

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

CONGRESS DEVELOPMENT)	
COMPANY,)	
)	PCB 11-90
Petitioner,)	PCB 12-12
)	PCB 12-55
v.)	PCB 12-56
)	(Permit Appeal – Land)
ILLINOIS ENVIRONMENTAL)	(Consolidated)
PROTECTION AGENCY,)	
)	
Respondent.)	

PETITIONER CONGRESS DEVELOPMENT COMPANY'S
VOLUNTARY MOTION TO DISMISS

Petitioner Congress Development Company moves pursuant to 35 Ill. Adm. Code Section 101.500 to dismiss voluntarily these consolidated permit appeals. As set forth below, respondent Illinois Environmental Protection Agency issued a modification to permit No. 1995-165-LFM (the Permit) on June 13, 2019 that resolves the issues that gave rise to these appeals and there is no dispute ripe for resolution by the Board at this time.

1. As the record of these matters shows, the facility at issue is a closed landfill in Hillside, Illinois that is owned by petitioner Congress Development Company. In the original Petition for Review of Denial of Significant Permit Modification Application filed on June 3, 2011 (PCB 11-90) Congress sought review of the Agency's decision to deny an application for a significant modification to the Permit. The dispute framed by that petition was relatively narrow and centered on offsite groundwater monitoring to determine the nature and extent, if any, of groundwater impacts from the landfill. The issue arose because the Agency required analytical data from offsite sampling locations on property owned by neighbors. Petitioner was unable to comply with the Agency's requirement because several of the neighbors had declined access to

their property and petitioner was therefore unable to install monitoring wells to collect samples. *See* the Petition for Review in PCB 11-90, pars. 10-11.

2. The permit appeal filed on July 8, 2011 (PCB 12-12) sought review of a denial of a separate application for significant modification on three general issues: (a) on procedural grounds (whether the Agency's denial letter was sufficiently specific—*see* pars. 15-16 of the petition), (b) on a dispute over the applicability and interpretation of the rules cited by the Agency (*id.* pars. 17-23) and (c) on the ground (implicit in the denial) that petitioner had not satisfied the requirement for data from offsite locations owned by neighbors—*i.e.*, the same issue raised in PCB 11-90. *Id.* par. 24.

3. The permit appeal filed on October 12, 2011 (PCB 12-55) sought review of another denial and again focused on the lack of data from offsite locations owned by neighbors. *See generally* the petition in PCB 12-55.

4. The permit appeal filed on October 20, 2011 (PCB 12-56) sought review of a later denial of an application on the same three general grounds as those raised in PCB 12-12. *See generally* the petition in PCB 12-56. The Board consolidated all four appeals pursuant to agreement of the parties.

5. The parties have engaged in lengthy negotiations over how best to address groundwater monitoring and assessment issues in the facility's permit in light of the difficulties created by uncooperative neighbors and the other issues framed by the pleadings. With the permission of the Board's Hearing Officer these appeals have been continued multiple times to allow those negotiations to go forward. On June 13, 2019 the Agency issued Modification No. 79 to the Permit (a copy of Modification No. 79 is appended to this motion) which resolves the

issues, in particular the offsite monitoring issues, framed by the pleadings as they exist as of the date of this voluntary motion to dismiss. *See* Modification No. 79, p. 27 par. 24.

6. The disputes that gave rise to these consolidated permit appeals have thus been resolved as far as they can be at this time. There remain three unfulfilled requirements in the Permit that address groundwater, however, most significantly the requirements that petitioner must (a) resubmit the Corrective Action Measures Assessment, (b) hold a public meeting, and (c) “submit to the Agency an application for significant modification to the landfill permit that includes any public comments along with the selected remedy and how it meets the standards set forth in 35 IAC 811.325 & 811.326.” (Modification No. 79, p. 28 par. 27). Those requirements will be addressed by future submittals to the Agency and will be subject to a future decision by the Agency to grant or deny an additional significant modification incorporating the selected remedy in the facility’s permit. Until a selected remedy is incorporated into the Permit by a later significant modification the general substantive question of what, if anything, needs to be done to address any offsite groundwater impacts from the closed Congress Development landfill will of course remain open. Petitioner and the Agency are optimistic, but obviously cannot be certain, that any remaining matters concerning groundwater around the landfill can be satisfied through compliance with the requirements contained in Modification No. 79 to the facility’s permit and that no future assistance from the Board will be necessary. In any event, no issue concerning action on a future application for significant modification has yet arisen or could have arisen as of the date of this motion, and there is no longer any dispute ripe for resolution by the Board at this time.

7. The Attorney General’s office has reviewed this motion and has stated it has no objection to dismissal of these permit appeals.

WHEREFORE petitioner Congress Development Company moves to dismiss these consolidated permit appeals.

Respectfully Submitted,

By: /s/ Russell R. Eggert
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Development Company

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CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that on June 17, 2019, Petitioner Congress Development Company's Motion to Dismiss was served upon the following:

Electronically:

Don Brown
Clerk of the Board
Illinois Pollution Control Board
100 West Randolph Street
Suite 11-500
Chicago, Illinois 60601

Electronically:
Bradley P. Halloran
Hearing Officer
Illinois Pollution Control Board
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Gerald T. Karr
Office of the Attorney General
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Electronic Filing: Received, Clerk's Office 06/17/2019
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

217/524-3301

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

7009 3410 0002 3748 4752

JUN 13 2019

OWNER

Congress Development Company
Attn: Mr. Josh McGarry
4100 W. Frontage Road
Hillside, Illinois 60162

OPERATOR

Allied Waste Transportation, Inc.
Attn: Mr. Josh McGarry
4100 W. Frontage Road
Hillside, Illinois 60162

Re: 0318170002 -- Cook County
Congress Development Co.
Permit No. 1995-165-LFM
Modification No. 79
Log No. 2014-072
Expiration Date: May 1, 2021
Permit Landfill 811 File
Permit Approval

Dear Mr. McGarry:

Permit has been granted to Congress Development Company, as owner and Allied Waste Transportation, Inc. as operator, approving modification of an existing municipal solid waste landfill all in accordance with the application and plans identified as Log No. 1995-165. 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 (the "Illinois EPA"), Bureau of Land, Division of Land Pollution Control by the permit number designated in the heading above.

Specifically, Permit No. 1995-165-LFM, dated March 15, 1996, approved:

- a. The Significant Modification of the development and operation of this landfill so as to comply with the applicable requirements of Title 35, Illinois Administrative Code (hereinafter 35 IAC), Subtitle G, Parts 811 and 812, pursuant to 35 IAC, Sections 814.104, 814.301 and 814.302;
- b. The modification of development of the existing 55 acre landfill unit with an "in-place" net disposal capacity of approximately 1,595,412 cubic yards of net volume, excluding daily, intermediate and final cover, and protective soils/air space. The maximum final elevation shall be approximately 700 feet above mean sea level; and

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- c. Operation (i.e., waste disposal) within the permitted boundaries of the existing landfill unit.

Modification No. 79 to Permit No. 1995-165-LFM is hereby granted to Congress Development Company as owner and Allied Waste Transportation, Inc. as operator, approving a significant modification to an existing municipal solid waste landfill, all in accordance with the application and plans prepared by Daniel Drommerhausen, P.G. of APTIM and Jesse Varsho, P.E., formerly of Shaw Environmental, Inc. The application was signed and sealed by Mr. Varsho on February 21, 2014 and identified in the Illinois EPA records as Log No. 2014-072.

The permit application approved by Modification No. 79 consists of the following documents:

<u>DOCUMENT</u>	<u>DATED</u>	<u>DATE RECIEVED</u>
Original Permit Application Log No. 2014-072	February 21, 2014	February 24, 2014
Waiver	April 21, 2014	May 27, 2014
Additional Information	August 14, 2014	August 15, 2014
Waiver	September 5, 2014 December 5, 2014 March 9, 2015 June 4, 2015 September 3, 2015 December 9, 2015	September 10, 2014 December 8, 2014 March 10, 2015 June 7, 2019 September 8, 2015 December 10, 2015
Additional Information	January 12, 2016	January 13, 2016
Waiver	March 1, 2016 June 1, 2016 July 28, 2016 October 27, 2016	March 3, 2016 June 2, 2016 July 29, 2016 October 28, 2016
Additional Information and Waiver	January 26, 2017	January 27, 2017
Waiver	April 21, 2017 July 19, 2017 October 18, 2017 January 16, 2018 April 16, 2018 July 11, 2018	May 1, 2017 July 24, 2017 October 19, 2017 February 8, 2018 April 17, 2018 July 12, 2018

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<u>DOCUMENT</u>	<u>DATED</u>	<u>DATE RECIEVED</u>
Waiver	January 9, 2019	January 10, 2019
Additional Information	March 7, 2019	March 8, 2019

Specifically, Modification No. 79 approves Assessment Monitoring Report and Continued Assessment Monitoring.

Except for the change described in the following table, the special conditions in the permit letter for Modification No. 79 to Permit No. 1995-165-LFM are identical to the special conditions in the permit letter for Modification No. 78 to Permit No. 1995-165-LFM, issued April 15, 2019.

Condition in Mod. No. 78	Condition in Mod. No. 79	Description of change
VII.24	VII.24	Revised to require assessment monitoring in accordance with information provided in Log No. 2014-072.

Pursuant to Section 39(a) of Illinois Environmental Protection Act (Act) and 35 IAC, 813.104(b), this permit is issued subject to the development, operating and reporting requirements for non-hazardous waste landfills in 35 IAC, Parts 810, 811, 812, 813 and 814.301 and 814.302, 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 IAC, Sections 811.505(d) and 813.203.
 - a. Construction of ponds, ditches, lagoons and berms.
 - b. Placement of final cover; and
 - c. Installation of gas control facilities.

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. 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 IAC, 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 IAC, Section 811.503(b).
5. The clay liner sidewall shall be tested for density and moisture content as follows:
 - a. At least one test per 1,000 cubic yards of emplaced material;
 - b. At least one test every 2 vertical feet for sidewall liner; and
 - c. At least one test per working day when liner is being constructed.
6. A minimum of one laboratory permeability test shall be performed for liner soil placed from a new borrow source or change in liner soil characteristics. The soil shall demonstrate a maximum permeability of 1×10^{-7} cm/sec.
7. If the clay portion of the liner is exposed to freezing conditions, it must be recertified. The designated CQA Officer(s) shall certify that the clay portion of the liner and any necessary repairs to the leachate drainage layer meet the required design standards. This certification must be provided to the Illinois EPA prior to disposal of waste against 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 IAC, 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. The following procedures may be used for the incremental installation of sidewall liner at the landfill:
 - a. The operator shall maintain a minimum "freeboard" of one (1) foot between the top edge of the sidewall liner and the top of the waste.
 - b. Just 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 compacted earth liner up the sidewall is completed, the operator shall provide written notification of its completion to the Illinois EPA's Des Plaines Regional Office. Upon receipt of the notification, the inspector shall be allowed ten (10) 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 ten (10) 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.
 - d. At the same time the Des Plaines Regional Office 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. All stakes and monuments marking property boundaries and the permit area shall be maintained, inspected annually and surveyed no less frequently than once in five years by a professional land surveyor.
11. 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.
12. The CQA plan was approved in Permit No. 1995-566-LFM and revised in Modification No. 2 (adding a geonet to final cover) and Modification No. 26 (adding a gas collection layer, horizontal collectors, and a slipliner to final cover).

13. Effective upon issuance of Modification No. 37 (Log No. 2009-292), all testing of the geomembrane including conformance and seaming 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. This landfill is certified closed; no waste may be accepted for disposal.
2. 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 into the site.
3. 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.
4. The operator shall implement methods for controlling dust so as to prevent wind dispersal of particulate matter off-site.
5. 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 IAC, Parts 900 through 905.
6. The operator shall implement measures to control the population of disease and nuisance vectors.
7. The operator shall institute fire protection measures in accordance with the proposed fire safety plan.
8. The operator shall implement methods to prevent tracking of mud by hauling vehicles onto public roadways.
9. Access to 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.
10. Only the additives listed below may be used for temporary odor control on the surface of the landfill:

- i. Potassium Permanganate;
 - ii. Calcium Hypochlorite;
 - iii. Lye (sodium hydroxide); and
 - iv. Type S Lime (calcium magnesium hydroxide)
11. The additives listed in condition II.10 shall be stored in a lockable metal cabinet designed to store chemicals and clearly marked with the appropriate warning signs. Additionally, the operator shall follow the manufacturer's recommendations for storage, handling, use, and disposal of the additives.

III. 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 or their designee through an intergovernmental Agreement 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. The operator shall retain copies of 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.
4. 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 or their designee through an intergovernmental Agreement. During the post-closure care period, those records are to be maintained at the office of the site operator.
5. 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 IAC, 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 IAC, Part 812 or 813:
 - a. Any location restriction demonstration required by 35 IAC, Sections 811.302, 812.109, and 812.303 and 812.305;

- b. Inspection records, training procedures, and notification procedures required by 35 IAC, Section 811.323;
- c. Gas monitoring results and any remediation plans required by 35 IAC, 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 IAC, Section 811.107(m);
- e. Any demonstration, certification, monitoring results, testing, or analytical data relating to the groundwater monitoring program required by 35 IAC, 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 IAC, 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 IAC Part 811, Subpart G.

IV. 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 Pollution Control.
2. 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.
3. Pursuant to 35 IAC, 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.
4. Pursuant to 35 IAC, 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.

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5. Attachment 1 and enclosures referenced in this permit modification of Permit No. 1995-165-LFM have not been changed and they remain valid.
6. The permittee shall submit current 39(i) certifications and supporting documentation with all applications for a permit.

V. SURFACE WATER CONTROL

1. Runoff from disturbed areas to Waters of the State shall be permitted by the Illinois EPA in accordance with 35 IAC, Part 309, and meet the requirements of 35 IAC 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. 1995-165 and modified in Log Nos. 2007-099 and 2009-577. Stormwater management structures consisting of perimeter ditches and sediment basins shall be constructed within 12 months of the date of this permit or prior to disturbing any portion of a drainage area identified in Application Log No. 1995-165.

VI. LEACHATE MANAGEMENT/MONITORING

1. Pursuant to 35 IAC, 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 811.309(h)(4) and (h)(5). Collection and disposal of leachate may cease only when the conditions described in 35 IAC, Section 811.309(h)(2) have been achieved. Leachate removed from this landfill shall be treated at an MWRDGC facility or other IEPA permitted facility in accordance with the leachate management plan proposed in Permit Application Log No. 1995-165.
2. Pursuant to 35 IAC, Sections 811.307(a), 811.308(a) and (h), and 811.309(a), leachate shall be pumped from the leachate/condensate 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 Nos. 1995-165, 2009-569, 2009-577, 2011-281, and 2013-028. The permittee shall maintain an average leachate head at 10 feet below the potentiometric surface and a minimum of 5 feet below the potentiometric surface during post-closure care period as described in Application Log No. 2014-416 (Modification No. 67), and using the groundwater and leachate mapping techniques as described in Application Log No. 2009-577 (Modification No. 41) and modified in Application Log No. 2016-111 (Modification No. 71).

3. The following monitoring points are to be used in the Leachate Monitoring Program for this facility:

Leachate Monitoring Points

<u>Applicant Designation</u>	<u>Illinois EPA Designation</u>
LE-4	L301
LE-17	L302
LE-25R	L303
LE-28	L304
LE-37	L305
LE-50	L306
LE-53	L307
LE-57	L308

4. Pursuant to 35 IAC, 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) must be determined on a semi-annual basis and the results must be submitted with the groundwater reports.

Condition VI.4. 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 IAC, Section 811.319(a)(1)(C).

LIST L1

<u>Leachate Monitoring Parameters</u>	<u>STORET</u>
pH (S.U.)	00400
Elevation Leachate Surface (ft. AMSL)	71993
Bottom of Well Elevation (ft. AMSL)	72020

LIST LI

<u>Leachate Monitoring Parameters</u>	<u>STORET</u>
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) (colonies/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
2,4-Dinitrophenol	34616

LIST LI

<u>Leachate Monitoring Parameters</u>	<u>STORET</u>
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 CaCO ₃)	00425
Bis (2-Chloro-1-Methylethyl) Ether	73522
Bis (2-Chloroethoxy) Methane	34278

LIST LI

<u>Leachate Monitoring Parameters</u>	<u>STORET</u>
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
Dibenzo (a,h) Anthracene	34556
Dibromochloromethane	32105
Dibromomethane	77596

LIST LI

<u>Leachate Monitoring Parameters</u>	<u>STORET</u>
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
Methyl Ethyl Ketone	81595
Methylene Chloride	34423
Naphthalene	34696
Nickel (total)	01067

LIST LI

<u>Leachate Monitoring Parameters</u>	<u>STORET</u>
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-Dioxins	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
Trans-1,3-Dichloropropene	34699
Trichloroethylene	39180
Trichlorofluoromethane	34488
Vinyl Acetate	77057

LIST LI

<u>Leachate Monitoring Parameters</u>	<u>STORET</u>
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

Notes for all leachate monitoring parameters:

- a. 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.
- b. All parameters shall be determined from unfiltered samples.
- c. 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:

<u>Sampling Period</u>	<u>Sampling Points / Lists</u>	<u>Report Due Date</u>
April-May 2016	L301, L302, L306, L308 – List L1	July 15, 2016
Oct-Nov 2016	L303, L304, L305, L307 – List L1	January 15, 2017
April-May 2017	L301, L302, L306, L308 – List L1	July 15, 2017
Oct-Nov 2017	L303, L304, L305, L307 – List L1	January 15, 2018
April-May 2018	L301, L302, L306, L308 – List L1	July 15, 2018
Oct-Nov 2018	L303, L304, L305, L307 – List L1	January 15, 2019
April-May 2019	L301, L302, L306, L308 – List L1	July 15, 2019
Oct-Nov 2019	L303, L304, L305, L307 – List L1	January 15, 2020
April-May 2020	L301, L302, L306, L308 – List L1	July 15, 2020
Oct-Nov 2020	L303, L304, L305, L307 – List L1	January 15, 2021

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. Modification No. 21 (Log No. 2006-435) approved the design of the leachate pipe relief structures. All work on said structures should follow the facility's approved CQA plan and the manufacturer's recommendations. The operator shall submit a CQA report for the installation of the leachate pipe relief structures within 30 days of the completion of said structures. The report should include documentation of CQA testing and oversight and as-built drawings. In this instance, an application for significant modification is not required.
8. Modification No. 31 (Log No. 2008-007) approved the proposed installation of five (5) 21,000 gallon leachate storage tanks. The tanks shall not be used until the CQA acceptance report, in the form of an application for significant modification, is approved by the Illinois EPA.
9. Modification No. 33 (Log No. 2007-384) approved the revised leachate collection system, including 28 leachate collection wells, 18 piezometers, new "pipe gallery" forcemain system, and associated pipes, manholes, valves, and fittings in the primary system. Operational authorization was approved in Modification No.

41 (Log No. 2009-569). Modification No. 59 (Log No. 2013-028) approved operation of an additional 10 leachate extraction wells. If conditions require construction of additional wells in the secondary system, an application for significant modification to operate must be submitted for the secondary system within 60 days of completion.

Note that any manholes outside the waste boundaries must be water tight to provide secondary containment pursuant to 35 Ill. Adm. Code Section 811.308(d)(2).

10. Modification No. 42 (Log No. 2010-021) approved the design of the two 515,000 gallon leachate storage tanks and related pipes, valves, and fittings. Modification No. 51 (Log No. 2011-281) approved the CQA acceptance report, and therefore operation of said tanks.

VII. 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 Exhibit 1A "Monitoring Well and Leachate Well Plan" of Division VI-B Groundwater Monitoring Plan, of the Permit Application Log No. 1995-165 and screened in the hydrogeologic unit(s) identified as potential contaminant pathway(s) within the zone of attenuation. All wells as listed in Condition VII.9 must be installed so that samples may be taken during the months of April-May and the results submitted to the Illinois EPA by July 15, 1996.
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 (previously) 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:

Monitoring Wells
Wells Within Zone of Attenuation

<u>Applicant Designation</u>	<u>Illinois EPA Designation</u>
G110	G10S
G111	G11S
G112	G12D
R113	R13S
G115	G15D
G116	G16S
G117	*G117
G118	G18D
G119	G19D

Compliance Boundary Well(s)

<u>Applicant Designation</u>	<u>Illinois EPA Designation</u>
G110	G10S
G111	G11S
G112	G12D
R113	R13S
G115	G15D
G116	G16S
G117	*G117
G118	G18D
G119	G19D

Note (*) -- Well to be deleted from the Groundwater Monitoring Program

10. The monitoring program, approved by Permit No. 1995-165, 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 VII.9, test the samples for the parameters listed in Condition VII.12 (Lists G1 and G2), and report the results to the Illinois EPA, all in accordance with the schedule in Condition VII.18.
11. The applicable groundwater quality standards (AGQS) and the maximum allowable predicted concentrations (MAPC), as listed in Condition VII.12 below, are subject to the following groundwater 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, the method detection limit (MDL) or the practical quantitation limit (PQL) 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). AGQS and MAPC values must also be established for the dissolved constituents

listed in G1. 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 Section 3.2.1.1 of Division VI-B, Volume 3 to the application, Log No. 1995-165.

The AGQS/MAPC values for each individual well as referenced in Permit Application Log No. 1996-126 are hereby incorporated into this Permit No. 1995-165 as Attachment 1.

The AGQS/MAPC values for numerous parameters have been added to List G2 of Attachment 1, while others have been deleted as referenced in Permit Application Log No. 2000-263. The revisions are hereby incorporated in this Permit No. 1995-165 as a revised Attachment 1. Attachment 1 has been rewritten and reformatted. The PQL's have been added for each parameter and the AGQS/MAPC values for non-detected constituents have been set to the MDL pursuant to Condition VII.11.b.

LIST G (Groundwater)

<u>GROUNDWATER MONITORING PARAMETER</u>	<u>STORETS</u>
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)

<u>FIELD PARAMETERS</u>	<u>STORETS</u>
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

LIST G1 (Groundwater - Quarterly)

<u>INDICATOR PARAMETERS</u>	<u>STORETS</u>
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)

<u>PARAMETERS (ug/L)</u>	<u>STORETS</u>
Acetone	81552
Acrylonitrile	34215
Benzene	34030
Bromobenzene	81555
Bromochloromethane (chlorobromomethane)	77297
Bromodichloromethane	32101
Bromoform (Tribromomethane)	32104
n-Butylbenzene	77342
sec-Butylbenzene	77350

LIST G2 (Groundwater - Semiannual) (cont.)

<u>PARAMETERS</u> (ug/L)	<u>STORETS</u>
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
cis-1,2-Dichloroethylene	77093
trans-1,2-Dichloroethylene	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 Bromide (Dibromomethane)	77596
Dichloromethane	34423
Methyl Ethyl Ketone	81595

LIST G2 (Groundwater - Semiannual) (cont.)

<u>PARAMETERS (ug/L)</u>	<u>STORETS</u>
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-Trichloroethane	34506
1,1,2-Trichloroethane	34511
Trichloroethylene	39180
Trichlorofluoromethane	34488
1,2,3-Trichloropropane	77443
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) and by comparing the most recent sample results from each well to the AGQS/MAPC value established for that well. This comparison must be established for each parameter for each well:

- a. The concentration of any constituent in List G1 of Condition VII.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 VII.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 VII.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)(1) any constituent monitored at an upgradient well, exceeds its AGQS.
14. For each round of sampling described in Condition VII.10 of this Section, the operator must determine if an observed increase has occurred within 90 days of the initial sampling date. If an observed increase is identified, the operator must also notify the Illinois EPA in writing within 10 days 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)(ii) 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 April-May and the results submitted to the Illinois EPA by July 15.
18. The schedule for sample collection and submission of quarterly monitoring results is as follows:

<u>Sampling Quarter</u>	<u>Sampling Due</u>	<u>Report Due Date</u>
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 - Annual Groundwater Parameters

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 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. Information required by Conditions VII.10 and VII.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.
23. Quarterly monitoring for Hexavalent Chromium (STORET No. 01032) shall be included in any assessment monitoring/assessment monitoring plan for groundwater monitoring wells under assessment for Total Chromium exceedances.

24. In accordance with 35 IAC 811.319(b), the operator shall perform assessment monitoring to determine the source, rate, and extent of groundwater impacts identified in the January 26, 2017 addendum to Log No. 2014-072. The following groundwater impacts were identified: (a) Western wells: A-41S – benzene, continued detections from 6.50 to 53.5 $\mu\text{g/L}$ in 2016; A-43D – benzene, continued detections from 22.5 $\mu\text{g/L}$ to 29.4 $\mu\text{g/L}$ in 2016; and A-44S – benzene, continued detections from 5.6 $\mu\text{g/L}$ to 72.9 $\mu\text{g/L}$ in 2016; and (b) Eastern Wells: A-32S – tetrahydrofuran (up to 79.1 $\mu\text{g/L}$) but non-detect 4th Quarter 2016; A-33S – tetrahydrofuran (up to 72.9 $\mu\text{g/L}$) but non-detect 4th Quarter 2016; G-28S-08 – situated approximately 100 feet upgradient of A-32S and closer to the landfill exhibit two detections of tetrahydrofuran at 69.5 $\mu\text{g/L}$ and 79.1 $\mu\text{g/L}$, indicating the landfill is the source of the tetrahydrofuran at A-32S and A-33S. Monitoring wells A-41S, A-43D, and A-44S to the west and A-32S and A-33S to the east are impacted by leachate and/or landfill gas and the rate and extent has not been adequately demonstrated. Quarterly monitoring of the constituents listed in Table 2A of Appendix D of Log No. 2014-069 and Semi-Annual monitoring of the constituents listed in Table 2B of Appendix D of Log No. 2014-069 shall continue at all investigation wells and detection monitoring wells. Based on the data from the investigation wells and detection monitoring wells, the operator shall determine the rate and extent of groundwater impacts. If undelineated groundwater impacts are present at the end of the assessment period, additional rate and extent groundwater monitoring wells shall be proposed. A minimum of two consecutive quarters of non-detect VOCs is required to confirm the edge of plume/non-detect status. The operator shall submit all boring logs, well construction forms, findings, conclusions, trend analysis, all current and historical groundwater data presented in tabular form, proposed course of action, identification of rate, nature and extent of the groundwater impacts to the Illinois EPA in the form of a Significant Permit Modification Application by August 15, 2020.
25. The facility shall continue to demonstrate that an inward gradient exists at the facility with the average leachate level within the landfill of no less than ten (10) feet below the surrounding groundwater potentiometric surface. This leachate elevation was shown to pass the most recent Groundwater Impact Assessment (GIA) as submitted in Application Log No. 2014-416 and all addenda. Revisions to the Inward Gradient Determination Procedures as submitted in Application Log No. 2016-111 are approved. Any changes to the monitoring wells used in determining inward gradient as a result of corrective action shall be addressed in the corrective action plan permit application. The facility shall submit documentation of approved leachate elevations to the Illinois EPA as a Significant Modification Permit Application by January 15, 2016, and then on an annual basis.

26. In accordance with 35 IAC 811.317 Groundwater Impact Assessment (GIA) and 35 IAC 813.304 Updated GIA requirements for renewal of permit applications, the facility shall include revised seepage rate calculations based upon actual pumping rates and facility wide leachate elevations in the permit renewal application. The revised seepage rates will be reviewed to determine if the in-place hydraulic conductivity values used in the sidewall liner calculations have increased over the five year permit period. If this occurs, the operator shall be required to revise the facility GIA to incorporate the increased sidewall liner in-place hydraulic conductivity with in the contaminant transport model as part of the Permit Renewal Application.
27. The owner/operator shall initiate the corrective action measures assessment (CAMA) as detailed in 35 IAC 811.324 and by September 15th, 2010 submit to the Agency a report describing the results of the CAMA pursuant to 35 IAC 811.324(e). A public meeting shall be held after the submittal of the CAMA to discuss the results of the CAMA and gather comments. By December 14th, 2010, the owner/operator shall submit to the Agency an application for significant modification to the landfill permit that includes any public comments along with the selected remedy and how it meets the standards set forth in 35 IAC 811.325 & 811.326.

VIII. LANDFILL GAS MANAGEMENT/MONITORING

1. The previously approved landfill gas monitoring and management plan described in Permit Application Log No. 1995-165 is modified by the landfill gas-to-energy plan described in Permit Application Log 1997-114 and the revised landfill gas probe design shown in Figure 1 of Permit Application Log No. 2008-084. The gas monitoring probes within the waste boundary described in Permit Application Log No. 1995-165 shall be installed and put into service within ninety days after final cover has been applied to the various areas where they are located.
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 Permit Application Log No. 1995-165 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 begin immediately, shall continue for at least 30 years after closure and may be discontinued only after the conditions described in 35 IAC, 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 its closure of the unit. Then during the remainder of the post-closure care period, this monitoring frequency may be reduced to quarterly.
7. Pursuant to 35 IAC 811.311, in the event of any of the occurrences listed below, the operator must take the steps described in the last two paragraphs of this condition to ensure the protection of human health:
 - 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.

First, within two business days of the occurrence, the operator must notify the Illinois EPA in writing using the form LPC-591, pursuant to 35 IAC 811.311(b)(1). The notification must identify the location of the occurrence and describe its nature (quantitatively if possible). If the gas exceedance is corrected within 30 days, a follow up LPC-591 form may be submitted to the Illinois EPA describing the correction and providing confirmation test results.

Second, if a follow up LPC-591 is not submitted, then within 180 days of the occurrence, the operator must submit to the Illinois EPA an application for a significant modification that either: 1) proposes a gas collection/management

system or modifications to the existing gas collection/management system, or 2) demonstrates that the facility is not the cause of the occurrence.

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 IAC, Section 813.501.
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 boundaries, 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. Within 90 days of installing the temporary blower/flare approved in Modification No. 14, the operator shall submit a report to the Illinois EPA, Bureau of Land, Permit Section, that includes as-built drawings, a location map, and daily summary report(s). Note that this temporary blower/flare may be operated immediately after installation, but this permit does not relieve the operator from any restrictions from other entities, e.g. Bureau of Air.
12. Modification No. 15 approved the proposed permanent blower/flare unit as described in application Log No. 2005-428.
13. The addition of external landfill gas extraction wells GAW-7, GAW-17, GAW-25, GAW-33, GAW-44, and GAW-56 to the external landfill gas monitoring probe network and the use of passive flares for temporary landfill gas odor and emission control was approved in Modification No. 18 (Log No. 2006-151).
14. Modification No. 18 (Log No. 2006-220) approved the proposed addition of two candlestick flares to the landfill gas control system. Modification No. 22 (Log No. 2006-487) approved installation and operation of the two candlestick flares. Note that this permit does not relieve the operator of any requirements of the Bureau of Air permit.
15. Modification No. 19 (Log No. 2006-171) approved the CQA report for an additional 111 internal LFG extraction wells and related headers, laterals, valves, and fittings.

16. Please note that this project includes air emission units, which may require permit(s) from the Illinois EPA Bureau of Air. Pursuant to 35 Ill. Adm. Code 201.142 and 143 this project may require a construction permit prior to construction and an operating permit prior to operation of the emission units referenced in the above referenced permit application. You may apply for both a construction and operating permit simultaneously.

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

17. Modification No. 23 (Log No. 2006-434) approved the north perimeter landfill gas extraction system consisting of wells GAW-64 to GAW-168, and related pipes, valves and fittings.
18. Additionally, Modification No. 23 (Log No. 2006-478) approved the replacement of the perimeter landfill gas monitoring probes, except GP-1, GP-15, and GP-19 and the proposed additional probes on the east side of the landfill.
19. Modification No. 30 (Log No. 2007-386) approved the modification of the landfill gas collection system to add a 4,000 scfm enclosed flare, a new blower/knockout assemble, and related pipes, valves, and fittings. The operator shall not operate the new flare and blowers, except for any shakedown period granted by the Bureau of Air, until the CQA acceptance report in the form of a significant modification to permit application has been approved by the Illinois EPA.
20. 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 BOA – Permit Section, has indicated that this project may require an Air Pollution Control Construction Permit, pursuant to 35 Ill. Adm. Code 201.142.

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

21. Modification No. 52 approved the proposal to add a thermal oxidizer, blower, and candlestick flare to the landfill gas control system. Modification No. 55 approved the CQA report for the above structures.
22. Modification No. 56 approved the proposed repairs and improvements to the perimeter system liner to prevent odors and capture landfill gas. Modification No. 59 (Log No. 2013-028) approved the repairs.

23. Modification No. 57 approved the proposed replacement of landfill gas probe GP-25. The operator shall abandon the current GP-25 in accordance with the Illinois Department of Public Health guidelines; install the new probe; and submit a CQA report within 90 days of issuance of this permit modification. This report does not have to be in the form of a significant modification to permit.

IX. CLOSURE/POST CLOSURE CARE AND FINANCIAL ASSURANCE

1. The facility is certified closed. The 30-year minimum post-closure care period began December 31, 2008.
2. Inspections of the closed landfill shall be conducted in accordance with the approved post-closure care plan in Permit Application Log No. 1995-165 as modified by Permit Application Log 1997-114. Records of field investigations, inspections, sampling and corrective action taken are to be maintained at the site and made available to Illinois EPA personnel or their designee through an intergovernmental Agreement. During the post-closure care period, these records are to be maintained at the office of the site operator. The minimum post-closure care period for this MSWLF landfill is thirty years.
3. If necessary, the soil over the entire planting area shall be amended with lime, fertilizer and/or organic matter. On sideslopes, 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 is thirty years. When the post-closure care period has been completed, the operator shall notify the Illinois EPA utilizing the Illinois EPA's "Affidavit for Certification of Post-Closure Care for Non-Hazardous Waste Facilities" form.
5. The operator shall provide financial assurance for post-closure care pursuant to 35 IAC, Section 811.700(b).
6. The total cost estimates of \$16,109,000.00 for post closure care for this facility were approved by Modification No. 76 to Permit No. 1995-165-LFM. Financial assurance shall be maintained in this amount.
7. The 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 IAC, 811.701(b).

8. The owner or operator shall adjust the cost estimates for post-closure and corrective action for inflation on an annual basis during the following time periods:
 - a. The post-closure care period for the post-closure cost; and
 - b. Until any corrective action program is completed in accordance with 35 IAC Section 811.326, for the cost of corrective action.

The owner or operator shall submit in the form of a permit application for significant modification, by July 1 of each year, an update to the cost estimate or a certification that there are no changes to the current cost estimates.

9. The operator shall revise the leachate disposal costs in the annual cost estimates required by Condition IX.8 yearly; based on the following items:
 - a. The actual volume of leachate removed from the landfill in the previous years;
 - b. The change in leachate head in the previous years;
 - c. Calculations similar to the demonstration in Log No. 2014-275 for the time and amount of leachate removal necessary to return to compliance with condition VI.2; and
 - d. However, when the landfill is in compliance with condition VI.2, the remaining years of post-closure care leachate disposal volume shall be assumed to be equal to the yearly average of the year(s) when the leachate head level is in compliance with Condition VI.2.

X. REPORTING REQUIREMENTS

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

2. 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.
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, Section 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:
 - 1) Summary of monitoring data for the calendar year;
 - 2) Dates of submittal of comprehensive monitoring data to the Illinois EPA during the calendar year;
 - 3) Statistical summaries and analysis of trends;
 - 4) Changes to the monitoring program; and
 - 5) Discussion of error analysis, detection limits and observed trends.
 - b. Proposed activities:
 - 1) Amount of waste expected in the next year;
 - 2) Structures to be built within the next year; and
 - 3) New monitoring stations to be installed within the next year.
 - c. Any modification or significant modification affecting operation of the facility.
 - d. The signature of the operator or duly authorized agent as specified in 35 Ill. Adm. Code 813.504(d).
4. 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.

The applicant may appeal this final decision to the Illinois Pollution Control Board pursuant to Section 40 of the Act by filing a petition for a hearing within 35 days after the date of issuance of the final decision. However, the 35-day period may be extended for a period of time not to exceed 90 days by written notice from the applicant and the Illinois EPA within the initial 35-day appeal period. If the owner or operator wishes to receive a 90-day extension, a written request that includes a statement of the date the final decision was received, along with a copy of this decision, must be sent to the Illinois EPA as soon as possible.

For information regarding the request for an extension, please contact:

Illinois Environmental Protection Agency
Division of Legal Counsel
1021 North Grand Avenue East
Post Office Box 19276
Springfield, IL 62794-9276
217/782-5544

For information regarding the filing of an appeal, please contact:

Illinois Pollution Control Board, Clerk
State of Illinois Center
100 West Randolph, Suite 11-500
Chicago, IL 60601
312/814-3620

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

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that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violations of these laws to the appropriate regulating authority.

Sincerely,



Kenneth E. Smith, P.E., Manager
Permit Section
Division of Land Pollution Control
Bureau of Land

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BSS 1/17

MSS

Attachments: Standard Conditions
Attachment 1: Background Values, Table 1B
Attachment 2: Dissolved Background Values, Table 1A

cc: Illinois Attorney General's Office
Jeep & Blazer, L.L.C.
Daniel Drommerhausen, P.G., APTIM
Russell F. Wajda, Village Administrator, Village of Hillside
Joseph L. Pisano, Fire Chief, Village of Hillside
Ann Flanagan, Reed Smith, LLP
Jesse Varsho, P.E., Geosyntec Consultants, Inc.
Cook County Dept of Environmental Control

bcc: Bureau File
Des Plaines Region
Bur Filson, Maureen Wozniak
Bob Mathis, Mark Gurnik
Brett Bersche
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 complaint 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.

KES\STANDARD CONDITIONS

Attachment 1: Background Values
 Table 1B
 0318170002 -- Cook County
 Congress Development Co. Landfill
 AGQs/MAPCs for Groundwater Parameters

Parameter	STORET	PQL	G10S	G117	G11S	G12D	G15D	G16S	G18D	G19D	R13S
1.1.1.2-Tetrachloroethane (ug/L)	77562	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.1.1-Trichloroethane (ug/L)	34506	5.0	1.0	1.0	1.6	1.0	1.0	1.0	1.0	1.0	1.0
1.1.2.2-Tetrachloroethane (ug/L)	34516	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.1.2-Trichloroethane (ug/L)	34511	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.1-Dichloroethane (ug/L)	34496	5.0	1.4	1.0	2.8	1.0	1.0	1.0	1.0	2.8	1.6
1.1-Dichloroethylene (ug/L)	34501	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.1-Dichloropropene (ug/L)	77168	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.2.3-Trichlorobenzene (ug/L)	77613	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.2.3-Trichloropropane (ug/L)	77443	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.2.4-Trichlorobenzene (ug/L)	34551	5.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1.2.4-Trimethylbenzene (ug/L)	77222	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.2-Dibromo-3-Chloropropane (ug/L)	38760	0.2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
1.2-Dichlorobenzene (ug/L)	34536	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.2-Dichloroethane (ug/L)	34531	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.2-Dichloropropane (ug/L)	34541	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.3.5-Trimethylbenzene (ug/L)	77226	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.3-Dichlorobenzene (ug/L)	34566	5.0	1.4	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.3-Dichloropropane (ug/L)	77173	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.3-Dichloropropene (ug/L)	34561	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.4-Dichlorobenzene (ug/L)	34571	5.0	1.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1-Butanol (ug/L)	77034	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0
1-Propanol (ug/L)	77018	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
2.2-Dichloropropane (ug/L)	77170	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2,4,5-tp [Sylvex] (ug/L)	39760	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2,4-Dichlorophenoxyacetic Acid (ug/L)	39730	10.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2,4-Dimethylphenol (ug/L)	34606	10.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2-Hexanone (ug/L)	77103	50.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
2-Propanol (ug/L)	81310	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
4-Methyl-2-Pentanone (MIBK) (ug/L)	78133	50.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
4,4-DDD (ug/L)	39310	0.1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
4,4-DDE (ug/L)	39320	0.1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Acenaphthene (ug/L)	34205	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Acetone (ug/L)	81552	100.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Acrolein (ug/L)	34210	100.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Acrylonitrile (ug/L)	34215	200.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Alachlor (ug/L)	77825	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Attachment 1: Background Values
 Table 1B
 0318170002 -- Cook County
 Congress Development Co. Landfill
 AGQSS/MAPCs for Groundwater Parameters

Aldicarb (ug/L)	39053	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Aldrin (ug/L)	39330	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Alkalinity, Bicarbonate (as CaCO3) (ug/L)	00425	100.0	742.899	629.311	476.447	1,093.461	809,150	589,135	466,687	747,300	1,173,433
Aluminum, Total (ug/L)	01105	100.0	2,031	5,864	1,753	1,701	457.0	586.0	1,558	3,442	721.0
Antimony, Total (ug/L)	01097	6.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Arochlor - 1016 (ug/L)	34671	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Arochlor - 1221 (ug/L)	39488	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Arochlor - 1232 (ug/L)	39492	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Arochlor - 1242 (ug/L)	39496	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Arochlor - 1248 (ug/L)	39500	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Arochlor - 1254 (ug/L)	39504	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Arochlor - 1260 (ug/L)	39508	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Arsenic, Total (ug/L)	01002	5.0	5.0	17.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Anthracene (ug/L)	34220	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Atrazine (ug/L)	39033	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Barium, Total (ug/L)	01007	20.0	232.0	152.0	99.0	84.0	82.0	55.0	65.0	119.0	62.0
Benzene (ug/L)	34030	5.0	14.0	1.0	1.0	2.2	1.0	1.0	1.0	1.0	1.0
Benzo(a)Anthracene (ug/L)	34526	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Benzo [a] Pyrene (ug/L)	34247	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Beryllium, Total (ug/L)	01012	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
beta-BHC	39338	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Biochemical Oxygen Demand (mg/L)	00310	2.0	3.0	17.4	2.0	2.0	3.0	2.0	2.0	4.0	23.2
Bis [2-Ethylhexyl] Phthalate (ug/L)	39100	6.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Boron (ug/L)	01022	40.0	480.0	5,309	240.0	292.0	913.0	1,388	765.0	637.0	428.0
Bromobenzene (ug/L)	81555	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Bromochloromethane (ug/L)	77297	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Bromodichloromethane (ug/L)	32101	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Bromoform (ug/L)	32104	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Bromomethane (Methyl Bromide) (mgk)	34413	10.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cadmium, Total (ug/L)	01027	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Calcium, Total (mg/L)	00916	1.0	525.0	274.0	260.0	386.0	356.0	275.0	312.0	308.0	261.0
Carbofuran (ug/L)	81405	40.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Carbon Disulfide (ug/L)	77041	20.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Carbon Tetrachloride (ug/L)	32102	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Chemical Oxygen Demand [COD] (mg/L)	00335	20.0	38.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	21.0
Chlordane (ug/L)	39350	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Attachment 1: Background Values
Table 1B
0318170002 -- Cook County
Congress Development Co. Landfill
AGQSs/MAPCs for Groundwater Parameters

Chloride, Total (mg/L)	00940	5.0	2,571	431.0	453	1,018	390.0	691.0	622.0	845.0	209.0
Chlorobenzene (ug/L)	34301	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Chloroethane (ug/L)	34311	10.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Chloroform (ug/L)	32106	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Chloromethane (Methyl Chloride) (ug/L)	34418	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Chromium, Total (ug/L)	01034	50.0	20.0	25.0	10.0	20.0	10.0	10.0	10.0	20.0	10.0
Chrysene (ug/L)	34320	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Cis-1,2-Dichloroethylene (ug/L)	77093	5.0	3.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.7
Cis-1,3-Dichloro-propene (ug/L)	34704	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cobalt, Total (ug/L)	01037	100.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Copper, Total (ug/L)	01042	60.0	20.0	28.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Dalapon (ug/L)	38432	200.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
DDT (ug/L)	39370	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Dibromochloromethane (ug/L)	32105	5.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Dibromomethane/Methylene Bromide (ug/L)	77596	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dichlorodifluoromethane (ug/L)	34668	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dieldrin (ug/L)	39380	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Diethyl Phthalate (ug/L)	34336	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Dimethyl Phthalate (ug/L)	34341	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Di-N-Butyl Phthalate (ug/L)	39110	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Dinoseb (DNBP) (ug/L)	81287	7.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Endosulfan I (ug/L)	34361	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Endosulfan II (ug/L)	34356	0.1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Endosulfan Sulfate	34351	0.1	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Endothall (ug/L)	38926	100.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Endrin (ug/L)	39390	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Ethylbenzene (ug/L)	78113	5.0	1.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Ethylene Dibromide [EDB] (ug/L)	77651	0.1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Fluoranthene (ug/L)	34376	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fluorene (ug/L)	34381	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fluoride, Total (mg/L)	00951	0.1	0.876	0.490	0.310	0.240	0.510	0.554	0.488	1.730	0.404
Heptachlor (ug/L)	39410	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Heptachlor Epoxide (ug/L)	39420	0.2	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Hexachlorobutadiene (ug/L)	39702	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Hexachlorocyclopentadiene (ug/L)	34386	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Iodomethane (ug/L)	77424	10.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Attachment 1: Background Values
Table 1B
0318170002 -- Cook County
Congress Development Co. Landfill
AGQs/MAPCs for Groundwater Parameters

Iron, Total (ug/L)	01045	50.0	6.330	18.174	932.0	1,932	583.0	2,651	7,871	3,584	1,028
Isophorone (ug/L)	34408	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Isopropylbenzene (ug/L)	77223	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead, Total (ug/L)	01051	5.0	224.0	11.0	5.0	5.0	5.0	16.0	5.0	5.0	5.0
Lindane (gamma - BHC) (ug/L)	39782	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Magnesium, Total (mg/L)	00927	1.0	255.0	135.0	124.0	156.0	188.0	94.1	90.9	142.0	126.0
Manganese, Total (ug/L)	01055	310.0	310.0	515.0	49.0	59.0	73.0	125.0	140.0	83.0	47.0
m-Dichlorobenzene (ug/L)	34566	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Mercury, Total (ug/L)	71900	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Methoxychlor (ug/L)	39480	2.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Methyl Ethyl Ketone (ug/L)	81595	100.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Methylene Chloride (ug/L)	34423	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Naphthalene (ug/L)	34696	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
n-Butylbenzene (ug/L)	77342	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Nickel, Total (ug/L)	01067	50.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	59.0	40.0
Nitrate-Nitrogen, Total (mg/L)	00620	1.0	7.49	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Nitrogen-Ammonia, Total (mg/L)	00610	0.5	3.051	2.185	0.5	0.710	0.747	0.5	1.541	2,208	0.5
n-Nitrosodiphenylamine (ug/L)	34433	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
n-Propylbenzene (ug/L)	77224	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
o-Chlorotoluene (ug/L)	77275	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
o-Dichlorobenzene (ug/L)	34536	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Oil [hexane soluble or equivalent] (mg/L)	00552	5.0	5.0	31.4	5.0	5.0	5.0	5.0	5.0	5.0	39.0
Parathion (ug/L)	39540	10.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
p-Chlorotoluene (ug/L)	77277	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
p-Cresol (ug/L)	77146	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
p-Dichlorobenzene (ug/L)	34571	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Pentachlorophenol (ug/L)	39032	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Phenanthrene (ug/L)	34461	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Phosphorous, Total (ug/L)	00665	1.0	81.0	81.0	50.0	132.0	180.0	25.0	74.0	880.0	61.0
Picloram (ug/L)	39720	500.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
p-Isopropyltoluene (ug/L)	77356	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Potassium, Total (mg/L)	00937	1.0	21.9	17.0	6.1	9.4	14.5	12.5	11.2	15.0	8.5
Pyrene (ug/L)	34469	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
sec-Butylbenzene (ug/L)	77350	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Selenium, Total (ug/L)	01147	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Silver, Total (ug/L)	01077	40.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

Attachment 1: Background Values
 Table 1B
 0318170002 -- Cook County
 Congress Development Co. Landfill
 AGQSS/MAPCs for Groundwater Parameters

Simazine (ug/L)	39055	4.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Sodium, Total (mg/L)	00929	1.0	1,961	200.0	138.0	467.0	240.0	380.0	442.0	509.0	52.0
Styrene (ug/L)	77128	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Sulfate, Total (mg/L)	00945	10.0	1,123	299.0	375.0	499.0	226.0	231.0	296.0	327.0	266.0
Tert-Butylbenzene (ug/L)	77353	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Tetrachloroethylene (ug/L)	34475	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Tetrahydrofuran (ug/L)	81607	50.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Thallium (ug/L)	01059	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Toluene (ug/L)	34010	5.0	1.3	1.0	1.0	1.0	1.0	1.0	1.2	1.0	1.0
Total Organic Carbon [TOC] (mg/L)	00680	1.0	10.4	4.9	1.8	11.7	2.4	6.0	3.5	3.4	8.3
Toxaphene (ug/L)	39400	2.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Trans-1,2-Dichloroethylene (ug/L)	34546	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Trans-1,3-Dichloropropene (ug/L)	34699	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
trans-1,4-Dichloro-2-Butene (ug/L)	73547	50.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Trichloroethylene (ug/L)	39180	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Trichlorofluoromethane (ug/L)	34488	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Vanadium, Total (ug/L)	01087	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Vinyl Acetate (ug/L)	77057	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Vinyl Chloride (ug/L)	39175	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Xylenes [total] (ug/L)	81551	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Zinc, Total (ug/L)	01092	20.0	20.0	28.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0

KFS:IMS:0318170002-8111LF-2014072-SM79-Attachment 1

Attachment 2: Dissolved Background
 Table 1A
 0318170002 -- Cook County
 Congress Development Co. Landfill
 Background for Groundwater Parameters

Parameter	STORET	PQL	G10S	G117	G11S	G12D	G15D	G16S	G18D	G19D	R13S
Arsenic [dissolved] (ug/L)	01000	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	19.6	5.0
Boron [dissolved] (ug/L)	01020	40.0	262.0	6553.0	214.0	421.0	739.0	385.0	840.0	833.0	505.0
Cadmium [dissolved] (ug/L)	01025	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Chloride [dissolved] (mg/L)	00941	4.0	3021.0	669.0	848.0	540.0	237.0	722.0	748.0	950.0	172.0
Cyanide (ug/L)	00720	5.0	5.0	5.0	5.0	5.0	5.0	6.0	5.0	5.0	5.0
Iron [dissolved] (ug/L)	01046	50.0	9837.0	6525.0	2857.0	4172.0	1453.0	2276.0	6770.0	4914.0	2686.0
Lead [dissolved] (ug/L)	01049	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Manganese [dissolved] (ug/L)	01056	15.0	389.0	39.0	74.0	77.0	66.0	227.0	122.0	89.0	76.0
Mercury [dissolved] (ug/L)	71890	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nitrogen-Ammonia [dissolved] (mg/L)	00608	0.5	2.9	2.173	0.500	0.886	0.500	0.500	1.836	4.67	0.500
pH (units)	00400	NA	5.47-7.87	5.84-8.16	6.66-7.15	6.14-7.68	6.45-7.38	6.50-7.56	6.25-8.72	5.50-8.58	5.63-7.60
Phenols [total] (ug/L)	32730	15.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Specific Conductance (umhos/cm)	00094	1.0	15517.0	4345.0	3539.0	6604.0	3579.0	4226.0	6379.0	5942.0	4035.0
Sulfate [dissolved] (mg/L)	00946	10.0	638.0	250.0	427.0	724.0	387.0	751.0	404.0	446.0	820.0
Total Dissolved Solids [TDS] (mg/L)	70300	25.0	5006.0	1527.0	1921.0	2430.0	1404.0	1819.0	1976.0	2626.0	1918.0
Zinc [dissolved] (ug/L)	01090	20.0	178.0	670.0	704.0	699.0	730.0	701.0	552.0	655.0	666.0

KES:IMS 031817002-811LF-2014072-SM79-Attachment2.xls

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