LAW OFFICES

LUEDERS, ROBERTSON & KONZEN LLC

JAN - 8 2004

RECEIVED

1939 DELMAR AVENUE

P. O. BOX 735 GRANITE CITY, ILLINOIS

ZIP CODE 62040-0735

618-876-8500

FAX 618-876-4534

POLLUTION CONTROL BOARD

PCB04-117

rrobertson@lrklaw.com lkonzen@lrklaw.com erobertson@lrklaw.com bkonzen@lrklaw.com

Ismith@Irklaw.com

WESLEY LUEDERS - 1896-1957

January 7, 2004

Dorothy Gunn, Clerk Illinois Pollution Control Board 100 W. Randolph, Suite 11-500 Chicago, Illinois 60601

RE:

Saline County Landfill, Inc. v. IEPA

(Permit Appeal)

Dear Ms. Gunn,

Enclosed please find original and nine copies of Petition for Review, Notice of Filing, Certificate of Service, appearance, and Recycled Paper Certification regarding the above cause.

Very truly yours,

Brian E. Konzen

bk/rh

Enclosure-original

cc: Service List

44494

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD 2004

| SALINE COUNTY LANDFILL, INC., | STATE OF ILLINOIS POLLUTION CONTROL BOARD |
|-------------------------------|--|
| PETITIONER, |) |
| v. |)) No. PCB 04-117 (PERMIT APPEAL) |
| ILLINOIS ENVIRONMENTAL |) |
| PROTECTION AGENCY, |) |
| RESPONDENT. |) |

APPEARANCE

I hereby file my appearance in this proceeding, on behalf of Saline County Landfill, Inc., Petitioner.

Brian E. Konzen, Esq.

Lueders, Robertson, Konzen & Fitzhenry

1939 Delmar, P.O. Box 735 Granite City, Illinois 62040

Phone: (618) 876-8500 ARDC No.: 06187626

BEFORE THE ILLINOIS POLLUTION CONTROL BOARDJAN - 8 2004

| SALINE COUNTY LANDFILL, INC., |) | | POLLUTION CONTROL BOARD |
|-------------------------------|----------|---------------------------------------|-------------------------|
| PETITIONER, |) | | |
| v. | • | BU4-17 RMIT APPEAL) | |
| ILLINOIS ENVIRONMENTAL |) | · · · · · · · · · · · · · · · · · · · | |
| PROTECTION AGENCY, | <u>)</u> | | |
| |) | | |
| RESPONDENT. |) | | |

NOTICE OF FILING

To: Division of Legal Counsel
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
Attention: John Kim, Esq.

Please take notice that I have today filed with the Office of the Clerk of the Pollution Control Board a Petition for Review on behalf of Saline County Landfill, Inc., and certificate of service, on behalf of Saline County Landfill, Inc., copies of which are herewith served upon you.

Brian E. Konzen, Ésq. // Lueders, Robertson & Konzen 1939 Delmar, P.O. Box 735

Granite City, Illinois 62040

Phone: (618) 876-8500 ARDC No.: 06187626

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD JAN - 8 2004

| SALINE COUNTY LANDFILL, INC., |) | • | STATE OF ILLINOIS POLLUTION CONTROL BOARD |
|-------------------------------|---|-----------------|---|
| PETITIONER, |) | • | |
| v. |) | PLB 04-117 | |
| |) | (PERMIT APPEAL) | |
| ILLINOIS ENVIRONMENTAL |) | | |
| PROTECTION AGENCY, |) | | |
| |) | | |
| RESPONDENT. |) | | |

CERTIFICATE OF SERVICE

I, the undersigned, certify that I have served the attached Petition for Review on behalf of Saline County Landfill, Inc., by overnight mailing upon the following persons on January 716, 2004.

John Kim, Esq.
Division of Legal Counsel
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Rod Wolf State's Attorney 10 E. Poplar Harrisburg, Illinois 62946

Brian Konzen

| BEFORE THE ILLINOIS | POLI | LUTION CONTROL BO | ARD JAN - 8 2004 |
|-------------------------------|------|-------------------|---|
| SALINE COUNTY LANDFILL, INC., |) | | STATE OF ILLINOIS POLLUTION CONTROL BOARD |
| PETITIONER, |) | 4117 | SOUTHOL BOARD |
| v. |) | PLB04-117 | |
| ILLINOIS ENVIRONMENTAL |) | (PERMIT APPEAL) | |
| PROTECTION AGENCY, |) | | |
| RESPONDENT. |) | | |

RECYCLED PAPER CERTIFICATION

I, the undersigned, verify that the foregoing pleadings or documents, filed with the Illinois Pollution Control Board January, 2004, were printed on recycled paper, per 35 Ill. Adm. Code 101.302(g), and 101.202.

Brian Konzen

| BEFORE THE ILLINOIS | S POLLUTION CONTROL BOARD JAN - 0 2004 |
|-------------------------------|---|
| SALINE COUNTY LANDFILL, INC., | STATE OF ILLINOIS POLLUTION CONTROL BOARD |
| PETITIONER, |) |
| v. |) No. PCB 04-117 |
| ILLINOIS ENVIRONMENTAL |) (Permit Appeal) |

PETITION FOR REVIEW OF PERMIT DENIAL PER 415 ILCS 40(a)(1)

PROTECTION AGENCY,

RESPONDENT.

COMES NOW Saline County Landfill, Inc., (SCLI), Petitioner, and petitions for review of the final decision of the Illinois Environmental Protection Act (Agency), dated December 5, 2003, attached.

- 1. The Agency's served by certified mailing dated December 5, 2003, its final decision on Petitioner's application for permit under 415 ILCS 5/39. Therefore, this appeal is timely filed.
- 2. The grounds for appeal are the Petitioner proved the proposed 53.2 acre landfill expansion will not cause a violation of the Illinois Environmental Protection Act, 415 ILCS 5/1, et seq. nor cause a violation of the Board regulations, including those set forth in 35 Ill. Adm. Code: Chapter I. 35 Ill. Adm. Code 813.104(a).
- 3. The sole justification for permit denial is the Agency's allegation in paragraph 1 of its December 5, 2003 permit denial, that "The application did not provide proof of local siting approval pursuant to Section 39(c) of the Act. The siting provided in the application expired." See attached.
- 4. The Agency's conclusion the local siting expired is erroneous and must be reversed, because:

- A. The only manner provided by statute, by which the local siting could expire, would be for SCLI to fail to apply to the Agency for a permit to develop the landfill within three years of the date the County granted local siting. 415 ILCS 5/39.2 (f). In October, 1999, within the three years allowed by 415 ILCS 5/39.2(f), SCLI timely applied for permit of the expansion air space approved by the Saline County Board on November 21, 1996.
- B. The Agency admitted only several months ago SCLI's local siting has not expired. See attached March 12, 2003 Agency correspondence signed by Joyce Munie, PE, as Manager of Permit Section, Bureau of Land.
- C. The Agency conceded before this Board another local siting for SCLI was unnecessary to allow an expansion permit to issue to SCLI. Therefore, the November 21, 1996 local siting approval did not expire. See attached Board Opinion in PCB 02-108, dated May 16, 2002, page 19.
- D. The November 21, 1996 local siting approval could not have expired, because the Agency shortly thereafter permitted for development and operation a portion of that locally approved expansion. See attached permit dated December 31, 1996, IEPA log no. 1996-147. The local siting approval therefore could not have expired due to failure to timely apply for a permit under 415 ILCS 5/39.2(f)—the expansion approved for local siting was partly permitted and partly filled.
- 5. The attached December 5, 2003 permit denial is an unjustified, arbitrary, capricious, and irreconcilable reversal from in the Agency's long-standing interpretation of 415 ILCS 5/39.2(f). See attached March 12, 2003 correspondence signed by Joyce Munie, PE, as the Agency's Manager, Permit Section, Bureau of Land. See further attached May 16, 2002 Opinion of this Board in PCB

02-108, page 19. See further the attached review notes generated by the Agency, confirming the Agency originally decided to issue SCLI its requested expansion permit, before the Agency's sudden reversal of its longstanding interpretation of 415 ILCS 5/39.2(f).

Now, therefore, Saline County Landfill, Inc., Petitioner, requests the following relief:

A. For an Order accepting this petition for review as timely filed, and not frivolous or duplicitous, pursuant to 415 ILCS 40(a)(1).

B. For a reversal of the attached December 5, 2003 permit denial, the Agency's final decision.

C. For remand to the Agency, with instructions to issue a permit instanter.

D. For a summary judgment in favor of the Petitioner. Motion for summary judgment to be filed under separate cover pursuant to 35 Ill. Adm. Code 101.516.

E. For an order directing the Agency to file its entire record of its decision with the Clerk of the Board in accordance with 35 Ill. Adm. Code 105.116 and 105.212.

F. For such other and further relief as the Board deems fair, just, and equitable, within the powers of the Board enumerated in 415 ILCS 5/5 and 5/40.

DV.

Brian Konzen

Lueders, Robertson & Konzen

P. O. Box 735,

Granite City, IL 62040

618-876-8500



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, LEINOIS 62794-9276 JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601

ROD R. BLAGOJEVICH, GOVERNOR

RENFE CIPRIANO, DIRECTOR

217/524-3300

December 5, 2003

Cortified Mail 7001 2510 0002 1281 7766

Saline County Landfill, Inc.
Attn: Marty Grant and Danny Bowman
\$000 Whitesville Road
Harrisburg, Illinois 62946

Re: 1658080001 -- Saline County Saline County Landfill

Log No. 2003-113

Permit File

Dear Mr. Grant:

This will acknowledge receipt of your Application for Permit to modify the development and operation of the above referenced solid waste management, dated April 4, 2003, October 2, 2003, October 8, 2003, October 27, 2003 and November 26, 2003 and received by the Illinois EPA on April 7, 2003, October 2, 2003, October 9, 2003, October 28, 2003, and November 26, 2003, respectively.

Your permit application for a significant modification of the above referenced facility is denied. Specifically, Application Log No. 2003-113 contains a request for a lateral expansion of an existing municipal solid waste landfill referred to as Unit 2 of Saline County Landfill.

You have failed to provide proof that granting this permit would not result in violations of the Illinois Environmental Protection Act (Act). Section 39(a) of the Act [415 ILCS 5/39(a)] requires the Illinois EPA to provide the applicant with specific reasons for the denial of permit. The following reason(s) are given:

1. The application did not provide proof of local siting approval pursuant to Section 39(c) of the Act. The siting provided in the application expired.

Within 35 days after 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 90 days by written notice provided to the Board from the applicant and the Illinois EPA within the 35-day initial appeal period.

ROCKICHO - 4302 North Main Street, Rockford, IL 61103 - (815) 987-2760 • Dis Planes - 9511 W. Harrison St., Des Plaines, IL 60016 - (847) 294-4000 Elicin - 595 South State, Elgin, IL 60123 · (847) 600-3131 • PLONIA - 5415 N. University St., Peoria, IL 61614 - (309) 693-5463

BURIAU DI JAND - Proma - 7620 N. University St., Peoria, IL 61614 - (309) 693-5462

STURGERO - 4500 S. Sixth Street Rd., Springfield, IL 62206 - (217) 786-6892 • COLLINSVILL - 2009 Mall Street, Collinsville, IL 62234 - (618) 316-5120

MARKON - 2300 VV. Main St., Suite 116, Marion, IL 62959 - (618) 993-7200

Page 2

Should you wish to reapply or have any questions regarding this application, please contact Christine Roque of my staff at 217/524-3299.

Sincerely.

Joyce L. Munic, P.E.

Manager, Permit Section

Bureau of Land

LTL JLM:CMR:mls\03271.doc

CMIR

cc: John W. Bossert, P.E. -- STS Consultants, Ltd.



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601

ROD R. BLAGOJEVICH, GOVERNOR

RENEE CIPRIANO, DIRECTOR

217/524-3300

March 12, 2003

Stephen F. Hedinger 1225 South Sixth Street Springfield, Illinois 62703

Re: 1658080001 -- Saline County

Saline County Landfill

Log Nos. 1999-381 and 2001-362

Permit File

Dear Mr. Hedinger:

Hedinger Law Office

MAR 1 3 2003

RECEIVED

This is in response to your letter, dated December 12, 2002, concerning the above-referenced landfill and the permit applications for it, designated by the Illinois EPA as Log Nos. 1999-381 and 2001-362. In your letter, you identify yourself as the Special Assistant State's Attorney for Saline County and you indicate that you do not understand what Saline County Landfill, Inc. (SCLI) is requesting in Log No. 2001-362. You also express your opinion regarding the current validity of the 1996 local siting approval granted by the Saline County Board.

First, I want to thank you for bringing this matter to my attention and giving me an opportunity to provide clarification. This response letter gives background information on the 1996 local siting approval and on Log No. 1999-381. It also explains what is being requested in Log No. 2001-362 and presents our view on the viability of the Saline County Board's local siting approval.

Background

On November 21, 1996, the Saline County Board granted local siting approval for a lateral expansion of this landfill. The application for siting approval specified that there would be a 50-foot separation berm between the existing waste footprint (Unit 1) and the lateral expansion footprint (Unit 2). The application for siting approval also specified that the separation berm was to be constructed of clean soil and indicated that the purpose of the berm was to isolate the waste from Unit 1 and Unit 2.

On October 8, 1999, SCLI submitted a permit application (Log No. 1999-381) to us requesting a development permit for a lateral expansion. As originally proposed in Log No. 1999-381, the lateral expansion was consistent with local siting approval. However, the original application had several technical and regulatory problems related to the

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ELGIN - 595 South State, Elgin, IL 60123 - (847) 608-3131

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SPRINGFIELD - 4500 S. Sixth Street Rd., Springfield, IL 62706 - (217) 786-6892

MARION - 2309 W. Main St., Suite 116, Marion, IL 62959 - (618) 993-7200

DES PLAINES - 9511 W. Harrison St., Des Plaines, IL 60016 - (847) 294-4000

PEORIA - 5415 N. University St., Peoria, IL 61614 - (309) 693-5463

CHAMPAICN - 2125 South First Street, Champaign, IL 61820 - (217) 278-5800

COLLINSVILLE - 2009 Mall Street, Collinsville, IL 62234 - (618) 346-5120

separation berm ---- particularly with regard to groundwater monitoring and groundwater modeling. SCLI was made aware of these problems by way of draft denial letters.

On August 30, 2000, SCLI submitted an addendum to Log No. 1999-381 proposing a redesign of the lateral expansion that eliminated the separation berm. This addendum cured the previously identified problems associated with the berm but the proposed redesign was not, in our opinion, consistent with the 1996 local siting. Upon being informed that due to this inconsistency we felt that we could not approve the redesign, SCLI asked us to deny Log No. 1999-381 so they could appeal our decision to the Illinois Pollution Control Board.

On January 4, 2002, we denied Log No. 1999-381 solely because the proposed lateral expansion, without the separation berm, was not consistent with the 1996 local siting. SCLI appealed this denial and on May 16, 2002, the Illinois Pollution Control Board affirmed our decision.

Log No. 2001-362

On September 24, 2001, SCLI submitted Log No. 2001-362. This application requested renewal of Permit No. 1996-147-LFM and was timely filed pursuant to 35 Ill. Adm. Code 813.301.

On January 24, 2002, SCLI submitted an addendum to Log No. 2001-362 that made the same proposal (i.e., a lateral expansion without a separation barrier) that had been denied in the final action taken on Log No. 1999-381. The January 24, 2002 addendum was flawed in several respects and on February 7, 2003, SCLI submitted another addendum withdrawing the request for a lateral expansion. Thus, now once again, Log No. 2001-362 only requests renewal of SCLI's 813 permit.

Status of 1996 Local Siting Approval

At the end of your letter, you argue that SCLI's 1996 local siting approval has lapsed. The Illinois EPA has not come to the same conclusion. Instead, we have interpreted Section 39.2(f) of the Illinois Environmental Protection Act to mean that a landfill's local siting approval expires within 3 years of being granted only if an application for a development permit has not been made during that 3-year period. This interpretation has consistently been employed in answering questions from potential operators and in reviewing permit applications.

SCLI made application for a lateral expansion (Log No. 1999-381) within 3 years of obtaining local siting approval and although that application was denied and the Illinois Pollution Control Board has affirmed its denial, the 1996 local siting approval remains

viable. Accordingly, if SCLI were to submit a permit application for a lateral expansion, that was consistent with the 1996 local siting approval and that met all the regulatory requirements, the Illinois EPA would be obligated to approve it.

If you have any questions regarding this letter, please contact Chris Liebman at 217/524-3294 or Christine Roque at 217/524-3299.

Sincerely,

Joyce L. Munie, P.E. Manager, Permit Section

Bureau of Land

C 3L

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ILLINOIS POLLUTION CONTROL BOARD May 16, 2002

| SALINE COUNTY LANDFILL, INC., |) |
|-------------------------------|--------------------------|
| Petitioner, |) |
| v. |)) PCB 02-108 |
| ILLINOIS ENVIRONMENTAL |) (Permit Appeal - Land) |
| PROTECTION AGENCY, | .) |
| Respondent, |) |
| COUNTY OF SALINE, |) |
| Intervenor. |)) |

BRIAN E. KONZEN, OF LUEDERS, ROBERTSON, KONZEN & FITZHENRY, APPEARED ON BEHALF OF PETITIONER;

DANIEL P. MERRIMAN, SPECIAL ASSISTANT ATTORNEY GENERAL, OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, APPEARED ON BEHALF OF RESPONDENT; and

STEPHEN F. HEDINGER, SPECIAL ASSISTANT STATE'S ATTORNEY, OF HEDINGER & HOWARD, APPEARED ON BEHALF OF INTERVENOR.

OPINION AND ORDER OF THE BOARD (by C.A. Manning):

Petitioner Saline County Landfill, Inc. (SCLI) owns and operates a landfill approximately five miles southeast of Harrisburg in Saline County. The landfill, which receives municipal solid waste, is known as the Saline County Landfill and was originally sited in 1982. In November 1996, SCLI received siting approval from the Saline County Board (County Board) to expand the landfill vertically and laterally. To obtain a development permit for the landfill expansion, SCLI submitted application materials to the Illinois Environmental Protection Agency (Agency) from October 1999 to December 2001.

On January 4, 2002, the Agency denied SCLI's permit application on one ground. The ground for denial was that SCLI's proposed waste disposal area, also described by the Agency as the waste "footprint," for the lateral expansion had changed from the waste footprint that SCLI had proposed before the County Board in 1996. The difference in the waste footprint results from climinating an interior berm that would have separated waste in the existing landfill from waste in the lateral expansion.

MAY 20 '02 15:53

Moreover, in this case, the Agency did not limit its review to the waste boundaries approved by the County Board in 1996. On the contrary, during the permit application process, the Agency asked the 2001 County Board whether "the designs proposed in the pending [SCLI] permit application are consistent with the local siting approval granted on November 21, 1996." R. at 0030-31 (emphasis added). In turn, the Agency received and admittedly relied on a resolution of the 2001 County Board calling for SCLI to apply for new siting because of "structural changes . . . made in the design of the landfill since the original siting." R. at 0027 (emphasis added).

The Agency correctly notes that such a resolution, for the Agency's purposes, is merely an "advisory opinion" and "does not abrogate [the Agency's] responsibility to determine the existence of adequate proof of local siting approval." Agency Br. at 13. Yet the Agency's inquiry here about design consistency belies its plea to look only at waste boundaries when determining whether the permit applicant has met its burden under Section 39(c). In fact, when Munie was asked at hearing to describe the Agency's reason for denying the permit, she testified that the County Board "had required that there be two units" and that "changing it to a one unit design appeared to be inconsistent with the local siting approval." Tr. at 73.

Finally, though it has no bearing on the Board's decision today, and the Board makes no ruling on it, the parties do not dispute that SCLI can avoid returning for siting if it submits an amended permit application, proposing a wider interior separation berm, 100 feet wide instead of 50. The Agency explained to SCLI during the permit application process that SCLI could have proposed widening the interior berm to 100 feet. Doing so could have addressed the Agency's concerns over compliance with the Board's landfill regulations on stability and groundwater monitoring, while maintaining the separate units of the landfill as proposed to the County Board in 1996. Though the Agency explained to SCLI that eliminating the interior berm could address concerns over compliance with the Board's regulations (the path SCLI chose), this had no effect on SCLI's obligation under Section 39(c) of the Act to submit proof of local siting approval.

This opinion constitutes the Board's findings of fact and conclusions of law.

ORDER

The Board affirms the Agency's January 4, 2002 decision to deny SCLI's application for a development permit to expand the Saline County Landfill. The Agency correctly determined that SCLI lacked the proof of local siting approval required by Section 39(c) of the Act.

IT IS SO ORDERED.

Section 41(a) of the Environmental Protection Act provides that final Board orders may be appealed directly to the Illinois Appellate Court within 35 days after the Board serves the order. 415 ILCS 5/41(a) (2000); see also 35 III. Adm. Code 101.300(d)(2), 101.906,

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/524-3300

December 31, 1996!

CERTIFIED MAIL Z 363 546 719

Saline County Landfill, Inc. 1400 S. Main Street Harrisburg, Illinois 62946

Re: 1658080001 - Saline County

Saline County Landfill Permit No. 1996-147-LFM

Log No. 1996-147

Expiration Date: December 23, 2001

Permit File



Gentlemen:

Permit is hereby granted to Saline County Landfill, Inc. as owner and operator, approving modification of an existing municipal solid and non-hazardous special waste landfill all in accordance with the application and plans prepared, signed and sealed by Devin Moose, P.E. of Engineering Solutions, 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 (the "Illinois EPA"), Bureau of Land, Division of Land Pollution Control by the permit number and log number designated in the heading above.

The application approved by this permit consists of the following documents:

| DATED | DATE RECEIVED |
|--------------------|--|
| May 1, 1996 | May 1, 1996 |
| May 29, 1996 | May 31, 1996 |
| September 23, 1996 | October 1, 1996 |
| October 2, 1996 | October 3, 1996 |
| October 23, 1996 | October 24, 1996 |
| October 24, 1996 | October 25, 1996 |
| _ | May 1, 1996 May 29, 1996 September 23, 1996 October 2, 1996 October 23, 1996 |

Page 2

| DOCUMENT | DATED | DATE RECEIVED |
|------------------------|-------------------|-------------------|
| Additional Information | November 27, 1996 | December 2, 1996 |
| Additional Information | December 17, 1996 | December 18, 1996 |

Specifically, this permit approves:

- 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 through 813, pursuant to 35 IAC, Sections 814.104, 814.301 and 814.302. The existing waste footprint of this landfill is approximately 15.8 acres.
- b. The lateral expansion of this landfill so as to comply with 35 IAC, Section 814.109. The footprint of the lateral expansion is approximately 4.8 acres.
- c. The vertical expansion of the existing landfill. The maximum final elevation of the landfill shall be approximately 478 feet above mean sea level. The total remaining air space of the landfill, including the lateral and vertical expansion is approximately 975,000 cubic yards.
- d. Operation (i.e., waste disposal) within the area currently permitted for waste disposal.
- e. Acceptance of special waste streams without individual special waste stream authorizations, in accordance with the special conditions listed in Part III of this permit.

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, 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.

Active gas collection system is proposed for the lateral expansion area. Active gas extraction system plan shown in Draw No. 12. Unit 2 consists of 21 gas extraction wells and 12 perimeter probes.

Groundwater Monitoring:

Unit 2 consists of :3 upgradient gw monitoring wells, 5 ZOA wells, 1 compliance boundary, 2 piezometers.

Final Cover System:

1' recompacted cohesive soil + 40 mil VFPE => low permeability layer

1' drainage layer (sand) + 3' protective soil (includes 6" topsoil) => protective layer

Closure Plan/Post-Closure Care Plan/Cost Estimates for Unit 2:

Total cost estimates contained in Section 9 of the application rec'd 4/7/03 = \$2,589,425.00 Unit 2 only. Premature closure cost est. = \$602,805

- -final cover for 13.4 ac area (Cell 1 and Cell 2);
- -2 leachate collection points (L308 and L309; already installed w/SMO);
- -12 gas extraction points; gas mgmt system (blower/flare), maintenance, & decommissioning;
- -6 gw monitoring wells (already installed w/ SMO)

Corrective action measures cost est.=\$173,166.00 includes:

- -installation of 3 gw pumping wells
- -collection & reporting, hauling and treatment (400 gal/day), lab testing, decommissioning

Post Closure Care cost est for 5 yr permit term= \$1,813,454.00

-30 yrs pcc

Floodproofing:

Design approved in initial sig mod, application Log No. 1996-147. CQA report for the flood-proofing construction was approved in Mod No. 11. To address the issues presented to the IEPA during review of 1999-381, specifically the concern on the South Fork of the Saline River returning to its natural meander. JM suggested to put a special condition in the facility's permit to evaluate the flood proofing design every permit renewal. This special condition will be added to Section V.5 of the permit.

FINAL ACTION

The application for lateral expansion, Unit 2, of Saline County Landfill is approved.

Landfill footprint consistent w/ siting granted by Saline County Board on Nov. 21, 1996.

Note:

It should be noted that the IEPA received an application for development permit within 3 years of siting approval for the above referenced facility, Saline County Landfill, Inc. Siting was granted by the Saline County Board on Nov. 1996. The application for sig mod to develop the landfill was originally received by IEPA on Oct. 1999, Log No. 1999-381. Therefore had met the provisions of Section 39.2(f). The application, Log No. 1999-381, was denied on January 4, 2002 due to design of the waste boundary not consistent with the siting approved waste boundary. It has been IEPA's interpretation of Section 39.2(f) of the Illinois Environmental Protection Act to mean that a landfill's local siting approval expires within 3 years of being granted only if an application for a development permit has not been made during that 3-year period. Accordingly, if SCLI were to submit a permit application for a lateral expansion, that was consistent with the 1996 local siting approval and that met all the regulatory requirements, the Illinois EPA would be obligated to approve it.

CHANGES TO THE PERMIT:

Modification No.15 is hereby granted to Saline County Landfill, Inc. as owner and operator, allowing a significant modification of an existing municipal solid waste and non-hazardous special waste landfill all in accordance with the plans prepared, signed and sealed by John W. Bossert, P.E. of STS Consultants, Ltd., signature dated April 4, 2003 for Application Log No. 2003-113.

The application approved by this permit consists of the following documents:

| DOCUMENT | DATED | DATE RECEIVED |
|--|------------------|---------------------------------|
| Original Application Log No. 2003-113 | April 4, 2003 | April 7, 2003 |
| Waiver Letter | October 2, 2003 | October 2, 2003 (via facsimile) |
| Additional Information | October 8, 2003 | October 9, 2003 |
| Additional Information | October 27, 2003 | October 28, 2003 |

Modification No. 15 to Permit No. 1996-147-LFM approves the development of Unit 2, a lateral expansion to the existing permitted waste boundaries. The waste footprint of the lateral expansion is approximately 28.9 acres north and adjacent to the existing waste boundaries, Unit 1. The Unit 2 expansion provides an additional "in-placed" net disposal capacity of 3,113,575 cubic yards. The maximum final elevation of Unit 2 shall be approximately 495 feet above mean sea level, as shown on Sheet Number D07, entitled "Final Site Grades" in Application Log No. 2003-113.

Notwithstanding the legal description of the waste boundaries submitted with Application Log No. 2003-113, Saline County Landfill Inc. shall provide proof of siting approval from local siting authority, with the permit application requesting to develop the separation area between Unit 1 and Unit 2 into a solid waste landfill. Specifically, the application for expansion without the separation berm would constitute placement of waste beyond the boundaries approved by Saline County Board on Nov. 21, 1996. (PCB 02-108) Therefore, Section 39(c) of the Act would be violated, unless proof that local siting authority has approved the facility.

Except for the differences described in the table below, the special conditions of the permit letter for Modification No.15 to Permit No. 1996-147-LFM are identical to the special conditions for Modification No.14 issued April 9, 2003.

| Condition No. In | Condition No. In | |
|------------------------|------------------------|--------------------------------|
| Permit No.1996-147-LFM | Permit No.1996-147-LFM | Description of Revision |
| Modification No. 14 | Modification No. 15 | |
| 1.5 | 1.5 | Added clarification for Unit 1 |
| | | only. |
| II.5 | II.5 | Added petroleum contaminated |
| | · · | soil as alternate daily cover |
| | | material (adcm). |

CHANGED WAIVER DATE TO NOVEMBER 21, 2003 (SUBLW)

TATE PERMIT LOG NO. : 2003-113

NAME : SALINE COUNTY LANDFILL

OWNER: MARTY GRANT SITE NO. : 1658080001

COUNTY : SALINE

CITY: HARRISBURG

STATUS : A

NOTS DUE DATE: 07/06/2003 REVIEWER : CMR GA-REO'D : Y PERMIT TYPE : LF

SR : 180 FACILITY TYPE : LF

GA-REO'D : COMPLETENESS: 05/07/2003 GAU-REV: MSS/PCE

RP: 180 WASTE TYPE : NH

RECEIVED: 04/07/2003 DUE: 10/04/2003 MAILED :

REVIEW TIME :

FINAL ACTION: Approved Mod 15
PSRP DENIED PRP: WAIVER : 11/27/2003

NOTIFY IHPA :

SITING APP'D: NO

NOTIFY ENF: Y NOTIFY CMS:
NOTIFY FOS: Y NOTIFY DOT:
NOTIFY DENR: NOTIFY CONSER.: NOTIFY CMS: Y

NOTIFY LOCAL OFFICIALS: Y
NOTIFY AGRI: NOTIFY AGRI:

NOTIFY DELEGATED COUNTY: Y PRE-OP MEMO SENT: MEMO RESPONSE:

OMMENTS: APPLICATION FOR THE LATERAL (UNIT 2) EXPANSION OF THE SALINE COUNTY

LANDFILL

813 COMPLETENESS REVIEW

LOG IN PROCESS : (5) : PERMIT EXPIRATION: TO GAU REVIEWER ____: (5) GAU REVIEW ____: (7) GAU MEMO TO SW TO SW REVIEWER ____: (5) SW REVIEW _____: (7) SW MANAGER REVIEW JOINT DECISION COMPLETENESS LTR SENT GAU & SW _ _____: (TECH. MTG.) DRAFT REVIEW MGR

807/832 COMPLETENESS REVIEW

OWNER'S SIGNATURE Y N i. OPERATOR'S SIGNATURE Y N ii. P.E.'S SIGNATURE Y N NA

v. SITING OBTAINED Y N NA
. CORRECT FORMS UTILIZED Y N WHAT FORMS MISSING?
i. COMPLETE Y N IF NO SEND LETTER BY 30TH DAY!

NOTICE OF TECHNICAL STATUS (NOTS) CALL

CONTACTED: ACTUAL DATE CONTACTED: TEMS DISCUSSED:

RELEASABLE

NOV U 4 2003

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/524-3300

December 31, 1996

CERTIFIED MAIL Z 363 546 719

Saline County Landfill, Inc. 1400 S. Main Street Harrisburg, Illinois 62946

Re: 1658080001 - Saline County

Saline County Landfill Permit No. 1996-147-LFM

Log No. 1996-147

Expiration Date: December 23, 2001

Permit File

Gentlemen:

Permit is hereby granted to Saline County Landfill, Inc. as owner and operator, approving modification of an existing municipal solid and non-hazardous special waste landfill all in accordance with the application and plans prepared, signed and sealed by Devin Moose, P.E. of Engineering Solutions, 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 (the "Illinois EPA"), Bureau of Land, Division of Land Pollution Control by the permit number and log number designated in the heading above.

The application approved by this permit consists of the following documents:

| DOCUMENT | DATED | DATE RECEIVED |
|--|--------------------|------------------|
| Original Application Log No. 1996-147 | May 1, 1996 | May 1, 1996 |
| Additional Information | May 29, 1996 | May 31, 1996 |
| Additional Information | September 23, 1996 | October 1, 1996 |
| Additional Information | October 2, 1996 | October 3, 1996 |
| Additional Information | October 23, 1996 | October 24, 1996 |
| Additional Information | October 24, 1996 | October 25, 1996 |

Page 2

DOCUMENTDATEDDATE RECEIVEDAdditional InformationNovember 27, 1996December 2, 1996Additional InformationDecember 17, 1996December 18, 1996

Specifically, this permit approves:

- 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 through 813, pursuant to 35 IAC, Sections 814.104, 814.301 and 814.302. The existing waste footprint of this landfill is approximately 15.8 acres.
- b. The lateral expansion of this landfill so as to comply with 35 IAC, Section 814.109. The footprint of the lateral expansion is approximately 4.8 acres.
- c. The vertical expansion of the existing landfill. The maximum final elevation of the landfill shall be approximately 478 feet above mean sea level. The total remaining air space of the landfill, including the lateral and vertical expansion is approximately 975,000 cubic yards.
- d. Operation (i.e., waste disposal) within the area currently permitted for waste disposal.
- e. Acceptance of special waste streams without individual special waste stream authorizations, in accordance with the special conditions listed in Part III of this permit.

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, 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. <u>CONSTRUCTION QUALITY ASSURANCE</u>

- 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. 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 gas control facilities; and
- f. 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. 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 the CQA officer(s) shall comply with the requirements of 35 IAC, Section 811.503(b).
- 5. The liner and foundation shall be dewatered during construction and operation until a minimum of 5 feet of refuse has been placed in the lateral expansion units so as to prevent hydrostatic uplift.
- 6. Pursuant to 35 IAC 811.506(b), the removal and filling of local sand deposits shall be documented on as-built drawings. In addition, the foundation shall be constructed and graded to provide a smooth, workable surface to construct the liner as required by 35 IAC 811.305(e).
- 7. The clay liner shall be tested for density and moisture content a minimum of one test per 1000 cubic yards of soil placed.
- 8. A minimum of one triaxial laboratory permeability test from thin tube samples shall be performed for every 10,000 cubic yards of liner soil placed. A minimum of one triaxial laboratory permeability test from carved block sample shall be performed for every 100,000 yards of soil placed.

- 9. If the clay portion of the liner is exposed to freezing conditions, it must be recertified. If necessary, damaged portions of the liner shall be reconstructed, retested and recertified. The designated CQA Officer(s) shall then certify that the clay portion of the liner and all 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 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.
- 10. 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.
- 11. 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. 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 Maywood 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.
 - d. At the same time the Illinois EPA-FOS Marion 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 on its construction in an Acceptance Report pursuant to 35 Ill. Adm. Code, 811.505(d).

- 12. Applications for operating authorization shall not be made for areas of less than 1.5 acre increments of constructed liner.
- 13. 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. Any missing or damaged stakes or monuments discovered shall be replaced and resurveyed.
- 14. 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.

II. OPERATING CONDITIONS

- 1. Pursuant to 35 IAC, 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 Illinois Environmental Protection Act (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;
- 1. failure to collect and contain litter from the site by the end of each operating day.
- 3. Moveable, 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. Geotextile fabric is approved as alternate material for daily cover pursuant to 35 IAC, 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 materials other than those approved by this permit are to be used, their use must be approved by this Illinois EPA through the permit process.
 - b. At any one time, the total area, using alternate materials as daily cover, shall be no more than 2,200 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 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 IAC 811.106(a) shall be used if weather or other conditions adversely affect the ability of the alternate cover materials 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. If tires are used as weights for the alternate daily cover, they shall be converted tires, in accordance with 35 IAC, Part 848: Management of Used and Waste Tires.

- f. When an alternate cover is applied, the operator shall keep a record including a description of the weather conditions, the type of alternate cover used and its performance. A summary of this information shall be provided with this facility's annual reports.
- 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 the 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 permit application Log No. 1996-147. The low permeability layer shall consist of, from bottom to top, a minimum of 12 inches soil liner with a maximum permeability of 1×10^{-7} cm/s and a 40 mil (minimum) LLDPE geomembrane. The final protective layer shall overlay the entire low permeability layer and shall consist of a minimum of three feet of soil. At a minimum, the top six inches of the protective soil must be capable of supporting vegetation. The total thickness of the final protective layer shall not be less than three feet.
- 7. All waste not covered within 60 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 IAC, Section 811.323. If regulated hazardous waste or other unauthorized wastes are 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 debris from construction-demolition shall be managed in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAPS) regulations.
- 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 has an operating permit to compost and/or transfer landscape waste in accordance with the Act, Title V, Section 21.
 - b. Lead-acid batteries will be removed the same day and transported either to a facility which recycles such waste, or a facility permitted to store or treat lead acid batteries.

- 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 Section 55 of the Act.
- 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 bi-phenyls (PCBs) in concentration greater than 50 ppm, 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 for recirculation into the landfill by permit. 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.
- 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 a.m. to 6 p.m., Monday through Friday, and 6 a.m. to 1 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-FOS Marion 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 for roads at the facility 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 IAC, 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 into 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 IAC, 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 fire safety 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 IAC, Section 811.109(b)(1) through (5).
- 24. Pursuant to 35 IAC 811.103(a)(4), surface water control structures for runoff from disturbed areas shall be operated until the final cover is placed and erosional stability is provided by the vegetated final cover.

III. ACCEPTANCE 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 Section 3.17 and 3.27, 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 IAC, 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) 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), 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 the initial load of waste is accepted at the facility. 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 and cyanides. For waste containing 250 ppm or greater reactive cyanide or 500 ppm or greater reactive sulfide it is presumed hazardous pursuant to 35 IAC, Section 721.123(a)(5) unless specific information to show it does not present 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 that none of the following have occurred:
 - i. The waste has never caused injury to a worker because of H2S and/or HCN generation;
 - ii. That the OSHA work place air concentration limits for H2S and/or HCN have not been exceeded in areas where the waste is generated, stored or otherwise handled; or
 - iii. That air concentrations of H2S 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 IAC, 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. <u>EXCEPTIONS</u>:

- 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 their waste based on the nature of the generator's business.
- ii. Petroleum contaminated media and debris from LUST sites subject to corrective action regulation under 35 IAC, Part 731 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. The MSDS must have been updated since the adoption of the Toxicity Characteristic Leaching Procedures and TCLP organic parameters by USEPA effective on September 25, 1990.
- f. 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 a complete TCLP analysis if:
 - a. 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,
 - b. The permittee receives authorization from the Emergency Response Unit of the Illinois EPA at 1/217/782-3637 and,
 - c. The waste is analyzed for the chemical constituents required by the Emergency Response Unit.
- 5. The permittee shall conduct the following analysis for waste received in labeled containers in lab packs including commingles wastes are subject to the following requirements:
 - i. Compatibility review in accordance with the procedures identified in USEPA document EPA-600/2-80-076.
 - 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 conditions which state:
 - 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 contained will 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 IAC, Section 811.404(a).
- 8. The Annual Generator Recertification for Disposal Special Waste Form shall be utilized for the special waste recertification requirements of 35 IAC, 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 811.405.

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 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;
 - 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, Sections 811.107(m) and 811.309(f);
 - e. Any demonstration, certification, monitoring results, testing, or analytical data relating to the groundwater monitoring program required by 35 IAC, Sections 811.319, 811.320, 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.

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.
- 2. Site surface drainage, during development, during operation and after the site is closed, shall be managed in accordance with the approved drainage control plan.
- 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 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.
- 5. 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.
- 6. Please note that on March 12, 1996, USEPA adopted New Source Performance Standards (NSPS) and an Emission Guidance (EG) for Municipal Solid Waste Landfills (MSWLs)--[16 Fed. Reg. 9905 et seq.]. These rules establish requirements for control of non-methane organic compound emissions generated at landfills. Since these regulations affect new, existing and closed facilities, it would be advisable to contact the Illinois EPA, Bureau of Air, Division of Air Pollution Control (Telephone No. 217/782-2113), to discuss the implications of these new rules as they relate to your landfill's operation and emissions.

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 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. 1996-147. Stormwater management structures consisting of perimeter ditches and sediment basins shall be constructed prior to disturbing any portion of a drainage area identified in Application Log No. 1996-147.

VII. LEACHATE MANAGEMENT/MONITORING

- 1. Pursuant to 35 IAC, Section 811.309(h)(1), leachate from this landfill shall be collected and disposed beginning as soon as it is first produced and continuing for at least 30 years after closure. Collection and disposal of leachate may cease only when the conditions described in 35 IAC, Section 811.309(h)(4) and (5) 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. 1996-147.
- 2. Pursuant to 35 IAC 811.309(e)(5), if access to a treatment works is restricted or anticipated to be restricted for longer than five days, then an alternative leachate management system shall be constructed in accordance with 35 IAC 811.309(c).
- 3. Pursuant to 35 IAC, 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. 1996-147.
- 4. In the event that the leachate monitoring program detects a constituent in the leachate that is not already in the parameter lists for the groundwater monitoring program, the operator shall, within 90 days of such detection, submit to the Illinois EPA a permit application which either:
 - a. Proposes to add the constituent to the groundwater monitoring program; or
 - b. Demonstrates why adding the constituent to the groundwater monitoring program is not necessary or appropriate.
- 5. The following monitoring points are to be used in the Leachate Monitoring Program for this facility:

Leachate Monitoring Points

| Applicant Designation | Illinois EPA Designation |
|---|--------------------------|
| Collection Point in Cell 1 South | L301 |
| Collection Point in Cell 1 North | L302 |
| Leachate Collection Well Located at approximately E47+00 and N57+00 | L303 |
| Leachate Collection Well Located at approximately E44+00 and N55+50 | L304 |
| Leachate Collection Well Located at approximately E40+50 and N55+25 | L305 |
| Leachate Collection Well Located at approximately E42+25 and N53+00 | L306 |
| Leachate Collection Well Located at approximately E45+00 and N52+00 | L307 |

- 6. Leachate extraction wells located in the existing landfill shall be installed so that samples may be taken during the April-May 1997 sampling event required by Special Conditions VII.1 and VII.8 and results shall be submitted to the Illinois EPA by July 15, 1997.
- 7. Pursuant to 35 IAC, Sections 811.309(g), 811.319(a)(1)(C)(ii), 810.103, 722.111 and 721, Subpart C, leachate monitoring (i.e., sampling, measurements and analysis) must be implemented at each leachate monitoring point when that device accumulates a measurable quantity of leachate for the first time. The concentrations or values for the parameters contained in List L1 (below) shall be determined on a quarterly basis for each "producing" monitoring point and submitted with the quarterly groundwater reports.

The concentrations for the parameters contained in List L2 (also below) shall be determined annually. Condition VII.8. 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

| Routine Leachate Monitoring Parameters | STORET |
|---|--------|
| Temp. of Leachate Sample (°F) | 00011 |
| Specific Conductance | 00094 |
| pH | 00400 |
| Elevation Leachate Surface | 71993 |
| BTM of Well Elevation | 72020 |
| Leachate Level from Measuring Point ft. | 72109 |
| 1,1,1-Trichloroethane | 34506 |
| 1,1-Dichloroethane | 34496 |
| 1,2,4-Trimethylbenzene | 77222 |
| 2,4-Dimethylphenol | 34606 |
| 1-Propanol | 77018 |
| 2-Chloroethyl Vinyl Ether | 34576 |
| 2-Chloronaphthalene | 34581 |
| 2-Propanol (Isopropyl Alcohol) | 81310 |
| 4-Nitrophenol | 34646 |
| Arsenic (total) | 01002 |
| Acetone | 81552 |
| Aluminum | 01105 |
| Barium (total) | 01007 |
| Beryllium (total) | 01012 |
| Bicarbonate | 00425 |
| Bis (2-Chloroethoxy) Methane | 34278 |
| Boron | 01022 |
| Bromochloromethane | 77297 |
| Butanol | 45265 |
| Calcium | 00916 |
| Cadmium (total) | 01027 |
| Chloride | 00940 |
| Chromium (hexavalent) | 01032 |
| Chromium (total) | 01034 |
| Cobalt | 01037 |
| Copper (total) | 01042 |
| Cyanide | 00720 |
| Ethyl Acetate | 81585 |
| Ethylbenzene | 78113 |

| Routine Leachate Monitoring Parameters | STORET |
|--|--------|
| Fluoride | 00951 |
| Iron (total) | 01045 |
| Lead (total) | 01051 |
| Manganese (total) | 01055 |
| Methylene Chloride | 34423 |
| Methyl Ethyl Ketone | 81595 |
| Nitrate-Nitrogen | 00620 |
| Nitrobenzene | 34447 |
| Phenanthrene | 34461 |
| Phenols | 32730 |
| Potassium | 00937 |
| Oils (hexane soluble or equivalent) | 00550 |
| Selenium | 01147 |
| Sodium | 00929 |
| Sulfate | 00945 |
| Tin | 01102 |
| Total Dissolved Solids (TDS) | 70300 |
| Total Organic Carbon (TOC) | 00680 |
| Toluene | 34010 |
| Trichloroethylene | 39180 |
| Xylene | 81551 |
| m-Xylene | 77134 |
| o-Xylene | 77135 |
| p-Xylene | 77133 |
| m-Dichlorobenzene | 34566 |
| o-Dichlorobenzene | 34536 |
| p-Dichlorobenzene | 34571 |
| p-Isopropyltoluene | 77356 |
| Total Dissolved Solids | 70300 |
| Total Suspended Solids | 00530 |
| Ammonia Nitrogen - N | 00610 |
| Bacteria (Fecal Coliform) | 31616 |
| Biochemical Oxygen Demand(BOD ₅) | 00310 |
| Phosphorous | 00665 |
| Chemical Oxygen Demand (COD) | 00335 |

LIST L2

| Annual Leachate Monitoring Parameters | STORET |
|---|--------|
| Temp. of Leachate Sample (°F) | 00011 |
| Specific Conductance | 00094 |
| pH | 00400 |
| Elevation Leachate Surface | 71993 |
| BTM of Well Elevation | 72020 |
| Leachate Level from Measuring Point ft. | 72109 |
| 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 |
| 2,6-Dinitrotoluene | 34626 |
| 2-Chloroethyl Vinyl Ether | 34576 |
| 2-Chloronaphthalene | 34581 |
| 2-Chlorophenol | 34586 |
| 2-Hexanone | 77103 |
| 2-Propanol (Isopropyl Alcohol) | 81310 |

| Annual Leachate Monitoring Parameters | STORET |
|---------------------------------------|--------|
| 3,3-Dichlorobenzidine | 34631 |
| 4,4-DDD | 39310 |
| 4,4-DDE | 39320 |
| 4,4-DDT | 39300 |
| 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 |
| Ammonia Nitrogen - N | 00610 |
| Anthracene | 34220 |
| Antimony | 01097 |
| Aroclor-1016 | 34671 |
| Aroclor-1221 | 39488 |
| Aroclor-1232 | 39492 |
| Aroclor-1242 | 39496 |
| Aroclor-1248 | 39500 |
| Aroclor-1254 | 39504 |
| Aroclor-1260 | 39508 |
| Arsenic (total) | 01002 |
| Atrazine | 39033 |
| Bacteria (Fecal Coliform) | 31616 |
| Barium | 01007 |
| 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 | 00425 |

| Annual Leachate Monitoring Parameters | STORET |
|---|--------|
| Biochemical Oxygen Demand (BOD ₅) | 00310 |
| 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 |
| Cadmium (total) | 01027 |
| Calcium | 00916 |
| Carbofuran | 81405 |
| Carbon Disulfide | 77041 |
| Carbon Tetrachloride | 32101 |
| Chemical Oxygen Demand (COD) | 00335 |
| Chlordane | 39350 |
| Chloride | 00940 |
| Chlorobenzene | 34301 |
| Chloroethane | 34311 |
| Chloroform | 32106 |
| Chloromethane | 34418 |
| Chromium | 01034 |
| Chrysene | 34320 |
| Cis-1,2-Dichloroethylene | 77093 |
| Cobalt | 01037 |
| Copper (total) | 01042 |
| Cyanide | 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 |

| Annual Leachate Monitoring Parameters | STORET |
|---------------------------------------|--------|
| Dichlorodifluormethane | 34668 |
| 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 |
| Fluorene | 34381 |
| Fluoride | 00951 |
| Heptachlor Epoxide | 39420 |
| Heptachlor | 39410 |
| Hexachlorobenzene | 39700 |
| Hexachlorobutadiene | 39702 |
| Hexachlorocyclopentadiene | 34386 |
| Hexachloroethane | 34396 |
| Ideno (1,2,3-cd) Pyrene | 34403 |
| Iodomethane | 77424 |
| Iron | 01045 |
| Isopropylbenzene | 77223 |
| Lead | 01051 |
| Lindane | 39782 |
| Magnesium | 00927 |
| Manganese | 01055 |
| Mercury | 71900 |
| Methoxychlor | 39480 |
| Methyl Chloride | 34418 |
| Methyl Ethyl Ketone | 81595 |
| Methylene Bromide | 77596 |
| Methylene Chloride | 34423 |
| Naphthalene | 34696 |
| Nickel | 01067 |
| Nitrate-Nitrogen | 00620 |
| Nitrobenzene | 34447 |

| Annual Leachate Monitoring Parameters | STORET |
|---------------------------------------|---------|
| Oil, Hexane Soluble (or Equivalent) | 00550 |
| Parathion | 39540 |
| Pentachlorophenol | 39032 |
| Phenanthrene | 34461 |
| Phenols | 32730 |
| Phosphorous | 00665 |
| Polychlorinated Biphenyls | 39516 |
| Potassium | 00937 |
| Pyrene | 34469 |
| Selenium | 01147 |
| Silver | 01077 |
| Sodium | 00929 |
| Styrene | 77128 |
| Sulfate | 00945 |
| Tert-Butylbenzene | 77353 |
| Tetrachlorodibenzo-p-Dixoins | 34675 |
| Tetrachloroethylene | 34475 |
| Tetrahydrofuran | 81607 |
| Thallium | 01059 |
| Tin | 01102 |
| Toluene | 34010 |
| Total Dissolved Solids (TDS) | 70300 |
| Total Organic Carbon (TOC) | 00680 |
| Total Suspended Solids | 00530 |
| Toxaphene | 39400 |
| Trans-1,2-Dichloroethylene | 34546 |
| Trans-1,3-Dichlorpropene | 34699 |
| Trichloroethylene | 39180 |
| Trichlorofluoromethane | 34488 |
| Vinyl Acetate | 77057 |
| Vinyl Chloride | 39175 |
| Xylene | 81551 |
| Zinc | 01092 |
| m-Dichlorobenzene | 34566 |
| m-Xylene | 77134 |
| n-Butylbenzene | 77342 |
| n-Nitrosodimethylamine | 34438 |
| n-Nitrosodiphenylamine | . 34433 |
| n-Nitrosodipropylamine | 34428 |

| Annual Leachate Monitoring Parameters | STORET |
|---|---|
| n-Propylbenzene o-Chlorotoluene o-Dichlorobenzene o-Nitrophenol o-Xylene p-Chlorotoluene p-Cresol p-Dichlorobenzene p-Isopropyltoluene p-Nitrophenol p-Xylene | 77224 77275 34536 34591 77135 77277 77146 34571 77356 34646 77133 |
| sec-Butylbenzene | 77350 |

LIST L3
RCRA Parameters for Leachate and Condensate

| Ignitability | STORET |
|--|--------|
| Flashpoint, Pensky-Martens Closed Cup (°F) | 00497 |
| <u>Corrosivity</u> pH | 00400 |
| Reactivity | |
| Reactive Cyanide | 99040 |
| Reactive Sulfide | 99042 |
| | |
| Toxicity (TCLP) | |
| Arsenic | 99012 |
| Barium | 99014 |
| Cadmium | 99016 |
| Chromium | 99018 |
| Chromium, Hexavalent | 99019 |
| Lead | 99020 |
| Mercury | 99022 |
| Selenium | 99024 |
| Silver | 99026 |
| Endrin | 99028 |
| Lindane | 99030 |

LIST L3 (cont.) RCRA Parameters for Leachate and Condensate

| Toxicity (TCLP) | |
|------------------------------|--------------------|
| Methoxychlor | 99032 |
| Toxaphene | 99034 |
| 2,4-D | 99036 |
| 2,4,5-TP Silvex | 99038 |
| Benzene | 99128 |
| Carbon tetrachloride | 99050 |
| Chlordane | 99148 |
| Chlorobenzene | 99096 |
| Chloroform | 99149 |
| o-Cresol | 99150 |
| m-Cresol | 99151 |
| p-Cresol | 99152 |
| Cresol | 99153 |
| 1,4-Dichlorobenzene | 99154 |
| 1,2-Dichloroethane | 99155 |
| 1,1-Dichloroethylene | 99156 |
| 2,4-Dinitrotoluene | 99157 |
| Heptachlor (and its epoxide) | 99158 [.] |
| Hexachlorobenzene | 99159 |
| Hexachloro-1, 3-Butadiene | 99160 |
| Hexachloroethane | 99161 |
| Methyl Ethyl Ketone | 99060 |
| Nitrobenzene | 99062 |
| Pentachlorophenol | 99064 |
| Pyridine | 99066 |
| Tetrachloroethylene | 99068 |
| Trichloroethylene | 99076 |
| 2,4,5-Trichlorophenol | 99078 |
| 2,4,6-Trichlorophenol | 99080 |
| Vinyl Chloride | 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 IAC, 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.
- 8. The schedule for leachate sample collection and submission of quarterly monitoring results is as follows:

| Sampling Quarter | Monitoring Point | Sampling List | Report Due Date |
|------------------|---------------------------|---------------|-----------------|
| Jan-Feb (1st) | L301, L302, L303 | List L1 | April 15 |
| April-May (2nd) | L301, L302, L305 | List L1 | July 15 |
| | | List L2 | July 15 |
| | | List L3 | July 15 |
| July-Aug (3rd) | L301, L302, L304 and L305 | List L1 | October 15 |
| Oct-Nov (4th) | L301, L302 and L306 | List L1 | January 15 |

- L1 Routine Leachate Parameters
- L2 Annual Leachate Parameters
- L3 Annual TCLP Leachate Parameters
- 9. Pursuant to 35 IAC, Section 811.309(g)(1), any chemical constituent in List L1 that is not detected in the leachate may be deleted from List L1. However, if subsequently in annual monitoring that constituent is detected, it shall be added back to List L1. All changes to the leachate parameter lists must be approved by the Illinois EPA through the permit process.
- 10. The applicant shall sample and analyze contents of the leachate storage tanks for the parameters in List L3 every time the contents in the leachate storage tanks are removed.

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 Figure 8-12 and screened in the hydrogeologic unit(s) identified as potential contaminant pathway(s) within the zone of attenuation in accordance with Table 8-23, of the permit application, Log No. 1996-147. All wells as listed in Condition VIII.9 must be installed so that samples may be taken during the months of April-May 1997 and the results submitted to the Illinois EPA by July 15, 1997.
- 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, labelled 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:

Upgradient Wells

| Applicant Designation | Illinois EPA Designation |
|-----------------------|--------------------------|
| G11D | #G11D |
| G22D | #G22D |
| G22S | #G22S |

Wells Within Zone of Attenuation

| Applicant Designation | Illinois EPA Designation |
|-----------------------|--------------------------|
| G11S | #G11S† |
| G12S | #G12S† |
| G12D | #G12D |
| G13S | #G13S† - |
| G13D | #G13D |
| G14S | #G14S |
| G14D | #G14D |
| G15S | #G15S |
| G15D | #G15D |
| G16S | #G16S |
| G16D | #G16D |
| G17S | #G17S |
| G17D | #G17D |
| G18S | #G18S |
| G18D | #G18D |
| G19S | #G19S |
| G19D | #G19D |
| G20S | #G20S |
| G21S | #G21S |
| G106 | *G106 |
| G110 | *G110 |
| G115 | *G115 |
| G114 | *G114 |
| | |

Compliance Boundary Well(s)

| Applicant Designation | Illinois EPA Designation | |
|-----------------------|--------------------------|--|
| | | |
| G23D | #G23D | |

Piezometers

| Applicant Designation | Illinois EPA Designation |
|-----------------------|--------------------------|
| PZ-2-Sh | P12D |
| PZ-3-Sh | P13D |
| PZ-4-Sh | P14D |
| PZ-5-OB | P15S† |
| PZ-5-Dsh | P15L |
| PZ-6-Sh | P16D |
| P105 | P105 |
| PZ-7-Sh | P17D |
| PZ-8-Sh | P18D |
| PZ-8-Dsh | P18L |
| G110 | P110 |
| PZ-9-Sp | P19S |
| P111 | *P111 |

- S Represents wells/piezometers screened in the unconsolidated mine spoil
- S† Represents wells/piezometers screened in unconsolidated lacustrine deposits
- D Represents wells/piezometers screened in the upper shale unit
- L Represents wells/piezometers screened in the lower shale unit
- * Represents wells/piezometers to be removed from the monitoring program
- # Represents wells/piezometers to be added to the monitoring program
 - 10. The monitoring program, approved by Permit No. 1996-147, 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 wells 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.17. The operator shall sample all of the piezometers listed in Condition VIII.9, for the parameters listed in Condition VIII. 12. List G1 (Field Parameters), and report the results to the Illinois EPA, all in accordance with the quarterly schedule in Condition VIII.17.
 - 11. The applicable groundwater quality standards (AGQS) and the maximum allowable predicted concentrations (MAPC), as listed in Condition 12 below, 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, 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). The AGQS values shall be calculated using four (4) consecutive quarters of groundwater monitoring data and employing the statistical method described in Chapter 7 of the application, Log No. 1996-147.

-Temporary AGQSs/MAPCs for wells screened in the mine spoil are attached to this document-

LIST G1 (Groundwater - Quarterly)
UPPER SHALE

| FIELD PARAMETERS | STORETS | MAPC/AGQS |
|---|---|----------------------------------|
| рН | 00400 | 6.18-7.47 |
| 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 | |
| Elevation of Bottom of Well (ft. MSL) | 72020 | |
| | | |
| | | |
| INDICATOR PARAMETERS | STORETS | MAPC/AGQS |
| | | |
| Ammonia (as Nitrogen; Dissolved) mg/L | 00608 | 0.9 |
| Ammonia (as Nitrogen; Dissolved) mg/L Arsenic (Dissolved) ug/L | 00608 | |
| Ammonia (as Nitrogen; Dissolved) mg/L Arsenic (Dissolved) ug/L Boron (Dissolved) ug/L | 00608 01000 01020 | 0.9 |
| Ammonia (as Nitrogen; Dissolved) mg/L Arsenic (Dissolved) ug/L | 00608 | 0.9 |
| Ammonia (as Nitrogen; Dissolved) mg/L Arsenic (Dissolved) ug/L Boron (Dissolved) ug/L | 00608 01000 01020 | 0.9 27.1 |
| Ammonia (as Nitrogen; Dissolved) mg/L Arsenic (Dissolved) ug/L Boron (Dissolved) ug/L Cadmium (Dissolved) ug/L | 00608 01000 01020 01025 | 0.9 27.1 5.1 |
| Ammonia (as Nitrogen; Dissolved) mg/L Arsenic (Dissolved) ug/L Boron (Dissolved) ug/L Cadmium (Dissolved) ug/L Chloride (Dissolved) mg/L | 00608 01000 01020 01025 00941 | 0.9 27.1 5.1 6 |
| Ammonia (as Nitrogen; Dissolved) mg/L Arsenic (Dissolved) ug/L Boron (Dissolved) ug/L Cadmium (Dissolved) ug/L Chloride (Dissolved) mg/L Cyanide (Total) mg/L Iron (Dissolved) ug/L Lead (Dissolved) ug/L | 00608 01000 01020 01025 00941 00720 | 0.9 27.1 5.1 6 0.009 |
| Ammonia (as Nitrogen; Dissolved) mg/L Arsenic (Dissolved) ug/L Boron (Dissolved) ug/L Cadmium (Dissolved) ug/L Chloride (Dissolved) mg/L Cyanide (Total) mg/L Iron (Dissolved) ug/L | 00608 01000 01020 01025 00941 00720 01046 | 0.9 27.1 5.1 6 0.009 |

LIST G1 (Groundwater - Quarterly) (cont.) <u>UPPER SHALE</u>

| INDICATOR PARAMETERS | STORETS | MAPC/AGQS |
|---|----------------|-----------|
| Nitrate (as Nitrogen, Dissolved) mg/L | 00618 | |
| Phenols (Total Recoverable) ug/L | 32730 | 6 |
| Sulfate (Dissolved) mg/L | 00946 | 1,600 |
| Total Dissolved Solids (TDS, 180°C; Dissolved) mg/L | 70300 | 2,939 |
| Total Organic Carbon (TOC; Total) mg/L | 00680 | 3.8 |
| 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.

LIST G2 (Groundwater - Annual)

| PARAMETERS (ug/L) | STORETS | MAPC/AGQS |
|----------------------------|----------------|-----------|
| <u>UNFILTERED</u> (totals) | | |
| Acetone | 81552 | 10 |
| Acrolein | 34210 | 50 |
| Acrylonitrile | 34215 | 50 |
| # Alachlor | 77825 | 0.2 |
| # Aldicarb | 39053 | 0.2 |
| @ Aldrin | 39330 | 0.05 |
| Aluminum | 01105 | 80,649 |
| Ammonia (as N) (mg/L) | 00610 | 1.4 |
| # Antimony | 01097 | 4 |
| # Arsenic | 01002 | 126 |
| # Atrazine | 39033 | 0.2 |
| ≓ Barium | 01007 | 1,417 |
| #Benzene | 34030 | 1 |
| # Benzo(a)Pyrene | 34247 | 0.2 |
| # Beryllium | 01012 | 16 |
| BOD (mg/L) | 00310 | 6 |

| PARAMETERS (ug/L) | STORETS | MAPC/AGOS |
|--|---------|-----------|
| <u>UNFILTERED</u> (totals) | | |
| # Boron | 01022 | 650 |
| *Bromobenzene | 81555 | 1 |
| *Bromochloromethane (chlorobromomethane) | 77297 | 1 |
| *Bromodichloromethane | 32101 | 1 |
| *Bromoform (Tribromomethane) | 32104 | 1 |
| *Bromomethane (Methyl Bromide) | 34413 | 2 |
| *n-Butylbenzene | 77342 | . 1 |
| *sec-Butylbenzene | 77350 | 1 |
| *tert-Butylbenzene | 77353 | 1 |
| # Cadmium | 01027 | 4 |
| Calcium (mg/L) | 00916 | 565 |
| # Carbofuran | 81405 | - 1.5 |
| Carbon Disulfide | 77041 | 1 |
| # Carbon Tetrachloride | 32102 | 1 |
| Chemical Oxygen Demand (COD) (mg/L) | 00335 | 9 |
| # Chlordane | 39350 | 0.5 |
| # Chloride (mg/L) | 00940 | 10.1 |
| #*Chlorobenzene | 34301 | 1 |
| *Chloroethane (Ethyl Chloride) | 34311 | . 2 |
| *Chloroform (Trichloromethane) | 32106 | 1 |
| *Chloromethane (Methyl Chloride) | 34418 | 2 |
| bis(chloromethyl)Ether | 34268 | 10,000 |
| *o-Chlorotoluene | 77275 | 1 |
| *p-Chlorotoluene | 77277 | 1 |
| # Chromium | 01034 | 310 |
| *Chlorodibromomethane (Dibromochloromethane) | 32105 | 1 |
| # Cobalt | 01037 | 166 |
| # Copper | 01042 | 20 |
| p-Cresol | 77146 | 10 |
| # Cyanide (mg/L) | 00720 | 0.009 |
| # Dalapon | 38432 | 1.5 |
| @ DDT | 39370 | 0.1 |
| *Dibromomethane (Methylene Bromide) | 77596 | . 1 |
| *m-Dichlorobenzene (1,3 Dichlorobenzene) | 34566 | 1 |
| #*o-Dichlorobenzene (1,2 Dichlorobenzene) | 34536 | 1 |
| # p-Dichlorobenzene (1.4 Dichlorobenzene) | 34571 | 1 |
| *Dichlorodifluoromethane | 34668 | 2 |
| #*Dichloromethane (Methylene Chloride) | 34423 | 5 |

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| PARAMETERS (ug/L) | STORETS | MAPC/AGOS |
|--|----------------|-----------|
| <u>UNFILTERED</u> (totals) | | |
| @ Dieldrin | 39380 | 0.1 |
| Diethyl Phthalate | 34336 | 10 |
| Dimethyl Phthlate | 34341 | 10 |
| Di-N-Butyl Phthlate | 39110 | • . |
| # Dinoseb (DNBP) | 81287 | 0.2 |
| # Endothall | 38926 | 9 |
| # Endrin | 39390 | 0.1 |
| # Di(2-Ethylhexyl)Phthalate | 39100 | 10 |
| #*Ethylbenzene | 78113 | 1 |
| #*Ethylene Dibromide (EDB)(1,2-Dibromo ethane) | 77651 | 0.05 |
| # Fluoride (mg/L) | 00951 | 390 |
| # Heptachlor | 39410 | 0.05 |
| # Heptachlor Epoxide | 39420 | 0.05 |
| *Hexachlorobutadiene | 39702 | 10 |
| # Hexachlorcyclopentadiene | 34386 | |
| Iodomethane (Methyl Iodide) | 77424 | 1 |
| # Iron | 01045 | 271,254 |
| Isophorone | 34408 | 10 |
| *Isopropylbenzene | 77223 | 1 |
| *p-Isopropyltoluene | 77356 | |
| # Lead | 01051 | 140 |
| # Lindane | 39782 | 0.05 |
| Magnesium (mg/L) | 00927 | 299 |
| # Manganese | 01055 | 15,062 |
| # Mercury | 71900 | 0.3 |
| # Methoxyclor | 39480 | 0.5 |
| *Naphthalene | 34696 | 10 |
| # Nickel | 01067 | 826 |
| # Nitrate-Nitrogen (mg/L) | 00620 | 0.14 |
| @ Oil(Hexane-Soluble or Equivalent) (mg/L) | 00550 | 2 |
| @ Parathion | 39540 | 0.2 |
| # Pentachlorophenol | 39032 | 0.05 |
| pH | 00400 | 6.18-7.47 |
| # Phenols | 32730 | 6 . |
| # Picloram | 39720 | 0.2 |
| # Polychlorinated Biphenyls | 39516 | 1.7 |
| Potassium (mg/L) | 00937 | 55.7 |
| *n-Propylbenzene | 77224 | 1 |

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| PARAMETERS (ug/L) | STORETS | MAPC/AGOS |
|--|---------|-----------|
| UNFILTERED (totals) | | |
| # Selenium | 01147 | 4 |
| # Silver | 01077 | 11 |
| # Simazine | 39055 | 0.2 |
| Sodium (mg/L) | 00929 | 190 |
| #*Styrene | 77128 | 1 . |
| # Sulfate (mg/L) | 00945 | 1600 |
| # TDS (Dried at 180°, mg/L) | 70300 | 2,939 |
| TOC (mg/L) | 00680 | 3.8 |
| #*Tetrachloroethylene (Perchloroethylene) | 34475 | 1 |
| Tetrahydrofuran | 81607 | 20 |
| # Thallium | 01059 | 2 . |
| #*Toluene | 34010 | - 1 |
| # Toxaphene | 39400 | 1.5 |
| # Trichloroethylene (Trichloroethene) | 39180 | 1 |
| *Trichlorofluoromethane | 34488 | 1 |
| Vanadium | 01087 | 1,208 |
| # Vinyl Chloride | 39175 | 2 |
| Vinyl Acetate | 77057 | 5 |
| # Xylenes | 81551 | 2 |
| *m-Xylene | 77134 | 2 |
| *o-Xylene | 77135 | 1 |
| *p-Xylene | 77133 | 2 |
| # Zinc | 01092 | 349 |
| *1,1,1,2-Tetrachloroethane | 77562 | 1 |
| # 1,1,1-Trichloroethane (Methylchloroform) | 34506 | 1 |
| *1,1,2,2-Tetrachloroethane | 34516 | 1 |
| #*1,1,2-Trichloroethane | 34511 | 1 |
| *1,1-Dichloroethane | 34496 | 1 |
| # 1,1-Dichloroethylene | 34501 | 1 |
| *1,1-Dichloropropene | 77168 | 1 |
| *1,2,3-Trichlorobenzene | 77613 | 1 |
| *1,2,3-Trichloropropane | 77443 | 1 |
| #*1,2,4-Trichlorobenzene | 34551 | 1 |
| *1,2,4-Trimethylbenzene | 77222 | 1 |
| #*1,2-Dibromo-3-Chloropropane (DBCP) | 38760 | 0.05 |
| #*cis-1,2-Dichloroethylene | 77093 | 1 |
| #*trans-1,2-Dichloroethylene | 34546 | 1 |
| # 1,2-Dichloroethane | 34531 | 1 |

| PARAMETERS (ug/L) | STORETS | MAPC/AGOS |
|---|---------|-----------|
| <u>UNFILTERED</u> (totals) | | |
| #*1,2-Dichloropropane (Propylene Dichloride) | 34541 | 1 |
| *1,3,5-Trimethylbenzene | 77226 | 1 |
| *1,3-Dichloropropane | 77173 | 1 |
| *1,3-Dichloropropene | 34561 | 1 |
| cis-1,3-Dichloropropene | 34704 | 1 |
| trans-1,3-Dichloropropene | 34699 | 1 - |
| trans-1,4-Dichloro-2-Butene | 73547 | 1 |
| *2,2-Dichloropropane | 77170 | 1 |
| # 2,4,5-TP (Silvex) | 39760 | 0.05 |
| #2,4-Dichlorophenoxyacetic Acid (2,4-D) | 39730 | 0.1 |
| 2-Butanone(Methyl Ethyl Ketone) | 81595 | 5 |
| 2-Hexanone (Methyl Butyl Ketone) | 77103 | 5 |
| 4-Methyl-2-Pentanone (Methyl Isobutyl Ketone) | 78133 | 5 |

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. 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.
 - 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 four (4) 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 <u>organic</u> 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)(1) 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 45 days of the date the samples were collected. 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 90 days of the initial sampling event.
- 15. Within 90 days of confirmation of any monitored increase, the operator shall submit a permit application for a significant modification to 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. The first quarterly statistical evaluations shall be performed on groundwater samples taken during the months of April-May, 1997 and the results submitted to the Illinois EPA by July 15, 1997.
- 17. 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 G1 and G2 | July 15 |
| July-Aug (3rd) | List G1 | October 15 |
| Oct-Nov (4th) | List G1 | January 15 |

G1 - Routine Groundwater Parameters

G2 - Annual Groundwater Parameters

^{*} Piezometers shall be sampled for the List G1, Field Parameters only each sampling quarter.

- 18. 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.
- 19. 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.
- 20. All monitoring points shall be maintained in accordance with the approved permit application such that the required samples and measurements may be obtained.
- 21. The applicant shall submit to the Illinois EPA a revised list of AGQSs and MAPCs for the monitoring wells screened in the mine spoil deposits, based on monitoring data taken only from wells upgradient to the facility in accordance with 35 IAC 811.320(d). The revised AGQSs should be submitted to the Illinois EPA no later than January 31, 1997 in the form of a significant modification permit application. In order to reevaluate the conclusions of the groundwater impact assessment, this application shall also include a comparison of the model predicted concentrations in the minespoils with the AGQSs developed for that zone and the conclusions of the comparison. The comparison shall include all predicted concentrations and the respective AGQSs in tabular form.
- 22. The applicant shall submit to the Illinois EPA intrawell AGQSs and MAPCs for the monitoring wells screened in the lacustrine deposits, based on sampling for four consecutive quarters and using the procedures described in Chapter 7 of the application Log No. 1996-147, for the parameters in lists G1 and G2. The AGQSs/MAPCs shall be submitted in the form of a significant modification permit application no later than January 15, 1998. In order to re-evaluate the conclusions of the groundwater impact assessment, this application shall also include a comparison of the model predicted concentrations in the lacustrine deposits with the AGQSs developed for that zone and the conclusions of the comparison. The comparison shall include all predicted concentrations and the respective AGQSs in tabular form.
- 23. The applicant shall provide a demonstration that the exceedences of the proposed AGQSs in G114 are related to spacial variation in groundwater quality within the mine spoil deposits and provide an alternative statistical method for analyzing groundwater

data in the deposits. If the demonstration cannot be made then applicant shall submit an assessment monitoring plan in accordance with 35 IAC 811.319(b). The demonstration or assessment plan should be submitted as a significant modification by July 15, 1997.

24. The applicant shall submit to the Illinois EPA AGQSs and MAPCs for the following list of constituents based on four quarters of monitoring and using the procedures described in Chapter 7 of the application Log No 1996-147. The AGQSs/MAPCs shall be submitted in the form of a significant modification permit application no later than January 15, 1998.

Specific Conductance
Boron (Dissolved)
Nitrate (as Nitrogen, Dissolved)
Zinc (Dissolved)
Di-N-Butyl Phthalate
Hexachlorocyclopentadiene
p-isopropyltoluene

IX. LANDFILL GAS MANAGEMENT/MONITORING

- 1. The landfill gas monitoring plan described in Application Log No. 1996-147 is approved. The gas monitoring probes within the waste boundary described in Application Log No. 1996-147 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 Application Log No. 1996-147 shall be used to monitor the air downwind of the landfill for methane.
- 4. All buildings within the facility boundaries, not including trailers sitting on blocks, shall be monitored continuously for methane.

- 5. Gas monitoring in accordance with this permit shall begin within 30 days of issuance, 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. In the event of any of the occurrences listed below, the operator shall, 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 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 explosive limit in air is detected during ambient air monitoring;
 - c. A methane concentration greater than 25 percent of the 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 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.

X. CLOSURE/POST CLOSURE CARE AND FINANCIAL ASSURANCE

- 1. The facility shall be closed in accordance with the closure plan in Application Log No. 1996-147. 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 Completion of Closure of Non-Hazardous Waste Facilities."
- 2. Inspections of the closed landfill shall be conducted in accordance with the approved post-closure care plan in Application Log No. 1996-147. 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 sideslopes, mulch or some other form of stabilizing material is to be provided to hold seed in place and conserve moisture.
- 4. 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 Completion of Post-Closure Care for Non-Hazardous Waste Facilities."
- 5. The operator shall provide financial assurance for closure and post-closure care pursuant to 35 IAC, Section 811.700(b). However, financial assurance shall be required only for those areas for which authorization to operate has been obtained or is being requested.
 - As part of (or prior to) the application for the first significant modification authorizing operation for the lateral expansion, approved by this permit and pursuant to 35 IAC, 813.203, the operator shall revise this cost estimate to reflect any modifications entailed by the conditions of this permit. For example, there may be groundwater and leachate monitoring points and parameters required by the permit conditions which were not proposed in the permit application. The cost of sampling the additional points and analyzing for the additional parameters may increase the post-closure care cost estimate.
- 6. The total cost estimate for closure and post closure care for this facility approved by this permit is \$2,474,502. Financial assurance shall be provided in this amount within 90 days from the date of this permit.

- 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 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; or
 - c. Until any corrective action program is completed in accordance with 35 IAC, Section 811.326, for the cost of corrective action.

If there are no changes to the cost estimates, certification for the above shall be provided to the Illinois EPA in the annual report. Any increase to the cost estimates shall be submitted as an application for significant modification to the permit, and shall be due the same time as the annual report.

XI. REPORTING REQUIREMENTS

- 1. Within ninety (90) days of issuance of this permit, the operator shall submit to the Illinois EPA a 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 report for each calendar year shall be submitted to the Illinois EPA by May 1 of the following year pursuant to 35 IAC, Section 813.501. The first annual report shall be for the period from the date of issuance of this permit through the end of the calendar year. The annual report shall include:

- a. A waste volume summary which includes:
 - i. Total volume of solid waste accepted at the facility during the past year in cubic yards as measured at the gate;
 - ii. The remaining solid waste capacity in the unit in cubic yards as measured at the gate; and
 - iii. A copy of all identification reports required under 35 IAC, Section 811.404.
- b. Monitoring data from the leachate collection system, groundwater monitoring network, and gas monitoring system including:
 - i. Graphical results of monitoring efforts;
 - ii. Statistical summaries and analysis of trends;
 - iii. Changes to the monitoring program; and
 - iv. Discussion of error analysis, detection limits and observed trends.
- c. Proposed activities for the upcoming year including:
 - i. Amount of waste expected, in cubic yards;
 - ii. Structures to be built; and
 - iii. New monitoring stations to be installed.
- d. The signature of the operator or duly authorized agent as specified in 35 IAC, Section 812.104.
- 3. In addition to the annual report, the quarterly reports on groundwater and leachate monitoring shall be submitted to the Illinois EPA in accordance with the schedules described in Conditions VII.8. and VIII.17, pursuant to 35 IAC, Section 813.502.
- 4. The original and two (2) copies of all certifications, logs, reports and plan sheets and three (3) copies of groundwater monitoring chemical analysis forms which are required to be submitted to the Illinois EPA by the permittee should be mailed to the following address:

Illinois Environmental Protection Agency Planning and Reporting Section Division of Land Pollution Control -- #24-S 2200 Churchill Road Post Office Box 19276 Springfield, Illinois 62794-9276

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.

Sincerely,

Edwin C. Bakowski, P.E. Manager, Permit Section

Bureau of Land,

- Attachments: 1. Tempory AGQS/MAPCs for wells screened in mine spoil
 - 2. Standard Conditions

Elwa C. Bohowl 1-

Enclosures:

- 1. Special Waste Preacceptance Form (Profile Identification Sheet)
- 2. Annual Generator Special Waste Recertification for Disposal of Special Waste Form
- 3. Well Completion Report Form
- 4. Illinois EPA Monitoring Well Plugging Procedure
- 5. Chemical Analysis Form and Instructions
- 6. Affidavit for Certification of Completion of Closure of Non-Hazardous Waste Facilities
- 7. Affidavit for Certification of Completion of Post-Closure Care for Non-Hazardous Waste Facilities

cc: Devin Moose, P.E., Engineering Solutions, Inc., w/Attachments

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

July 1, 1979

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 Divisions of Water Pollution Control, Air Pollution Control, Public Water Supplies, and Land and Noise Pollution Control. Special conditions may also be imposed by the separate divisions in addition to these standard conditions.

- 1. Unless this permit has been extended or it has been voided by a newely 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 Illinos 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, emission 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:
- 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
 - 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.

TEMPORY AGOS/MAPCS FOR WELLS SCREENED IN MINE SPOIL

| Parameter (ug/l, unless noted) | Storet Number | AGQS | MAPC |
|---|---------------|-------|-------|
| PESTICIDES/HERBICIDES/PCBs | | | |
| 4,4-DDT | 39370 | 0.1 | 0.104 |
| Aldrin | 39330 | 0.05 | 0.052 |
| Chlordane | 39350 | 0.5 | 0.52 |
| Dieldrin | 39380 | 0.1 | 0.104 |
| Endothal | 38926 | 9 | 9.36 |
| Endrin | 39390 | 0.1 | 0.104 |
| gamma-BHC (Lindane) | 39782 | 0.05 | 0.052 |
| Heptachlor | 39410 | 0.05 | 0.052 |
| Heptachlor epoxide | 39420 | 0.05 | 0.052 |
| Methoxychlor | 39480 | 0.5 | 0.52 |
| Toxaphene | 39400 | 1.5 | 1.56 |
| 2,4-D | 39730 | 0.1 | 0.104 |
| 2,4,5-TP (Silvex) | 39760 | 0.05 | 0.052 |
| Alachlor (Lasso) | 77825 | 0.2 | 0.208 |
| Aldicarb | 39053 | 0.2 | 0.208 |
| Atrazine | 39033 | 0.2 | 0.208 |
| Carbofuran | 81405 | 1.5 | 1.56 |
| Parathion | 39540 | 0.2 | 0.208 |
| Simazine | 39055 | 0.2 | 0.208 |
| Picloram | 39720 | 0.2 | 0.208 |
| Dinoseb | 81287 | 0.2 | 0.208 |
| Dalapon | 38432 | 1.5 | 1.56 |
| Dacachlorobiphenyl (Polychlorinated Biphenyls) | 39516 | 0.6 | 0.624 |
| VOLATILE ORGANIC COMPOUNDS | | | |
| 1,1-Dichloroethane | 34496 | 1 | 1.04 |
| 1,1-Dichloroethene | 34501 | 1 | 1.04 |
| 1,1-Dichloropropene | 77168 | 1 | 1.04 |
| 1,1,1-Trichloroethane | 34506 | 1 | 1.04 |
| 1,1,1,2-Tetrachloroethane | 77562 | 1 | 1.04 |
| 1,1,2-Trichloroethane | 34511 | 1 | 1.04 |
| 1,1,2,2-Tetrachloroethane | 34516 | 1 | 1.04 |
| 1,2-Dibromo-3-Chloropropane | 38760 | 0.050 | 0.052 |

| | • | | • |
|--|---------------|----------|--------|
| Parameter (ug/l, unless noted) | Storet Number | AGQS | MAPC |
| 1,2-Dichlorobenzene (o-Dichlorobenzene) | 34536 | 1 | 1.04 |
| 1,2-Dichloroethene | 77090 | 2 | 2.08 |
| 1,2-Dichloropropane | 34541 | 1 | 1.04 |
| 1,3-Dichloropropene | 34561 | 1 | 1.04 |
| trans-1,4-Dichloro-2-Butene | 73547 | 1 | 1.04 |
| 1,2-Dichloroethane | 34531 | 1 | 1.04 |
| 1,2-Dichloropropane | 34541 | 1 | 1.04 |
| 1,2,3-Trichlorobenzene | 77613 | 1 | 1.04 |
| 1,2,3-Trichloropropane | 77443 | 1 | 1.04 |
| 1,2,4-Trichlorobenzene | 34551 | 1 | 1.04 |
| 1,2,4-Trimethylbenzene | 77222 | 1 | 1.04 |
| 1,3-Dichlorobenzene (m-Dichlorobenzene) | 34566 | 1 | 1.04 |
| 1,3-Dichloropropane | 77173 | 1 | _ 1.04 |
| 1,3,5-Trimethylbenzene | 77226 | . 1 | 1.04 |
| 1,4-Dichlorobenzene (p-Dichlorobenzene) | 34571 | 1 | 1.04 |
| 2-Chlorotoluene (o-Chlorotoluene) | 77275 | 1 | 1.04 |
| 2,2-Dichloropropane | 77170 | 1 | 1.04 |
| 4-Chlorotoluene (p-Chlorotoluene) | 77277 | <u>l</u> | 1.04 |
| 1-Isopropyltoluene (p-Isopropyltoluene) | 77356 | (2) | (2) |
| Benzene . | 34030 | . 1 | 1.04 |
| 3r o mobenzene | 81555 | 1 . | 1.04 |
| Bromochloromethane | 77297 | 1 | 1.04 |
| Bromodichloromethane | 32101 | 1 | 1.04 |
| Bromoform . | 32104 | 1 . | 1.04 |
| Bromomethane (Methyl Bromide) | 34413 | 2 | 2.08 |
| Carbon Tetrachloride | 32102 | 1 | 1.04 |
| Chlorobenzene | 34301 | 1 | 1.04 |
| Chlorodibromomethane Dibromochloromethane) | 32105 | 1 | 1.04 |
| Chloroform | 32106 | 1 | 1.04 |
| Chloromethane (Methyl Chloride) | 34418 | 2 | 2.08 |
| cis-1,2-Dichloroethene | 77093 | 1 | 1.04 |
| ris-1,3-Dichloropropene | 34704 | 1 | 1.04 |
| Dibromomethane (Methylene Bromide) | 77596 | 1 | 1.04 |
| Dichlorodifluoromethane | 34668 | 2 | 2.08 |

| Parameter (ug/l, unless noted) | Storet Number | AGQS | MAPC |
|--|---------------|-------|-------|
| Dichloromethane (Methylene Chloride) | 34423 | 5 | 5.2 |
| Ethylbenzene | 78113 | 1 | 1.04 |
| Ethylene Dibromide (1,2-Dibromoethane) | 77651 | 0.05 | 0.052 |
| Hexachlorobutadiene | 39702 | 10 | 10.4 |
| iso-Propylbenzene (Isopropylbenzene) | 77223 | 1 | 1.04 |
| p-Xylene (1) | 77133 | 2 | 2.08 |
| m-Xylene (1) | 77134 | 2 | 2.08 |
| n-Butylbenzene | 77342 | 1 | 1.04 |
| n-Propylbenzene | 77224 | 1 . | 1.04 |
| o-Xylene | .77135 | 1 . | 1.04 |
| sec-Butylbenzene | 77350 | 1 | 1.04 |
| Styrene | 77128 | 1 | 1.04 |
| tert-Butylbenzene | 77353 | 1 | 1.04 |
| Tetrachloroethene | 34475 | : 1 | 1.04 |
| Toluene | 34010 | 1 | 1.04 |
| trans-1,2-Dichloroethene | 34546 | 1 | 1.04 |
| rrans-1,3-Dichloropropene | 34699 | 1 | 1.04 |
| Trichlorofluoromethane | 34488 | 1 | 1.04 |
| Trichloroethene | 39180 | 1 | 1.04 |
| Vinyl Chloride | 39175 | 2 | 2.08 |
| 2-Butanone (Methyl Ethyl Ketone) | 81595 | 5 | 5.2 |
| Acetone | 81552 | 10 | 10.4 |
| Acrylonitrile | 34215 | 50 | 52 |
| Chloroethane . | 34311 - | 2 | 2.08 |
| 2-Hexanone | 77103 | 5 | 5.2 |
| 4-Methyl-2-Pentanone | 78133 | 5 | 5.2 |
| Xylene, total | 81551 | 3 | 3.12 |
| Acrolein | 34210 | 50 | 52 |
| Carbon Disulfide | 77041 | 1 | 1.04 |
| bis(chloromethyl)ether | 34268 | 10000 | 10400 |
| lodomethane | 77424 | 1 - | 1.04 |
| Vinvl Acetate | 77057 | 5 | 5.2 |

| Parameter (ug/l, unless noted) | Storet Number | AGQS | MAPC |
|------------------------------------|---------------|--------|-----------|
| SEMIVOLATILE ORGANIC COMPOUN | IDS | | |
| 4-Methylphenol (p-Cresol) | 77146 | 10 | 10.5 |
| bis(2-Ethylhexyl)phthalate | 39100 | 10 | 10.5 |
| Diethyl phthalate | 34336 | 10 | 10.5 |
| Naphthalene | 34696 | 10 | 10.5 |
| Pentachlorophenol | 39032 | 0.05 | 0.053 |
| Benzo(a)pyrene | 34247 | 10 | 10.5 |
| Dimethyl phthalate | 34341 | 10 | 10.5 |
| Isophorone | 34408 | 10 | 10.5 |
| Tetrahydrofuran | 81607 | 20 | 21 |
| | ٠ | | |
| INORGANICS (DISSOLVED) | | | |
| Ammonia (mg/l) | 00608 | 3.5 | 3.64 |
| Arsenic | 01000 | 9.9 | 10.296 |
| Cadmium - | 01025 | 20 | 20.8 |
| Chloride (mg/l) | . 00941 | 42 | 43.68 |
| Iron | 01046 | 335338 | 348751.52 |
| Lead | 01049 | 7 | 7.28 |
| Manganese | 01056 | 54274 | 56444.96 |
| Mercury | 71890 | 0.3 | 0.312 |
| Sulfate | 00946 | 3110 | 3234.4 |
| Total Dissolved Solids (ROE, mg/l) | 70300 | 4840 | 5033.6 |
| | | | |
| INORGANIC\$ (TOTALS) | | | |
| Ammonia (mg/l) | 00610 | 2.58 | 2.6832 |
| Antimony | 01097 | 10 | 10.4 |
| Arsenic | 01002 | 211 | 219.44 |
| Barium | 01007 | 1630 | 1695.2 |
| BOD (mg/l) | 00310 | 34 | 35.36 |
| Boron | 01022 | 6880 | 7155.2 |
| Cadmium | 01027 | 85 | 88.4 |
| Calcium (mg/l) | 00916 | . 562 | 584.48 |
| Chloride (mg/l) | 00940 | 40 | 41.6 |
| Chromium | 10134 | 550 | 572 |

| Parameter (ug/l, unless noted) | Storet Number | AGQS | MAPC |
|--|---------------|-----------|-----------|
| Cobalt | 01037 | 1011 | 1051.44 |
| COD (mg/l) | 00335 | 1360 | 1414.4 |
| Copper | 01042 | 235 | 244.4 |
| Cyanide (mg/l) | 00720 | 0.009 | 0.00936 |
| Fluoride | 00951 | 5.4 | 5.616 |
| Grease and Oil (Hexane Soluble or Equivalent, mg/l) | 00550 | 8 | 8.32 |
| Iron | 01045 | 599979 | 623978.16 |
| Lead | 01051 | 106 | 110.24 |
| Magnesium | 00927 | 416000 | 432640 |
| Manganese | 01055 | 49100 | 51064 |
| Mercury | 71900 | 0.4 | 0.416 |
| Nickel | 01067 | 1930 | 2007.2 |
| Nitrate-Nitrogen (mg/l) | 00620 | 0.18 | 0.1872 |
| Phenol | 32720 | 6 | 6.24 |
| pH (su) | 00400 | 3.72/5.84 | 3.8688 |
| Potassium (mg/l) | 00937 | 167 | 173.68 |
| ROE (Total Dissolved Solids) | 70300 | 4840 | 5033.6 |
| Selenium | 01147 | 12 | 12.48 |
| Sodium (mg/l) | 00929 | 565 | 587.6 |
| Sulfate (mg/l) | 00945 | 3110 | 3234.4 |
| Thallium | 01059 | 4 | 4.16 |
| TOC (mg/l) | 00680 | 4.06 | 4.2224 |
| Vanadium | 01087 | 904 | 940.16 |
| Zinc | 01092 | 4783 | 4974.32 |
| Aluminum | 01105 | 394597 | 410380.88 |
| Beryllium | 01012 | 36.3 | 37.752 |
| Silver | 01077 | 20 | 20.8 |
| Nickel | 01067 | 1930 | 2007.2 |

| Parameter (ug/l, unless noted) | Storet Number | AGQS | MAPC |
|--------------------------------|---------------|------|------|
| MISCELLANEOUS ORGANICS | · | | |
| Hexachlorocyclopentadiene | 34386 | (2) | (2) |
| Di-N-Butyl Phthalate | 39110 | (2) | (2) |

Notes:

(1) m- and p-Xylene reported in laboratory analyses together.

(2) Additional compounds which were not analyzed in the initial leachate and groundwater sampling.

Chemical analyses have been performed on subsequent chemical analyses for initial leachate and groundwater quality and will be reported to the Agency after four quarters of data have been collected.