EGLE

Michigan Department of Environment, Great Lakes, and Energy Materials Management Division SOLID WASTE DISPOSAL AREA OPERATING LICENSE

Effective April 22, 2019, the Michigan Department of Environmental Quality, by Executive Order Number 2019-06, became the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Effective April 22, 2019, the Waste Management and Radiological Protection Division became the Materials Management Division (MMD).

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: Carleton Farms Landfill

LICENSEE/OPERATOR: Republic Services of Michigan I, LLC

FACILITY OWNER: Republic Services of Michigan I, LLC PROPERTY OWNER: Republic Services of Michigan I, LLC

FACILITY TYPE(S): Municipal Solid Waste Landfill and Municipal Solid Waste Incinerator Ash Landfill

FACILITY ID NUMBER: 390701

COUNTY: Wayne

LICENSE NUMBER: 9704 ISSUE DATE: March 23, 2023

EXPIRATION DATE: March 23, 2028

FACILITY DESCRIPTION: The Carleton Farms Landfill, a municipal solid waste landfill and municipal solid waste incinerator

ash landfill, consists of 664.08 acres located at 28800 Clark Road, Sumpter Township, Wayne

County, Michigan, as identified in Attachment A and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: Identified in items 2 and 3 of this license and Attachment A.

RESPONSIBLE PARTY: Rick Rolf, General Manager

Republic Services of Michigan I, LLC

28800 Clark Road

New Boston, Michigan 48164-9610

734-271-6147

RENEWAL OPERATING LICENSE: This License Number 9704 supersedes and replaces Solid Waste Disposal Area Operating License Number 9607 issued to Republic Services of Michigan I, LLC on June 4, 2020.

This license is subject to revocation by the Director of the Michigan Department of Environment, Great Lakes, and Energy, 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.

Rhonda S. Oyer, Manager, Solid Waste Section

Materials 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 Cells 1A (6.55 acres), 2A (6.54 acres), 3A (6.55 acres), 4A (6.81 acres), 5A (6.81 acres), 6A (6.81 acres), 201 (10.79 acres), 202 (10.53 acres), 203 (8.94 acres), 204 (8.97 acres), 205 (11.59 acres), 206 (13.69 acres), 207 (15.65 acres), 208 (19.78), 209 (23.67 acres), 210 (15.54 acres), 211 (15.51 acres), 212 (18.8 acres), 213 (16.8 acres), 214 (16.5 acres), 301 (9.02 acres), portion of 302 (8.6 acres), portion of 303 (8.6 acres), 1B (3.09 acres), 2B (6.5 acres), 3B (7.33 acres), 4B (7.34 acres), and 5B (7.67 acres) were authorized to receive waste by the previous license. This area's total acreage is 304.98 acres.

3. The following portions of the Facility **WILL BE** authorized to receive solid waste by this license following approval by EGLE of construction certification:

UNCONSTRUCTED AREA(S) WITH FINANCIAL ASSURANCE: The area(s) identified as eastern portion of Cell 304, totaling 8.6 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 EGLE, as required by Section 11516(5) of Part 115, and determined by EGLE 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 Cells 215, western portion of 302, western portion of 304, 305, 306, 6B, and 7B 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 108.29 acres.
 - b. CLOSED UNIT(S) OR A PORTION OF A UNIT WHERE THE FINAL COVER HAS BEEN CERTIFIED CLOSED AND ACCEPTED BY EGLE: The following unit(s) and/or portion(s) are closed:

EXISTING UNIT(S): The unit(s) or portion(s) of unit(s) identified as portions of Cells 1B (4.25 acres) and 2B (0.84 acre) had final closure certified on September 27, 2001. This certification was reviewed and approved by EGLE on May 11, 2004. This area's total acreage is 5.09 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 EGLE on December 12, 2022, 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 EGLE's MMD Warren District Supervisor, of any inaccuracies in the information in the Application upon discovery.

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7. This license is issued based on EGLE's review of the Application, submitted by Republic Services of Michigan I, LLC, for the Carleton Farms Landfill, dated December 8, 2022, and revised March 13, 2023. The Application consists of the following:

- a. Application Form EQP 5507.
- b. Application fee in the amount of \$15,000.00.
- c. Certification of construction by NA, dated NA.
- d. Waste Characterization: N/A.
- e. Restrictive Covenant:

The Carleton Farms Landfill restrictive covenant on 550.43 acres is on file at the Wayne County Register of Deeds recorded on September 14, 2015, as Liber 52480 pages 873-877. A copy is on file with EGLE.

- f. Perpetual Care Fund Agreement, established as a standby trust account, signed by Marsha A. Lacy, Assistant Treasurer, Republic Services of Michigan I, LLC on September 29, 2014, was executed by EGLE on October 30, 2014.
- 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 \$64,926,347.85.

The Facility has provided financial assurance totaling \$67,766,347.81, 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:

The Perpetual Care Fund Agreement statement showed a balance of \$2,840,000.00 in the Facility's Perpetual Care Fund as of November 28, 2022. Of this amount, EGLE has granted the request to use \$2,840,000.00 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:

Surety Bond \$64,926,347.81

Total Amount Received: \$64,926,347.81

- iv. Financial Assurance Provided Via a Financial Test for a Type II Landfill: N/A.
- 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

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for the costs of inflation. The corresponding financial assurance, as adjusted for inflation and other factors, is due one year from the date of this license, and each year thereafter.

- vi. Other Required Financial Assurance: N/A.
- 8. The following documents approved with Construction Permit Number(s) 0244, 0316, and 0351 issued to Carleton Farms, Inc., on August 30, 1991, March 14, 1995, and June 16, 1997, respectively, and Construction Permit Numbers 0383, 4078, 4121, and 4149 issued to Republic Services of Michigan I, LLC on July 11, 2000, June 12, 2006, December 15, 2011, and September 18, 2015, respectively, are incorporated in this license by reference:
 - Construction Permit Number 0244.
 - i. Carleton Farms, Inc., Act 641 Construction Permit Application, Volumes I-III, dated April 1991.
 - ii. Report on Hydrogeologic Investigation Proposed Sanitary Landfill, Sumpter Township, dated October 31, 1989.
 - iii. Report on Supplemental Hydrogeological Investigation, dated November 7, 1990.
 - iv. Soil Erosion and Sedimentation Control Plan dated March 1991.
 - v. Soil engineering documentation, dated April 1991.
 - vi. Design engineering documentation dated March 26, 1991.
 - vii. Engineering plans, dated March 26, 1991.
 - b. Construction Permit Number 0316.
 - Carleton Farms, Inc., Act 641 Construction Permit Application, Volumes I-IV, dated October 1994.
 - ii. Hydrogeological report titled, "Report on Additional Hydrogeological Investigation, Act 641 Landfill Expansion, Carleton Farms, Inc.," prepared by NTH Consultants, Ltd. (NTH), and dated February 24, 1993, and amendments on October 12, 1994, and January 9, 1995, by NTH.
 - iii. Engineering report titled, "Engineering Report, Construction Permit Plans Phase II, Carleton Farms, Inc.," prepared by Midwestern Consulting, Inc., and dated May 27, 1994.
 - iv. Engineering plans titled, "Carleton Farms, Inc., Act 641 Construction Permit Plans, Type II Sanitary Landfill," prepared by Midwestern Consulting, Inc., and dated January 8, 1993, for sheets 1-5, 17-21, 26, and 27, and dated September 8, 1994, for sheets 14-16, 22-25, and 28-39.
 - c. Construction Permit Number 0351.
 - i. Carleton Farms, Inc., Part 115 Construction Permit Application, Phase III Expansion, Volumes I-IV, dated February 1997.
 - ii. Hydrogeologic report contained in Volume 3 of the document described in Item 8.c.i, dated February 1997, and amended May 21, 1997.
 - Construction Permit Number 0383.
 - i. Letter dated March 16, 2000, from EMCON/OWT Solid Waste Services titled "Request for Construction Permit Modification, Carleton Farms Landfill, Ash Cells 3B-7B Leachate Collection Layer."

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ii. Revised engineering drawing sheet Number 27 prepared by EMCON titled "Phase III – Permit Plans Liner and Final Cover System Details," dated March 15, 2000.

- iii. Revised engineering drawing sheet Number 20 prepared by EMCON titled "Phase III Permit Plans Revised Final Grading Plan," dated March 14, 2000.
- iv. Revised specifications for the granular soils as outlined on revised pages 42-44 submitted to EGLE on March 16, 2000, and to be incorporated into the Construction Quality Assurance Manual contained in the document listed in Item 8.d.i.
- e. Construction Permit Number 4078.
 - i. Document titled "Application for Lateral & Vertical Expansion, Carleton Farms Landfill, Sumpter Township, Michigan," Volumes 1 and 2, prepared for Republic Services of Michigan I, LLC, by Shaw Environmental, Inc., dated January 2006 (received January 24, 2006), with revisions dated February 8, 2006 (received February 9, 2006), May 8, 2006 (received May 8, 2006), May 16, 2006 (received May 18, 2006), and October 2009 and January 2010 (GCL specifications and natural soil barrier verification requirements revised in "Construction Quality Assurance Plan," respectively).
 - ii. Engineering drawings, numbered 1 through 33, in plan set titled "Design Plans for Phase IV Expansion, Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan," prepared for Republic Services of Michigan I, LLC, by Shaw Environmental, Inc., dated January 2006 (received January 24, 2006), with revisions dated February 8, 2006 (received February 9, 2006), May 8, 2006 (received May 8, 2006), May 16, 2006 (received May 18, 2006), and October 15, 2009.
- f. Construction Permit Number 4121.
 - i. Document (two volumes) titled "Application for Phase V Lateral & Vertical Expansion," prepared by Cornerstone Environmental Group, LLC, dated July 2011 and revised in October 2011 and November 2011. This document includes: "Engineering Report for Phase V Expansion" (dated November 2011), "Environmental Assessment" (dated November 2011), "Construction Quality Assurance Plan" (revised July 2015 and June 2017), "Operations Plan" (dated November 2011), "Closure/Post Closure Plan" (dated November 2011), "Hydrogeologic Investigation and Supplemental Information" (dated October 2011), "Hydrogeologic Monitoring Plan," prepared by Golder Associates (dated June 2011 and revised as indicated in Item 13 of this license), and "Statistical Monitoring Plan," prepared by Golder Associates (dated June 2011).
 - ii. Engineering plan set (consisting of 50 sheets) titled "Engineering Plans for Phase V Expansion, Carleton Farms Landfill," prepared by Cornerstone Environmental Group, LLC, dated November 2011
- g. Construction Permit Number 4149.
 - Revised "Head-On-Liner Calculation," prepared by CTI and Associates, Inc., dated February 25, 2015 (Cell 212), and July 28, 2015 (Cells 213-215 and 302-306).
 - ii. Revised title sheet and engineering drawings numbered 18, 19, 20, 32, 33, 34, 36, 43, and 45 from the permit plan set titled "Engineering Plans for Phase V Expansion, Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan" dated November 2011. The revisions were prepared by CTI and Associates, Inc. The following revision dates are associated with this permit modification: May 29, 2015 (drawings 18, 19, 20, 33, and 34), July 27, 2015 (drawing 33), and August 17, 2015 (drawings 32, 33, 34, 36, 43, and 45).
- 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. Construction Certification for Geosynthetics, Leachate Collection System and Protective Sand Layer, Cell 1A, Carleton Farms, Inc., Volumes I-III, dated July 14, 1992.

- b. Construction Certification for Earthwork, Cell 1A, Volumes I-III, dated July 8, 1992.
- c. Carleton Farms, Inc., Cell A, As-Built Drawings and Limits of Licensed Area (8 sheets), dated July 23, 1992.
- d. Construction Certification for Geosynthetics, Leachate Collection Systems and Protective Sand Layer, Cells 2A and 3A, Carleton Farms, Inc., Volumes I-3, dated December 18, 1992.
- e. Construction Certification for Earthwork, Cells 2A and 3A, Volumes I and II, dated November 1992.
- f. Cells 2A and 3A, As-Built Drawings and Limits of Licensed Area (6 sheets), dated December 15, 1992.
- g. Construction Certification for Geosynthetics, Leachate Collection System, and Protective Sand Layer, Cells 4A and 5A, Volumes I and II, dated June 1993.
- h. Construction Certification for Earthwork, Cells 4A and 5A, Carleton Farms, Inc., dated June 1993.
- Cells 4A and 5A, Record Drawings and Limits of Licensed Area (6 sheets), dated June 30, 1993.
- Construction Certification for Geosynthetics, Leachate Collection and Protective Sand Layer, Cell 6A, Carleton Farms, Inc., dated September 1993.
- k. Construction Certification for Earthwork, Cell 6A, Carleton Farms, Inc., dated September 1993.
- Cell 6A, Record Drawings, Limits of Licensed Area and Record Facility Drawings, dated August 20, 1993.
- m. Construction Certification for Geosynthetics, Leachate Collection System, and Protective Sand Layer, Act 641 Type II Sanitary Landfill, Municipal Solid Waste Incinerator Ash Cell, Cell 1B, Volumes I and II, dated January 1994.
- n. Construction Certification for Earthwork, Act 641 Municipal Solid Waste Incinerator Ash Cell, Cell 1 B, Carleton Farms, Inc., dated November 1993.
- o. Addendum to Construction Certification for Earthwork, Act 641 Municipal Solid Waste Incinerator Ash Cell, Cell 1B, Carleton Farms, Inc., dated February 1994.
- p. Monofill Ash Cell 1B, Record Drawings and Limits of Licensed Area (7 sheets), dated January 4, 1994.
- q. Construction Certification for Geosynthetics, Leachate Collection System, and Drainage/Protective Sand Layer, Cells 201 and 202, Carleton Farms, Inc., Volumes I-IV, dated April 1994.
- r. Cells 201 and 202, Record Drawings and Limits of Licensed Area (10 sheets), dated April 20, 1994.
- s. Construction Certification for Earthwork and Geosynthetics, Cell 203, Volumes I and II, dated November 1994.
- t. Construction Certification for Earthwork and Geosynthetics, Cell 205, Volumes I-III, dated November 1994.
- u. Cells 203 & 205, Record Drawings and Limits of Licensed Area (10 sheets), dated October 28, 1994.
- v. Construction Certification for Earthwork and Geosynthetics, Cell 206, Volumes I and II, dated December 4, 1995.
- w. Construction Certification for Earthwork and Geosynthetics, Cell 2B, Volumes I and II, dated December 1995.
- x. Monofill Ash Cell 2B, Record Drawings and Limits of Licensed Area (7 sheets), dated January 8, 1996.

- y. Construction Certification for Earthwork and Geosynthetics, Cell 204 and 301, Volumes I and II, dated December 1997.
- z. Cells 204 and 301, Record Drawings and License Areas (6 sheets), dated December 1997.
- aa. Guidance document for Prevention of Prohibited Waste Disposal at Municipal Solid Waste Landfills prepared for Carleton Farms Landfill, Inc., dated November 1996, and revised June 1998, November 1998, October 1999, July 2002, and April 2005.
- bb. "Municipal Solid Waste Incinerator Ash Management Plan," dated August 29, 2000.
- cc. Carleton Farms Inc., Ash Monofill Cell 3B Construction Certification Report, received July 18, 2000.
- dd. 2000 MSW Cell Closure dated September 2001 and prepared by EMCON/OWT.
- ee. 2000 Ash Cell Closure dated September 2001 and prepared by EMCON/OWT.
- ff. Construction Documentation Report, Cell 209 South, dated March 2002.
- gg. Cells 210-211, South Construction Documentation Report, Volumes 1 and 2 dated August 2002 and prepared by CTI and Associates, Inc.
- hh. Cells 209-211, North Construction Documentation Report, dated September 2003 and prepared by CTI and Associates, Inc.
- ii. "Ash Cell 4B Construction Documentation Report," prepared by CTI and Associates, Inc., dated August 2004, received by EGLE on May 24, 2004, and approved by EGLE on October 22, 2004.
- jj. "Documentation Report for the Landfill Gas Extraction Well Remediation," dated November 30, 2000, and revised on March 24, 2005.
- kk. "Documentation Report for the 2001 Landfill Gas Extraction Well Remediation," dated February 7, 2002, and revised on March 24, 2005.
- II. Document titled "Carleton Farms Landfill Ash Monofill Leachate Line Rehabilitation Revised Work Plan," dated August 2, 2005.
- mm. Document titled "Supplemental Ash Monofill Leachate Line Work Plan, Landfill Gas to Energy Plant Area," dated August 18, 2005.
- nn. Design summary titled, "Carleton Farms Landfill Leachate Storage Tank Design Summary," dated September 26, 2005, and submitted to EGLE with a transmittal letter dated October 3, 2005.
- oo. Engineering plan sheets 1 through 4 titled, "Carleton Farms Landfill, Leachate Storage Tank Design, June 2005, updated October 2005," originally dated August 1, 2005, with revisions dated October 3, and 28, 2005.
- pp. Engineering drawing number 1, prepared by Shaw Environmental, Inc., titled "Cap Alteration Details," dated August 30, 2004, with revisions dated October 20, 2005, and April 3, 2006.
- qq. Engineering plan set titled "Vertical Leachate Sump Manholes, Cells 209, 210, and 211, Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan," dated August 2006, and submitted to EGLE with a transmittal letter from Republic Services, Inc., dated September 18, 2006.

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rr. Document titled "Verification of Soil Cleanup" prepared by Golder Associates, dated September 15, 2006, and submitted to EGLE with a transmittal letter dated September 22, 2006.

- ss. Engineering plan sheet 1 titled "Proposed West Slope Landfill Gas Horizontal Collection System Expansion" prepared by Golder Associates, dated September 29, 2006, and submitted to EGLE with a transmittal letter dated October 2, 2006.
- tt. Submittal titled "Carleton Farms Landfill Cell 207 Design Changes" prepared by Cornerstone Environmental Group, LLC, dated October 19, 2006, and received by EGLE on October 20, 2006, including sheet number 26R, and sheet number 26R1 which revise/supplement the engineering plan set titled "Design Plans for Phase IV Expansion, Carleton Farms Landfill," dated January 2006.
- uu. Document titled, Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan, Gas Collection Plan," dated June 2006, and revised November 2006, and January 2007.
- vv. The engineering plan set (Sheets 0 through 3) titled "2007 Landfill Gas System Upgrade, Collection System Expansion, Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan," prepared by Golder Associates, Inc., dated January 2007, and received by EGLE on January 22, 2007.
- ww. Engineering plan set (Sheets 1 through 5) titled "Carleton Farms Landfill, Proposed Citizen's Drop-Off, Truck Wheel Wash, and Road Improvements Construction Drawings," prepared by McNeely & Lincoln Associates, dated November 2006, and revised May 15, 2007.
- xx. "Cell 207, Construction Documentation Report," prepared by CTI and Associates, Inc., dated February 2007, and revised June 2007.
- yy. Certification document titled "Cell 207 Geomembrane Repairs" prepared by CTI and Associates, Inc., dated July 20, 2007, and received by EGLE on July 23, 2007.
- zz. Certification document titled "East Slope Cap Alteration" prepared by CTI and Associates, Inc., dated May 21, 2007, with revisions dated August 15, 2007.
- aaa. Certification document titled "Cell 207 Geomembrane Repairs" prepared by CTI and Associates, Inc., dated September 4, 2007, and received by EGLE on September 5, 2007.
- bbb. A work plan, required by WHMD Order No. 115-02-07, titled "West Slope Area Monitoring Plan For: Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan" dated July 20, 2007, with revisions/responses to EGLE comments dated September 21, 2007.
- ccc. Engineering plan set (sheets 1 through 3) titled "Carleton Farms Landfill, Proposed Truck Parking Area Construction Drawings" prepared by McNeely & Lincoln Associates, dated October 2007, and submitted to EGLE with a transmittal letter dated November 5, 2007.
- ddd. Document titled "Perimeter Landfill Gas Monitoring Plan, Carleton Farms Landfill" prepared by Golder Associates, dated April 2007, and revised December 2007 and August 2012.
- eee. Engineering document titled "Settlement Analysis Ash Cell 5B," prepared by Cornerstone Environmental Group, dated April 24, 2008, and received by EGLE under a transmittal letter dated April 25, 2008, including figure no. 1 titled "Ash Cell 5B Settlement Point Locations," dated April 17, 2008, and received by EGLE on June 16, 2008.
- fff. Sheet Number 5B titled "5B Permit Design Changes Liner/Berm Details," prepared by Cornerstone Environmental Group, dated June 13, 2008, and received by EGLE on June 16, 2008, under a transmittal letter dated June 13, 2008.

- ggg. Sheet No. 6 titled "5B Permit Design Changes Leachate Collection Details," prepared by Cornerstone Environmental Group, dated June 13, 2008, and received by EGLE on June 16, 2008, under a transmittal letter dated June 13, 2008.
- hhh. Report titled "West Slope Area Monitoring Report and Corrective Action Plan For: Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan" dated April 2008, with revisions/responses to EGLE comments dated September 2, 2008.
- iii. Engineering report titled "Cell 5B East Construction Documentation Report," prepared by CTI and Associates, Inc., dated August 2008, and revised October 2008.
- jjj. Letter report titled "Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan, Cell 5B East, West Berm Geomembrane Repairs" prepared by CTI and Associates, Inc., dated May 19, 2009, and received by EGLE on May 20, 2009, with revisions submitted via electronic mail on May 28, 2009.
- kkk. Letter report titled "Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan, Cell 5B East, West Berm Geomembrane Repairs" prepared by CTI and Associates, Inc., dated July 20, 2009, and received by EGLE on July 21, 2009.
- III. Letter proposal with attachment dated September 22, 2009, with the subject "West Slope Area Interim Cover Enhancement."
- mmm. Letter report titled "Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan, Cell 6A, Geomembrane Repairs" prepared by CTI and Associates, Inc., dated September 28, 2009, and received by EGLE on September 30, 2009.
- nnn. Letter report titled "Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan, Cell 6A, Geomembrane Repairs" prepared by CTI and Associates, Inc., dated September 28, 2009, and received by EGLE on September 30, 2009.
- ooo. Engineering plan sheets numbered 26R and 26R1, titled "Cell 208 Design Changes, Leachate Collection System Details," prepared by Cornerstone Environmental Group, LLC, dated October 6, 2009, and revised October 15, 2009.
- ppp. Engineering report titled "Cell 5B West (South) Construction Documentation Report," prepared by CTI and Associates, Inc., dated November 2009 and revised January 15, 2010.
- qqq. Document titled "Operational Plan for Alternate Daily Cover Materials for: Carleton Farms Landfill, Wayne County, Michigan," prepared by Republic Services, Inc., dated February 2010.
- rrr. Letter Report with the subject "Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan, Cell 5B East, Temporary Intercell Berm Removal," prepared by CTI and Associates, Inc., dated March 22, 2010, and received by EGLE on March 25, 2010.
- sss. Letter report titled "Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan, 2000 MSW Cell Closure Construction Repair," prepared by CTI and Associates, Inc., dated April 2, 2010, received by EGLE on April 6, 2010, and revised on April 23, 2010.
- ttt. Engineering plan set (drawings numbered 1 through 6) titled "2010 Landfill Gas Collection System Expansion Construction, Carleton Farms Landfill, Sumpter Township, Wayne County Michigan," prepared by Golder Associates, dated April 2010, and received by EGLE on April 23, 2010.
- uuu. Letter report titled "Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan, Cell 208, Geomembrane Repairs," prepared by CTI and Associates, Inc., dated September 21, 2010, and received by EGLE on September 23, 2010.

- vvv. Engineering plan set (drawings numbered 1 through 7) titled "2011 Landfill Gas Collection System Expansion Construction, Carleton Farms Landfill, Sumpter Township, Wayne County Michigan," prepared by Golder Associates, dated June 2011 and received by EGLE on August 5, 2011.
- www. Letter report titled "Carleton Farms Landfill, Cell 5B West (North) Rain Flap Removal/Repair", prepared by Cornerstone Environmental Group, LLC, dated January 6, 2012, and revised via e-mail submittal on January 20, 2012.
- xxx. Letter request with supporting documentation titled "Ambient Air Monitoring Program, Carleton Farms Landfill (Facility ID # 390701), Wayne County, Michigan," prepared by Republic Services, dated March 26, 2012.
- yyy. Engineering plan set (drawings numbered 1 through 9) titled "2012 Landfill Gas Collection System Expansion Construction, Carleton Farms Landfill, Sumpter Township, Wayne County Michigan," prepared by Golder Associates Inc., dated May 2012 and received by EGLE on June 1, 2012.
- zzz. Engineering plan set (drawings numbered 1 through 8) titled "Carleton Farms Landfill 2013 Gas System Construction Drawings, Sumpter Township, Wayne County Michigan," prepared by Midwestern Consulting, dated April 2013 and received by EGLE on April 15, 2013.
- aaaa. Engineering plan set (drawings numbered 1, 3, 4, 5, 9, 10, and 11) titled "Carleton Farms Landfill 2013 Gas System Construction Drawings, Sumpter Township, Wayne County Michigan," prepared by Midwestern Consulting, dated June 2013 and received by EGLE on June 4, 2013, via electronic mail submittal.
- bbbb. Letter document titled, "Addendum to the Statistical Monitoring Plan, Establishment of Proposed Statistical Limits for MW-53, Carleton Farms Landfill, Sumpter Township, Michigan," prepared by Brown and Caldwell, dated March 4, 2014, and received by EGLE on March 5, 2014.
- cccc. Engineering plan set (drawings numbered 1 through 9) titled "Carleton Farms Landfill 2014 Gas System Construction Drawings, Sumpter Township, Wayne County Michigan," prepared by Midwestern Consulting, dated April 2014 and received by EGLE on May 22, 2014, via electronic mail submittal.
- dddd. Document titled "Request for Ash Monofill Alternate Waste Placement," prepared by Republic Services, dated June 2, 2014, including laboratory analytical data and a drawing depicting remaining permitted airspace.
- eeee. Engineering report titled "Cell 211 West Slope Area Stability Report and Excavation Plan, Carleton Farms Landfill, Republic Services, Inc.," prepared by CTI and Associates, Inc., dated December 2014 and revised April 2015
- ffff. Engineering report titled "Carleton Farms Landfill, Cell 212 and Cell 211 Slope Cap Construction, Proposed Permit Upgrades, Revision 1", prepared by CTI and Associates, Inc., dated April 2015 and revised May 2015, including:
 - 1. An updated Cell 211 Leachate Percolation Analysis (Attachment 3) dated March 3, 2015.
 - A Cell 211 Additional Drainage Capacity Analysis (Attachment 4) dated March 10, 2015.
 - 3. A Temporary Stormwater Pond Analysis for Cell 212 (Attachment 5).
 - 4. Revised engineering drawings numbered 43 through 46 from the permit plan set titled "Engineering Plans for Phase V Expansion, Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan, November 2011". Drawings numbered 43 through 46 were revised on May 14, 2015, and drawing number 43 was further revised on May 28, 2015.

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5. Construction drawings for Cell 212 and the Cell 211 slope cap numbered D-2, D-2A, D-3 (D-3 submitted via e mail on May 15, 2015), P-4, P-6, and P-7 (P-7 submitted via e-mail on May 28, 2015), dated April 15, 2015. Drawings numbered D-2, D-2A, D-3, P-4, P-6, P-7 were revised on May 8, 2015, and drawing number D-2A was further revised on May 28, 2015.

- gggg. Revised engineering drawing P-1 titled "Carleton Farms Landfill, New Boston, Michigan, Cell 212 Construction Drawings, Gas System Below Slope Cap (Work by Others)", prepared by CTI and Associates, Inc., dated July 21, 2015, and received by EGLE on July 22, 2015, via electronic mail submittal.
- hhhh. Revised engineering drawing D-1A titled "Carleton Farms Landfill, New Boston, Michigan, Cell 212 Construction Drawings, Gas Details", prepared by CTI and Associates, Inc., dated July 21, 2015, and received by EGLE on July 22, 2015, via electronic mail submittal.
- iiii. Engineering report titled "Cell 212 and Cell 211 Slope Cap Construction Documentation Report (Volumes 1 and 2)", prepared by BEL Environmental Engineering (BEL), dated December 2015 and revised January 31, 2016, February 3, 2016, February 10, 2016, February 11, 2016, February 22, 2016, and February 24, 2016.
- jijj. Engineering as-built drawings (sheets numbered 1 through 7, P1 through P6, and G1) titled "2015 Cell 211-212 Certification Drawings", prepared by Midwestern Consulting, Inc. (MCI), dated December 24, 2015, and revised on January 28, 2016, February 10, 2016, and February 19, 2016.
- kkkk. Engineering as-built construction details (sheets D-1A, D-1B, D-1C, D-2A, D-3, D-4, and D-5) titled "Carleton Farms Landfill, New Boston, Michigan, Cell 212 Record Drawings", prepared by CTI and Associates, Inc. (CTI), dated February 18, 2016.
- IIII. Engineering plan set (drawings numbered 1A/B through 5) titled "Construction Plans for the 2016 Landfill Gas System Phase 1, Carleton Farms Landfill, Wayne County Michigan", prepared by Cornerstone Environmental Group, LLC, dated June 2016 and received by EGLE on June 22, 2016, via electronic mail submittal.
- mmmm. Letter report (with Appendices A, B, and C) titled "Carleton Farms Landfill, New Boston, Michigan, Cell 212 and Cell 211 Slope Cap TS Well Removal and Geosynthetic Repairs", prepared by BEL Environmental Engineering, dated July 5, 2016.
- nnnn. "Request for Ash Monofill Alternative Waste Placement", prepared by Republic Services, Inc., dated July 18, 2016, including laboratory analytical data for First Energy Bayshore Power Company fly ash.
- oooo. Engineering analysis titled "Cell 212/211 Slope Stability Analysis", prepared by CTI and Associates, Inc. (CTI), dated and submitted on September 2, 2016, with a transmittal letter and supporting documentation.
- pppp. E-mail request dated September 1, 2016 (including laboratory analytical data) for approval of an alternate waste stream for the ash monofill described as baghouse dust from Superior Aluminum Alloys located in New Haven, Indiana. The original approval for this material was limited to 60 days. A request for continued authorization for this waste stream was approved on November 29, 2016.
- qqqq. Engineering plan set (drawings numbered 1, 2A, 2B, 3, 4, and 5) titled "Plans for the 24" Perimeter Header Construction, Carleton Farms Landfill, Wayne County Michigan", prepared by Cornerstone Environmental Group, LLC, dated October 2016 and received by EGLE on October 30, 2016, via electronic mail submittal.
- rrrr. Engineering drawings numbered 1A and 1B titled "2017 Phase II Construction, Construction Site Plan North and South" (respectively), prepared by Cornerstone Environmental Group, LLC, dated March 2, 2017, and received by EGLE on March 21, 2017, via electronic mail submittal.
- ssss. Engineering report titled "Construction Quality Assurance Certification Report, Carleton Farms Landfill, Cell 213", prepared by Mannik Smith Group, dated November 2017.

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tttt. January 29, 2018, e-mail request from Republic Services for approval of an additional alternate waste (baghouse dust from basic oxygen process furnaces at the US Steel – Great Lakes Works steel manufacturing facility, with an anticipated volume of approximately 2,000 tons/year) for placement in the MSW ash monofill cells.

uuuu. Engineering plan set (drawings numbered 1, DS1, DS2, DS3, and DS4) titled "Plans for the 2018 Phase 1 GCCS Construction, Carleton Farms Landfill, Wayne County Michigan", prepared by Cornerstone, dated January 2018 and received by EGLE on February 1, 2018, via electronic mail submittal.

vvvv. Engineering plan set (drawings numbered 1, DS1, DS2, DS3) titled "Plans for the 2018 Phase 3 GCCS Construction, Carleton Farms Landfill, Wayne County Michigan", prepared by Cornerstone, dated November 2018 and received by EGLE on November 19, 2018, via electronic mail submittal.

wwww. Engineering plan set (drawings numbered 1, 2, 3 DS1, DS2, DS3, DS4, DS5 and DS6) titled "Plans for the 2019 Phase 1 GCCS Construction, Carleton Farms Landfill, Wayne County Michigan", prepared by Cornerstone, dated March 2019 and received by EGLE on April 2, 2019, via electronic mail submittal.

xxxx. Engineering drawing set (15 sheets) titled "Leachate Tank Installation Drawings, Republic Services of Michigan I, LLC, Carleton Farms Landfill, Sumpter Township, Wayne County, Michigan", prepared by CTI and Associates, Inc., dated July 2019, with revisions dated July 25, 2019, and September 9, 2019.

yyyy. Certification of construction titled "Construction Documentation Report, Cell 214 Construction, Carleton Farms Landfill, 28800 Clark Road, New Boston, MI 48164", prepared by CTI and Associates, Inc., dated January 2020 and received by EGLE on January 28, 2020.

zzzz. "Storm Water Management and Erosion Control Plan", prepared by CTI and Associates, dated March 2020.

aaaaa. "Storm Water Contaminant Source Reduction Plan", prepared by Brown and Caldwell, dated March 2020.

bbbbb. Submittal for temporary sump design for Cells 302 and 303 including: 1. Drawing 1 titled "Carleton Farms Landfill, Temporary Berm and Sump Details", prepared by BEL Environmental Engineering, dated August 31, 2021; 2. Calculation Sheet (6 pages) with 3 attachments prepared by CTI and Associates titled "Carleton Farms Landfill, Cell 302 Construction, Head-on-liner calculation", dated August 30, 2021; 3. Table prepared by CTI and Associates comparing temporary sump flooded area vs. depth vs. storage volume submitted via e-mail on August 16, 2021.

cccc. Certification of construction titled "Construction Documentation Report, Cells 302 and 303 East Construction, Carleton Farms Landfill, 28800 Clark Road, New Boston, MI 48164", prepared by BEL Environmental Engineering, dated January 2022 and received by EGLE on January 12, 2022.

- 10. Consent Order/Judgment Number: OWMRP Consent Order Number 115-02-06 entered on June 9, 2006 and OWMRP Consent Order Number 115-02-07 entered on June 22, 2007 are 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 EGLE.
- 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 EGLE before receiving waste in that portion of the certified liner or leachate collection system. The licensee shall submit the recertification to EGLE's MMD Warren District Supervisor, for review and approval.

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13. The licensee shall conduct hydrogeological monitoring in accordance with the approved hydrogeological monitoring plan, dated June 2011 and revised November 2011, June 2012, August 2012, June 2014, August 25, 2014, October 17, 2014, and August 8, 2016, and the approved Statistical Monitoring Plan dated June 2011, addendum dated March 4, 2014, and revised October 5, 2016. The sampling analytical results shall be submitted to EGLE's MMD Warren District office.

- 14. Modifications to the approved hydrogeological monitoring plan referenced in Item 13 may be approved, in writing, by EGLE's MMD Warren District Supervisor. Proposed revisions must be submitted in a format specified by EGLE.
- 15. Leachate may be recirculated if a leachate recirculation plan has been approved, in writing, by EGLE's MMD Warren District Supervisor.
- 16. Modifications to approved engineering plans that constitute an upgrading, as defined in R 299.4106a(I) of the Part 115 Rules, may be approved, in writing, by EGLE's MMD Warren District Supervisor.
- 17. Requests for alternate daily cover may be approved, in writing, by EGLE's MMD Warren 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: The licensee is granted the following variance(s) from Part 115 and/or the Part 115 Rules: 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 MMD, 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	Source	Monthly Volume
(1) Class A		N/A
 (a) Fabrisoil (b) Sanifoam (c) Concover (d) Procover (e) Amoco 2001 & Amoco 2006 (f) Rus Foam (g) Envirofoam (h) Plastic Sheeting (i) Geotextile (j) Woven Mat (k) Spray-on Materials 	Phillips Fibers Corporation 3M Company Newastecon, Inc. Nicolan Corporation Amoco Oil Company Rusmar Incorporated Environmental Systems Ltd. Various Various Various Various	
(2) Class B	Unknown	Varies
(a) Alum sludge(b) Wood Chips(c) Chipped Tires(d) Bottom Ash		

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(e) Ground Shingles w/no fines

(f) Non-marketable compost

material that is stabilized and finished.

(g) N-Viro Soil

(3) Class C

(a) Petroleum Contaminated Soils

(b) Industrial Filter Cake

(c) Automobile Shredder Fluff

Carleton Farms Compost Facility

Varies

Various

FCA Detroit Assembly Complex - Mack

Triple M Metals

Fritz Enterprises/Huron Valley Steel Ferrous Processing &Trading Company Metals Recycling - Johnston, RI Prolerized New England - Everett, MA OmniSource Corp. - Toledo, OH United Iron and Metal - Baltimore, MD Resource Reclamation - Toledo, OH Toledo Shredding - Toledo, OH

Varies Varies 132.000 cubic yards total

- 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 EGLE 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.
- b. Approved alternate daily cover materials shall be managed in accordance with the "Operational Plan for Alternate Daily Cover Materials For: Carleton Farms Landfill, Wayne County, Michigan," prepared by Republic Services, Inc., dated February 2010.

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c. The primary leachate collection system for any active ash monofill cells shall be sampled in accordance with the approved Municipal Solid Waste Incinerator Ash Management Plan, dated August 29, 2000.

- d. The licensee shall notify EGLE within 48 hours of the occurrence of any fire at the Facility or any waste mass movement or settlement that may be indicative of instability and shall place such notifications in the Facility's operating record.
- e. The licensee is authorized to recirculate leachate in accordance with the approved Leachate Recirculation Plan (Appendix H of the Operations Plan approved under Construction Permit Number 4121), dated November 2011.
- f. In accordance with the Stipulations of WHMD Order No. 115-02-06, upon acceptance of wastewater treatment plant (WWTP) sludge, the licensee agrees to implement a contingency provision that if notified by EGLE, there have been two verified off-site odors within a 30-day period, the amount of WWTP sludge to be received at the disposal area shall be reduced by 20 percent of the daily average volume of the previous 30-day period. Further, each time there is a subsequent notification to the licensee by EGLE that there have been two (2) additional verified off-site odors in a 30-day period as a result of WWTP sludge disposal at the disposal area, the volume of the WWTP sludge being accepted at the disposal area shall be reduced by an additional 20 percent of the daily average volume of WWTP sludge accepted in the previous 30-day period.

A "verified off-site odor" shall mean an odor that is determined by staff from EGLE or from Wayne County Department of Public Services (WCDPS) to be from WWTP sludge at a level 2 or above based on the scale used by WCDPS and such odor is present off the landfill site at a location where people reside, or are reasonably expected to be found such that the odor would cause unreasonable interference with the comfortable enjoyment of life and property.

If the licensee has been required to reduce the volume of WWTP sludge in accordance with the contingency described above, the licensee may request to increase the volume of WWTP sludge for acceptance up to the volumes previously approved by EGLE in a WWTP Sludge Acceptance Plan by submittal of the following:

- (i). A certification from the licensee that in the most recent 90 days prior to making the request, the licensee has not received notification from EGLE or the WCDPS that there have been two or more verified off-site odors in any 30-day period within the 90 days, unless EGLE Director determines otherwise.
- (ii). Information on the volumes to be accepted and details on what has changed either in terms of the WWTP sludges themselves or landfill practices or other circumstances, such that increasing the volume of WWTP sludge accepted is not likely to result in verified odors from the increased volumes.
- g. In accordance with the Stipulations relative to paragraph 2.7 of WHMD Order No. 115-02-07, in the event that the Respondent makes future application to EGLE and the WCDE to reinstate the WWTP sludge at the disposal area under Sections 2.6 and 2.7 of WHMD Order Number 115-02-06, the Respondent shall include an evaluation of the anticipated effects of the disposal of WWTP sludge on the stability of the waste mass. The evaluation must consider the findings of the West Slope Stability Evaluation to compare the conditions in the West Slope Area to the anticipated conditions resulting from future sludge disposal and any leachate recirculation. The evaluations must demonstrate that stability will be maintained under intermediate and final construction scenarios considering at a minimum:
 - (i). The volume of sludge to be disposed;
 - (ii). The moisture content of the sludge;
 - (iii). The tested and estimated strength of the waste materials relative to slope stability calculations, hydraulic conductivity, and consolidation properties of the materials; and
 - (iv). The method of disposal of the sludge.

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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

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