



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: D E Karn 1 & 2 Solid Waste Disposal Area

LICENSEE/OPERATOR: Consumers Energy Company

FACILITY OWNER: Consumers Energy Company

PROPERTY OWNER: Consumers Energy Company

FACILITY TYPE(S): Type III Low Hazard Industrial Landfill

FACILITY ID NUMBER: 392503

COUNTY: Bay

LICENSE NUMBER: 9442

ISSUE DATE: June 29, 2015

EXPIRATION DATE: June 29, 2020

FACILITY DESCRIPTION: The D E Karn 1 & 2 Solid Waste Disposal Area, a Type III low hazard industrial landfill, consists of 171 acres located at portions of Sections 1 and 2, T14N, R5E, and a fraction of Section 35, T15N, R5E, Hampton Charter Township, Bay County, Michigan, as identified in Attachment A and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: Areas A, B1, B2, C, D1, D2, and E, which include the ash settling basins, the clarification ponds, and the ash transport ditches.

RESPONSIBLE PARTY: Thomas E. Fox  
Consumers Energy company  
2742 North Weadock Highway  
Essexville, MI 48732  
989-891-5818

**RENEWAL OPERATING LICENSE:** This License Number 9442 supersedes and replaces Solid Waste Disposal Area Operating License Number 9234 issued to Consumers Energy Company on October 15, 2009.

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: Consumers Energy Company  
Facility Name: D E Karn 1 & 2 Solid Waste Disposal Area  
Operating License Number: 9442  
Issue Date: June 29, 2015

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 A, B1, B2, C, D1, D2, and E, which include the bottom ash settling basins, clarification ponds, and the ash transport ditches, were authorized to receive waste by the previous license. This area's total acreage is 171 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:

**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 Pond B and C1 had final closure certified in August, 2013. This certification was reviewed and approved by the MDEQ on January 16, 2014. This area's total acreage is 11.1 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 August 18, 2014, 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), 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 Harold D. Register, Jr., for the Consumers Energy Company, dated August 15, 2014. 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.
  - e. Restrictive Covenant:

The June 1, 2000, restrictive covenant on 171 acres is on file at the Bay County Register of Deeds recorded on September 15, 2000, as Liber 1706 pages 410-413. A copy is on file with the MDEQ.
  - f. Perpetual Care Fund Agreement, established as a standby trust account, signed by Mr. Dennis Dobbs, Vice President, Generation Engineering and Services, Consumers Energy Company on January 16, 2015, was executed by the MDEQ on March 9, 2015.

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 includes a Surety Bond of \$20,000.00 per acre of licensed landfill, and the Perpetual Care Fund requirement.

The Facility has provided financial assurance totaling \$1,181,100.00 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, and the bonding requirements of Section 11523 (1)(a) of Part 115. 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:

The Perpetual Care Fund Agreement statement showed a balance of \$181,100.00 in the Facility's Perpetual Care Fund as of March 9, 2015.

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	\$1,000,000.00

8. The following documents approved with Construction Permit Number(s) 0195 issued to the Consumers Power Company on December 15, 1986, are incorporated in this license by reference:

Construction Permit Application and Support Documents, prepared by Consumers Power Company, dated August 1986.

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. Groundwater Permit Exemption Number GWE-005, dated August 21, 1986.
- b. Alternate Water Quality Monitoring Plan, prepared by Consumers Power Company, dated October 21, 1992.
- c. Designation of Inertness 92-I-020, dated February 19, 1993.
- d. Certification of Construction, prepared by Consumers Power Company, dated July 21, 1995.
- e. Alternate Groundwater Quality Monitoring Plan, prepared by Consumers Power Company, dated August 22, 1995.
- f. Authorization to Discharge, GWE 0005, dated February 1, 2001.
- g. Phase II Workplan for Karn and Weadock, prepared by Natural Resource Technology, dated September 10, 2003.
- h. Subsurface Investigation and Soil-Bentonite Wall Feasibility Study, prepared by AECOM, dated December 4, 2009.
- i. Soil-Bentonite Cutoff Wall Basis of Design Report, prepared by AECOM, dated December 31, 2009.
- j. Updated Slope Stability Analysis, prepared by NTH Consultants, Ltd., dated September 29, 2010.

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- k. Groundwater Flux Summary Report, prepared by Arcadis, dated December 20, 2013.
  - l. Long-term Perimeter Dike Slope Monitoring Plan, prepared by NTH Consultants, Ltd., dated December 12, 2011, revised December 19, 2011, and June 25, 2015.
  - m. Coal Ash Landfill Site Specific Surveillance and Monitoring Plan, D E Karn Facility, dated December 20, 2010.
  - n. Geotechnical Report for the D E Karn Solid Waste Disposal Area prepared by Golder Associates, Inc., dated January 15, 2014.
  - o. D E Karn Revised Closure Plan Prepared by Golder Associates, Inc., dated April 24, 2015.
  - p. Hydrogeological Monitoring Plan Rev. 2: D E Karn Solid Waste Disposal Area, dated June 9, 2015.
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, Saginaw Bay District Office Supervisor, for review and approval.
13. The licensee shall conduct hydrogeological monitoring in accordance with the approved hydrogeological monitoring plan, dated June 9, 2015. The sampling analytical results shall be submitted to the MDEQ's OWMRP, Saginaw Bay District Office.
14. Modifications to the approved hydrogeological monitoring plan referenced in Item 13 may be approved, in writing, by the OWMRP, 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 OWMRP, 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 OWMRP, Saginaw Bay District Supervisor.
17. Requests for alternate daily cover may be approved, in writing, by the OWMRP, Saginaw Bay District Supervisor.
18. Leakage Control Criteria:
- Type III Facility is a monitorable unit and, therefore, does not need to be in compliance with the leakage control criteria of R 299.4422 of the Part 115 Rules.
19. **VARIANCES:** The licensee is granted the following variance(s) from Part 115 and/or the Part 115 Rules:
- The Facility is granted the variances approved in a December 12, 1986, letter as part of Construction Permit Number 0195 issued to Consumers Power Company, on December 15, 1986. The variances were issued pursuant to the administrative rules for the Solid Waste Management Act, 1978 PA 641, as amended, that were in effect when the construction permit was issued. The administrative rules in effect at that time had an effective date of January 6, 1982.
20. **SPECIAL CONDITIONS:** N/A.

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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**

