



Michigan Department of Environmental Quality
Waste and Hazardous Materials Division

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: Northern Oaks Recycling and Disposal Facility

LICENSEE/OPERATOR: Waste Management of Michigan, Inc.

FACILITY OWNER: Waste Management of Michigan, Inc.

PROPERTY OWNER: Waste Management of Michigan, Inc.

FACILITY TYPE(S): Municipal Solid Waste Landfill

FACILITY ID NUMBER: 409210

COUNTY: Clare

LICENSE NUMBER: 9194

ISSUE DATE: January 26, 2009

EXPIRATION DATE: January 26, 2014

FACILITY DESCRIPTION: The Northern Oaks Recycling and Disposal Facility, a municipal solid waste landfill, consists of 160 acres located in the NE 1/4 of Section 32, T19N, R4W, Hayes Township, Clare County, Michigan, as identified in Attachment A and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: Cells 1, 2, 3, 4a, 4b, and 8..

RESPONSIBLE PARTY: Mr. Fred Sawyers
Northern Oaks Recycling and Disposal Facility
513 County Farm Road
Harrison, Michigan 48625
989-539-6111

RENEWAL OPERATING LICENSE: This License Number 9194 supersedes and replaces Solid Waste Disposal Area Operating License Number 8971 issued to Waste Management of Michigan, Inc. on October 14, 2003.

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, Storage Tank and Solid Waste Section
Waste and Hazardous Materials Division

Licensee: Waste Management of Michigan, Inc.
Facility Name: Northern Oaks Recycling and Disposal Facility
Operating License Number: 9194
Issue Date: January 26, 2009

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 Cells 1 (9.2 acres), 2 (5.2 acres), 3 (3.0 acres), 4 (14.3 acres), and 8 (8.5 acres) were authorized to receive waste by the previous license. This area's total acreage is 40.2 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 5, totaling 14.0 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:

UNCONSTRUCTED AREA(S) WITHOUT FINANCIAL ASSURANCE: The area(s) identified as Cell 6 (11.7 acres), and Cell 7 (9.2 acres) 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 20.9 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 October 9, 2008, 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 Waste and Hazardous Materials Division (WHMD), Saginaw Bay 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 Mr. Fred Sawyers, for the Waste Management of Michigan, Inc., dated October 7, 2008, and revised October 27, 2008. 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 NA.
 - d. Waste Characterization: N/A.

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- c. Engineering Plans titled "Design Plans for Northern Oaks Recycling and Disposal Facility Construction Permit, Clare County, Michigan," prepared by Mr. James Walker, P.E., Waste Management of Michigan, Inc., dated October 1991, and engineering plan revisions described in Waste Management of Michigan, Inc., letter and attachments, dated December 9, 1991.
 - d. Hydrogeological Report entitled "Hydrogeological Investigation Report, Volumes I, II, and III," prepared by GZA Geo Environmental, Inc., dated October 1991.
 - e. Closure Plan titled "Subtitle D Closure Plan for Northern Oaks Recycling and Disposal Facility, Clare County, Harrison, Michigan," prepared by Waste Management of North America, Inc., dated September 1993.
 - f. Post Closure titled "Subtitle D Post Closure Plan for Northern Oaks Recycling and Disposal Facility, Clare County, Harrison, Michigan," prepared by Waste Management of North America, Inc., dated September 1993.
 - g. Explosive Gas Control and Monitoring Plan entitled "Site-Specific Gas Monitoring Plan, Northern Oaks Recycling and Disposal Facility, Clare County, Michigan," prepared by GZA Geo Environmental Inc., dated December 1993.
 - h. Leachate Recirculation Plan for Northern Oaks Recycling and Disposal Facility dated May 25, 1995.
 - i. Construction Certification Documentation Report of Cell 8C, prepared by Rust Environment & Infrastructure of Michigan, Inc., dated July 1997.
 - j. Construction Certification Documentation Report of Cell 8D, prepared by Rust Environment & Infrastructure of Michigan, Inc., dated July 1998.
 - k. Construction Quality Assurance Documentation Report for Cell 2, prepared by Earth Tech, dated July 1999.
 - l. Site Specific Construction Quality Assurance Plan for Cell 3A Construction, prepared by Earth Tech, dated August 2000.
 - m. Hydrogeological Monitoring Plan prepared by Waste Management, Inc., dated September of 1996, amended November 6, 1996, April 4, 1997, and September 22, 2000.
 - n. Construction Permit Application for the Vertical Expansion of Northern Oaks Recycling and Disposal Facility, dated November 2000, revised January 2001, as prepared by Earth Tech, Inc.
 - o. Hydrogeological Report Addendum, dated November 2000, revised January 2001, as prepared by Eagon and Associates, Inc.
 - p. Vertical Expansion Design Drawings, Sheets 1-19, dated November 2000, revised January 2001, as prepared by Earth Tech, Inc.
 - q. Hydrogeological Report Addendum Plan Drawings, dated November 2000, revised January 2001, as prepared by Eagon and Associates, Inc. and Earth Tech, Inc.
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. Cell 4a Construction Documentation Report, prepared by Earth Tech, dated August 2001.
 - b. Engineering Modifications Report for Cell 4b, prepared by Earth Tech, dated July 2002.
 - c. Hydrogeological Report Addendum No. 2 for Cell 4b, prepared by Earth Tech, dated July 2002.
 - d. Bioreactor Engineering and Operations Plan, prepared by Waste Management, revised by Earth Tech, dated September, 2002.
 - e. Cell 4b Construction Documentation Report, prepared by STS Consultants, dated June 2003.
 - f. Work Plan titled "Work Plan for Well Installation, Northern Oaks RDF, Harrison, Michigan," prepared by NTH Consultants, dated September 8, 2004.
 - g. Plans titled "Gas System upgrade Work Plan" prepared by Midwestern Consulting, dated April 20, 2006.
 - h. Proposed Leachate Management Modifications, prepared by Midwestern Consulting, dated June 2006.
 - i. Leachate Evaporator Approval prepared by Midwestern Consulting and Shaw LFG Specialties, LLC, dated March 26, 2008
 - j. Management plan titled, "Compost Facility Site Management Plan," dated April 30, 2008.
 - k. Plan modifications titled "Cell 5 & 6 Modifications," prepared by Midwestern Consulting, dated June 6, 2008.
 - l. Plans titled "Gas System Improvements," prepared by Midwestern Consulting, dated June 10, 2008
 - m. Plan titled "Construction Quality Assurance Plan for the Installation of Lining Systems," dated November 2000, revised June 2008.
 - n. Plans titled "Malfunction Abatement Plan" and "Odor Management Plan," dated August 2008.
 - o. Plan titled "Interim Gas Management Plan" prepared by Environmental Information Logistics, dated August 2008.
 - p. Cell 2/3 and Cell 4 Liquids Management Plan, prepared by WMI, dated January 25, 2008.
 - q. Cell 2/3 and Cell 4 Rule 437(5) Response Action Plan, prepared by WHMI, dated January 25, 2008.

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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 WHMD, Saginaw Bay District Supervisor, for review and approval.

13. The licensee shall conduct hydrogeological monitoring in accordance with the approved hydrogeological monitoring plan, dated September 1996, amended November 6, 1996, April 4, 1997, June 26, 1997, and September 22, 2000. The sampling analytical results shall be submitted to the MDEQ's WHMD, Saginaw Bay District Office.

14. Modifications to the approved hydrogeological monitoring plan referenced in Item 13 may be approved, in writing, by the WHMD, Saginaw Bay District Supervisor. Proposed revisions must be submitted in a format specified by the MDEQ.

15. Leachate may be recirculated if a leachate recirculation plan has been approved, in writing, by the Waste and Hazardous Materials Division, Saginaw Bay 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 WHMD, Saginaw Bay District Supervisor.

17. Requests for alternate daily cover may be approved, in writing, by the Waste and Hazardous Materials Division, Saginaw Bay District Supervisor.

18. Leakage Control Criteria:

The active portions of the unit(s) authorized to receive waste by this license is an unmonitorable unit(s) designed with a double-liner systems 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 leak detection system is 5 gallons/acre/day. The response flow rate for each unit containing a leak detection 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 WHMD, 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:

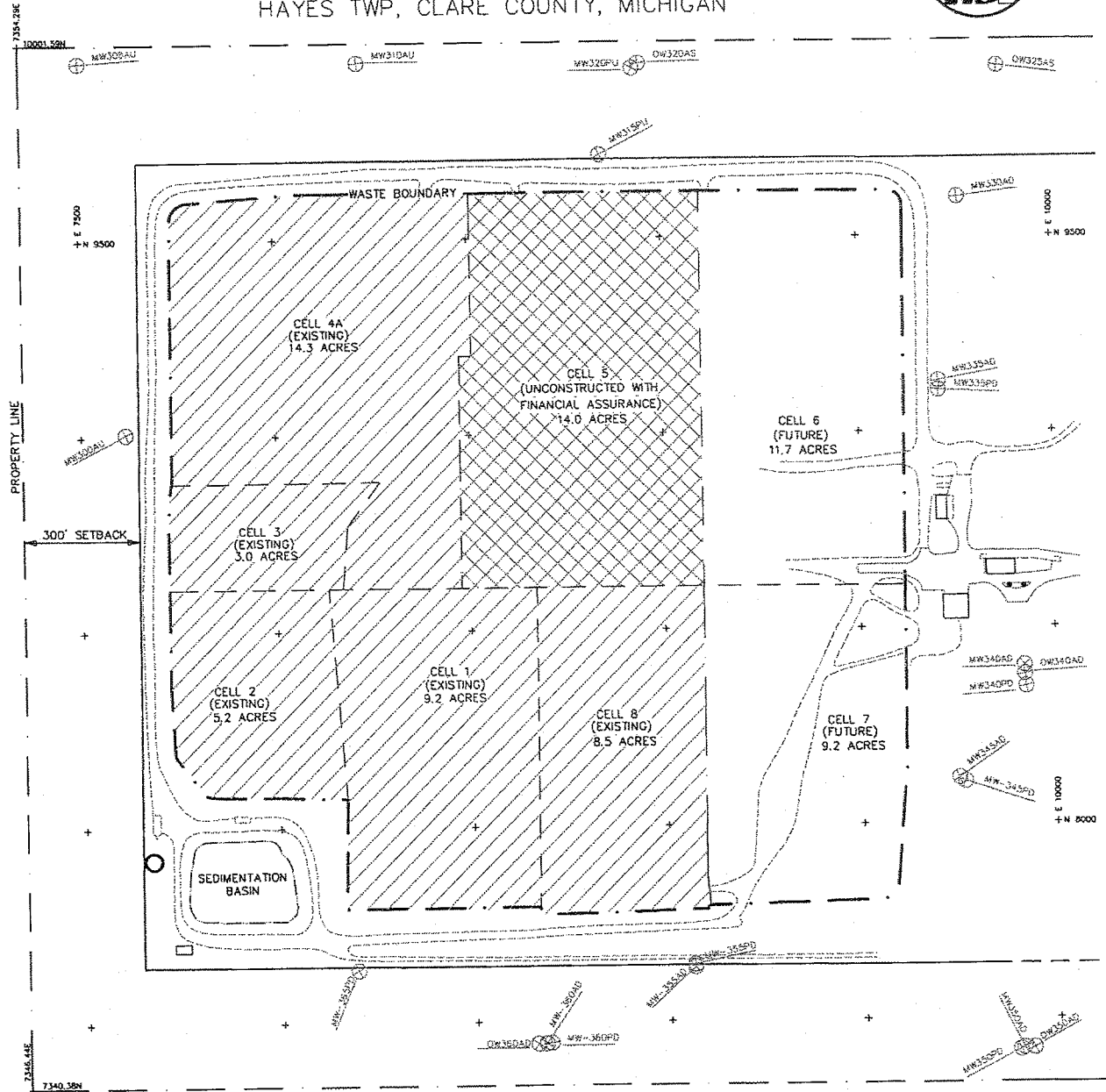
<u>Product/Waste Material</u>	<u>Monthly Volume</u>
Fabrisoil	Per manufactures specifications
Sanifoam	Per manufactures specifications
Concover	Per manufactures specifications
Untreated wood chips	As needed
Tire Chips	As needed
Ground/shredded shingles	As needed
Petroleum contaminated soils	As needed

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


- 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 written authorization on-site, from the generator of the material, to use the material as daily cover.
 - (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.
 - (5) This approval shall immediately become void upon documentation by the MDEQ that the alternate cover is not being used in accordance with the listed conditions, that the alternate cover is not providing the necessary protection, or that the process producing the waste has changed.
 - (6) If the material does not meet the guidelines from Attachment 2 of the WHMD's Operational Memo 115-10, Revision 1, 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 approved foam or other appropriate commercial dust control product.
 - (7) This approval to use alternate cover shall expire upon the 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

NORTHERN OAKS RDF
 SECTION 32, T.19N, R.4W
 HAYES TWP, CLARE COUNTY, MICHIGAN



LEGEND

-  ACTIVE AREA
-  UNCONSTRUCTED WITH FINANCIAL ASSURANCE
-  UNCONSTRUCTED AREA

05280-CL\ATTACH-A.dwg

MIDWESTERN CONSULTING



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 Transportation Engineers
 Planners, Surveyors
 Landscape Architects
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NORTHERN OAKS RDF
 ATTACHMENT A

DATE: 10/23/08

JOB NO.: **05280**

SCALE: 1" = 400'



SHEET 1 OF 1