

Michigan Department of Natural Resources and Environment
Environmental Resource Management 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: Granger Wood Street Landfill

LICENSEE/OPERATOR: Granger III and Associates, LLC

FACILITY OWNER: Granger Waste Management Company and Granger Meadows, LLC

PROPERTY OWNER: Granger Meadows, LLC, and Granger Waste Management Company

FACILITY TYPE(S): Municipal Solid Waste Landfill

FACILITY ID NUMBER: 470523

COUNTY: Ingham/Clinton

LICENSE NUMBER: 9290

ISSUE DATE: October 28, 2010

EXPIRATION DATE: October 28, 2015

FACILITY DESCRIPTION: The Granger Wood Street Landfill, a municipal solid waste landfill, consists of 482.2 acres located in the NE 1/4 of Section 3, T4N, R2W Lansing Township, Ingham County, and the S 1/2 of Section 34, T5N, R2W, DeWitt Township, Clinton County, Michigan, as identified in Attachment A and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: Identified in Attachment 2 of this license.

RESPONSIBLE PARTY: Mr. Ralph Nuereberg, Vice President
Granger Waste Management Company
P.O. Box 27185
Lansing, Michigan 48909
517-371-9729

RENEWAL OPERATING LICENSE: This License Number 9290 supersedes and replaces Solid Waste Disposal Area Operating License Number 9209 issued to Granger Waste Management Company on April 3, 2009.

This license is subject to revocation by the Director of the Michigan Department of Natural Resources and Environment, 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 and Land Application Section
Environmental Resource Management Division

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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 85, 86, 87, and cells 1-88, 2-89, 3-90, 4-91, 5-92, 6-97, 7-99, 8-01, 9-05, 10-03, and 11-09 were authorized to receive waste by the previous license. This area's total acreage is 87.9 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 Natural Resources and Environment (DNRE) of construction certification:

UNCONSTRUCTED AREA(S) WITH FINANCIAL ASSURANCE: The area(s) identified as Cell 12-10, totaling 7.6 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 DNRE, as required by Section 11516(5) of Part 115, and determined by the DNRE 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 areas within Clinton County; Cells 13 thru 29 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 117.7 acres.

b. **UNCLOSED AREA(S):** The area(s) identified as Portions of Cells 85, 86, and 87 are at final grade but have not had final cover certification approved by the DNRE. This area's total acreage is 12.0 acres.

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

EXISTING UNIT(S): The unit(s) identified as Portions of Cells 1-88 and 2-89 had final closure certified on December 9, 2009. This certification was reviewed and approved by the DNRE on January 19, 2010. This area's total acreage is 4.5 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 DNRE on July 30, 2010, 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 DNRE's Environmental Resource Management Division (ERMD), Lansing District Supervisor, of any inaccuracies in the information in the Application upon discovery.
7. This license is issued based on the DNRE's review of the Application, submitted by Granger Waste Management Company, for the Granger Wood Street Landfill, dated July 28, 2010, and revised October 7, 2010. 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.

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d. Waste Characterization: N/A.

e. Restrictive Covenant:

The declaration of restrictive covenant on 126.03 acres is on file at the Clinton County Register of Deeds recorded on May 4, 2009, as Liber 514392 pages 1-3. A copy is on file with the DNRE.

f. Perpetual Care Fund Agreement, established as an escrow account, signed by Dennis Dooler, Chief Operating Officer, Granger Land Development Company on January 22, 1997, was executed by the DNRE on January 31, 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 \$10,609,950.00.

The Facility has provided financial assurance totaling \$10,610,406.73, 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 11523a of Part 115 and is approved by the DNRE.
- (2) The Perpetual Care Fund Agreement statement showed a balance of \$1,891,441.73 in the Facility's Perpetual Care Fund as of July 14, 2010. Of this amount, the DNRE has granted the request to use \$1,891,441.73 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	\$1,292,000.00
Total Amount Received:	\$1,292,000.00

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 \$7,426,965.00. Financial capability demonstrated by a financial test must be updated each fiscal year. The next update is due March 31, 2011 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.

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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 October 28, 2011, and each year thereafter.

8. The following documents approved with Construction Permit Number(s) 0122, 0339, 0410 and 4056 issued to Granger Waste Management Company on July 16, 1984, March 27, 1996, and April 21, 2003, and January 30, 2004,, are incorporated in this license by reference:
- a. "Sanitary Landfill, Section 3, Lansing Township for Ingham County Board of Public Works" prepared by Johnson & Anderson, Inc., dated 1973.
 - b. "Hydrogeologic Investigation, Granger Land Development Company; Proposed Landfill Extension; NE 1/4 of Section 3, Lansing Township, Ingham County, Michigan" prepared by Keck Consulting Services, Inc., dated 1980.
 - c. "Material Evaluation, Granger Land Development Company; Landfill Extension; Section 3, Lansing Township, Ingham County, Michigan" prepared by Keck Consulting Services, Inc., dated 1981.
 - d. "Subsurface Soils Investigation and Laboratory Analyses; Granger Landfill facility; Coleman Road-Site 1; Lansing, Michigan" prepared by Professional Service Industries, Inc., dated 1983.
 - e. "Hydrogeologic Evaluation; Type II Landfill Expansion; Granger Land Development Co., City of Lansing, Lansing and Dewitt Townships, Michigan" prepared by American Geotechnical & Hydrogeologic Engineers, dated 1983.
 - f. "Operation Plans" prepared by Granger Waste Management Company, located in Volume VI of the Construction Permit Application for the Granger Wood Street Landfill, dated October 27, 1995, and revised March 18, 1996.
 - g. "Engineering Plans for the Granger Waste Management Company Wood Street Landfill" prepared by Granger Waste Management Company, Golder Associates Inc., and Horizon Environmental, dated October 1995, and revised March 1996.
 - h. "Engineering Report" prepared by Granger Waste Management Company and Golder Associates Inc., located in Volume V of the Construction Permit Application for the Granger Wood Street Landfill, dated October 27, 1995, and revised March 6, 1996.
 - i. "Construction Quality Assurance Program" prepared by Golder Associates Inc., located in Volume VI of the Construction Permit Application for the Granger Wood Street Landfill, dated October 27, 1995, and revised March 22, 1996.
 - j. Hydrogeological Report titled "Supplemental Hydrogeologic Study and Appendices" located in Volumes II and III of the Construction Permit Application for the Granger Wood Street Landfill, prepared by Horizon Environmental Corporation, dated October 27, 1995, and revised March 19, 1996.
 - k. "Hydrogeological Monitoring Plan" located in Volume IV of the Construction Permit Application for the Granger Wood Street Landfill prepared by the Granger Waste Management Company, dated May 5, 1995, and revised June 15, 1995. The Hydrogeological Monitoring Plan includes the following:
 - i. Groundwater Monitoring Plan
 - ii. Surface Water Monitoring Plan
 - iii. Leachate Monitoring Plan
 - iv. Gas Monitoring Plan

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- I. Hydrogeological Monitoring Plan located in Volume IV of the Construction Permit Application for the Granger Waste Management Company, Wood Street Landfill, prepared by Horizon Environmental Corporation, dated December 23, 2002, and revised March 7, 2003, and October 7, 2003, and approved on January 30, 2004. The Hydrogeological Monitoring Plan includes:
 - i. Groundwater Monitoring Plan dated December 23, 2002, and revised March 7, 2003, and October 7, 2003, and approved on January 30, 2004.
 - ii. Surface Water Monitoring Plan dated December 23, 2002, and revised March 7, 2003, and October 7, 2003, and approved on January 30, 2004.
 - iii. Leachate Monitoring Plan dated December 23, 2002, and revised March 7, 2003, and October 7, 2003, and approved on January 30, 2004.
 - iv. Gas Monitoring Plan dated December 23, 2002, and revised March 7, 2003, and October 7, 2003, and approved on January 30, 2004.
 - m. "Special Conditions" prepared by Granger Waste Management Company, dated June 9, 2000. This portion of the application provided Granger's leachate recirculation plan for Cells 6, 7, and 8.
 - n. Operation Plans located in Volume VI of the Construction Permit Application for the Granger Waste Management Company, Wood Street Landfill, prepared by Granger Waste Management Company dated December 23, 2002, and revised March 7, 2003, and October 7, 2003, and approved on January 30, 2004.
 - o. Engineering Plans for the Granger Waste Management Company, Wood Street Landfill, prepared by Golder Associates, Inc., and Horizon Environmental Corporation dated December 23, 2002, and revised March 7, 2003, and October 7, 2003, and approved on January 30, 2004.
 - p. Hydrogeological Report titled Supplemental Hydrogeologic Study and Appendices located in Volumes II and III of the Construction Permit Application for the Granger Waste Management Company, Wood Street Landfill, prepared by Horizon Environmental Corporation dated December 23, 2002, and revised March 7, 2003, and October 7, 2003, and approved on January 30, 2004.
 - q. Engineering Report (Including Closure and Post-Closure Plans) located in Volume V of the Construction Permit Application for the Granger Waste Management Company, Wood Street Landfill, prepared by Granger Waste Management Company and Golder Associates, Inc., dated December 23, 2002, and revised March 7, 2003, and October 7, 2003, and approved on January 30, 2004.
 - r. Construction Quality Assurance Plan located in Volume VI of the Construction Permit Application for the Granger Waste Management Company, Wood Street Landfill, prepared by Granger Waste Management Company and Golder Associates, Inc., dated December 23, 2002, revised March 7, 2003, and October 7, 2003, and approved on January 30, 2004.
 - s. Environmental Assessment located in Volume I of the Construction Permit Application for the Granger Waste Management Company, Wood Street Landfill, prepared by Granger Waste Management Company and Golder Associates, Inc., dated December 23, 2002, and revised March 7, 2003, and October 7, 2003, and approved on January 30, 2004.
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:
- Revised Leachate Recirculation Plan prepared by Granger Waste Management Company and approved on March 8, 2005. The plan was originally approved with operating license number 8731 on September 6, 2000.
10. Consent Order/Judgment Number: N/A.

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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 DNRE.
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 DNRE before receiving waste in that portion of the certified liner or leachate collection system. The licensee shall submit the recertification to the DNRE's ERMD, Lansing District Supervisor, for review and approval.
13. The licensee shall conduct hydrogeological monitoring in accordance with the approved hydrogeological monitoring plan, dated December 23, 2002, and revised March 7, 2003, and October 7, 2003, and approved on January 30, 2004. The sampling analytical results shall be submitted to the DNRE's ERMD, Lansing District Office.
14. Modifications to the approved hydrogeological monitoring plan referenced in Item 13 may be approved, in writing, by the ERMD, Lansing District Supervisor. Proposed revisions must be submitted in a format specified by the DNRE.
15. Leachate may be recirculated if a leachate recirculation plan has been approved, in writing, by the ERMD, Lansing 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 ERMD, Lansing District Supervisor.
17. Requests for alternate daily cover may be approved, in writing, by the ERMD, Lansing 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 that is in compliance with the provisions of R 299.4422(2) of the Part 115 Rules.

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 ERMD, 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:

Product/Waste Material

- (1) Sanicover 250 or equivalent geotextile cover
- (2) Land-Cover 480
- (3) Tire Chips
- (4) Inert Concrete
- (5) Brick Rubble
- (6) Bottom Ash
- (7) Posi-Shell Cover System
- (8) Process sand from Shultz, Inc.
- (9) Incidental waste wood from construction or demolition (brick rubble)
- (10) Chipped Wood
- (11) Ground shingles and other roofing materials that do not contain friable asbestos
- (12) Alum sludge from municipally owned water treatment facilities
- (13) ConCover product Proguard SB, approved for use February 6, 2001.

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- (14) Filter Cake from the wastewater treatment facility at the GMC Lansing Craft Centre, approved for use September 15, 2003.
- (15) Hydro Green Spray Mulch product from Nu-Wool Company, Inc., approved for use April 15, 2004.

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.
- (5) This approval shall immediately become void upon documentation by the DNRE 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 Operational Memo 115-10, Revision 2, 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 on upon the expiration of this operating license.

b. The licensee shall dispose of large and bulky items in compliance with the plan dated November 27, 1990

c. The licensee shall store white goods and other recyclable metals that are not source separated in accordance with the plan dated November 26, 1990, letters dated November 27, 1990, and November 28, 1990, and in accordance with Rule 299.4315(11). The licensee may only store such material for up to one year.

d. References throughout this license that describe the status, location, and other aspects of the Paulson Street Landfill (approximately 51 acres located southwest of the Granger Wood Street Landfill and separated by a groundwater monitoring zone) are provided for informational purposes only. The two landfills shall be considered to be separate and distinct entities for the purposes of any enforcement and/or regulation. Regulation of the Paulson Street Landfill shall be under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Activities and licensure conditions of the Granger Wood Street Landfill shall remain unaffected by the status of regulatory activity relating to the Paulson Street Landfill.

e. Electrical Generation.

i. A registered professional engineer has certified that the electrical generator plant was constructed in accordance with all applicable building codes.

ii. The licensee shall operate and maintain the electrical generation plant in accordance with Part 115.

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- iii. The licensee shall operate the electrical generator plant shown in as-built drawings transmitted to the Department of Environmental Quality (Department) on December 1, 1992, in a manner consistent with the operations outlined in the licensee's October 3, 1991, letter to the Department.
 - iv. The licensee shall operate the electrical generator plant so that noise is controlled in compliance with Rule 299.4431.
 - v. The licensee shall discharge all gas condensate from the generator station either to the leachate collection system or to the public sanitary sewerage system. This discharge shall comply with all applicable discharge regulations. Leachate from the leachate wet well shall not be reintroduced to the landfill area without the Department's approval.
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

