

OHIO E.P.A.

APR 24 2007

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OHIO EPA
DIV OF SOLID & INFECTIOUS WASTE MGMT

BEFORE THE

OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Defiance County Board of County Commissioners :	<u>Director's Final Findings</u>
500 Court Street :	<u>and Orders</u>
Defiance, Ohio 43512 :	

Respondent

I. PREAMBLE

It is hereby agreed by and among the parties hereto as follows:

II. JURISDICTION

These Director's Final Findings and Orders (Orders) are hereby issued to the Defiance County Board of County Commissioners (Respondent) pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency (Ohio EPA) under Sections 3734.13 and 3745.01 of the Ohio Revised Code (ORC).

III. PARTIES BOUND

These Orders shall apply to and be binding upon the Respondent, its assigns, and successors in interest. No changes in ownership relating to the Defiance County Landfill will in any way alter the Respondent's responsibilities under these Orders. Respondent shall provide a copy of these Orders to all contractors, subcontractors, laboratories and consultants retained to conduct any portion of the Work performed pursuant to these Orders. Respondent shall ensure that all contractors, subcontractors, laboratories and consultants retained to conduct Work pursuant to these Orders comply with the provisions contained herein. Respondent's obligations under these Orders may be altered only by written approval of the Director of Ohio EPA.

IV. DEFINITIONS

Unless otherwise expressly stated herein, all terms in these Orders have the same meaning as used in ORC Chapter 3734. and the regulations promulgated thereunder. Unless otherwise stated, all citations of the Ohio Administrative Code (OAC) shall refer to regulations currently effective.

V. FINDINGS OF FACT

The Director has determined the following Findings of Fact:

1. The Respondent is the owner, operator, permittee, and licensee of the Defiance County Landfill (Facility), located on the east side of Canal Road, less than one mile south of Powers Road, in Defiance Township, Defiance County, Ohio.
2. The Facility is a "sanitary landfill facility" as that term is defined in OAC Rule 3745-27-01. Respondent is currently operating the Facility pursuant to Permit To Install # 03-16690.
3. On December 19, 2006, Ohio EPA issued PTI # 03-16690 to Respondent for a vertical and lateral expansion of the Defiance County Landfill.
4. On January 25, 2007, while excavating through soil, presumed to be south of the limits of waste placement, to achieve base grade for Phase 1A of PTI # 03-16690, Respondent found waste, and subsequently leachate.
5. The waste was encountered when the south perimeter access road was removed in preparation for construction of Phase 1A and 1B, and based on bottles and newspapers found, the waste dated back to the late 1960s and early 1970s. On January 29, 2007, Respondent notified Ohio EPA of the findings.
6. Prior to February 1, 2007, Respondent excavated an east/west trench approximately 45 feet south of the previously designated waste limit to facilitate the removal of leachate and assist in identifying the extent of the limits of waste placement in the original footprint.
7. On February 1, February 2, February 27, and March 15, 2007, representatives of NWDO/DSIWM visited the Defiance County Landfill to assess the situation.
8. On February 2, 2007, Ohio EPA was informed that the County intended to remove the waste that was outside the limit of waste placement depicted in the unit designation.
9. On February 26, 2007, a temporary leachate collection trench was constructed through waste, north of the previously designated waste limit, to remove leachate and facilitate waste removal. The leachate head near the southwest corner of the existing landfill was then drawn down to approximately elevation 699 msl. To date,

in excess of 400,000 gallons of leachate have been removed from the temporary leachate collection trench and the east/west trench referenced in Finding 8.

10. On February 28, 2007, Ohio EPA issued a notice of violation to Respondent for Respondent's failure to comply with the 1994 facility obligation to accurately delineate the lateral extent of waste placement in accordance with the unit designation requirements set forth in OAC Rule 3745-27-09, as effective June 1, 1994.
11. On March 12, 2007, Ohio EPA was notified that Respondent desires to leave in place the waste it encountered more than eighteen inches below the limits of excavation for the approved Phase 1A expansion, and resubmit a revised unit designation as set forth in the Ohio EPA's notice of violation letter dated February 28, 2007.

VI. ORDERS

Respondent shall ensure compliance with ORC Chapter 3734. and regulations promulgated thereunder, in accordance with the following schedule and attachments, unless the Director of Ohio EPA authorizes, in writing, an alternative date for completion of the requirements stated herein:

1. Not later than 30 days after the effective date of these Orders, Respondent shall commence construction of a leachate collection system across Phase 1 in accordance with the specifications detailed in Attachment A to these Orders.
2. Not later than 180 days after the effective date of these Orders, Respondent shall submit an alteration request to the Ohio EPA Northwest District Office to alter PTI # 03-16690 to reflect the work required under Paragraph 1 of Section VI of these Orders and to construct and operate a leachate collection system across Phases 2, 3, and 4. The alteration request shall comply with all design elements established in Attachment A.
3. To the extent Ohio EPA provides any notices of deficiency regarding the leachate collection system documentation required by Paragraph 2 of Section VI of these Orders, Respondent shall, within 30 days after the date of the notice of deficiency, correct the deficiencies and resubmit the revised documentation to Ohio EPA Northwest District Office for review and approval.
4. Upon the approval of the alteration request submitted by Respondent pursuant to Paragraph 2 of Section VI of these Orders, the leachate collection system shall be installed and operated in accordance with the approved alteration to PTI # 03-16690.

5. Respondent shall delineate the complete horizontal limit of waste placement for the southern boundary of Unit 1 as defined in Permit Number 03-16690. To accomplish this, Respondent shall use existing test pit and trench information for Phase 1. For the remaining southern boundary of Unit 1, Respondent shall excavate test pits or borings on 100 foot centers. The test pits or borings shall be excavated or advanced to no less than 10 feet below surface grade. If waste is contacted the horizontal extent of the waste shall be further delineated by extending a trench or series of borings from the original test pit or boring to the south until waste free soil is reached. A revised unit designation based on the data collected shall be submitted to Ohio EPA not later than 180 days after the effective date of these Orders.
6. Following the discovery of waste beyond the previously delineated southern boundary of Unit 1 as defined in Permit Number 03-16690. Respondent has prepared and submitted for review by Ohio EPA an updated affirmation of the isolation distance for the Facility as required by OAC 3745-27-07(H)(2)(e). The affirmation is attached to these Orders as Attachment B. Ohio EPA has reviewed the affirmation of the isolation distance in conjunction with the other data and information submitted under PTI # 03-16690 and concurs that the information presented in Attachment B indicates that the Facility is in compliance with OAC 3745-27-07(H)(2)(e).
7. Not later than 30 days after the effective date of these Orders, Respondent shall pay Ohio EPA the amount of \$2,302 in settlement of Ohio EPA's claims for a civil penalty for the failure to submit an accurate delineation of the Facility in 1994, which may be assessed pursuant to ORC Chapter 3734. and which will be deposited into the environmental protection remediation fund established pursuant to ORC Section 3734.281. Payment shall be made by an official check made payable to "Treasurer, State of Ohio" for \$2,302. The official check shall be submitted to Ohio EPA, Office of Fiscal Administration, P.O. Box 1049, Columbus, Ohio 43216-1049, together with a letter identifying the Respondent and the Facility. A copy of the letter and check shall be sent to Ohio EPA, DSIWM, Supervisor, Systems Management Unit, P.O. Box 1049, Columbus, Ohio 43216-1049.

VII. TERMINATION

Respondent's obligations under these Orders shall terminate when Respondent certifies in writing and demonstrates to the satisfaction of Ohio EPA that Respondent has performed all obligations under these Orders and the Director acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondent of the obligations that have not been performed, in which case Respondent shall have an opportunity to address any such

deficiencies and seek termination as described above.

The certification shall contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

This certification shall be submitted by Respondent to Ohio EPA and shall be signed by a responsible official of Respondent. For purposes of these Orders, a responsible official is a County Commissioner or the Commissioner's designee.

VIII. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a party to these Orders, for any liability arising from, or related to, Respondent's Facility.

IX. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Respondent or the Facility.

X. MODIFICATIONS

These Orders may be modified by agreement of the parties hereto. Modifications shall be in writing and shall be effective on the date entered in the journal of the Director of Ohio EPA.

XI. NOTICE

All documents required to be submitted by Respondent pursuant to these Orders shall be addressed to:

Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402
Attn: Supervisor, DSIWM Ohio Environmental Protection Agency

and/or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

XII. RESERVATION OF RIGHTS

Ohio EPA and Respondent each reserve all rights, privileges and causes of action, except as specifically waived in Section XIII of these Orders.

XIII. WAIVER

In order to resolve disputed claims, without admission of fact, violation or liability, and in lieu of further enforcement action by Ohio EPA to recover a civil penalty for the violation specifically cited in these Orders, Respondent consents to the issuance of these Orders and agrees to comply with these Orders. Compliance with these Orders shall be a full accord and satisfaction for Respondent's liability for a civil penalty for the violation specifically cited herein, except that nothing in these Orders shall be construed to release Respondent from any liability Respondent may have for violations not addressed by these orders or arising after the effective date of these Orders.

Respondent consents to the issuance of these Orders and agrees to comply with these Orders. Respondent hereby waives the right to appeal the issuance, terms and conditions, and service of these Orders, and Respondent hereby waives any and all rights Respondent may have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and Respondent agree that if these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondent retains the right to intervene and participate in such appeal. In such an event, Respondent shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

XIV. EFFECTIVE DATE

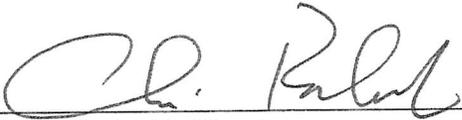
The effective date of the Orders is the date these Orders are entered into the Ohio EPA Director's Journal.

XV. SIGNATORY AUTHORITY

Each undersigned representative of a party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such party to these Orders.

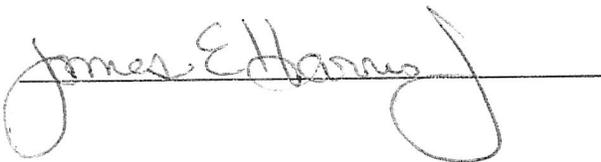
IT IS SO ORDERED AND AGREED:

Ohio Environmental Protection Agency

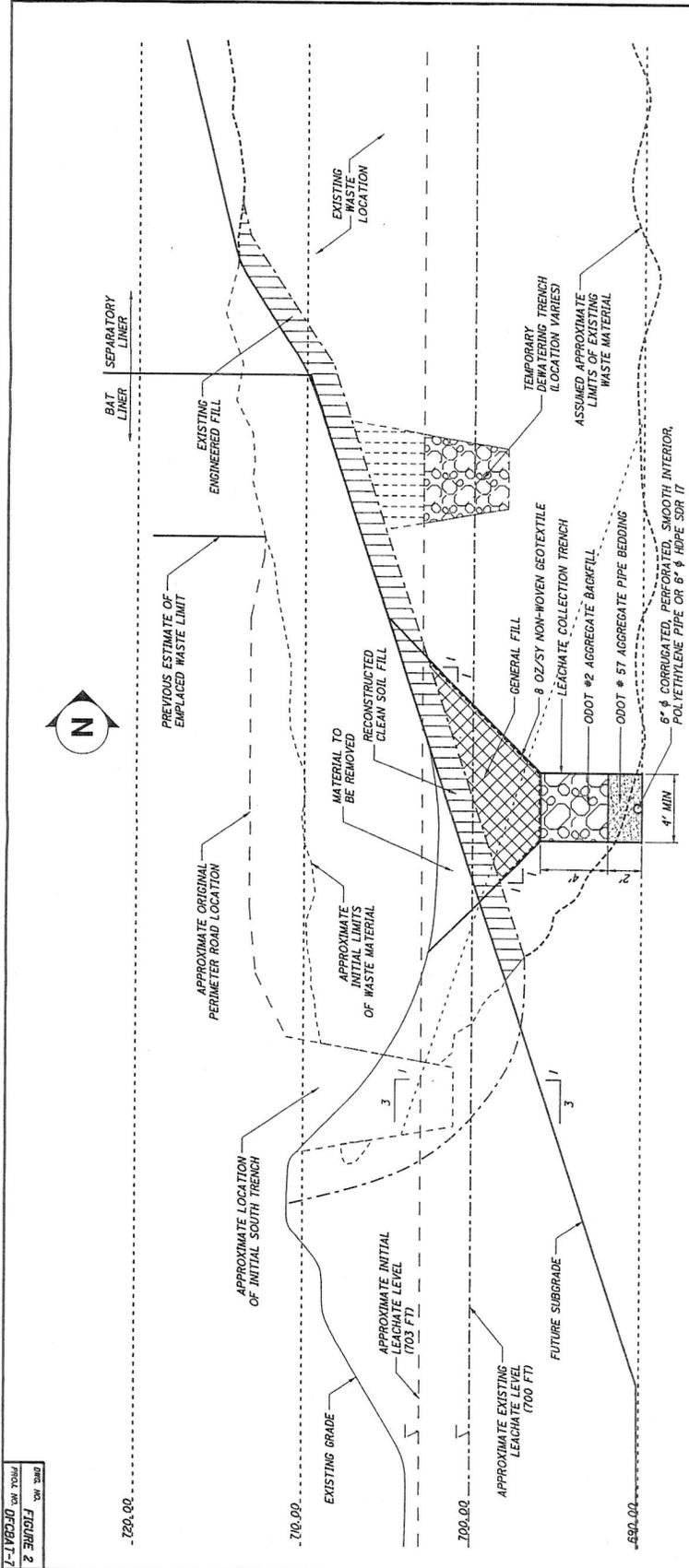

Chris Korleski, Director

IT IS SO AGREED:

County Commissioners, Defiance County, Ohio (Respondent)

 _____	<u>4-19-07</u> Date
 _____	<u>4-19-07</u> Date
 _____	<u>4-19-07</u> Date

ATTACHMENT A



TYPICAL LEACHATE COLLECTION TRENCH DESIGN DETAIL
SCALE: N.T.S.

TRENCH DETAIL

- 1) THE LOCATION OF THE LEACHATE COLLECTION TRENCH IS APPROXIMATE. IT SHALL BE PLACED AS FAR TO THE NORTH AS PRACTICAL BASED ON EXISTING TOPOGRAPHY TO ALLOW FOR EQUIPMENT ACCESS WITHOUT THE NEED FOR SOIL BENCHING OR SIGNIFICANT WASTE EXCAVATION.
- 2) THE BOTTOM OF THE TRENCH SHALL BE GRADED TO HAVE A MAXIMUM SLOPE OF 0.25% WITH ELEVATIONS DICTATED BY THE PIPE INVERT ELEVATION INSIDE THE MANHOLE SUMP.
- 3) TRENCH BOXES TO HOLD OPEN THE TRENCH ARE EXPECTED TO BE USED TO INSTALL DRAINAGE PIPE BASED ON THE EXPECTED AMOUNT OF LEACHATE TO BE ENCOUNTERED. THEREFORE A SUBTRENCH MAY BE NECESSARY TO PLACE THE PIPE AND BACKFILL WHILE ALLOWING THE TRENCH BOX TO BE PULLED WITHOUT AFFECTING THE PIPE AND BACKFILL.

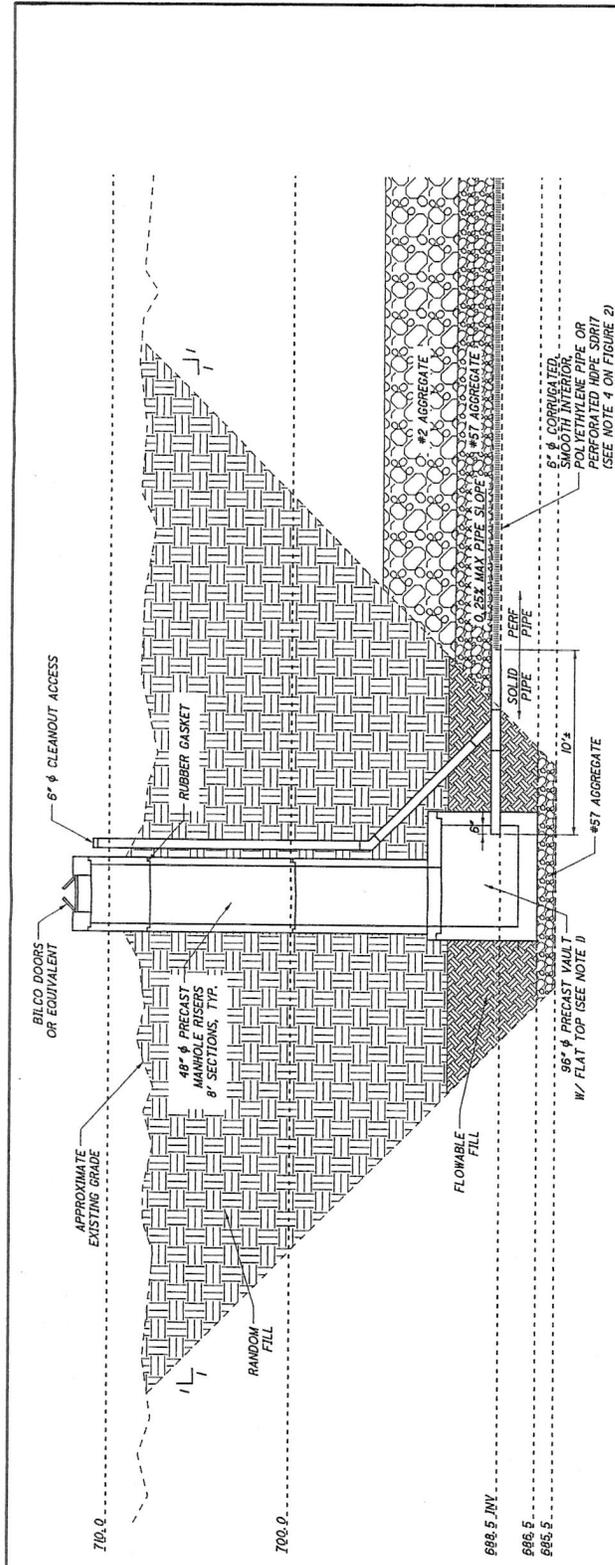
- 4) ONE PIPE IS EXPECTED TO BE USED IF TRENCH BOXES ARE REQUIRED. PIPE CONNECTIONS SHALL BE SOIL BENCHED AND MUST PROVIDE TO PREVENT SEPARATION. IF TRENCH BOXES ARE NOT NECESSARY, HDPE PIPE MAY BE SUBSTITUTED AS SHOWN IN THE DRAWING.
- 5) THE NONWOVEN GEOTEXTILE SHALL BE EXTENDED OUTSIDE THE EXCAVATION LIMITS TO THE EXTENT NECESSARY TO PROVIDE A SUFFICIENT ANCHORAGE.
- 6) GENERAL FILL SHALL CONSIST OF MATERIALS EXCAVATED FROM THE HOLE. CLEAN SOIL SHALL BE USED FOR THE MATERIALS AND SHALL MAKE UP THE LAST 18 INCHES OF BACKFILL. WASTE MATERIALS NOT USED AS BACKFILL SHALL BE HAULED TO THE WORKING FACE.

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Mannik & Smith
 Group, Inc.
 Civil Engineering, Surveying and Environmental Consulting
 THIS DRAWING IS CONFIDENTIAL AND SHALL NOT BE USED OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF THE COMPANY.
 TITLE: DEBRIS COUNTY LANDFILL EXPANSION
 PROJECT: DEBRIS COUNTY LANDFILL EXPANSION
 ATTACHMENT: A

DATE: 07/11/07
 DRAWING NO.: DFCBA1-7
 FIGURE 2

DATE: 04/13/2007
 PROJECT NO: DFCBAT-7
 FIGURE 3



LEACHATE COLLECTION SUMP
 SCALE: N.T.S.

- MANHOLE
- 1) THE PRECAST CONCRETE MANHOLE SECTIONS SHALL CONSIST OF PRECAST REINFORCED CONCRETE SECTIONS, A FLAT SLAB TOP SECTION, AND A BASE SECTION CONFORMING WITH THE MANHOLE DETAILS AS SHOWN ON THE DRAWINGS.
 - 2) PRECAST MANHOLE SECTIONS SHALL BE MANUFACTURED, TESTED, AND MARKED IN ACCORDANCE WITH THE LATEST PROVISION OF ASTM C 478.
 - 3) THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE FOR ALL SECTIONS SHALL BE 4,000 PSI.
 - 4) THE ENDS OF EACH REINFORCED CONCRETE MANHOLE RISER SECTION AND THE BOTTOM END OF THE MANHOLE TOP SECTION SHALL BE SO FORMED THAT WHEN THE MANHOLE RISERS AND THE TOP ARE ASSEMBLED, THEY WILL MAKE A CONTINUOUS AND UNIFORM MANHOLE.
 - 5) THE PRECAST CONCRETE SECTION SHALL BE MANUFACTURED AND INSTALLED IN A MANNER SUCH THAT THERE IS NO GAPPING OF JOINTS. ALL MANHOLES SHALL BE INSTALLED PLUMB AND LEVEL. THE MANHOLE SECTIONS SHALL BE INSTALLED WITH RUBBER GASKETS AND THE JOINTS SHALL BE SEALED WITH RUBBER GASKETS TO PROVIDE A WATER TIGHT SEAL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 - 6) MANHOLE STEPS SHALL BE CAST-IN-PLACE OR DRIVEN INTO PRECAST OR SITE-DRILLED HOLES. STEPS SHALL BE INSTALLED NOT MORE THAN 18" APART VERTICALLY ON THE INTERIOR WALL DIRECTLY BENEATH THE MANHOLE COVER ACCORDING TO ASTM C 478.
 - 7) ALL LIFTING HOLES AND OTHER VOIDS INSIDE AND OUTSIDE SHALL BE FILLED WITH NON-SHRINK GROUT. THE INSIDE OF THE MANHOLE SHALL BE CLEANED OF ALL LOOSE MORTAR, FRAMING MATERIALS AND OTHER DEBRIS.
 - 8) THE TOP OF THE MANHOLE SHALL BE FINISHED WITH A SET OF ACCESS DOORS AT AN ELEVATION APPROXIMATELY 2 FEET ABOVE SURROUNDING GRADE.
 - 9) THE MANHOLE BASE SHALL BE PLACED ON TOP OF 12 INCHES OF STONE BASED COMPOSED OF 000T #57

- 10) BACKFILL SHALL CONSIST OF EXCAVATED MATERIALS FROM THE HOLE. THE TOP TWENTY FOUR INCHES OF MATERIALS SHALL CONSIST OF CLEAN SOIL OR AGGREGATE MATERIALS.
 - 11) FLOWABLE FILL SHALL BE PLACED AT THE BOTTOM OF THE EXCAVATION TO FACILITATE INSTALLATION OF THE COLLECTION PIPE.
 - 12) A PIPE CLEANOUT SHALL BE PLACED AS SHOWN IN THE DRAWINGS.
 - 13) ONCE THE MANHOLE INSTALLATION IS COMPLETE, SURFACE MATERIAL AROUND THE MANHOLE SHALL BE REMOVED TO PROMOTE SURFACE WATER DRAINAGE AWAY FROM THE MANHOLE.
 - 14) PIPE OPENING SEALS SHALL BE SIZED TO FIT PIPE SPECIFIED, AND SET AT CORRECT ELEVATION AND LOCATION. THE HOLE SHALL BE MADE SMOOTH TO RECEIVE THE PIPE ENTRY SEAL AND THE PIPE ELASTOMERIC PIPE ENTRY SEALS THAT ARE INSERTED INTO THE OPENING IN THE MANHOLE AND EXPANDED VIA A RING SHALL BE USED WHEN CONNECTING PIPE AND SHALL MEET THE REQUIREMENTS OF ASTM C-923.
- AUTOMATION
- 1) UNTIL PUMPING FROM THE MANHOLE IS AUTOMATED, THE RESPONDENT SHALL MAKE ALL REASONABLE EFFORTS TO PUMP AND REMOVE A MINIMUM OF 37,500 GALLONS OF LEACHATE FROM THE MANHOLE PER WEEK UNTIL THE RECHARGE RATE LESSENS TO A DEGREE THAT THAT LEVEL IS NO LONGER PRACTICALLY ACHIEVABLE. THEREAFTER, UNTIL THE SYSTEM IS AUTOMATED, THE COUNTY SHALL CONTINUE TO PUMP AND REMOVE THE LEACHATE AS PRACTICABLE AND ATTEMPT TO PUMP AT LEAST ONCE PER DAY.
 - 2) WITHIN 180 DAYS OF OHIO EPA'S CONCURRENCE WITH THE CERTIFICATION OF THE LEACHATE FOREGAIN CONSTRUCTION ASSOCIATED WITH PHASE 1 OF THE LUTHER ECKHART FACILITY, THE RESPONDENT SHALL AUTOMATE THE PUMPING SYSTEM TO REMOVE THE LEACHATE ACCUMULATED WITHIN THE MANHOLE ABOVE ELEVATION 688.0. THIS AUTOMATED SYSTEM SHALL BE DESIGNED TO BE OPERATED WITHOUT HUMAN INTERVENTION AND SHALL INCLUDE FLOAT SWITCHES OR ELECTRONIC PRESSURE TRANSDUCERS AND A TOTALIZER FLOW METER. ONCE THE AUTOMATION EQUIPMENT IS INSTALLED, THE RESPONDENT SHALL SUBMIT A CERTIFICATION REPORT DOCUMENTING THE CONSTRUCTION TO OHIO EPA, NORTHWEST DISTRICT OFFICE.

NO.	DATE	DESCRIPTION
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 (913) 241-1111
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DATE: 4/13/2007
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 APPROVED BY: [Name]

PROJECT: [Name]
 SHEET: [Number] OF [Total]
 ATTACHMENT A
 PHASE 1 CELL CONSTRUCTION

FIGURE 3

ATTACHMENT B

ATTACHMENT B

Based on extensive test drilling and hydraulic testing in 2004, 2005, and 2006, two aquifers have been identified for the expansion permit at Defiance County Landfill. These include a localized aquifer called the basal sand and the site-wide dolomite bedrock. Elevations on the top of the basal sand are depicted in plan view on Drawing 5W of the permit drawings and in cross section on geologic cross-sections on Drawings 5I, 5K, and 5M through 5S. The top of the dolomite aquifer is shown in plan view on Drawing 5AA and in cross section on all geologic cross-sections on Drawings 5I through 5S. The permitted bottom of the recompacted soil liner is shown on Drawing 4B and on all geologic cross-sections that were constructed through the lateral expansion area. In all locations beneath the expansion area, base grades were carefully planned so that at least 15 feet of in-situ geologic material is present between the base of the permitted recompacted liner and the top of the uppermost aquifer system, pursuant to OAC 3745-27-07(H)(2)(e).

Beneath the existing waste fill area, base of waste elevations were estimated from historical USGS topographic maps from 1943 and 1960 and site topography from 1970 and 1979. In all instances, the base of waste was estimated conservatively, taking the lowest available elevation at a given location from these available source materials. Due to historic operational practices at the site from the late 1960s through 1994, it was assumed that a significant body of geologic material remains in place, material which could have been removed while meeting contemporary Ohio EPA standards. In the autumn of 2006, extensive invasive test drilling was performed in the southeastern corner of the existing fill area, pursuant to the compliance monitoring plan for MW-11. In all drilling locations, much more than 15 feet of in-situ geologic material is in place beneath the base of waste, corroborating the expectations predicated on historic operations. In addition, review of aerial photographs obtained from the Ohio Department of Transportation dated 1955, 1977, 1983, and 1989 do not reveal any unexpected excavations. Therefore, to the best of my knowledge and belief and in my professional opinion, the older portions of the landfill meet the requirements of OAC 3745-27-07(H)(2)(e).

Lisabeth Brown
Lisabeth Brown, C.P.G.
AIPG Certificate Number 9259



Subscribed and affirmed to before me on this 18th day of April 2007, by Lisabeth Brown.

STATE OF OHIO
COUNTY OF LICKING



MELISSA A. STONEROOK
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES APRIL 24, 2008

Melissa A. Stonerook
Melissa A. Stonerook
Notary Public