



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: County of Muskegon - Solid Waste Facility

LICENSEE/OPERATOR: County of Muskegon Department of Public Works

FACILITY OWNER: County of Muskegon Board of Public Works

PROPERTY OWNER: County of Muskegon Department of Public Works

FACILITY TYPE(S): Municipal Solid Waste Landfill

FACILITY ID NUMBER: 440983

COUNTY: Muskegon

LICENSE NUMBER: 9367

ISSUE DATE: January 15, 2014

EXPIRATION DATE: January 15, 2019

FACILITY DESCRIPTION: The County of Muskegon - Solid Waste Facility, a municipal solid waste landfill, consists of 147.28 acres located in the S 1/2 of the S 1/2 of Section 19, T10N, R14W, Moorland Township, Muskegon County, Michigan, as identified in Attachment A and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: See Item 2.

RESPONSIBLE PARTY: Gregory A. Leverage, Solid Waste Manager
County of Muskegon Department of Public Works
9366 Apple Avenue
Ravenna, Michigan 49451
231-724-6003

RENEWAL OPERATING LICENSE: This License Number 9367 supersedes and replaces Solid Waste Disposal Area Operating License Number 9183 issued to County of Muskegon - Solid Waste Facility on September 26, 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

Licensee: County of Muskegon Department of Public Works
Facility Name: County of Muskegon – Solid Waste Facility
Operating License Number: 9367
Issue Date: January 15, 2014

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 2 and 3, and Cells 4, and 5, were authorized to receive waste by the previous license. This area's total acreage is 40.85 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 2 Gap, totaling 3.74 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:

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 Act 87 Cell and Cell 1 had final closure certified on November 3, 1987, and July 16, 1991, respectively. This certification was reviewed and approved by the MDEQ on May 11, 1990, and August 6, 1991, respectively. This area's total acreage is 26 acres.
 - ii. **EXISTING UNIT(S):** The unit(s) or portion(s) of unit(s) identified as Portions of Cells 2 and 3 had final closure certified on April 11, 2006, and November 9, 2010. This certification was reviewed and approved by the MDEQ on September 4, 2007, and December 29, 2010. This area's total acreage is 19.41 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 September 24, 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), Grand Rapids 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 County of Muskegon Department of Public Works, for the County of Muskegon - Solid Waste Facility, dated September 23, 2013. 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 N/A.
 - d. Waste Characterization: N/A.

Licensee: County of Muskegon Department of Public Works
Facility Name: County of Muskegon – Solid Waste Facility
Operating License Number: 9367
Issue Date: January 15, 2014

e. Restrictive Covenant:

The February 18, 2000, restrictive covenant on 147.28 acres is on file at the Muskegon County Register of Deeds recorded on March 21, 2000, as Liber 3026 pages 256-258. A copy is on file with the MDEQ.

f. Perpetual Care Fund Agreement, established as a trust account, signed by Mr. Louis McMurry, Chairman, Muskegon County Board of Public Works on February 19, 1997, was executed by the MDEQ on May 21, 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 \$6,124,798.00.

The Facility has provided financial assurance totaling \$6,777,308.00, 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, iii, and iv, 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 \$1,853,948.83 in the Facility's Perpetual Care Fund as of June 30, 2013. Of this amount, the MDEQ has granted the request to use \$1,853,948.83 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:

Irrevocable Letter of Credit	\$1,000,000.00
Total Amount Received:	\$1,000,000.00

iv. Financial Assurance Provided Via a Financial Test for a Type II Landfill:

A financial test may be used by the owner of a Type II landfill as a means to meet an amount up to, but not exceeding, 70 percent of the closure, postclosure, and corrective action cost estimate pursuant to Section 11523a of Part 115. This Facility has provided a financial test in the amount of \$3,923,359.00. Financial capability demonstrated by a financial test must be updated each fiscal year. The next update is due March 30, 2014, and each year thereafter. If the owner/operator fails to update the test, or is no longer able to satisfy the test, the owner/operator must obtain alternate financial assurance within 210 days following the close of the owner/operator's fiscal year.

Licensee: County of Muskegon Department of Public Works
Facility Name: County of Muskegon – Solid Waste Facility
Operating License Number: 9367
Issue Date: January 15, 2014

v. 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 January 15, 2015, and each year thereafter.

8. The following documents approved with Construction Permit Number(s) 0031 issued to the Muskegon County on December 23, 1980, are incorporated in this license by reference:
 - a. "Hydrogeologic Investigation Proposed Expansion of Muskegon County Solid Waste Management System," prepared by Keck Consulting Services, and dated March 6, 1980.
 - b. "County of Muskegon - Wastewater Management System Type II Disposal Site Expansion Environmental Assessment."
 - c. Engineering plans titled "Muskegon County Wastewater Expansion Type II Sanitary Landfill."
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. Revised Engineering Plans dated April 1992.
 - b. "Hydrogeological Investigation for Muskegon County Landfill," prepared by Dell Engineering, dated May 1989.
 - c. "Hydrogeological Investigation for Muskegon County Landfill," prepared by Dell Engineering, dated January 1990.
 - d. "Hydrogeological Monitoring Plan for Muskegon County Landfill," dated August 1995, revised April 1996, October 1999, January 2002, January 2004, and July 2006.
 - e. Revised Engineering Plans, dated March 2002, Sheets 1-14.
10. Consent Order/Judgment Number: OWMRP Consent Order Number 641-04-245-05-09 entered on May 11, 1990 is incorporated into this license by reference.
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, Grand Rapids District Office Supervisor, for review and approval.
13. The licensee shall conduct hydrogeological monitoring in accordance with the approved hydrogeological monitoring plan, dated August 1995, revised April 1996, October 1999, January 2002, January 2004, and July 2006. The sampling analytical results shall be submitted to the MDEQ's OWMRP, Grand Rapids District Office.
14. Modifications to the approved hydrogeological monitoring plan referenced in Item 13 may be approved, in writing, by the OWMRP, Grand Rapids 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 OWMRP, Grand Rapids 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, Grand Rapids District Supervisor.

Licensee: County of Muskegon Department of Public Works
 Facility Name: County of Muskegon – Solid Waste Facility
 Operating License Number: 9367
 Issue Date: January 15, 2014

17. Requests for alternate daily cover may be approved, in writing, by the OWMRP, Grand Rapids District Supervisor.

18. Leakage Control Criteria:

- a. The active portions of the unit(s) (Cells 2 and 3) authorized to receive waste by this license are portions of a monitorable unit which are located over a natural soil barrier and that are in compliance with the provisions of R 299.4422(2) of the Part 115 Rules.
- b. The active portions of the unit(s) (Cells 4 and 5) authorized to receive waste by this license are portions of a monitorable unit designed with a double-liner system that are in compliance with the provisions of R 299.4422(3) of the Part 115 Rules and that are 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:**

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>	<u>Monthly Volume</u>
(1) Foundry Sand	Kurdziel Iron	Varies
(2) Foundry Sand	Eagle Alloy	Varies
(3) Foundry Sand	CWC	Varies
(4) Foundry Sand	DML (Montague)	Varies
(5) Foundry Sand	Tri State Aluminum	Varies
(6) Foundry Sand	NFCA	Varies
(7) Foundry Sand	Century Foundry	Varies
(8) Foundry Sand	Ravenna Ductile Iron	Varies
(9) Processed Foundry Sand	RRC – Ottawa County Farms	Varies
(10) Dried Wastewater Sludge with a density of fecal coliform in the biosolids of less than 1000 most probable number per gram of total solids (dry weight basis).	Muskegon County Wastewater	Varies

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

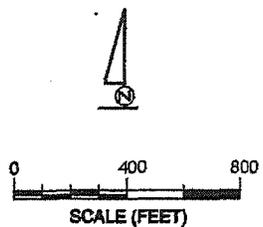
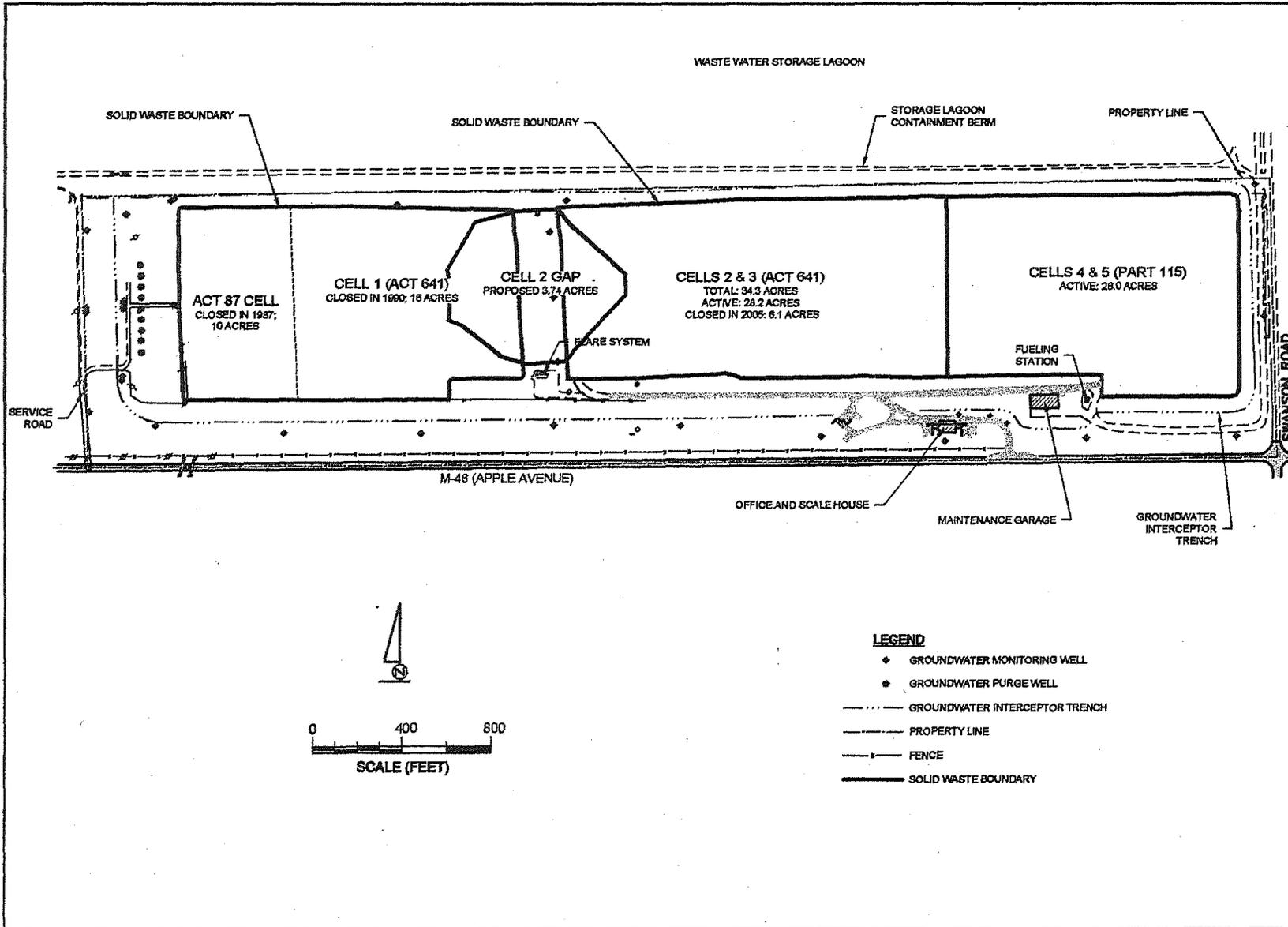
- (1) The licensee shall use the material as daily cover only. The material cannot be used for road building or fill in other areas of the Facility's operation.
- (2) The licensee shall maintain copies of the testing performed on Class B and Class C materials in the facility operating record.
- (3) The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

Licensee: County of Muskegon Department of Public Works
Facility Name: County of Muskegon – Solid Waste Facility
Operating License Number: 9367
Issue Date: January 15, 2014

- (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 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
 - ◆ GROUNDWATER PURGE WELL
 - GROUNDWATER INTERCEPTOR TRENCH
 - - - - PROPERTY LINE
 - +— FENCE
 - SOLID WASTE BOUNDARY

604 APPLE AVENUE
PAVENNA, MICHIGAN

MUSKEGON COUNTY LANDFILL

SITE MAP

<small>PROJECT NO.</small>	002-04-002	<small>DATE</small>	3/1/08	<small>FIGURE</small>	1
<small>SCALE</small>	ACA	<small>DATE</small>		<small>FIGURE</small>	
<small>SCALE</small>	BL	<small>DATE</small>		<small>FIGURE</small>	

200 West Franklin Street
Suite 202
Zeeland, Michigan 49664
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Engineering & Environmental Solutions, I.L.C.

FIGURE 1