaction. These copies shall be retained for three years and shall be made available at reasonable times for inspection and photocopying by the Illinois EPA pursuant to Section 4(d) of the Act.

4. The operator shall retain copies of any special waste profile identification sheets, special waste recertifications, certifications of representative samples, special waste laboratory analyses, special waste analysis plans, and any waivers of requirements, at the facility until the end of the closure period and thereafter at the site office until the end of the post-closure care period.

5. Inspections of the closed landfill shall be conducted in accordance with the approved post-closure care plan. Records of field investigations, inspections, sampling and corrective action taken are to be maintained at the site and made available to Illinois EPA personnel. During the post-closure care period, those records are to be maintained at the office of the site operator.

6. The owner or operator shall record and retain near the facility in an operating record or in some alternative location specified by the Illinois EPA, the information submitted to the Illinois EPA pursuant to 35 Ill. Adm. Code, Parts 812 and 813, as it becomes available. At a minimum, the operating record shall contain the following information, even if such information is not required by 35 Ill. Adm. Code, Part 812 or 813:

   a. Any location restriction demonstration required by 35 Ill. Adm. Code, Sections 811.302, 812.109, and 812.303;

   b. Inspection records, training procedures, and notification procedures required by 35 Ill. Adm. Code, Section 811.323;

   c. Gas monitoring results and any remediation plans required by 35 Ill. Adm. Code, Sections 811.310 and 811.311;

   d. Any MSWLF unit design documentation for placement of leachate or gas condensate in a MSWLF unit required by 35 Ill. Adm. Code, Section 811.107(m);

e. Any demonstration, certification, monitoring results, testing, or analytical data relating to the groundwater monitoring program required by 35 Ill. Adm. Code, Sections 811.319, 811.324, 811.325, 811.326, 812.317, 813.501 and 813.502;

f. Closure and post-closure care plans and any monitoring, testing, or analytical data required by 35 Ill. Adm. Code, Sections 811.110, 811.111, 812.114(h), 812.115 and 812.313; and

g. Any cost estimates and financial assurance documentation required by 35 Ill. Adm. Code Part 811, Subpart G.

V. GENERAL CONDITIONS

1. This permit is issued with the expressed understanding that no process discharge to Waters of the State or to a sanitary sewer will occur from these facilities except as authorized by a permit issued by the Bureau of Water. Additionally, all stormwater discharges from the facility shall be authorized by appropriate permit issued by Bureau of Water.

2. This permit does not relieve the permittee of the responsibility of complying with the provisions of the State of Illinois Rules and Regulations, 35 Ill. Adm. Code Subtitle B, Air Pollution Control, Chapter 1. The permittee may be required to file reports and/or obtain applicable permits through the Illinois EPA's Bureau of Air (BOA) – Division of Air Pollution Control.

   Based upon the information submitted in this application and consultations with BOA – Permit Section, this project requires an Air Pollution Control Construction Permit, pursuant to 35 Ill. Adm. Code 201.142, prior to the construction of the Municipal Solid Waste Landfill. Further, this project may be subject to the New Source Performance Standards (NSPS) for new Municipal Solid Waste Landfills (61 Fed. Reg. 9905 et seq.) that USEPA promulgated on March 12, 1996, i.e., 40 CFR Part 60, Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills. The Illinois EPA's BOA is implementing NSPS, for landfills classified as new Municipal Solid Waste Landfill, pursuant to a delegation agreement between Illinois EPA and USEPA.

   Please contact the Illinois EPA's BOA – Division of Air Pollution Control – Permit Section at 217/782-2113, if you have any questions regarding these requirements.

3. If changes occur which modify any of the information the permittee has used in obtaining a permit for this facility, the permittee shall notify the Illinois EPA. Such changes would include but not be limited to any changes in the names or addresses of both beneficial and legal titleholders to the herein-permitted site. The notification shall be submitted to the

Illinois EPA within fifteen days of the change and shall include the name or names of any parties in interest and the address of their place of abode; or, if a corporation, the name and address of its registered agent.

4. Pursuant to 35 Ill. Adm. Code, Section 813.201(a), any modifications to this permit shall be proposed in the form of a permit application and submitted to the Illinois EPA.

5. Pursuant to 35 Ill. Adm. Code, Section 813.301, an application for permit renewal shall be filed with the Illinois EPA at least ninety days prior to the expiration date of this permit.

6. Current, valid Prior Conduct Certification pursuant to 35 Ill. Adm. Code Part 745 is required for all operators of landfills that require a permit.

7. Landfill Operator Certification pursuant to 68 Ill. Adm. Code Part 870 is required for operation of a landfill.

8. The permittee(s) shall submit a 39(i) certification and supporting documentation within 30 days of any of the following events:

   a. The owner or officer of the owner, or operator, or any employee who has control over operating decisions regarding the facility has violated federal, State, or local laws, regulations, standards, or ordinances in the operation of waste management facilities or sites; or

   b. The owner or operator or officer of the owner, or operator, or any employee who has control over operating decisions regarding the facility has been convicted in this or another State of any crime which is a felony under the laws of this State, or conviction of a felony in a federal court; or

   c. The owner or operator or officer of the owner, or operator, or any employee who has control over operating decisions regarding this facility has committed an act of gross carelessness or incompetence in handling, storing, processing, transporting, or disposing of waste.

   d. A new person is associated with the owner or operator who can sign the application form(s) or who has control over operating decisions regarding the facility, such as corporate officer or a delegated employee.

## VI. SURFACE WATER CONTROL

1. Runoff from disturbed areas to Waters of the State shall be permitted by the Illinois EPA in accordance with 35 Ill. Adm. Code, Part 309, and meet the requirements of 35 Ill. Adm. Code, Part 304 unless permitted otherwise.

2. All surface water control structures other than temporary diversions for intermediate phases shall be operated until the final cover is placed and erosional stability is provided by the final protective layer of the final cover system.

3. Runoff from undisturbed areas resulting from precipitation events less than or equal to the 25-year, 24-hour precipitation event shall be diverted around disturbed areas where possible and not commingled with runoff from disturbed areas.

4. Site surface drainage, during development, during operation and after the site is closed, shall be managed in accordance with the approved drainage control plan detailed in Permit Application Log No. 2005-070. Stormwater management structures shall be constructed prior to disturbing any portion of a drainage area in accordance with the sequence shown on the phasing plans, Drawing Nos. P-PP1 through P-PP12 (addendum dated January 11, 2007) and Appendix 812.110-D of Application Log No. 2005-070.

## VII. LEACHATE MANAGEMENT/MONITORING

1. Pursuant to 35 Ill. Adm. Code, Section 811.309(h)(3), leachate from this MSWLF landfill shall be collected and disposed beginning as soon as it is first produced and continuing for at least 30 years after closure except as otherwise provided by 35 Ill. Adm. Code, Sections 811.309(h)(4) and (h)(5). Collection and disposal of leachate may cease only when the conditions described in 35 Ill. Adm. Code, Section 811.309(h)(2) have been achieved. Leachate removed from this landfill shall be treated at an Illinois EPA permitted facility in accordance with the leachate management plan proposed in Permit Application Log No. 2005-070.

2. Pursuant to 35 Ill. Adm. Code, Sections 811.307(a) and (b), 811.308(a) and (h), and 811.309(a), leachate shall be pumped from the side slope riser sump(s) before the level of leachate rises above the invert of the collection pipe(s) at its lowest point(s). Leachate removal as such shall be performed throughout the period that the leachate collection/management system must be operated in accordance with Permit Application Log No. 2005-070.

3. The following monitoring points (leachate collection sumps) are to be used in the Leachate Monitoring Program for this facility:

Leachate Monitoring Points

| Applicant Designation | Illinois EPA Designation |
|---|---|
| L301 | L301 |
| @L302 | @L302 |
| @L303 | @L303 |
| @L304 | @L304 |
| @L305 | @L305 |
| @L306 | @L306 |
| @L307 | @L307 |
| @L308 | @L308 |
| @L309 | @L309 |
| @L310 | @L310 |
| @L311 | @L311 |
| @L312 | @L312 |
| @L313 | @L313 |

@ indicates leachate monitoring points not yet placed into service

4. Pursuant to 35 Ill. Adm. Code, Sections 811.309(g), 722.111 and 721, Subpart C, leachate monitoring (i.e., sampling, measurements and analysis) must be conducted in accordance with the permit for this facility. The concentrations or values for the parameters contained in List L1 (below) shall be determined on a semi-annual basis and the results must be submitted with the groundwater reports.

   Each year, the permittee shall collect a representative leachate sample and have it tested for the parameters contained in List L2.

   Condition VII.6. presents the sampling, testing and reporting schedules in tabular form. Leachate monitoring at each monitoring point shall continue as long as groundwater monitoring at this landfill is necessary pursuant to 35 Ill. Adm. Code, Section 811.319(a)(1)(C).

LIST LI

| Leachate Monitoring Parameters | STORET |
|---|---|
| pH (S.U.) | 00400 |
| Elevation Leachate Surface (ft. MSL) | 71993 |
| Bottom of Well Elevation (ft. MSL) | 72020 |

LIST LI

| Leachate Monitoring Parameters | STORET |
|---|---|
| Leachate Level from Measuring Point (ft.) | 72109 |
| Arsenic (total) | 01002 |
| Barium (total) | 01007 |
| Cadmium (total) | 01027 |
| Iron (total) | 01045 |
| Ammonia Nitrogen – N (mg/L) | 00610 |
| Bacteria (Fecal Coliform) (FCBR/100 mL) | 31616 |
| Biochemical Oxygen Demand (BOD5) (mg/L) | 00310 |
| 1,1,1,2-Tetrachloroethane | 77562 |
| 1,1,1-Trichloroethane | 34506 |
| 1,1,2,2-Tetrachloroethane | 34516 |
| 1,1,2-Trichloroethane | 34511 |
| 1,1-Dichloroethane | 34496 |
| 1,1-Dichloroethylene | 34501 |
| 1,1-Dichloropropene | 77168 |
| 1,2,3-Trichlorobenzene | 77613 |
| 1,2,3-Trichloropropane | 77443 |
| 1,2,4-Trichlorobenzene | 34551 |
| 1,2,4-Trimethylbenzene | 77222 |
| 1,2-Dibromo-3-Chloropropane | 38760 |
| 1,2-Dichloroethane | 34531 |
| 1,2-Dichloropropane | 34541 |
| 1,3,5-Trimethylbenzene | 77226 |
| 1,3-Dichloropropane | 77173 |
| 1,3-Dichloropropene | 34561 |
| 1,4-Dichloro-2-Butene | 73547 |
| 1-Propanol | 77018 |
| 2,2-Dichloropropane | 77170 |
| 2,4,5-tp (Silvex) | 39760 |
| 2,4,6-Trichlorophenol | 34621 |
| 2,4-Dichlorophenol | 34601 |
| 2,4-Dichlorophenoxyacetic Acid (2,4-D) | 39730 |
| 2,4-Dimethylphenol | 34606 |
| 2,4-Dinitrotoluene | 34611 |

LIST LI

| Leachate Monitoring Parameters | STORET |
|---|---|
| 2,4-Dinitrophenol | 34616 |
| 2,6-Dinitrotoluene | 34626 |
| 2-Chloroethyl Vinyl Ether | 34576 |
| 2-Chloronaphthalene | 34581 |
| 2-Chlorophenol | 34586 |
| 2-Hexanone | 77103 |
| 2-Propanol (Isopropyl Alcohol) | 81310 |
| 3,3-Dichlorobenzidine | 34631 |
| 4,4-DDD | 39310 |
| 4,4-DDE | 39320 |
| 4,6-Dinitro-O-Cresol | 34657 |
| 4-Bromophenyl Phenyl Ether | 34636 |
| 4-Chlorophenyl Phenyl Ether | 34641 |
| 4-Methyl-2-Pentanone | 78133 |
| 4-Nitrophenol | 34646 |
| Acenaphthene | 34205 |
| Acetone | 81552 |
| Alachlor | 77825 |
| Aldicarb | 39053 |
| Aldrin | 39330 |
| Alpha – BHC | 39337 |
| Aluminum | 01105 |
| Anthracene | 34220 |
| Antimony | 01097 |
| Atrazine | 39033 |
| Benzene | 34030 |
| Benzo (a) Anthracene | 34526 |
| Benzo (a) Pyrene | 34247 |
| Benzo (b) Fluoranthene | 34230 |
| Benzo (ghi) Perylene | 34521 |
| Benzo (k) Fluoranthene | 34242 |
| Beryllium (total) | 01012 |
| Beta – BHC | 39338 |
| Bicarbonate (mg/L as CaCO3) | 00425 |

## LIST LI

| Leachate Monitoring Parameters | STORET |
|---|---|
| Bis (2-Chloro-1-Methylethyl) Ether | 73522 |
| Bis (2-Chloroethoxy) Methane | 34278 |
| Bis (2-Chloroethyl) Ether | 34273 |
| Bis (2-Ethylhexyl) Phthalate | 39100 |
| Bis(Chloromethyl) Ether | 34268 |
| Boron | 01022 |
| Bromobenzene | 81555 |
| Bromochloromethane | 77297 |
| Bromodichloromethane | 32101 |
| Bromoform | 32104 |
| Bromomethane | 34413 |
| Butanol | 45265 |
| Butyl Benzyl Phthalate | 34292 |
| Calcium (mg/L) | 00916 |
| Carbofuran | 81405 |
| Carbon Disulfide | 77041 |
| Carbon Tetrachloride | 32102 |
| Chemical Oxygen Demand (COD) (mg/L) | 00335 |
| Chlordane | 39350 |
| Chloride (mg/L) | 00940 |
| Chlorobenzene | 34301 |
| Chloroethane | 34311 |
| Chloroform | 32106 |
| Chloromethane | 34418 |
| Chromium (total) | 01034 |
| Chrysene | 34320 |
| Cis-1,2-Dichloroethylene | 77093 |
| Cobalt (total) | 01037 |
| Copper (total) | 01042 |
| Cyanide (mg/L) | 00720 |
| DDT | 39370 |
| Delta – BHC | 46323 |
| Di-N-Butyl Phthalate | 39110 |
| Di-N-Octyl Phthalate | 34596 |

LIST LI

| Leachate Monitoring Parameters | STORET |
|---|---|
| Dibenzo (a,h) Anthracene | 34556 |
| Dibromochloromethane | 32105 |
| Dibromomethane | 77596 |
| Dichlorodifluoromethane | 34668 |
| Dichloromethane | 34423 |
| Dieldrin | 39380 |
| Diethyl Phthalate | 34336 |
| Dimethyl Phthalate | 34341 |
| Endosulfan I | 34361 |
| Endosulfan II | 34356 |
| Endosulfan Sulfate | 34351 |
| Endrin | 39390 |
| Endrin Aldehyde | 34366 |
| Ethyl Acetate | 81585 |
| Ethylbenzene | 78113 |
| Ethylene Dibromide (EDB) | 77651 |
| Fluoranthene | 34376 |
| Flourene | 34381 |
| Fluoride (mg/L) | 00951 |
| Heptachlor Epoxide | 39420 |
| Heptachlor | 39410 |
| Hexachlorobenzene | 39700 |
| Hexachlorobutadiene | 39702 |
| Hexachlorocyclopentadiene | 34386 |
| Hexachloroethane | 34396 |
| Ideno (1,2,3-cd) Pyrene | 34403 |
| Iodomethane | 77424 |
| Isopropylbenzene | 77223 |
| Lead (total) | 01051 |
| Lindane | 39782 |
| Magnesium (total) (mg/L) | 00927 |
| Manganese (total) | 01055 |
| Mercury (total) | 71900 |
| Methoxychlor | 39480 |

LIST LI

| Leachate Monitoring Parameters | STORET |
|---|---|
| Methyl Ethyl Ketone | 81595 |
| Naphthalene | 34696 |
| Nickel (total) | 01067 |
| Nitrate-Nitrogen (mg/L) | 00620 |
| Nitrobenzene | 34447 |
| Oil. Hexane Soluble (or Equivalent) (mg/L) | 00550 or 00552 |
| Parathion | 39540 |
| Pentachlorophenol | 39032 |
| Phenanthrene | 34461 |
| Phenols | 32730 |
| Phosphorous (mg/L) | 00665 |
| Polychlorinated Biphenyls | 39516 |
| Potassium (mg/L) | 00937 |
| Pyrene | 34469 |
| Selenium | 01147 |
| Silver (total) | 01077 |
| Specific Conductance (umhos/cm) | 00094 |
| Sodium (mg/L) | 00929 |
| Styrene | 77128 |
| Sulfate (mg/L) | 00945 |
| Temperature of Leachate Sample (°F) | 00011 |
| Tert-Butylbenzene | 77353 |
| Tetrachlorodibenzo-p-Dixoins | 34675 |
| Tetrachloroethylene | 34475 |
| Tetrahydrofuran | 81607 |
| Thallium | 01059 |
| Tin | 01102 |
| Toluene | 34010 |
| Total Organic Carbon (TOC) (mg/L) | 00680 |
| Total Dissolved Solids (TDS) (mg/L) | 70300 |
| Total Suspended Solids (TSS) (mg/L) | 00530 |
| Toxaphene | 39400 |
| Trans-1,2-Dichloroethylene | 34546 |

## LIST LI

| Leachate Monitoring Parameters | STORET |
|---|---|
| Trans-1,3-Dichlorpropene | 34699 |
| Trichloroethylene | 39180 |
| Trichlorofluoromethane | 34488 |
| Vinyl Acetate | 77057 |
| Vinyl Chloride | 39175 |
| Xylene | 81551 |
| Zinc (total) | 01092 |
| m-Dichlorobenzene | 34566 |
| m+p-Xylene | 61283 |
| n-Butylbenzene | 77342 |
| n-Nitrosodimethylamine | 34438 |
| n-Nitrosodiphenylamine | 34433 |
| n-Nitrosodipropylamine | 34428 |
| n-Propylbenzene | 77224 |
| o-Chlorotoluene | 77275 |
| o-Dichlorobenzene | 34536 |
| o-Nitrophenol | 34591 |
| o-Xylene | 77135 |
| p-Chlorotoluene | 77277 |
| p-Cresol | 77146 |
| p-Dichlorobenzene | 34571 |
| p-Isopropyltoluene | 77356 |
| sec-Butylbenzene | 77350 |

## LIST L2

### RCRA Parameters for Leachate and Condensate

| RCRA PARAMETERS | STORETS |
|---|---|
| Ignitability | |
| Flashpoint, Pensky-Martens Closed Cup (°F) | 00497 |

## LIST L2

### RCRA Parameters for Leachate and Condensate

| RCRA PARAMETERS | STORETS | |
|---|---|---|
| | | |
| **Corrosivity** | | |
| pH (S.U.) | 00400 | |
| | | |
| **Reactivity** | | |
| Reactive Cyanide | 99040 | |
| Reactive Sulfide | 99042 | |
| | | |
| **Toxicity** | | |
| | Total conc. (ug/l) | TCLP conc. (mg/L) |
| Arsenic | 01002 | 99012 |
| Barium | 01007 | 99014 |
| Cadmium | 01027 | 99016 |
| Chromium | 01034 | 99018 |
| Lead | 01051 | 99020 |
| Mercury | 71900 | 99022 |
| Selenium | 01147 | 99024 |
| Silver | 01077 | 99026 |
| Endrin | 39390 | 99028 |
| Lindane | 39782 | 99030 |
| Methoxychlor | 39480 | 99032 |
| Toxaphene | 39400 | 99034 |
| 2,4-D | 39730 | 99036 |
| 2,4,5-TP Silvex | 39760 | 99038 |
| Benzene | 34030 | 99128 |
| Carbon tetrachloride | 32102 | 99050 |
| Chlordane | 39350 | 99148 |
| Chlorobenzene | 34301 | 99096 |
| Chloroform | 32106 | 99149 |
| o-Cresol | 77152 | 99150 |
| m-Cresol | 77151 | 99151 |

LIST L2

RCRA Parameters for Leachate and Condensate

| RCRA PARAMETERS | STORETS | |
|---|---|---|
| p-Cresol | 77146 | 99152 |
| Cresol | 79778 | 99153 |
| 1,4-Dichlorobenzene | 34571 | 99154 |
| 1,2-Dichloroethane | 34531 | 99155 |
| 1,1-Dichloroethylene | 34501 | 99156 |
| 2,4-Dinitrotoluene | 34611 | 99157 |
| Heptachlor (and its epoxide) | 39410 and 39420 | 99158 |
| Hexachlorobenzene | 39700 | 99159 |
| Hexachloro-1,3-Butadiene | 39702 | 99160 |
| Hexachloroethane | 34396 | 99161 |
| Methyl Ethyl Ketone | 81595 | 99060 |
| Nitrobenzene | 34447 | 99062 |
| Pentachlorophenol | 39032 | 99064 |
| Pyridine | 77045 | 99066 |
| Tetrachloroethylene | 34475 | 99068 |
| Trichloroethylene | 39180 | 99076 |
| 2,4,5-Trichlorophenol | 77687 | 99078 |
| 2,4,6-Trichlorophenol | 34621 | 99080 |
| Vinyl Chloride | 39175 | 99162 |

Notes for all leachate monitoring parameters:

a. Flashpoint shall be reported in degrees Fahrenheit. The parameters for reactivity and toxicity shall be reported in parts per million.

b. The permittee shall obtain metals and organics analysis. Either procedure may be utilized (i.e., total or TCLP), but any constituent whose total concentration exceeds the TCLP limit specified in 35 Ill. Adm. Code, Section 721.124 must be analyzed using the TCLP test and the results reported, unless an alternative test has been approved by the Illinois EPA. TCLP test methods must be in accordance with SW 846-1311.

c. The test methods for leachate monitoring shall be those approved in the USEPA's Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846), Third Edition or the equivalent thereof.

d. All parameters shall be determined from unfiltered samples.

e. The monitoring results should be reported in ug/l units unless otherwise indicated.

5. The schedule for leachate sample collection and submission of monitoring data is illustrated below:

| Sampling Period | Sampling Points | Lists | Report Due Date |
|---|---|---|---|
| April-May 2008 | L301 | L1 | July 15, 2008 |
| April-May 2008 | LREP | L2 | July 15, 2008 |
| Oct-Nov 2008 | L301 | L1 | January 15, 2009 |
| April-May 2009 | L301 | L1 | July 15, 2009 |
| April-May 2009 | LREP | L2 | July 15, 2009 |
| Oct-Nov 2009 | L301 | L1 | January 15, 2010 |
| April-May 2010 | L301 | L1 | July 15, 2010 |
| April-May 2010 | LREP | L2 | July 15, 2010 |
| Oct-Nov 2010 | L301 | L1 | January 15, 2011 |
| April-May 2011 | L301 | L1 | July 15, 2011 |
| April-May 2011 | LREP | L2 | July 15, 2011 |
| Oct-Nov 2011 | L301 | L1 | January 15, 2012 |
| April-May 2012 | L301 | L1 | July 15, 2012 |
| April-May 2012 | LREP | L2 | July 15, 2012 |
| Oct-Nov 2012 | L301 | L1 | January 15, 2013 |

L1 – Leachate Monitoring Parameters
L2 – Annual RCRA Leachate Parameters
LREP –Representative Leachate Sample

6. The leachate monitoring data must be submitted in an electronic format. The information is to be submitted as fixed-width text files formatted as found at www.epa.state.il.us/land/waste-mgmt/groundwater-monitoring.html

7. The development of the leachate re-circulation as proposed in application Log No. 2005-070 is hereby approved. Operation of the leachate re-circulation shall not be initiated until an acceptance report has been submitted to and approved by the Illinois EPA as a significant modification pursuant to 35 Ill. Adm. Code, Sections 811.505(d) and 813.203.

## VIII. GROUNDWATER MONITORING

1. The groundwater monitoring program must be capable of determining background groundwater quality hydraulically upgradient of and unaffected by the units and to detect, from all potential sources of discharge, any releases to groundwater within the facility. The Illinois EPA reserves the right to require installation of additional monitoring wells as may be necessary to satisfy the requirements of this permit.

2. The groundwater monitoring wells shall be constructed and maintained in accordance with the requirements of 35 Ill. Adm. Code, 811.318(d) and designs approved by the Illinois EPA.

3. Groundwater monitoring wells shall be installed in the locations shown in Drawing P-GWMP, of the January 11, 2007 addendum of the permit application, Log No. 2005-070 and screened in the hydrogeologic unit(s) identified as potential contaminant pathway(s) within the zone of attenuation. All wells as listed in Condition VIII.9 must be installed so that samples may be taken during the months of July – August, 2007 and the results submitted to the Illinois EPA by October 15, 2007.

4. Within 60 days of installation of any groundwater monitoring well, boring logs compiled by a qualified geologist, well development data and as-built diagrams shall be submitted to the Illinois EPA utilizing the enclosed "Well Completion Report" form. For each well installed pursuant to this permit, one form must be completed.

5. Groundwater monitoring wells shall be easily visible, labeled with the Illinois EPA monitoring point designations and fitted with padlocked protective covers.

6. In the event that any well becomes consistently dry or unserviceable and therefore requires replacement, a replacement well shall be installed within ten (10) feet of the existing well. The Illinois EPA shall be notified in writing at least 15 days prior to the installation of all replacement wells. A replacement well that is more than ten feet from the existing well or which does not monitor the same geologic zone is considered to be a new well and must be approved via a significant modification permit.

7. All borings, wells and piezometers not used as monitoring points shall be abandoned in accordance with the standards in 35 Ill. Adm. Code 811.316, and the decommissioning and reporting procedures contained in the Illinois Department of Public Health's (IDPH) Water Well Construction Code, 77 Ill. Adm. Code, Part 920 (effective 1/1/92). In the event specific guidance is not provided by IDPH procedures, the enclosed Illinois EPA monitoring well plugging procedures shall be followed.

8. Groundwater sampling and analysis shall be performed in accordance with the requirements of 35 Ill. Adm. Code 811.318(e) and the specific procedures and methods approved by the Illinois EPA.

9. The following monitoring points are to be used in the groundwater detection monitoring program for this facility:

Lower Radnor Till Sand Wells

Upgradient Wells

| Applicant Designation | Illinois EPA Designation |
|---|---|
| G01M | G01M |

Wells Within Zone of Attenuation

| Applicant Designation | Illinois EPA Designation |
|---|---|
| G08M | G08M |
| G09M | G09M |
| G10M | G10M |
| G11M | G11M |
| G12M | G12M |

Organic Soil Wells

Upgradient Wells

| Applicant Designation | Illinois EPA Designation |
|---|---|
| G02D | G02D |

Wells Within Zone of Attenuation

| Applicant Designation | Illinois EPA Designation |
|---|---|
| G01D | G01D |
| G08D | G08D |
| G09D | G09D |
| G10D | G10D |
| G11D | G11D |
| G12D | G12D |

Roxana Silt-Robein Member Wells

Wells Within Zone of Attenuation

| Applicant Designation | Illinois EPA Designation |
|---|---|
| G08R | G08R |
| G09R | G09R |
| G10R | G10R |
| G11R | G11R |
| G12R | G12R |

NOTES:

a. Upgradient wells screened in the Roxana Silt-Robein Member shall be installed if a downgradient well screened in that zone contains sufficient water and is able to be monitored.

b. Wells are to be phased in according to the schedule provided in Table 812.317-1 of January 11, 2007 addendum to Application Log No. 2005-070. The following table shows this schedule:

| Operating Phase | Monitoring Wells to be Installed |
|---|---|
| 1 | G01M[1], G01D, G02D[1], G08M, G08D, G08R, G09M, G09D, G09R, G10M, G10D, G10R, G11M, G11D, G11R, G12M, G12D, G12R |
| 2 | G03D[1], G04M[1], G05M[1], G13M, G13D, G13R, G14M, G14D, G14R, G15M, G15D, G15R |
| 3 | G16M, G16D, G16R, G17M, G17D, G17R, G18M, G18D, G18R, G19M, G19D, G19R, G20M, G20D, G20R |
| 4 | G06D[1], G21M, G21D, G21R, G22M, G22D, G22R, G23M, G23D, G23R |
| 5 | G24M, G24R, G24D, G25M, G25D, G25R, G26M, G26D, G26R, G27M, G27D, G27R |
| 6 | G28M, G28D, G28R, G29M, G29D, G29R, G30S, G30M, G30D, G30R |
| 7 | G31M, G31D, G31R, G32M, G32D, G32R, G33M, G33D, G33R, G34M, G34D, G34R, G35M, G35D, G35R |
| 8 | G07S[1], G07D[1], G07R, G36S, G36M, G36D, G36R, G37S, G37M, G37D, G37R, G38S, G38M, G38D, G38R |
| 9 | G39M[2], G39D[2], G39R[2], G40M, G40D, G40R, G41M, G41D, G41R, G42M, G42D, G42R, G43S, G43M, G43D, G43R |

| | |
|---|---|
| 10 | G44S, G44M, G44D, G44R, G45S, G45M, G45D, G45R, G46S, G46M, G46D, G46R |
| 11 | G47M, G47D, G47R, G48M, G48D, G48R, G49M, G49D, G49R, G50D, G50R, G51M, G51D, G51R |
| 12 | G52S, G52M, G52D, G52R, G53S, G53D, G53R, G54S[2], G54M[2], G54D[2], G54R[2], G55S, G55M, G55D, G55R, G56S, G56M, G56D, G56R, G57S, G57D, G57R |

Wells noted with a ([1]) are upgradient wells. Wells noted with a ([2]) are compliance boundary wells.

10. The monitoring program, approved by Permit No. 2005-070, shall continue for a minimum period of 30 years after closure and shall not cease until the conditions described in 35 Ill. Adm. Code, 811.319(a)(1)(C) have been achieved. The operator shall collect samples from all of the monitoring points listed in Condition VIII.9, test the samples for the parameters listed in Condition VIII.12 (Lists G1 and G2), and report the results to the Illinois EPA, all in accordance with the schedule in Condition VIII.18.

11. The applicable groundwater quality standards (AGQS) and the maximum allowable predicted concentrations (MAPC), as listed in Attachment 1, are subject to the following conditions:

    a. Temperature and the field parameters involving depth or elevation are not considered groundwater constituents and do not need AGQS.

    b. For constituents which have not been detected in the groundwater, either the practical quantitation limit (PQL) or the method detection limit (MDL) shall be used as the AGQS.

    c. MAPCs are only applicable to those wells within the zone of attenuation.

    d. AGQS are only applicable to upgradient/background and compliance boundary wells.

12. AGQS and MAPC values must be determined for all of the parameters which appear in either Lists G1 or G2 (not including groundwater depth or elevations). The AGQS values shall be calculated using a minimum of four (4) consecutive quarters of groundwater monitoring data and employing the statistical method described in the January 11, 2007 addendum to the application, Log No. 2005-070.

LIST G (Groundwater - Variable)

| GROUNDWATER MONITORING PARAMETER | STORETS |
|---|---|
| Elevation of Bottom of Well (ft. MSL) (Annually without dedicated pumps; every 5 years with dedicated pumps or whenever the pump is pulled) | 72020 |

LIST G1 (Groundwater - Quarterly)

| FIELD PARAMETERS | STORETS |
|---|---|
| pH | 00400 |
| Specific Conductance | 00094 |
| Temperature of Water Sample (°F) | 00011 |
| Depth to Water (ft. below land surface) | 72019 |
| Depth to Water (ft. below measuring point) | 72109 |
| Elevation of Measuring Point (Top of casing ft. MSL) | 72110 |
| Elevation of Groundwater Surface (ft. MSL) | 71993 |

| INDICATOR PARAMETERS | STORETS |
|---|---|
| Ammonia (as Nitrogen; Dissolved) mg/L | 00608 |
| Arsenic (Dissolved) ug/L | 01000 |
| Boron (Dissolved) ug/L | 01020 |
| Cadmium (Dissolved) ug/L | 01025 |
| Chloride (Dissolved) mg/L | 00941 |
| Chromium (Dissolved) ug/L | 01030 |
| Cyanide (Total) mg/L | 00720 |
| Lead (Dissolved) ug/L | 01049 |
| Magnesium (Dissolved) mg/L | 00925 |
| Mercury (Dissolved) ug/L | 71890 |
| Nitrate (as Nitrogen, Dissolved) mg/L | 00618 |
| Sulfate (Dissolved) mg/L | 00946 |
| Total Dissolved Solids (TDS, 180°C; Dissolved) mg/L | 70300 |
| Zinc (Dissolved) ug/L | 01090 |

NOTE:

i. All parameters with the "(Dissolved)" label to the right shall be determined using groundwater samples which have been filtered through a 0.45 micron filter. All other parameters shall be determined from unfiltered samples.

ii. Maximum allowable predicted concentrations (MAPCs) and applicable groundwater quality standards (AGQS) are given in ug/L except as otherwise noted. Also, the monitoring results should be reported in ug/L units unless otherwise indicated.

iii. List G1 and List G2 AGQS/MAPC values are included in Attachment 1.

LIST G2 (Groundwater - Semiannual)

| PARAMETERS (ug/L) | STORETS |
|---|---|
| Acetone | 81552 |
| Acrylonitrile | 34215 |
| Benzene | 34030 |
| Bromobenzene | 81555 |
| Bromochloromethane (chlorobromomethane) | 77297 |
| Bromodichloromethane | 32101 |
| Bromoform (Tribromomethane) | 32104 |
| n-Butylbenzene | 77342 |
| sec-Butylbenzene | 77350 |
| tert-Butylbenzene | 77353 |
| Carbon Disulfide | 77041 |
| Carbon Tetrachloride | 32102 |
| Chlorobenzene | 34301 |
| Chloroethane (Ethyl Chloride) | 34311 |
| Chloroform (Trichloromethane) | 32106 |
| o-Chlorotoluene | 77275 |
| p-Chlorotoluene | 77277 |
| Dibromochloromethane | 32105 |
| 1,2-Dibromo-3-Chloropropane | 38760 |
| 1,2-Dibromoethane | 77651 |
| 1,2-Dichlorobenzene | 34536 |
| 1,3-Dichlorobenzene | 34566 |
| 1,4-Dichlorobenzene | 34571 |
| trans-1,4-Dichloro-2-Butene | 49263 |
| Dichlorodifluoromethane | 34668 |
| 1,1-Dichloroethane | 34496 |
| 1,2-Dichloroethane | 34531 |
| 1,1-Dichloroethylene | 34501 |

LIST G2 (Groundwater - Semiannual) (cont.)

| PARAMETERS (ug/L) | STORETS |
|---|---|
| cis-1,2-Dichloroethylene | 77093 |
| trans-1,2-Dichlorocthylene | 34546 |
| 1,2-Dichloropropane | 34541 |
| 1,3-Dichloropropane | 77173 |
| 2,2-Dichloropropane | 77170 |
| 1,1-Dichloropropene | 77168 |
| 1,3-Dichloropropene | 34561 |
| cis-1,3-Dichloropropene | 34704 |
| trans-1,3-Dichloropropene | 34699 |
| Ethylbenzene | 78113 |
| Hexachlorobutadiene | 39702 |
| 2-Hexanone (Methyl Butyl Ketone) | 77103 |
| Isopropylbenzene | 77223 |
| p-Isopropyltoluene | 77356 |
| Methyl Bromide (Bromomethane) | 34413 |
| Methyl Chloride (Chloromethane) | 34418 |
| Methylene Bromidc (Dibromomethane) | 77596 |
| Dichloromethane | 34423 |
| Methyl Ethyl Ketone | 81595 |
| Methyl Iodide (Iodomethane) | 77424 |
| 4-Methyl-2-Pentanone | 78133 |
| Naphthalene | 34696 |
| Oil (Hexane-Soluble) (mg/L) | 00550 |
| n-Propylbenzene | 77224 |
| Styrene | 77128 |
| 1,1,1,2-Tetrachloroethane | 77562 |
| 1,1,2,2-Tetrachloroethane | 34516 |
| Tetrachloroethylene | 34475 |
| Tetrahydrofuran | 81607 |
| Toluene | 34010 |
| Total Phenolics | 32730 |
| 1,2,3-Trichlorobenzene | 77613 |
| 1,2,4-Trichlorobenzene | 34551 |
| 1,1,1-Trichloroethanc | 34506 |
| 1,1,2-Trichloroethane | 34511 |
| Trichloroethylene | 39180 |
| Trichlorofluoromethane | 34488 |
| 1,2,3-Trichloropropane | 77443 |

LIST G2 (Groundwater - Semiannual) (cont.)

| PARAMETERS (ug/L) | STORETS |
|---|---|
| 1,2,4-Trimethylbenzene | 77222 |
| 1,3,5-Trimethylbenzene | 77226 |
| Vinyl Acetate | 77057 |
| Vinyl Chloride | 39175 |
| Xylenes | 81551 |

NOTE:

i. All parameters with the "(Dissolved)" label to the right shall be determined using groundwater samples which have been filtered through a 0.45 micron filter. All other parameters shall be determined from unfiltered samples.

ii. Maximum allowable predicted concentrations (MAPCs) and applicable groundwater quality standards (AGQS) are given in ug/L except as otherwise noted. Also, the monitoring results should be reported in ug/L units unless otherwise indicated.

iii. List G1 and List G2 AGQS/MAPC values are included in Attachment 1.

13. Pursuant to 35 Ill. Adm. Code, 811.319(a)(4)(A), any of the following events shall constitute an observed increase only if the concentrations of the constituents monitored can be measured at or above the practical quantitation limit (PQL):

    a. The concentration of any constituent in List G1 of Condition VIII.12 shows a progressive increase over eight (8) consecutive quarters.

    b. The concentration of any constituent monitored in accordance with List G1 or List G2 of Condition VIII.12 exceeds the MAPC at an established monitoring point within the zone of attenuation.

    c. The concentration of any organic constituent in List G2, monitored in accordance with Condition VIII.12 exceeds the preceding measured concentration at any established point.

    d. The concentration of any constituent monitored at or beyond the edge of the zone of attenuation (compliance boundary) exceeds its AGQS, or pursuant to 811.320(d) any constituent monitored at an upgradient well, exceeds its AGQS.

14. For each round of sampling described in Condition 10 of this Section, the operator must determine if an observed increase has occurred within 90 days of the date initial sampling. If an observed increase is identified, the operator must also notify the Illinois EPA in writing and follow the confirmation procedures of 35 Ill. Adm. Code, 811.319(a)(4)(B). Furthermore, the operator must complete the confirmation procedures within 180 days of the initial sampling event.

15. Upon confirmation of a monitored increase and within 180 days of the initial sampling date, the operator shall submit a permit application for a significant modification to demonstrate an alternate source per 35 Ill. Adm. Code 811.319(a)(4)(b)(iii) or begin an assessment monitoring program in order to determine whether the solid waste disposal facility is the source of the contamination and to provide information needed to carry out a groundwater impact assessment in accordance with 35 Ill. Adm. Code 811.319(b).

16. In the event that an alternative source demonstration is denied, pursuant to 35 Ill. Adm. Code 813.105, the operator must commence sampling for the constituents listed in 35 Ill. Adm. Code 811.319(b)(5), and submit an assessment monitoring plan as a significant permit modification, both within 30 days after the dated notification of Agency denial. The operator must sample the well or wells that exhibited the confirmed increase.

17. The first quarterly statistical evaluations shall be performed on groundwater samples taken during the months of July – August, 2007 and the results submitted to the Illinois EPA by October 15, 2007.

18. The schedule for sample collection and submission of quarterly monitoring results is as follows:

| Sampling Quarter | Sampling Due | Report Due Date |
|---|---|---|
| Jan-Feb (1st) | List G1 | April 15 |
| April-May (2nd) | List G, G1 and G2 | July 15 |
| July-Aug (3rd) | List G1 | October 15 |
| Oct-Nov (4th) | List G1 and G2 | January 15 |

G – Well Depth
G1 - Routine Groundwater Parameters
G2 - Semiannual Groundwater Paramcters

19. Elevation of stick-up is to be surveyed and reported to the Illinois EPA:

    a. When the well is installed (with the as-built diagrams),

b. Every two years thereafter, or

c. Whenever there is reason to believe that the elevation has changed.

20. Annually, the operator shall prepare an evaluation of the groundwater flow direction and the hydraulic gradients at the facility using the groundwater surface elevations (Storet #71993) determined for each monitoring event. This assessment shall be submitted with the monitoring results due on July 15.

21. All monitoring points shall be maintained in accordance with the approved permit application such that the required samples and measurements may be obtained.

22. Background concentrations which exhibit a statistically significant change shall be adjusted and updated in accordance with 35 Ill. Adm. Code 811.320(d)(2) and submitted to the Illinois EPA as a permit modification.

23. Information required by Conditions VIII.10 and VIII.18 must be submitted in an electronic format. The information is to be submitted, as fixed-width text files formatted as found at www.epa.state.il.us/land/waste-mgmt/groundwater-monitoring.html.

24. As proposed in Application Log No. 2005-070, wells screened within the Roxana Silt-Robein Member shall be installed at all proposed nested well locations. If any of the downgradient wells are able to be monitored, then upgradient wells shall be installed to monitor the Roxana Silt-Robein Member, and the operator shall submit an application for significant permit modification that contains contaminant transport modeling for this zone. If the Roxana Silt-Robein Member wells listed in Condition VIII.9 cannot be monitored, then the operator shall notify the Illinois EPA by submitting an application for significant permit modification.

25. The operator shall establish interwell values for magnesium(d), chromium(d), and any new organic parameters in the List G2 that do not already have an established PQL or MDL. Interwell values shall be established using (4) consecutive quarters of background data from 4th Quarter 2008 through 3rd Quarter 2009 employing the statistical methods found in Condition VIII.12 of this permit. The application shall include the historical groundwater data (laboratory data sheets) and the statistical calculations used to derive the new background values. The background values shall be submitted to the Illinois EPA in the form of a significant modification permit application no later than October 31, 2009.

## IX. LANDFILL GAS MANAGEMENT/MONITORING

1. The landfill gas monitoring plan described in Application Log No. 2005-070 is approved. Monitoring devices shall be put into service in accordance with the following schedule:

   a. The gas monitoring probes within the waste boundary shall be installed and put into service within ninety days after final cover has been applied to the various areas where they are located.

   b. Monitoring devices outside the waste boundary shall be put into service when waste has been disposed in the landfill near that monitoring location.

   c. Monitoring devices within buildings shall be put into service when waste disposal begins and the building has been constructed.

   d. Ambient air monitoring devices shall be put into service downwind of the disposal unit after initial receipt of waste.

   e. Documentation that all the gas monitoring probes outside the waste boundary and the methane monitoring devices within the on-site buildings and ambient air monitoring devices have been installed shall be included with the application for a significant modification requesting authorization to place waste upon new liner.

2. The gas monitoring probes both inside and outside the waste boundary shall be monitored for the following parameters:

   a. Methane;
   b. Pressure;
   c. Nitrogen*;
   d. Oxygen; and
   e. Carbon Dioxide

   *NOTE: For routine monitoring, Nitrogen may be reported as the net remaining volume fraction after the other measured constituents have been accounted for.

3. The ambient air monitoring devices described in the Application Log No. 2005-070 shall be used to test the air downwind of the landfill for methane.

4. All buildings within the facility boundaries shall be monitored continuously for methane.

5. Gas monitoring shall continue for at least 30 years after closure and may be discontinued only after the conditions described in 35 Ill. Adm. Code, Section 811.310(c)(4) have been achieved.

6. Sampling and testing of the gas monitoring probes and ambient air monitoring shall be performed at least monthly throughout the remaining operating life and during the first five years after closure of the waste disposal unit. During the remainder of the post-closure care period, monitoring may be reduced to quarterly.

7. In the event of any of the occurrences listed below, the operator shall: within two business days; notify the Illinois EPA in writing of an observed exceedance; implement the requirements of 35 Ill. Adm. Code 811.311 to ensure the protection of human health; and within 180 days of the occurrence, submit to the Illinois EPA an application for a significant modification either proposing a gas collection/management system or demonstrating that the facility is not the cause of the occurrence.

   a. A methane concentration greater than 50 percent of the lower explosive limit in air is detected in any of the below ground monitoring devices outside the waste boundary;

   b. A methane concentration greater than 50 percent of the lower explosive limit in air is detected during ambient air monitoring;

   c. A methane concentration greater than 25 percent of the lower explosive limit in air is detected in any building on or near the facility; or

   d. Malodors attributed to the unit are detected beyond the property boundary.

8. The gas probes shall be inspected at least monthly for structural integrity and proper operation.

9. The results from gas monitoring for each calendar year shall be submitted to the Illinois EPA in the annual report required by 35 Ill. Adm. Code, Section 813.504.

10. At the end of the post-closure care period, the gas monitoring probes shall be decommissioned. The probes outside the waste boundary shall be decommissioned using the method described in the enclosed Illinois EPA monitoring well plugging procedure guidance. In decommissioning the probes within the waste disposal unit, the pipes shall be cut off at least two (2) feet below the low permeability layer and plugged. Then the low permeability layer, the protective layer and the vegetation shall be restored in the excavated areas.

11. The development of the landfill gas collection and disposal system as proposed in application Log No. 2005-070 is hereby approved. Upon completion of each phase of the landfill gas collection and disposal system the operator:

    a. May temporarily operate the subject phase of the landfill gas collection and disposal system for a period not exceeding 180-days as a part of a "shakedown period". The temporary operation shall not be in violation of Condition No. V.2 of this permit and/or any condition included in the permit issued by the Illinois EPA's Bureau of Air; and

    b. Shall submit an acceptance report to the Illinois EPA pursuant to the requirements of 35 Ill. Adm. Code, Sections 811.505(d) and 813.203. The acceptance report shall be submitted in the form of a permit application for significant modification and shall demonstrate that the construction of the subject phase of the landfill gas collection and disposal system has been completed in accordance with the approved designs. The permit application shall be submitted within 45-days of the commencement of the temporary operation referenced in item (a) above.

X. CLOSURE/POST CLOSURE CARE AND FINANCIAL ASSURANCE

1. The facility shall be closed in accordance with the closure plan in Application Log No. 2005-070. The closure plan includes a plan for temporary suspension of waste acceptance. Upon completion of closure activities, the operator shall notify the Illinois EPA that the site has been closed in accordance with the approved closure plan utilizing the Illinois EPA's "Affidavit for Certification of Closure of Solid Waste Landfills permitted under 35 Ill. Adm. Code Parts 813 and 814".

2. Inspections of the closed landfill shall be conducted in accordance with the approved post-closure care plan in Application Log No. 2005-070. Records of field investigations, inspections, sampling and corrective action taken are to be maintained at the site and made available to Illinois EPA personnel. During the post-closure care period, these records are to be maintained at the office of the site operator.

3. If necessary, the soil over the entire planting area shall be amended with lime, fertilizer and/or organic matter. On side slopes, mulch or some other form of stabilizing material is to be provided to hold seed in place and conserve moisture.

4. The minimum post-closure care period for this municipal solid waste landfill (MSWLF) is thirty years. When the post-closure care period has been completed, the operator shall notify the Illinois EPA utilizing the Illinois EPA's LPC-PA1 application form, entitled "General Application for Permit".

5. The owner or operator shall provide financial assurance for closure and post-closure care pursuant to 35 Ill. Adm. Code, Section 811.700(b). Financial assurance shall be required only for those areas for which authorization to operate has been obtained or is being requested.

6. The total cost estimate for closure and post-closure care approved by Modification No. 7 is $1,776,674.00. The total cost estimate includes $630,794.00 for premature closure and $1,145,880.00 for post-closure care. Cost estimates approved in this permit account for closure and post-closure care of Phase 1A covering an area of approximately 6.65 acres.

7. The owner or operator shall increase the total amount of financial assurance so as to equal the current cost estimate within 90 days of an increase in the current cost estimate in accordance with 35 Ill. Adm. Code, Section 811.701(b).

8. The owner or operator shall adjust the cost estimates for closure, post-closure, and corrective action for inflation on an annual basis during the following time periods:

   a. The active life of the unit for the closure cost;

   b The active life and post-closure care period for the post-closure cost; and

   c. Until any corrective action program is completed in accordance with 35 Ill. Adm. Code Section 811.326, for the cost of corrective action.

   Each year, no later than June 1 of that year, the owner or operator shall submit a revised cost estimate in the form of a permit application for significant modification. This application shall provide an update to the cost estimate or a certification that there are no changes to the current cost estimates.

XI. RAIL OFF-LOADING FACILITY

1. The Rail Off-Loading Facility shall be constructed, operated and maintained in accordance with the designs, plans and specifications provided in application Log No. 2007-459 and approved in Modification No. 2.

2. The Rail Off-Loading Facility shall be located within the Clinton Landfill 3 facility boundaries as shown on Drawing P-ROF1 submitted in the original application Log No. 2007-459 and approved in Modification No. 2.

3. The Rail Off-Loading Facility consists of a Gondola Car Off-Loading Area and an Intermodal Container Off-Loading Area.

4. The Gondola Car Off-Loading Area includes an overhead structure under which gondola cars will be off-loaded and an elevated platform to support equipment that will transfer wastes from the gondola cars to dump trucks. Litter screening as shown on Drawings P-ROF4 and P-ROF5, provided in application Log No. 2007-459, addendum dated February 11, 2008, shall be installed around the Gondola Car Off-Loading Area.

5. Gondola cars shall be off-loaded only within the Gondola Car Off-Loading Area.

6. The Gondola Car Off-Loading Area and the area around it shall be cleared of litter daily. The operator shall make an effort to prevent litter from leaving the gondola car off-loading building.

7. No more than four (4) gondola cars shall remain inside the Gondola Car Off-Loading Area at the end of each working day. Gondola cars that contain waste at the end of each working day shall be securely covered to control potential odors. Wastes shall be removed from each gondola car no later than the business day following receipt. If required odor control measures described in the Operating Plan received in the February 11, 2008 addendum to application Log No. 2007-459 shall be implemented.

8. A stable working surface shall be provided for the waste off-loading equipment as well as for the trucks used to transfer waste from the Rail Off-Loading Facility to the active face. The surficial gravel within the Gondola Car Off-Loading Area shall be inspected at least once every week. If required, the surficial gravel shall be removed and replaced with clean gravel to prevent tracking of residues out of the Gondola Car Off-Loading Area.

9. Intermodal containers shall be removed from railcars and transported to the landfill active face. Intermodal containers that cannot be emptied by the end of the operating day shall remain sealed and stored at the Intermodal Container Off-Loading Area or near the active face of Clinton Landfill 3 within the permitted waste boundary until the next working day. No more than eight (8) intermodal containers shall be stored overnight.

10. All wastes received at the Rail Off-Loading Facility (except for un-authorized wastes mentioned in Condition No. XI.11) shall be disposed at Clinton Landfill 3.

11. All unauthorized waste received at the Rail Off-Loading Facility shall be managed in accordance with Condition No. II.10 of this permit.

12. Upon completion of construction of the Rail Off-Loading Facility, the operator shall:

    a. Provide an acceptance report pursuant to 35 Ill. Adm. Code 811.505(d) on its construction to the Illinois EPA's Champaign Regional Office. Upon receipt of notification, the inspector shall be allowed fifteen working days to examine the

construction. The Illinois EPA is not obligated to approve the construction or certification. The operator may start receiving waste at the Rail Off-Loading Facility if, having complied with the conditions of this section, the designs submitted in application Log No. 2007-459 and Condition No. II.1 of this permit, the operator is not informed of a problem by the Illinois EPA or its agents; and

b. At the same time Illinois EPA's Champaign Regional Office is given notification that the construction of the Rail Off-Loading Facility has been completed, the Permit Section shall be provided with the information required in acceptance report pursuant to 35 Ill. Adm. Code 811.505(d) on its construction.

13. The Rail Off-Loading Facility shall be closed prior to, or concurrently with Clinton Landfill 3 final closure.

14. The Rail Off-Loading Facility shall be closed in accordance with the closure plan provided in application Log No. 2007-459. A certification report documenting closure of the Rail Off-Loading Facility shall be submitted to the Illinois EPA in the form of an application for Significant Modification within 90-days of completion of closure.

15. Wastes shall be received at the Rail Off-Loading Facility only during the landfill operating hours specified in Condition No. II.11 of this permit.

16. Transportation of waste from the Rail Off-Loading Facility to the Clinton Landfill 3 active face shall occur on roads that are within the Clinton Landfill 3 facility boundaries.

17. Except as provided in Condition Nos. XI. 7 and XI. 9, no waste shall remain at the Rail Off-Loading Facility when the said facility is not operating.

18. All the relevant conditions of Section II of this permit, including but not limited to control of dust, litter, odor and vectors shall be complied with during the operation of the Rail Off-Loading Facility.

## XII. MANAGEMENT OF EXCESSIVELY DUSTY WASTES

1. The conditions of this section apply to the management of excessively dusty wastes within a purpose built structure referred to as Waste Processing Facility.

2. The Waste Processing Facility shall be constructed, operated and maintained in accordance with the design, plans and specifications provided in application Log No. 2007-509 and approved in Modification No. 3.

3. The Waste Processing Facility shall be located within the waste boundaries of Clinton Landfill 3 and shall be used to process excessively dusty wastes prior disposal in Clinton Landfill 3.

4. The Waste Processing Facility shall be of stressed membrane, metal frame construction as described in application Log No. 2007-509. The liner and leachate collection system in the Waste Processing Cell within the Waste Processing Facility shall consist of the following:

   - 3-foot thick compacted clay liner with permeability no greater than $1 \times 10^{-7}$ cm/sec;
   - 60-mil textured HDPE liner;
   - 1-foot thick sand drainage layer with a permeability no less than $3 \times 10^{-2}$ cm/sec;
   - 8 ounce per square yard non-woven geotextile; and
   - 6-inch thick random fill

5. The operator shall make an effort to prevent litter from leaving the Waste Processing Cell. The Waste Processing Facility and area around it shall be cleaned of litter every day.

6. A stable working surface shall be provided for trucks and mechanical mixing equipment accessing the Waste Processing Facility. The surficial aggregate within the Waste Processing Facility shall be inspected at least once every week. If required, the surficial aggregate shall be replaced with clean aggregate to prevent tracking of residues to areas outside of the Waste Processing Facility.

7. Except as allowed in Condition No. XII.8, only clean water shall be used to moisture condition the excessively dusty waste. This process shall be carried out in the Waste Processing Cell within the Waste Processing Facility using mechanical equipment to blend wastes and water together.

8. All liquids draining from the conditioning of dusty wastes shall be collected in the Liquid Collection Sump and managed as leachate. These liquids may be re-used to moisture condition subsequent batches of dusty wastes.

9. All wastes received at the Waste Processing Facility (except for unauthorized wastes mentioned in Condition No. XII.10) shall be disposed at Clinton Landfill 3.

10. All unauthorized wastes received at the Waste Processing Facility shall be managed in accordance with Condition No. II.10 of this permit.

11. Upon completion of construction of the Waste Processing Facility, the operator shall submit an acceptance report, pursuant to 35 Ill. Adm. Code 811.505(d), to the Illinois EPA. The acceptance report shall be submitted in the form an application for significant modification and shall demonstrate that the construction has been completed in accordance with the approved designs. The Waste Processing Facility shall be placed in service only after approval has been obtained from the Illinois EPA.

12. As noted in application Log No. 2007-509, the Waste Processing Facility is intended to be portable in that it can be located anywhere within the permitted Clinton Landfill 3 waste boundary. The operator shall comply with the requirements of Condition No. XII.11 of this permit every time the Waste Processing Facility is relocated. Additionally, information about management of wastes and waste residues at the prior location of the Waste Processing Facility has to be provided as well.

13. The Waste Processing Facility shall be closed prior to or concurrently with the Clinton Landfill 3 final closure.

14. The Waste Processing Facility shall be closed in accordance with the closure plan provided in application Log No. 2007-509. A certification report documenting the closure of the Waste Processing Facility shall be submitted to the Illinois EPA in the form of an application for Significant Modification within 90-days of completion of closure.

15. Wastes shall be received at the Waste Processing Facility only during the landfill operating hours specified in Condition No. II.11 of this permit.

16. No liquid wastes shall be received at the Waste Processing Facility.

17. The construction of the Waste Processing Facility approved in this permit does not relieve the permittee to file reports and/or obtain applicable permit(s) from the Illinois EPA's Bureau of Air. Furthermore, the operation of the Waste Processing Facility shall not violate any conditions included in the permit(s) issued by the Illinois EPA's Bureau of Air.

18. The Waste Processing Facility and surrounding area shall be inspected each day during which wastes are processed or otherwise contained within the building. The integrity of the following features shall be inspected to ensure that they remain functional:

- Waste Processing Cell, including unloading pad and leachate collection system;
- Leachate storage tanks;
- Waste Processing Facility roof and sidewalls; and
- Surface water controls.

19. The operator shall make an effort to process dusty wastes delivered to the Waste Processing Facility prior to the end of the operating day. However, in no case shall the unprocessed waste be stored for more than 72 hours prior to disposal. The maximum volume of waste in storage at any time shall not exceed 120 cubic yards.

20. All relevant conditions of Section II of this permit, including but not limited to control of dust, litter, odor and vectors shall be complied with during the operation of the Waste Processing Facility.

XIII. REPORTING REQUIREMENTS

1. Within ninety (90) days of issuance of this permit, the operator shall submit to the Illinois EPA one map of the facility with a scale no smaller than one (1) inch equals 200 feet. This map shall show:

   a. The facility boundaries;

   b. The permitted waste boundaries of the unit;

   c. All on-site buildings; and

   d. All groundwater, leachate and gas monitoring points for the unit.

   Each monitoring point shall be labeled on the map with its Illinois EPA designation. The designations provided in this permit by the Illinois EPA shall be used for the leachate and groundwater monitoring points. The gas monitoring points shall be labeled using a logical nomenclature developed by the operator or the consultant.

2. The annual certification shall be submitted to the Illinois EPA during operation and for the entire post-closure monitoring period, pursuant to 35 Ill. Adm. Code 813.501. The certification shall be signed by the operator or duly authorized agent, shall be filed each year by May 1 of the following year, and shall state:

   a. All records required to be submitted to the Illinois EPA pursuant to 35 Ill. Adm. Code 858.207 and 858.308 have been timely and accurately submitted; and

   b. All applicable fees required by the Act have been paid in full.

3. The annual report for each calendar year shall be submitted to the Illinois EPA by May 1 of the following year pursuant to 35 Ill. Adm. Code 813.504. The annual report shall include:

a. Information relating to monitoring data from the leachate collection system, groundwater monitoring network, gas monitoring system and any other monitoring data specified in this permit, including:

   i. Summary of monitoring data for the calendar year;

   ii. Dates of submittal of comprehensive monitoring data to the Illinois EPA during the calendar year;

   iii. Statistical summaries and analysis of trends;

   iv. Changes to the monitoring program; and

   v. Discussion of error analysis, detection limits and observed trends.

b. Proposed activities including:

   i. Amount of waste expected in the next year;

   ii. Structures to be built within the next year; and

   iii. New monitoring stations to be installed within the next year.

c. Any modification or significant modification affecting operation of the facility; and

d. The signature of the operator or duly authorized agent as specified in 35 Ill. Adm. Code 815.102.

4. The permittee shall submit a completed "Solid Waste Landfill Groundwater, Leachate, Facility and Gas Reporting Form" (LPC 591) as a cover sheet for any notices or reports required by the facility's permit for identification purposes. One copy of the LPC 591 form must accompany each report; however, except for electronically formatted data, the permittee must submit one (1) original and a minimum of two (2) copies of each report you submit to the Illinois EPA. The form is not to be used for applications for supplemental permit or significant modification.

5. All certifications, logs, reports, plan sheets and groundwater and leachate monitoring data, required to be submitted to the Illinois EPA by the permittee shall be mailed to the following address:

Illinois Environmental Protection Agency
Permit Section
Bureau of Land -- #33
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Except for electronic groundwater and leachate monitoring data, the operator shall provide the Illinois EPA with the original and two (2) copies of all certifications, logs, reports and plan sheets required by this permit.

Within 35 days of the date of mailing of the Illinois EPA's final decision, the applicant may petition for a hearing before the Illinois Pollution Control Board to contest the decision of the Illinois EPA, however, the 35-day period for petitioning for a hearing may be extended for a period of time not to exceed ninety days by written notice provided to the Board from the applicant and the Illinois EPA within the 35-day initial appeal period.

Work required by this permit, your application or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This permit does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Sincerely,

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

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Attachments: Standard Conditions
AGQS/MAPC Interwell Values for Each Monitored Unit

cc: George L. Armstrong, P.E., PDC Technical Services, Inc.

bcc: Bureau File
Champaign Region
Bur Filson
Hope Wright
Imran Syed

# STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY BUREAU OF LAND

August 22, 2001

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

These standard conditions shall apply to all permits which the Agency issues for construction or development projects which require permits under the Bureau of Land. Special conditions may also be imposed in addition to these standard conditions.

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire two years after date of issuance unless construction or development on this project has started on or prior to that date.

2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.

3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.

4. The permittee shall allow any agent duly authorized by the Agency upon the presentation of credentials:

   a. to enter at reasonable times the permittee's premises where actual or potential effluent, emissions or noise sources are located or where any activity is to be conducted pursuant to this permit.

   b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit.

   c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit.

   d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants.

e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:

a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;

b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;

c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;

d. does not take into consideration or attest to the structural stability of any units or parts of the project;

e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the Agency before the facility or equipment covered by this permit is placed into operation.

7 These standard conditions shall prevail unless modified by special conditions.

8. The Agency may file a compliant with the Board for modification, suspension or revocation of a permit:

a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed; or

b. upon finding that any standard or special conditions have been violated; or

c. upon any violation of the Environmental Protection Act or any Rule or Regulation effective thereunder as a result of the construction or development authorized by this permit.

# Attachment 1
## AGQS/MAPC Interwell Values for Each Monitored Unit

| FIELD PARAMETERS | STORETS | Upper Radnor | Lower Radnor | Organic Soil | Roxana Silt-Robein |
|---|---|---|---|---|---|
| pH | 00400 | 6.24-7.75 | 6.09-7.51 | 6.32-7.48 | |
| Specific Conductance | 00094 | 1108.7 | 967.4 | 1199.2 | |
| Temperature of Water Sample(° F) | 00011 | ---- | ---- | ---- | ---- |
| Depth to Water (ft. below land surface) | 72019 | ---- | ---- | ---- | ---- |
| Depth to Water(ft. below meas. point) | 72109 | ---- | ---- | ---- | ---- |
| Elev. of Meas. Pt.(Top of casing ft. MSL) | 72110 | ---- | ---- | ---- | ---- |
| Elev. of Groundwater Surface(ft. MSL) | 71993 | ---- | ---- | ---- | ---- |
| Elev. of Bottom of Well (ft. MSL) | 72020 | ---- | ---- | ---- | ---- |

| INDICATOR PARAMETERS | STORETS | Upper Radnor | Lower Radnor | Organic Soil | Roxana Silt-Robein |
|---|---|---|---|---|---|
| Ammonia (as N; Dissolved) mg/L | 00608 | 23.5 | 16.8 | 17.0 | |
| Arsenic (Dissolved) ug/L | 01000 | 125.4 | 104.3 | 107.3 | |
| Boron (Dissolved) ug/L | 01020 | 575.5 | 729.0 | 564.1 | |
| Cadmium (Dissolved) ug/L | 01025 | 1.0 | 1.0 | 1.0 | |
| Chloride (Dissolved) mg/L | 00941 | 8.5 | 5.9 | 17.23 | |
| Cyanide (Total) mg/L | 00720 | 0.005 | 0.005 | 0.005 | |
| Iron (Dissolved) ug/L | 01046 | 8278 | 7600.0 | 12759.2 | |
| Lead (Dissolved) ug/L | 01049 | 1.0 | 1.0 | 2.5 | |
| Manganese (Dissolved) ug/L | 01056 | 241.4 | 105.9 | 272.9 | |
| Mercury (Dissolved) ug/L | 71890 | 0.2 | 0.2 | 0.20 | |
| Nitrate (as N, Dissolved) mg/L | 00618 | 0.02 | 0.031 | 0.5 | |
| Phenols (Total Recoverable) ug/L | 32730 | 5 | 5 | 5 | |
| Sulfate (Dissolved) mg/L | 00946 | 8.4 | 9.7 | 22.0 | |
| TDS (180°C; Dissolved) mg/L | 70300 | 692.7 | 643.3 | 875.1 | |
| TOC (Total) mg/L | 00680 | 11.0 | 14.2 | 46.0 | |
| Zinc (Dissolved) ug/L | 01090 | 36.52 | 15.0 | 49.32 | |

| PARAMETERS (ug/L) | STORETS | Upper Radnor | Lower Radnor | Organic Soil | Roxana Silt-Robein |
|---|---|---|---|---|---|
| UNFILTERED (totals) | | | | | |
| Acetone | 81552 | 10.0 | 10.0 | 10.0 | |
| Acrolein | 34210 | 50.0 | 50.0 | 50.0 | |
| Acrylonitrile | 34215 | 50.0 | 50.0 | 50.0 | |
| # Alachlor | 77825 | 0.4 | 0.4 | 0.4 | |
| # Aldicarb | 39053 | 0.4 | 0.4 | 0.4 | |
| @ Aldrin | 39330 | 0.05 | 0.05 | 0.05 | |
| Aluminum | 01105 | 454.413 | 220069 | 178253 | |
| Ammonia (as N) (mg/L) | 00610 | 22.0 | 17.0 | 18.0 | |
| # Antimony | 01097 | 3.0 | 3.0 | 3.0 | |
| # Arsenic | 01002 | 598.4 | 128.7 | 113.4 | |
| Aroclor 1016 | 79683 | 0.5 | 0.5 | 0.5 | |
| Aroclor 1221 | 79684 | 0.5 | 0.5 | 0.5 | |
| Aroclor 1232 | 79685 | 0.5 | 0.5 | 0.5 | |
| Aroclor 1242 | 79686 | 0.5 | 0.5 | 0.5 | |
| Aroclor 1248 | 79687 | 0.5 | 0.5 | 0.5 | |
| Aroclor 1254 | 79688 | 0.5 | 0.5 | 0.5 | |
| Aroclor 1260 | 79689 | 0.5 | 0.5 | 0.5 | |
| # Atrazine | 39033 | 0.2 | 0.2 | 0.2 | |
| # Barium | 01007 | 2203.2 | 1050 | 541.1 | |
| # Benzene | 34030 | 1.0 | 1.0 | 1.0 | |
| # Benzo(a)Pyrene | 34247 | 0.2 | 0.2 | 0.2 | |

| PARAMETERS (ug/L) | STORETS | Upper Radnor | Lower Radnor | Organic Soil | Roxana Silt-Robein |
|---|---|---|---|---|---|
| UNFILTERED (totals) | | | | | |
| # Beryllium | 01012 | 27.0 | 15.5 | 2.6 | |
| BOD (mg/L) | 00310 | 67.0 | 42.6 | 45.4 | |
| # Boron | 01022 | 1198.7 | 736.2 | 564.1 | |
| *Bromobenzene | 81555 | 1.0 | 1.0 | 1.0 | |
| *Bromochloromethane | 77297 | 1.0 | 1.0 | 1.0 | |
| *Bromodichloromethane | 32101 | 1.0 | 1.0 | 1.0 | |
| *Bromoform | 32104 | 1.0 | 1.0 | 1.0 | |
| *Bromomethane | 34413 | 2.0 | 2.0 | 2.0 | |
| *n-Butylbenzene | 77342 | 1.0 | 1.0 | 1.0 | |
| *sec-Butylbenzene | 77350 | 1.0 | 1.0 | 1.0 | |
| *tert-Butylbenzene | 77353 | 1.0 | 1.0 | 1.0 | |
| # Cadmium | 01027 | 1.0 | 1.3 | 1.0 | |
| Calcium (mg/L) | 00916 | 1516.3 | 774.1 | 256.3 | |
| # Carbofuran | 81405 | 1.5 | 1.5 | 1.5 | |
| Carbon Disulfide | 77041 | 4.0 | 8.0 | 26.0 | |
| # Carbon Tetrachloride | 32102 | 1.0 | 1.0 | 1.0 | |
| COD (mg/L) | 00335 | 7.0 | 36.3 | 109.5 | |
| # Chlordane | 39350 | 0.5 | 0.5 | 0.5 | |
| # Chloride (mg/L) | 00940 | 7.8 | 5.7 | 13.0 | |
| #*Chlorobenzene | 34301 | 1.0 | 1.0 | 1.0 | |
| *Chloroethane | 34311 | 2.0 | 2.0 | 2.0 | |
| *Chloroform | 32106 | 1.0 | 1.0 | 1.0 | |
| *Chloromethane | 34418 | 2.0 | 2.0 | 2.0 | |
| *o-Chlorotoluene | 77275 | 1.0 | 1.0 | 1.0 | |
| *p-Chlorotoluene | 77277 | 1.0 | 1.0 | 1.0 | |
| # Chromium | 01034 | 810.2 | 508.9 | 345.8 | |
| *Chlorodibromomethane | 32105 | 1.0 | 1.0 | 1.0 | |
| # Cobalt | 01037 | 330.6 | 158.3 | 26.0 | |
| # Copper | 01042 | 959.3 | 324.9 | 351.1 | |
| p-Cresol | 77146 | 10.0 | 10.0 | 10.0 | |
| # Cyanide (mg/L) | 00720 | 0.005 | 0.005 | 0.005 | |
| # Dalapon | 38432 | 1.5 | 1.5 | 1.5 | |
| @ DDT | 39370 | 0.1 | 0.1 | 0.1 | |
| *Dibromomethane | 77596 | 1.0 | 1.0 | 1.0 | |
| *m-Dichlorobenzene | 34566 | 1.0 | 1.0 | 1.0 | |
| #*o-Dichlorobenzene | 34536 | 1.0 | 1.0 | 1.0 | |
| # p-Dichlorobenzene | 34571 | 1.0 | 1.0 | 1.0 | |
| *Dichlorodifluoromethane | 34668 | 2.0 | 2.0 | 2.0 | |
| #*Dichloromethane | 34423 | 7.0 | 7.0 | 7.0 | |
| @ Dieldrin | 39380 | 0.1 | 0.1 | 0.1 | |
| Diethyl Phthalate | 34336 | 10.0 | 10.0 | 10.0 | |
| Dimethyl Phthlate | 34341 | 10.0 | 10.0 | 10.0 | |
| Di-N-Butyl Phthlate | 39110 | 10.0 | 10.0 | 10.0 | |
| # Dinoseb (DNBP) | 81287 | 0.2 | 0.2 | 0.2 | |
| # Endothall | 38926 | 40.0 | 40.0 | 40.0 | |
| # Endrin | 39390 | 0.1 | 0.1 | 0.1 | |
| # Di(2-Ethylhexyl)Phthalate | 39100 | 22.0 | 7.6 | 7.4 | |
| #*Ethylbenzene | 78113 | 1.0 | 1.0 | 1.0 | |
| #*Ethylene Dibromide (EDB) | 77651 | 0.05 | 0.05 | 0.05 | |
| # Fluoride (mg/L) | 00951 | 0.80 | 0.60 | 0.58 | |
| # Heptachlor | 39410 | 0.05 | 0.05 | 0.05 | |
| # Heptachlor Epoxide | 39420 | 0.05 | 0.05 | 0.05 | |
| *Hexachlorobutadiene | 39702 | 10.0 | 10.0 | 10.0 | |
| # Hexachlorcyclopentadiene | 34386 | 10.0 | 10.0 | 10.0 | |
| Iodomethane | 77424 | 1.0 | 1.0 | 1.0 | |

| PARAMETERS (ug/L) | STORETS | Upper Radnor | Lower Radnor | Organic Soil | Roxana Silt-Robein |
|---|---|---|---|---|---|
| UNFILTERED (totals) | | | | | |
| # Iron | 01045 | 825948 | 475695 | 110816 | |
| Isophorone | 34408 | 10.0 | 10.0 | 10.0 | |
| *Isopropylbenzene | 77223 | 1.0 | 1.0 | 1.0 | |
| *p-Isopropyltoluene | 77356 | 1.0 | 1.0 | 1.0 | |
| # Lead | 01051 | 910.6 | 309.7 | 46.0 | |
| # Lindane | 39782 | 0.05 | 0.05 | 0.05 | |
| Magnesium (mg/L) | 00927 | 706.6 | 1300 | 125.7 | |
| # Manganese | 01055 | 13939.0 | 7858 | 2013 | |
| # Mercury | 71900 | 0.2 | 0.2 | 0.2 | |
| # Methoxyclor | 39480 | 0.5 | 0.5 | 0.5 | |
| *Naphthalene | 34696 | 10.0 | 10.0 | 10.0 | |
| # Nickel | 01067 | 885.6 | 1400 | 284 | |
| # Nitrate-Nitrogen (mg/L) | 00620 | 0.02 | 0.02 | 0.4 | |
| @ Oil(Hexane-Soluble) (mg/L) | 00550 | 5.0 | 25.0 | 19.0 | |
| @ Parathion | 39540 | 0.2 | 0.2 | 0.2 | |
| # Pentachlorophenol | 39032 | 0.05 | 0.05 | 0.05 | |
| # pH | 00400 | 6.24-7.75 | 6.09-7.51 | 6.32-7.48 | |
| # Phenols | 32730 | 0.005 | 0.005 | 0.005 | |
| # Picloram | 39720 | 0.2 | 0.2 | 0.2 | |
| # Polychlorinated Biphenyls | 39516 | 0.5 | 0.5 | 0.5 | |
| Potassium (mg/L) | 00937 | 141.7 | 2300.0 | 19.8 | |
| *n-Propylbenzene | 77224 | 1.0 | 1.0 | 1.0 | |
| # Selenium | 01147 | 17.9 | 10.8 | 2.2 | |
| # Silver | 01077 | 5.0 | 5.0 | 5.0 | |
| # Simazine | 39055 | 0.2 | 0.2 | 0.2 | |
| Sodium (mg/L) | 00929 | 25.0 | 7700.0 | 61.7 | |
| #*Styrene | 77128 | 1.0 | 1.0 | 1.0 | |
| # Sulfate (mg/L) | 00945 | 6.4 | 6.5 | 38.2 | |
| TOC (mg/L) | 00680 | 11.0 | 14.2 | 46.0 | |
| #*Tetrachloroethylene | 34475 | 1.0 | 1.0 | 1.0 | |
| Tetrahydrofuran | 81607 | 20.0 | 20.0 | 20.0 | |
| # Thallium | 01059 | 1.7 | 2.5 | 1.0 | |
| #*Toluene | 34010 | 1.0 | 1.0 | 1.0 | |
| # Toxaphene | 39400 | 1.5 | 1.5 | 1.5 | |
| # Trichloroethylene | 39180 | 1.0 | 1.0 | 1.0 | |
| *Trichlorofluoromethane | 34488 | 1.0 | 1.0 | 1.0 | |
| Vanadium | 01087 | 1196.74 | 486.4 | 75.0 | |
| # Vinyl Chloride | 39175 | 2.0 | 2.0 | 2.0 | |
| Vinyl Acetate | 77057 | 5.0 | 5.0 | 5.0 | |
| # Xylenes | 81551 | 3.0 | 3.0 | 3.0 | |
| *m,p-Xylene | 85795 | 1.0 | 1.0 | 1.0 | |
| *o-Xylene | 77135 | 1.0 | 1.0 | 1.0 | |
| # Zinc | 01092 | 1808.2 | 1100 | 188.7 | |
| *1,1,1,2-Tetrachloroethane | 77562 | 1.0 | 1.0 | 1.0 | |
| # 1,1,1-Trichloroethane | 34506 | 1.0 | 1.0 | 1.0 | |
| *1,1,2,2-Tetrachloroethane | 34516 | 1.0 | 1.0 | 1.0 | |
| #*1,1,2-Trichloroethane | 34511 | 1.0 | 1.0 | 1.0 | |
| *1,1-Dichloroethane | 34496 | 1.0 | 1.0 | 1.0 | |
| # 1,1-Dichloroethylene | 34501 | 1.0 | 1.0 | 1.0 | |
| *1,1-Dichloropropene | 77168 | 1.0 | 1.0 | 1.0 | |
| *1,2,3-Trichlorobenzene | 77613 | 1.0 | 1.0 | 1.0 | |
| *1,2,3-Trichloropropane | 77443 | 1.0 | 1.0 | 1.0 | |
| #*1,2,4-Trichlorobenzene | 34551 | 1.0 | 1.0 | 1.0 | |
| *1,2,4-Trimethylbenzene | 77222 | 1.0 | 1.0 | 1.0 | |
| #*1,2-Dibromo-3-Chloropropane | 38760 | 0.05 | 0.05 | 0.05 | |

| PARAMETERS (ug/L) | STORETS | Upper Radnor | Lower Radnor | Organic Soil | Roxana Silt-Robein |
|---|---|---|---|---|---|
| UNFILTERED (totals) | | | | | |
| #*cis-1,2-Dichloroethylene | 77093 | 1.0 | 1.0 | 1.0 | |
| #*trans-1,2-Dichloroethylene | 34546 | 1.0 | 1.0 | 1.0 | |
| # 1,2-Dichloroethane | 34531 | 1.0 | 1.0 | 1.0 | |
| #*1,2-Dichloropropane | 34541 | 1.0 | 1.0 | 1.0 | |
| *1,3,5-Trimethylbenzene | 77226 | 1.0 | 1.0 | 1.0 | |
| *1,3-Dichloropropane | 77173 | 1.0 | 1.0 | 1.0 | |
| *1,3-Dichloropropene | 34561 | 1.0 | 1.0 | 1.0 | |
| cis-1,3-Dichloropropene | 34704 | 1.0 | 1.0 | 1.0 | |
| trans-1,3-Dichloropropene | 34699 | 1.0 | 1.0 | 1.0 | |
| trans-1,4-Dichloro-2-Butene | 49263 | 1.0 | 1.0 | 1.0 | |
| *2,2-Dichloropropane | 77170 | 1.0 | 1.0 | 1.0 | |
| # 2,4,5-TP (Silvex) | 39760 | 0.05 | 0.05 | 0.05 | |
| # 2,4-D 39730 | 0.1 | 0.1 | 0.1 | 1.0 | |
| 2-Butanone | 81595 | 5.0 | 5.0 | 5.0 | |
| 2-Hexanone | 77103 | 5.0 | 5.0 | 5.0 | |
| 4-Methyl-2-Pentanone | 78133 | 5.0 | 5.0 | 5.0 | |

NOTE:

i. The preceding list of parameters (G2) includes all those found in Attachment 1 to Appendix C to LPC-PA2. The 51 constituents from 40 CFR 141.40 and the parameters from 35 Ill. Adm. Code 620.410 and the parameters from 35 Ill. Adm. Code 302, designated with (*), (#) and (@) respectively are required to be monitored annually and may not be deleted.

ii. All parameters with the "(Dissolved)" label to the right shall be determined using groundwater samples which have been filtered through a 0.45 micron filter. All other parameters shall be determined from unfiltered samples.

iii. Maximum allowable predicted concentrations (MAPCs) and applicable groundwater quality standards (AGQS) are given in ug/L except as otherwise noted. Also, the monitoring results should be reported in ug/L units unless otherwise indicated.

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