



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: City of Midland Sanitary Landfill

LICENSEE/OPERATOR: City of Midland

FACILITY OWNER: City of Midland

PROPERTY OWNER: City of Midland

FACILITY TYPE(S): Municipal Solid Waste Landfill

FACILITY ID NUMBER: 470453

COUNTY: Midland

LICENSE NUMBER: 9175

ISSUE DATE: February 25, 2008

EXPIRATION DATE: February 25, 2013

FACILITY DESCRIPTION: The City of Midland Sanitary Landfill, a Municipal Solid Waste Landfill, consists of 329.14 acres located in the Section 12, , Midland Township, Midland County, Michigan, as identified in Attachment A and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: Cells 14, 15, and 16 consisting of 34.20 acres..

RESPONSIBLE PARTY: Mr. Scott J. O'Laughlin  
Landfill Superintendent  
333 West Ellsworth  
Midland, Michigan 48640  
989-839-6535

**RENEWAL OPERATING LICENSE:** This License Number 9175 supersedes and replaces Solid Waste Disposal Area License Number 9029 issued to City of Midland on July 9, 2004.

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:  
Facility Name:  
Operating License Number:  
Issue Date:

The licensee shall comply with all terms of this license and the provisions of Part 115 and its administrative 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:
  - a. **ACTIVE PORTIONS NOT AT FINAL GRADE:** The area(s) identified as Cells 14 and 15 were authorized to receive waste by the previous license. This area's total acreage is 23.40 acres.
  - b. **CONSTRUCTED AREAS CERTIFIED WITH THIS APPLICATION:** The area(s) identified as Cell 16 were not authorized to receive solid waste by the previous license, but are authorized to receive waste by this license. This area's total acreage is 10.8 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: None.
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 17-19 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 32.3 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:
    - i. **PRE-EXISTING UNIT(S):** The unit(s) identified as Area A had final closure certified on December 29, 1992. This certification was reviewed and approved by the MDEQ on January 15, 1993. This area's total acreage is 32.1 acres.
    - ii. **EXISTING UNIT(S):** The unit(s) identified as Cells 1-13 had final closure certified on December 8, 2004. This certification was reviewed and approved by the MDEQ on February 15, 2005. This area's total acreage is 40.2 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 November 19, 2007, 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, Saginaw Bay District Supervisor, of any inaccuracies in the information in the Application upon discovery.

Licensee:  
Facility Name:  
Operating License Number:  
Issue Date:

7. This license is issued based on the MDEQ's review of the Application, submitted by Scott J. O'Laughlin, for the City of Midland, dated November 7, 2007, and revised December 14, 2007, and January 3, 2008. The Application consists of the following:

- a. Application Form EQP 5507.
- b. Application fee in the amount of \$2,500.00.
- c. Certification of construction by CTI and Associates, Inc., dated November 29, 2007.
- d. Waste Characterization: N/A.
- e. Restrictive Covenant:

The March 1, 2000 restrictive covenant on 329.00 acres is on file at the Midland County Register of Deeds recorded on May 18, 2001, as Liber 989 pages 1222 - 1225. A copy is on file with the MDEQ.

- f. Perpetual Care Fund Agreement, established as a trust account, signed by Mr. R. Druumond Black, Mayor, City of Midland on November 18, 1997, was executed by the MDEQ on November 20, 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 \$4,427,555.28.

The Facility has provided financial assurance totaling \$4,427,555.28, based on the requirements of Section 11523 of Part 115, consisting of a combination of the Perpetual Care Fund established under Section 11525, 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 and is approved by the MDEQ.
- (2) The Perpetual Care Fund Agreement statement showed a balance of \$1,591,972.41 in the Facility's Perpetual Care Fund as of September 30, 2007. Of this amount, the MDEQ has granted the request to use \$1,527,555.28 toward the total amount of financial assurance required.

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iii. Financial Assurance provided via bond:

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

Irrevocable Letter of Credit	\$2,900,000.00
Total Amount Received:	\$2,900,000.00

iv. Financial Assurance Updates Required:

For Type II landfills, the financial assurance cost estimates of closure and post-closure 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 February 25, 2009 and each year thereafter.

8. The following documents approved with Construction Permit Number(s) 0279 and 0306 issued to the City of Midland on December 22, 1992, and August 3, 1994, respectively, are incorporated in this license by reference:
- a. Hydrogeologic Investigation prepared by CTI Associates, Inc., dated November 15, 1988.
  - b. Environmental Assessment Report, Cells 9-13 Vertical Expansion, prepared by McNamee Industries, Inc., dated December 1991.
  - c. Engineering Plans for Leachate Pumping System in Cells 9-13, prepared by McNamee Industries, Inc., dated February 5, 1992.
  - d. Construction Plans, Cells 9-13 Vertical Expansion, prepared by McNamee Industries Services, Inc., dated September 30, 1992.
  - e. Engineering Report Volumes I & II prepared by AWD Technologies, Inc., dated April 1994.
  - f. Hydrogeologic Report Volumes I & II prepared by AWD Technologies, Inc., dated February 1994, and revised June 1994.
  - g. Environmental Assessment Report prepared by AWD Technologies, Inc., dated March 1994.
  - h. Construction Plans, Pages G1-G5, C1-C30, and L1, prepared by AWD Technologies, Inc., dated April 6, 1994.
  - i. Construction Quality Assurance Plan prepared by AWD Technologies Inc., dated April 1994, and revised July 1994.
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. Closure Certification for "Area A," prepared by McNamee, Porter & Seeley, Inc., dated December 29, 1992.
  - b. A letter regarding the construction certification of the vertical expansion for Cells 9-13, prepared by McNamee, Porter & Seeley, Inc., dated February 4, 1993.
  - c. Engineering Plans for the closure of Cells 1-8, prepared by McNamee Industrial Services, Inc., dated September 1993.
  - d. City of Midland Hydrogeological Report and Monitoring Plan, dated January 13, 1995, revised June 2, 1995, September 1999, October 4, 1999, December 17, 1999, March 2005 and July 28, 2006.
  - e. Cell 14 Construction Certification, prepared by Wenck Associates, Inc., dated June 1995, revised September 5, 1995, and September 22, 1995.

Licensee:  
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- f. North Half Cell 14 Leachate Collection System Certification, prepared by Radian International, dated September 1998.
  - g. South Slope Riser Trench Cell 14 Leachate Collection System Certification, prepared by Radian International, dated November 1998.
  - h. Engineering Plans for the capping and closure of Cells 1-13, prepared by McDowell & Associates, dated October 30, 2000.
  - i. Gas Management/Leachate Condensation Collection Plans for Cell 9-13, prepared by McDowell & Associates, dated July 9, 2001.
  - j. Engineering Plans for the capping and closure of Cells 8-13, prepared by McDowell & Associates, dated August 13, 2002.
  - k. Minor Permit Modification, Cells 15-19, prepared by Earth Tech, dated April 2003.
  - l. Leachate Extraction System Plans, Cells 1-6, prepared by Earth Tech, dated October 7, 2003, revised May 14, 2004.
  - m. Construction Quality Assurance Report, Cell 15, prepared by McDowell & Associates, dated November 2003.
  - n. Construction Documentation Report, City of Midland Landfill, Cells 1-8 & Cells 9-13 Closure, prepared by Ayers Associates, dated December 8, 2004.
  - o. Work Plan for Landfill Gas Probe Installation, City of Midland Landfill, prepared by NTH Consultants, Ltd., dated November 28, 2006.
  - p. Engineering Improvements to Cell 16, City of Midland Landfill, prepared by CTI and Associates, Inc., dated January 30, 2007, revised on March 9, 2007 and May 2, 2007.
  - q. Leachate Collection System Maintenance Plan, City of Midland Landfill, prepared by CTI and Associates, Inc., dated May 4, 2007.
  - r. Cell 14 Perimeter Leachate Interceptor Trench, City of Midland Landfill, prepared by CTI Associates, Inc., dated November 1, 2007.
  - s. Cell 16 Construction Documentation Report, City of Midland Landfill, prepared by CTI Associates, Inc., dated November 29, 2007.
10. Consent Order/Judgment Number: Consent Judgement Number 90-008278-CE-C entered on January 7, 1991 is incorporated into this license by reference.
11. The licensee shall repair any portion of the certified liner or leachate collection system which 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 Part 115 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 Waste and Hazardous Materials Division, Saginaw Bay District Supervisor, for review and approval.

Licensee:  
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13. The licensee shall conduct hydrogeological monitoring in accordance with the approved hydrogeological monitoring plan, dated January 13, 1995, revised June 2, 1995, September 1999, October 4, 1999, December 17, 1999, March 2005 and July 28, 2006. The latest revisions to the plan were approved by the Department on October 20, 2006. The sampling analytical results shall be submitted to the MDEQ's Waste and Hazardous Materials Division, Saginaw Bay District Office.
14. Modifications to the approved hydrogeological monitoring plan referenced in Item 13 may be approved, in writing by the Waste and Hazardous Materials Division, 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), may be approved, in writing, by the Waste and Hazardous Materials Division, 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 a monitorable unit(s) which is located over a natural soil barrier and which is in compliance with the provisions of R 299.4422(2). In addition, the Facility has elected to install a secondary leachate collection system. The action flow rate for each unit 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(i). Suitable cover shall be either uncontaminated soil or an alternate cover approved by the Waste and Hazardous Materials Division, 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>	<u>Monthly Volume</u>
(1) Geotextiles	per manufacturer's specifications	
(2) Untreated wood chips	as needed	
(3) Cellulose mulch and adhesive binder	as needed	
(4) Foundry sand	as needed	
(5) Tire chips	as needed	
(6) Petroleum contaminated soils	as needed	
(7) Formula 480 Liquid Clay	per manufacture's specifications	

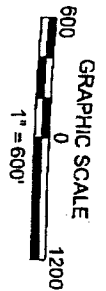
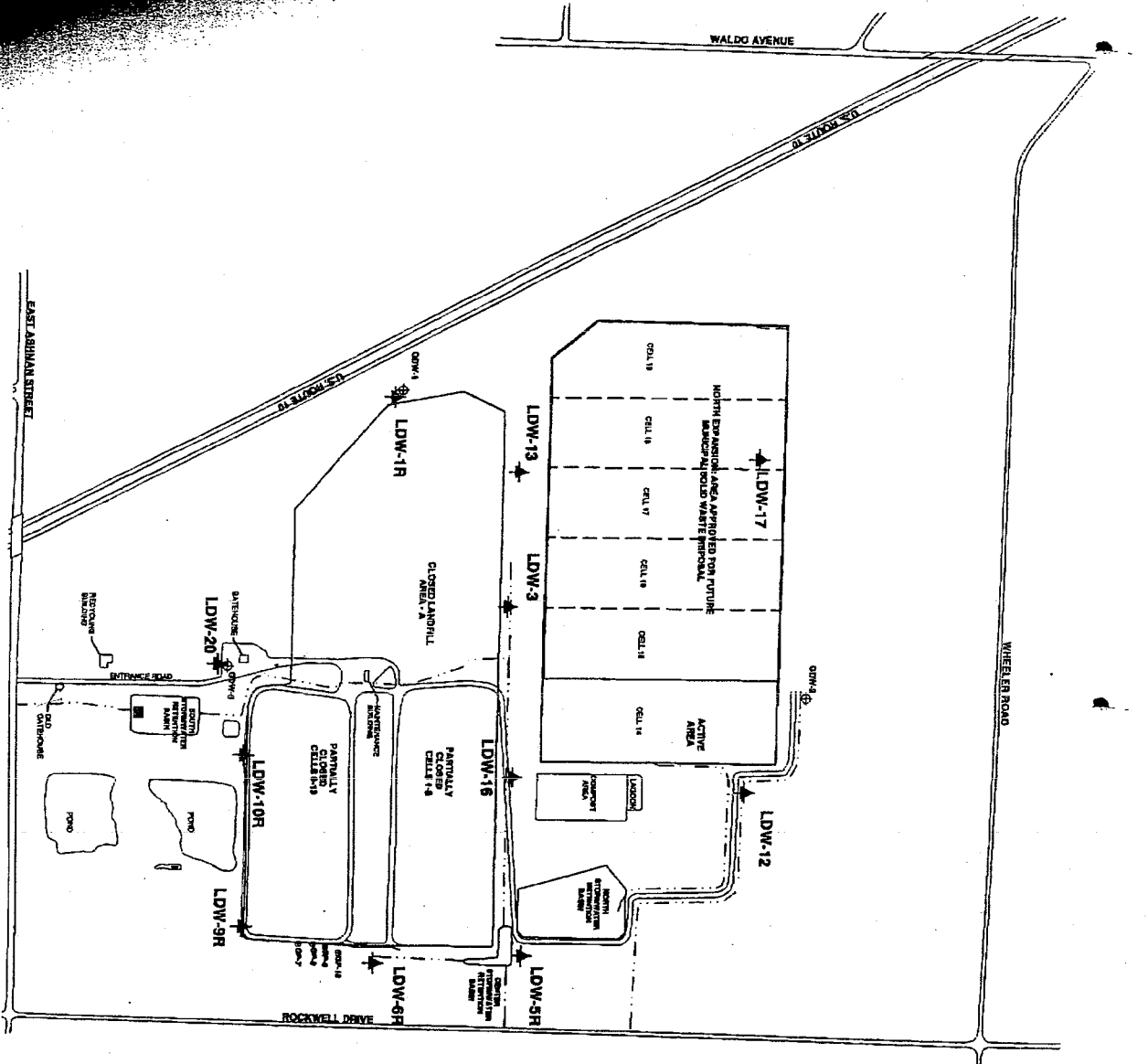
Licensee:  
Facility Name:  
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- ii. The above materials are approved for daily cover when used in the following manner:
- (1) The licensee shall use the material as daily cover only. The material cannot be used for road building or fill in other areas 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 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 Operational Memo 115-10 Revision 1 for non-volatiles, the licensee shall ensure that fugitive dust emissions from this material do not occur. Acceptable methods to assure 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 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**

ATTACHMENT A



LEGEND

- ▲ AIRBORNE MONITORING WELLS
- ◆ SOIL GAS DETECTION WELL
- ⊕ GAS DETECTION PROBES
- SURFACE WASTE SAMPLING LOCATION
- SOLID WASTE BOUNDARY
- (PROPOSED) LANDFILL CELLS IS THROUGH 10
- ACCESS ROAD
- STORMWATER DRAINAGE DITCH

NOTE:  
 THE PNEUMATIC SURFACE CONTOUR LINES PRESENTED ON THIS  
 PLAN ARE GENERATED AND SHOULD NOT BE USED TO  
 DETERMINE SPECIFIC PNEUMATIC ELEVATIONS EXCEPT AT  
 MONITORING WELL LOCATIONS

<p>FIGURE: <b>1</b></p>	<p><b>SITE PLAN AND MONITORING WELL LOCATION MAP</b></p>		<p>NTH PROJECT NO.: 13-060030-Q406</p>	<p>CAD FILE NAME: 13060030-Q406.dwg</p>
	<p><b>CITY OF MIDLAND LAND MIDLAND, MICHIGAN</b></p>		<p>DESIGNED BY: KLW</p>	<p>PLOT DATE:</p>
			<p>DRAWN BY: JDWR</p>	<p>DRAWING SCALE: AS SHOWN</p>
			<p>CHECKED BY: KLW</p>	<p>REVISION DATE:</p>



**NTH Consultants, Ltd.**  
 Infrastructure Engineering and Environmental Services