



Michigan Department of Environmental Quality
Office of Waste Management and Radiological Protection

SOLID WASTE DISPOSAL AREA OPERATING LICENSE

This license is issued under the provisions of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.11501 et seq., and authorizes the operation of this solid waste disposal area (Facility) in the state of Michigan. This license does not obviate the need to obtain other authorizations as may be required by state law.

FACILITY NAME: Michigan Environs, Inc.

LICENSEE/OPERATOR: Michigan Environs, Inc.

FACILITY OWNER: Waste Management of Michigan, Inc.

PROPERTY OWNER: Michigan Environs, Inc.

FACILITY TYPE(S): Municipal Solid Waste Landfill

FACILITY ID NUMBER: 442570

COUNTY: Menominee

LICENSE NUMBER: 9355

ISSUE DATE: May 8, 2013

EXPIRATION DATE: May 8, 2013

FACILITY DESCRIPTION: The Michigan Environs, Inc. Landfill, a municipal solid waste landfill, consists of 420 acres located in the SW 1/4, SW 1/4, Section 3; SE 1/4, SE 1/4, Section 4; NE 1/4, SE 1/4 and E 1/2, NE 1/4, Section 9 and W 1/2, NW 1/4 Section 10, T32N, R27W, Menominee Township, Menominee County, Michigan, as identified in Attachment A and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: Portions of Cells 3-4, and Cells 5-10, totaling 42 acres.

RESPONSIBLE PARTY: Mr. Scot Gerarden, Site Manager
Michigan Environs, Inc.
West 6111 Elmwood Road
Menominee, Michigan 49858
906-863-5998

RENEWAL OPERATING LICENSE: This License Number 9355 supersedes and replaces Solid Waste Disposal Area Operating License Number 9181 issued to Michigan Environs, Inc. on June 27, 2008.

This license is subject to revocation by the Director of the Michigan Department of Environmental Quality, if the Director finds that this Facility is not being constructed or operated in accordance with the approved plans, the conditions of a permit or license, Part 115, or the rules promulgated under Part 115. Failure to comply with the terms and provisions of this license may result in legal action leading to civil and/or criminal penalties pursuant to Part 115. This license shall be available through the licensee during its term and remains the property of the Director.

THIS LICENSE IS NOT TRANSFERABLE.

Steven R. Sliver, Chief, Solid Waste Section
Office of Waste Management and Radiological Protection

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The licensee shall comply with all terms of this license and the provisions of Part 115 and the administrative rules implementing Part 115 (Part 115 Rules). This license includes the license application and any attachments to this license.

1. The licensee shall operate the Facility in a manner that will prevent violations of any state or federal law.
2. The following portions of the Facility are authorized to receive solid waste by this license:

ACTIVE PORTIONS NOT AT FINAL GRADE: The area(s) identified as Portions of Cells 3-4 and Cells 5-10 were authorized to receive waste by the previous license. This area's total acreage is 42 acres.

3. The following portions of the Facility **WILL BE** authorized to receive solid waste by this license following approval by the Michigan Department of Environmental Quality (MDEQ) of construction certification:

UNCONSTRUCTED AREA(S) WITH FINANCIAL ASSURANCE: The area(s) identified as Cell 11, totaling 7.2 acres, are included in the calculation of financial assurance as required by Section 11523 of Part 115. This portion(s) of the Facility shall be authorized to receive waste, as part of this license, when acceptable certification is submitted to the MDEQ, as required by Section 11516(5) of Part 115, and determined by the MDEQ to be consistent with Part 115 and the Part 115 Rules. The certification shall verify that construction of this area(s) was in accordance with the Construction Permit(s) listed in Item 8 of this license, Part 115, and the Part 115 Rules.

4. The following portions of the Facility are **NOT** authorized to receive solid waste by this license:

- a. **UNCONSTRUCTED AREA(S) WITHOUT FINANCIAL ASSURANCE:** The area(s) identified as Cells 12-14 are not constructed and are not included in the calculation of financial assurance as required by Section 11523 of Part 115. This area's total acreage is 20.8 acres.

- b. **CLOSED UNIT(S) OR A PORTION OF A UNIT WHERE THE FINAL COVER HAS BEEN CERTIFIED CLOSED AND ACCEPTED BY THE MDEQ:** The following unit(s) and/or portion(s) are closed:

EXISTING UNIT(S): The unit(s) or portion(s) of unit(s) identified as Stage 1, Cells 1 and 2; and Portions of Cells 3 and 4 had final closure certified on October 15, 2010. This certification was reviewed and approved by the MDEQ on October 29, 2010. This area's total acreage is 10 acres.

5. The attached map (Attachment A) shows the Facility, the area permitted for construction, monitoring points, leachate storage units, site roads, other disposal areas, and related appurtenances.
6. Issuance of this license is conditioned on the accuracy of the information submitted by the Applicant in the Application for License to Operate a Solid Waste Disposal Area (Application) received by the MDEQ on March 1, 2013, and any subsequent amendments. Any material or intentional inaccuracies found in that information is grounds for the revocation or modification of this license and may be grounds for enforcement action. The licensee shall inform the MDEQ's Office of Waste Management and Radiological Protection (OWMRP), Upper Peninsula District Supervisor, of any inaccuracies in the information in the Application upon discovery.
7. This license is issued based on the MDEQ's review of the Application, submitted by Michigan Environs, Inc., for the Michigan Environs, Inc. Landfill, dated February 25, 2013, revised March 6, 2013, and March 19, 2013. The Application consists of the following:
 - a. Application Form EQP 5507.
 - b. Application fee in the amount of \$5,000.00.
 - c. Certification of construction by N/A.
 - d. Waste Characterization: N/A.

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e. Restrictive Covenant:

The Michigan Environs, Inc. Landfill restrictive covenant on 420 acres is on file at the Menominee County Register of Deeds recorded on July 31, 2008, as Liber 638 pages 678-681. A copy is on file with the MDEQ.

f. Perpetual Care Fund Agreement, established as an escrow account, signed by Mr. Robert Durkin, Vice President, Michigan Environs, Inc. on April 18, 1997, was executed by the MDEQ on August 5, 1997.

g. Financial Assurance.

i. Financial Assurance Required:

The amount of financial assurance required for this Facility was calculated based on the calculation worksheet form EQP 5507A entitled, "Form A, Financial Assurance Required," and is \$9,201,985.00.

The Facility has provided financial assurance totaling \$9,201,985.00, based on the requirements of Section 11523 of Part 115, consisting of a combination of the Perpetual Care Fund established under Section 11525 of Part 115, bonds, and the financial capability of the Applicant as evidenced by a financial test. The financial assurance mechanisms used by the Facility are summarized below in Items ii and iii, respectively.

ii. Financial Assurance Provided Via a Perpetual Care Fund:

- (1) The amount of the required financial assurance can be reduced pursuant to Section 11524 of Part 115, if the amount of money in the Perpetual Care Fund plus the amount of the reduced financial assurance equals the amount of financial assurance required in Section 11523 of Part 115 and is approved by the MDEQ.
- (2) The Perpetual Care Fund Agreement statement showed a balance of \$2,483,821.00 in the Facility's Perpetual Care Fund as of December 31, 2012. Of this amount, the MDEQ has granted the request to use \$2,483,821.00 toward the total amount of financial assurance required.

iii. Financial Assurance Provided Via Bond:

The following financial assurance has been received from the Applicant to meet the amount of financial assurance required:

| | |
|------------------------|----------------|
| Surety Bond | \$6,718,164.00 |
| Total Amount Received: | \$6,718,164.00 |

iv. Financial Assurance Updates Required:

For Type II landfills, the financial assurance cost estimates of closure and postclosure activities must be updated annually and the corresponding requisite amount of financial assurance must be adjusted annually for the costs of inflation. The corresponding financial assurance, as adjusted for inflation and other factors, is due on May 8, 2014, and each year thereafter.

8. The following documents approved with Construction Permit Number(s) 0281 issued to the United Waste Systems of Michigan, Inc., on February 11, 1993, are incorporated in this license by reference:

- a. United Waste Systems III Landfill, Solid Waste Management Act Construction Permit Application, prepared by United Waste Systems of Menominee, dated October 15, 1992.

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- b. Detailed Specifications with Construction Plan Sheets 1 through 28, prepared by Golder Associates, submitted on October 15, 1992, and revised on January 20, 1993.
 - c. Construction Permit Application, Volume 1 of 3, Environmental Assessment, Section I, prepared by Golder Associates, and submitted on October 15, 1992.
 - d. Construction Permit Application, Volume 2 of 3, Hydrogeological Investigation and Monitoring Program, Sections II and III, prepared by Golder Associates, and submitted on October 15, 1992.
 - e. Construction Permit Application Volume 2 of 3, Section IV, Environmental Monitoring Plan, prepared by Golder Associates, and submitted on October 15, 1992.
 - f. Construction Permit Application, Volume 3 of 3, Engineering Report, Section V, prepared by Golder Associates, and submitted on October 15, 1992.
9. The following additional documents, approved since the issuance of the construction permit(s) referenced in Item 8, are incorporated in this license by reference:
- a. Operations Manual dated December 21, 1994; updated and approved on August 18, 1999.
 - b. Detailed Specifications with Construction Plan Sheets 1 through 28, revised on April 29, 1994, by STS Consultants, Ltd.
 - c. Revised Engineering Plans and Specifications, dated February 14, 2000, and approved March 29, 2000.
 - d. Closure and Post-Closure Plans, dated February 14, 2000, and approved March 29, 2000.
 - e. Hydrogeological Monitoring Plan, dated May 17, 2000, approved November 9, 2000; revised in March 2005, and approved on April 4, 2005.
 - f. Construction Quality Assurance Plan for Phase 3 of USA Waste Management Menominee Landfill, dated May 14, 2002, and approved May 29, 2002; modified June 15, 2007, May 2010, and approved June 14, 2010.
 - g. Construction Documentation Report for Stage 1 Closure Construction dated October 2010 and approved October 29, 2010.
10. Consent Order/Judgment Number: N/A.
11. The licensee shall repair any portion of the certified liner or leachate collection system that is found to be deficient or damaged during the term of this license unless determined otherwise by the MDEQ.
12. The licensee shall have repairs to any portion of the certified liner or leachate collection system recertified by a registered professional engineer in accordance with R 299.4921 of the Part 115 Rules and approved by the MDEQ before receiving waste in that portion of the certified liner or leachate collection system. The licensee shall submit the recertification to the MDEQ's OWMRP, Upper Peninsula District Office Supervisor, for review and approval.
13. The licensee shall conduct hydrogeological monitoring in accordance with the approved hydrogeological monitoring plan, dated May 17, 2000, approved November 9, 2000; revised in March 2005, and approved on April 4, 2005. The sampling analytical results shall be submitted to the MDEQ's OWMRP, Upper Peninsula and Cadillac District Office.
14. Modifications to the approved hydrogeological monitoring plan referenced in Item 13 may be approved, in writing, by the OWMRP, Upper Peninsula District Supervisor. Proposed revisions must be submitted in a format specified by the MDEQ.

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- 15. Leachate may be recirculated if a leachate recirculation plan has been approved, in writing, by the OWMRP, Upper Peninsula District Supervisor.
- 16. Modifications to approved engineering plans that constitute an upgrading, as defined in R 299.4106a(l) of the Part 115 Rules, may be approved, in writing, by the OWMRP, Upper Peninsula District Supervisor.
- 17. Requests for alternate daily cover may be approved, in writing, by the OWMRP, Upper Peninsula District Supervisor.
- 18. Leakage Control Criteria:

The active portions of the unit(s) authorized to receive waste by this license is a monitorable unit(s) designed with a double-liner system that is in compliance with the provisions of R 299.4422(3) of the Part 115 Rules and that is capable of detecting and collecting leakage through the primary composite liner. The action flow rate for each unit containing a secondary collection system is 25 gallons/acre/day.

19. **VARIANCES:** None.

20. **SPECIAL CONDITIONS:**

a. The licensee shall place a compacted layer of not less than six inches of earthen material, unless an exemption is granted, of suitable cover material on all exposed solid waste by the end of each working day, as required by R 299.4429(1) of the Part 115 Rules. Suitable cover shall be either uncontaminated soil or an alternate cover approved by the OWMRP, listed in Item i, below. Alternate cover shall be restricted as indicated in Item ii and applied as per the approved operational plan submitted by the licensee.

i. Approved alternate cover shall be any of the following:

| <u>Product/Waste Material</u> | <u>Source</u> |
|-----------------------------------|--|
| Foundry Sand | Grede Foundry |
| Foundry Sand | Waupaca Foundry |
| Foundry Sand | L.E. Jones Foundry |
| Paper Mill Sludge | Clear Water Paper (formerly known as Menominee Paper Company) |
| Paper Mill Sludge | Resolution Forest Products (formerly known as Fibrek and Great Lakes Pulp and Fiber) |
| Paper Mill Sludge | PCDI (formerly known as Oconto Falls Tissue Company and Scott Paper Company) |
| Fly Ash | Clear Water Paper Company) |
| Menominee River Dredging Material | Tyco |
| Geosynthetic Materials | |

ii. The above materials are approved for daily cover when used in the following manner:

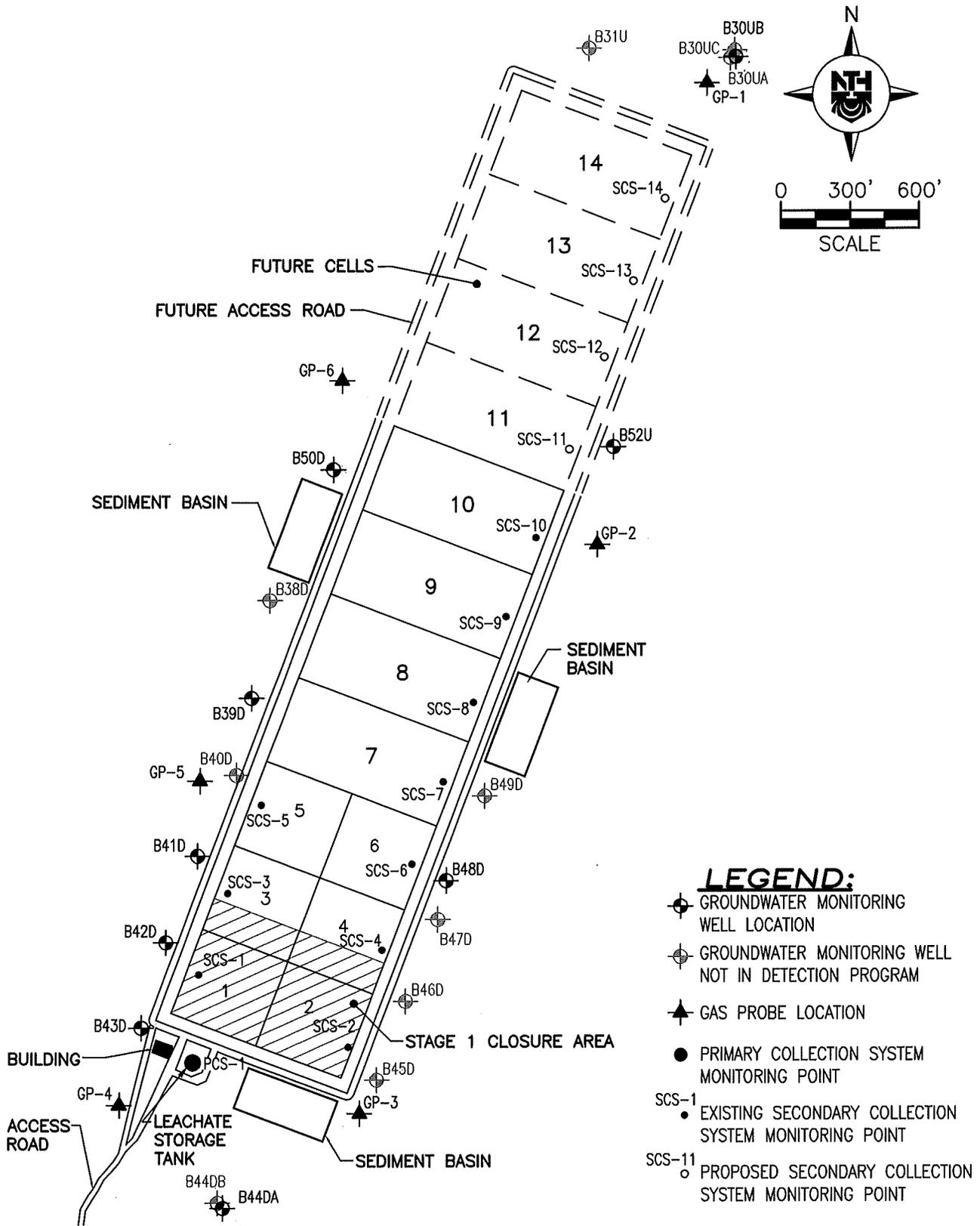
- (1) The licensee shall use the material as daily cover only. The material cannot be used for road building or fill in other areas of the Facility's operation.
- (2) The licensee shall maintain copies of the testing performed on Class B and Class C materials in the facility operating record.
- (3) The licensee shall only stockpile material in a secure manner within the active cell.
- (4) This approval does not preclude the licensee from disposing of the material as waste in the active fill area instead of using the material as daily cover.

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- (5) This approval shall immediately become void upon documentation by the MDEQ that the alternative cover is not being used in accordance with listed conditions, that the alternative cover is not providing the necessary protection, that the material no longer meets the alternative daily cover guidelines, or that the process producing the waste material has changed.
 - (6) If the material does not meet the guidelines from Attachment 2 of Policy and Procedure OWMRP-115-10, for nonvolatiles, the licensee shall ensure that fugitive dust emissions from this material do not occur. Acceptable methods to ensure fugitive emissions do not occur are:
 - (a) Implement a schedule to wet down material; or
 - (b) Cover the material with a tarp; or
 - (c) Apply an approved foam or other appropriate commercial dust control product.
 - (7) This approval to use alternative cover shall expire upon expiration of this operating license.
21. **TERM:** This license shall remain in effect until its expiration date, unless revoked or continued in effect, as provided by, the Administrative Procedures Act, 1969 PA 306, as amended, or unless superseded by the issuance of a subsequent license.

END OF LICENSE

ATTACHMENT A



- LEGEND:**
- ⊕ GROUNDWATER MONITORING WELL LOCATION
 - ⊕ GROUNDWATER MONITORING WELL NOT IN DETECTION PROGRAM
 - ▲ GAS PROBE LOCATION
 - PRIMARY COLLECTION SYSTEM MONITORING POINT
 - SCS-1 ● EXISTING SECONDARY COLLECTION SYSTEM MONITORING POINT
 - SCS-11 ○ PROPOSED SECONDARY COLLECTION SYSTEM MONITORING POINT

| | |
|------------------------------|------------------------------|
| NTH PROJECT No: 62-110081 | CAD FILE NAME: 110081-SP |
| DESIGNED BY: DLP | PLOT DATE: 1/15/2013 |
| DRAWN BY: CWS | DRAWING SCALE: 1" = 600' |
| CHECKED BY: DLP | INCEPTION DATE: 5/19/2011 |



NTH Consultants, Ltd.
Infrastructure Engineering
and Environmental Services

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|---|
| <p>SITE PLAN AND WELL LOCATION MAP</p> <p>MEMOMINEE PHASE III LANDFILL</p> <p>MEMOMINEE, MICHIGAN</p> |
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|-------------------------|
| FIGURE: 2 |
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