



**State of Michigan  
Department of Environmental Quality  
HAZARDOUS WASTE MANAGEMENT FACILITY OPERATING LICENSE**



NAME OF LICENSEE: The Dow Chemical Company

**DRAFT 6/29/15**

NAME OF FACILITY OWNER: The Dow Chemical Company

NAME OF FACILITY OPERATOR: The Dow Chemical Company

NAME OF TITLEHOLDER OF LAND: The Dow Chemical Company

FACILITY NAME: Michigan Operations, Midland Plant

FACILITY LOCATION: 1790 Building, Washington Street, Midland, Michigan 48674

EPA IDENTIFICATION (ID) NUMBER: MID 000 724 724

EFFECTIVE DATE: September \_\_, 2015

FIVE-YEAR REVIEW DATE: September \_\_, 2020

REAPPLICATION DATE: April (180 days before expiration), 2025

EXPIRATION DATE: September \_\_, 2025

**AUTHORIZED ACTIVITIES**

Pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), being §§324.11101 to 324.11153 of the Michigan Compiled Laws, and the hazardous waste management administrative rules (hereafter called the "rules") promulgated there under, being R 299.9101 *et. seq.* of the Michigan Administrative Code, by the Michigan Department Environmental Quality (MDEQ), an operating license (hereafter called the "license") is issued to The Dow Chemical Company (hereafter called the "licensee") to operate a hazardous waste management facility (hereafter called the "facility") located at latitude 43° 36' 11" N and longitude 84° 13' 23" W. The licensee is authorized to conduct the following hazardous waste management activities:

- |   |   |  |   |
|---|---|--|---|
| <input checked="" type="checkbox"/> STORAGE             | <input checked="" type="checkbox"/> TREATMENT           | <input type="checkbox"/> DISPOSAL            | <input checked="" type="checkbox"/> POST CLOSURE        |
| <input checked="" type="checkbox"/> Container           | <input type="checkbox"/> Container                      | <input type="checkbox"/> Landfill            | <input type="checkbox"/> Tank                           |
| <input checked="" type="checkbox"/> Tank                | <input checked="" type="checkbox"/> Tank                | <input type="checkbox"/> Land Application    | <input checked="" type="checkbox"/> Surface Impoundment |
| <input type="checkbox"/> Waste Pile                     | <input checked="" type="checkbox"/> Surface Impoundment | <input type="checkbox"/> Surface Impoundment | <input type="checkbox"/> Landfill                       |
| <input checked="" type="checkbox"/> Surface Impoundment | <input checked="" type="checkbox"/> Incinerator         |  | <input type="checkbox"/> Waste Pile                     |
| <input type="checkbox"/> Drip Pad                       | <input checked="" type="checkbox"/> Other: CAMU         |  |   |
| <input checked="" type="checkbox"/> Other:              |   |  |   |
| Staging Pile/Corrective Action Management Unit (CAMU)   |   |  |   |

**APPLICABLE REGULATIONS AND LICENSE APPROVAL**

The conditions of this license were developed in accordance with the applicable provisions of the rules, effective November 5, 2013. The licensee shall comply with all terms and conditions of this license, Part 111, and its rules. This license consists of the 87 pages of conditions attached hereto as well as those in Attachments 1 through 19, and the applicable rules contained in R 299.9101 through R 299.11008, as specified in the license. For purposes of compliance with this license, applicable rules are those that are in effect on the date of issuance of this license in accordance with R 299.9521(3)(a).

This license is based on the information in the license application submitted on April 12, 2013, and any subsequent amendments (hereafter referred to as the "application"). Pursuant to R 299.9519(11)(c), the license may be revoked if the licensee fails, in the application or during the license issuance process, to disclose fully all relevant facts or, at any time, misrepresents any relevant facts. As specified in R 299.9519(1), the facility shall be constructed, operated, and maintained in accordance with Part 111 of Act 451, the rules, and this license.

This license is effective on the date of issuance and shall remain in effect for 10 years from the date of issuance, unless revoked pursuant to R 299.9519 or continued in effect as provided by the Michigan Administrative Procedures Act, 1969 PA 306, as amended (Act 306). Pursuant to R 299.9516, this license shall be reviewed by the MDEQ five years after the date of issuance and shall be modified as necessary in accordance with the provisions of R 299.9519 and R 299.9520. Subsequent license modifications shall be specified in the attached amendments table.

Issued this \_\_ day of September, 2015

by \_\_\_\_\_  
Bryce Feighner, P.E., Chief  
Office of Waste Management and Radiological Protection

**TABLE OF AMENDMENTS TO THE DOW CHEMICAL COMPANY OPERATING LICENSE  
MIDLAND PLANT  
MID 000 724 724**

{Reserved}



**State of Michigan  
Department of Environmental Quality  
HAZARDOUS WASTE MANAGEMENT FACILITY OPERATING LICENSE**



NAME OF LICENSEE: The Dow Chemical Company  
 NAME OF FACILITY OWNER: The Dow Chemical Company  
 NAME OF FACILITY OPERATOR: The Dow Chemical Company  
 NAME OF TITLEHOLDER OF LAND: The Dow Chemical Company

**DRAFT 6/29/15**

FACILITY NAME: Salzburg Landfill  
 FACILITY LOCATION: 2314 West Salzburg Road, Midland, Michigan  
 FACILITY MAILING ADDRESS: 1790 Building, Washington Street, Midland, Michigan 48674

EPA IDENTIFICATION (ID) NUMBER: MID 980 617 435  
 REAPPLICATION DATE: April (180 days before expiration), 2025  
 EFFECTIVE DATE: September \_\_, 2015  
 FIVE-YEAR REVIEW DATE: September \_\_, 2020  
 EXPIRATION DATE: September \_\_, 2025

**AUTHORIZED ACTIVITIES**

Pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), being §§324.11101 to 324.11153 of the Michigan Compiled Laws, and the hazardous waste management administrative rules (hereafter called the "rules") promulgated there under, being R 299.9101 *et. seq.* of the Michigan Administrative Code, by the Michigan Department Environmental Quality (MDEQ), an operating license (hereafter called the "license") is issued to The Dow Chemical Company (hereafter called the "licensee") to operate a hazardous waste management facility (hereafter called the "facility") located at latitude 43° 36' 12" N and longitude 84° 13' 23" W. The licensee is authorized to conduct the following hazardous waste management activities:

- |  |  |  |  |
|--|--|--|--|
| <input type="checkbox"/> STORAGE             | <input type="checkbox"/> TREATMENT           | <input checked="" type="checkbox"/> DISPOSAL | <input checked="" type="checkbox"/> POST CLOSURE |
| <input type="checkbox"/> Container           | <input type="checkbox"/> Container           | <input checked="" type="checkbox"/> Landfill | <input type="checkbox"/> Tank                    |
| <input type="checkbox"/> Tank                | <input type="checkbox"/> Tank                | <input type="checkbox"/> Land Application    | <input type="checkbox"/> Surface Impoundment     |
| <input type="checkbox"/> Waste Pile          | <input type="checkbox"/> Surface Impoundment | <input type="checkbox"/> Surface Impoundment | <input checked="" type="checkbox"/> Landfill     |
| <input type="checkbox"/> Surface Impoundment | <input type="checkbox"/> Incinerator         |  | <input type="checkbox"/> Waste Pile              |
| <input type="checkbox"/> Drip Pad            | <input type="checkbox"/> Other               |  |  |
| <input type="checkbox"/> Other:              |  |  |  |

**APPLICABLE REGULATIONS AND LICENSE APPROVAL**

The conditions of this license were developed in accordance with the applicable provisions of the rules, effective November 5, 2013. The licensee shall comply with all terms and conditions of this license, Part 111, and its rules. This license consists of the 87 pages of conditions attached hereto as well as those in Attachments 1 through 19, and the applicable rules contained in R 299.9101 through R 299.11008, as specified in the license. For purposes of compliance with this license, applicable rules are those that are in effect on the date of issuance of this license in accordance with R 299.9521(3)(a).

This license is based on the information in the license application submitted on April 12, 2013, and any subsequent amendments (hereafter referred to as the "application"). Pursuant to R 299.9519(11)(c), the license may be revoked if the licensee fails, in the application or during the license issuance process, to disclose fully all relevant facts or, at any time, misrepresents any relevant facts. As specified in R 299.9519(1), the facility shall be constructed, operated, and maintained in accordance with Part 111 of Act 451, the rules, and this license.

This license is effective on the date of issuance and shall remain in effect for 10 years from the date of issuance, unless revoked pursuant to R 299.9519 or continued in effect as provided by the Michigan Administrative Procedures Act, 1969 PA 306, as amended (Act 306). Pursuant to R 299.9516, this license shall be reviewed by the MDEQ five years after the date of issuance and shall be modified as necessary in accordance with the provisions of R 299.9519 and R 299.9520. Subsequent license modifications shall be specified in the attached amendments table.

Issued this \_\_ day of September, 2015

by \_\_\_\_\_  
 Bryce Feighner, P.E., Chief  
 Office of Waste Management and Radiological Protection

**TABLE OF AMENDMENTS TO THE DOW CHEMICAL COMPANY OPERATING LICENSE  
SALZBURG LANDFILL  
MID 980 617 435**

{Reserved}

**HAZARDOUS WASTE MANAGEMENT FACILITY OPERATING LICENSE  
FOR**

**THE DOW CHEMICAL COMPANY  
MICHIGAN OPERATIONS, MIDLAND PLANT (MP) AND SALZBURG LANDFILL (SLF)  
MID 000 724 724 AND MID 980 617 435**

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**PART I**  
**STANDARD CONDITIONS FOR MIDLAND PLANT AND SALZBURG LANDFILL**

**A. TERMINOLOGY AND REFERENCES**

Throughout this license, the term "Office" means the Office of Waste Management and Radiological Protection, and any successor organization, within the MDEQ responsible for administering Part 111 of Act 451 and the rules. Throughout this license, "Director" means the Director of the MDEQ or the Director's duly authorized designee such as the Office Chief. All of the provisions of Title 40 of the Code of Federal Regulations (CFR) referenced in this license are adopted by reference in R 299.11003.

**B. EFFECT OF LICENSE**

Except as otherwise provided by law, any treatment, storage, or disposal of hazardous waste not specifically authorized in this license is prohibited. Issuance of this license does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of federal, state, or local law or regulations {R 299.9516(8)}; nor does it obviate the necessity of obtaining such permits or approvals from other units of government as may be required by law. Compliance with the terms of this license does not constitute a warranty or representation of any kind by the MDEQ, nor does the MDEQ intend that compliance with this license constitutes a defense to any order issued or any action brought under Act 451 or any other applicable state statute or §106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) {42 U.S.C. 9606(a)}, the Resource Conservation and Recovery Act of 1976, as amended (RCRA), and its rules, or any other applicable federal statute. The licensee, however, does not represent that it will not argue that compliance with the terms of this license may be a defense to such future regulatory actions. Each attachment to this license is a part of, and is incorporated into, this license and is deemed an enforceable part of the license.

**C. SEVERABILITY**

The provisions of this license are severable, and if any provision of this license, or the application of any provision of this license to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this license shall not be affected thereby.

**D. RESPONSIBILITIES**

1. The licensee shall comply with Part 111 of Act 451, the rules, and all conditions of this license, except to the extent authorized by the MDEQ pursuant to the terms of an emergency operating license. Any license noncompliance, except to the extent authorized by the MDEQ pursuant to the terms of an emergency operating license, constitutes a violation of Part 111 of Act 451 and is grounds for enforcement action, license revocation, license modification, or denial of a license renewal application. {§§11148, 11150, and 11151 of Act 451; R 299.9521(1)(a) and (c) and (3)(a) and (b); and 40 CFR §270.30(a)}
2. If the licensee wishes to continue an activity regulated by this license after the expiration date of this license, the licensee shall submit a complete application for a new license to the Hazardous Waste Section Chief at least 180 days before this license expires, April \_\_, 2025, unless an extension is granted pursuant to R 299.9510(5). To the extent the licensee makes a timely and sufficient application for renewal of this license, this license and all conditions herein will remain in effect beyond the license expiration date and shall not expire until a decision on the application is finally made by the MDEQ, and if the application is denied or the terms of the new license are limited, until the last day for applying for judicial review of the new license or a

later date fixed by order of the reviewing court consistent with §91(2) of Act 306.  
{R 299.9521(1)(a) and (c) and (3)(a) and 40 CFR §270.30(b)}

3. The licensee shall comply with the conditions in the following federal and state regulations:

- (a) R 299.9521(1)(b)(i) regarding facility enlargement, alteration, or expansion;
- (b) R 299.9521(1)(b)(ii) regarding submission of statements and certifications for construction and capability;
- (c) R 299.9521(1)(b)(iii) and 40 CFR §270.30(l)(3) regarding license modification requirements for transferring ownership before new owner/operator accepting hazardous waste;
- (d) 40 CFR §270.30(c) regarding need to halt or reduce activity not a defense;
- (e) 40 CFR §270.30(d) regarding duty to mitigate;
- (f) 40 CFR §270.30(e) regarding proper operation and maintenance;
- (g) 40 CFR §270.30(f) regarding permit actions;
- (h) 40 CFR §270.30(g) regarding property rights;
- (i) 40 CFR §270.30(h) regarding duty to provide information;
- (j) 40 CFR §270.30(i) regarding inspection and entry;
- (k) 40 CFR §270.30(j) regarding monitoring and records;
- (l) 40 CFR §270.30(k) regarding signatory requirements;
- (m) 40 CFR §270.30(l)(2) regarding anticipated noncompliance;
- (n) 40 CFR §270.30(l)(5) regarding compliance schedules;
- (o) 40 CFR §270.30(l)(7) regarding manifest discrepancy report;
- (p) 40 CFR §270.30(l)(11) regarding other information; and
- (q) 40 CFR §270.30(m) regarding information repository.

{§§11123(3), 11146(1) and (2), and 11148(1) of Act 451 and R 299.9501(1), R 299.9516, R 299.9519, R 299.9521(1)(a) and (b) and (3)(a) and (b), R 299.9522, and R 299.9525}

4. The licensee shall give notice to the Office as soon as possible prior to any planned physical alterations or additions to the licensed facility. {R 299.9501, R 299.9519(1), and Part 6 of the Part 111 Rules}

**E. SUBMITTAL DEADLINES**

When the deadline for submittals required under this license falls on a weekend or legal state holiday, the deadline shall be extended to the next regular business day. This extension does not apply to the deadline for financial mechanisms and associated renewals, replacements, and extensions of financial mechanisms required under this license. The licensee may request extension of the deadlines for submittals required under this license. The licensee shall submit such requests at least five business days prior to the existing deadline for review and approval by the Hazardous Waste Section Chief. Written extension requests shall include justification for each extension. {R 299.9519 and R 299.9521(3)(a)}

**PART II**  
**GENERAL OPERATING CONDITIONS FOR MIDLAND PLANT AND SALZBURG LANDFILL**

**A. GENERAL WASTE ANALYSIS**

The licensee shall ensure that any waste managed at the facility has been properly characterized pursuant to R 299.9302 and comply with the procedures described in the attached Waste Analysis Plan, Attachment 1, of this license. {R 299.9605(1), and 40 CFR §264.13}

**B. SECURITY**

The licensee shall comply with the barrier, surveillance, and signage requirements of R 299.9605(1) and 40 CFR §264.14.

**C. GENERAL INSPECTION REQUIREMENTS**

1. The licensee shall inspect the facility in accordance with the Inspection Schedule, Attachment 2, of this license, and comply with the inspection requirements of R 299.9605(1) and 40 CFR §264.15.
2. The licensee shall ensure compliance with the requirements of R 299.9605(2) regarding transport vehicles and other containers leaving the facility.

**D. PERSONNEL TRAINING**

The licensee shall comply with the personnel training requirements of R 299.9605 and 40 CFR §264.16. The Personnel Training Program, Attachments 3 MP and 3 SLF, of this license, shall, at a minimum, cover all items in R 299.9605 and 40 CFR §264.16.

**E. PREPAREDNESS AND PREVENTION**

The licensee shall comply with the preparedness and prevention requirements of R 299.9606 and 40 CFR Part 264, Subpart C.

**F. CONTINGENCY PLAN**

The licensee shall comply with the contingency plan requirements of R 299.9607 and 40 CFR Part 264, Subpart D. The Contingency Plan, Attachment 4 of this license, and the prescribed emergency procedures shall be immediately implemented by the licensee whenever there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that threatens or could threaten human health or the environment, or if the licensee has knowledge that a spill has reached surface water or groundwater.

**G. DUTY TO MITIGATE**

Upon notification from the Director or his or her designee that an activity at the facility may present an imminent and substantial endangerment to human health or the environment, the licensee shall immediately comply with an order issued by the Director pursuant to §11148(1) of Act 451 to halt such activity and conduct other activities as required by the Director to eliminate the said endangerment. The licensee shall not resume the halted activity without the prior written approval from the Director. {§11148 of Act 451 and R 299.9521(3)(b)}

#### H. **MANIFEST SYSTEM**

The licensee shall comply with the manifest requirements of R 299.9304, R 299.9305, and R 299.9608.

#### I. **RECORD KEEPING AND REPORTING**

1. The licensee shall comply with the written operating record and Monthly/Quarterly Operating Report (EQP 5142 form) requirements of R 299.9609 and 40 CFR §264.73 and Part 264, Appendix I, and R 299.9610(3), respectively. The Report shall be submitted within 10 days after the end of March, June, September, and December of each year on EQP 5142 form provided by the Office Chief, or an equivalent form that has been approved by the Office Chief.
2. The licensee shall comply with the biennial report requirements of R 299.9610. {R 299.9521(1)(a) and 40 CFR §270.30(l)(9)}
3. The licensee shall submit or provide electronically, as appropriate, the results of all environmental monitoring required by this license and any additional environmental sampling or analysis conducted beyond that required by this license, in the form specified in Condition IX.A.4. of this license to the Office Chief within 60 days after the end of the quarter in which the sample(s) were analyzed. Such increased frequency shall also be indicated in the Environmental Monitoring Report or electronic data submittal, as specified in Condition IX.A.4. of this license. {R 299.9521(1)(a) and R 299.9521(3)(b) and 40 CFR §270.30(l)(4)}
4. The licensee shall provide environmental monitoring information or data that is required pursuant to this license, to an authorized representative of an environmental or emergency response department of the city of Midland or county of Midland, who requests such information or data and that has jurisdiction over the facility. Such information or data shall be made available on the same day the licensee forwards this information to the Office Chief. {R 299.9521(3)(b)}
5. The licensee shall immediately report to the Office Chief any noncompliance with the license that may endanger human health or the environment by doing both of the following:
  - (a) The licensee shall immediately notify the Hazardous Waste Section at 517-284-6562, if the noncompliance occurs Monday through Friday during the period of 8:00 a.m. to 5:00 p.m., except state holidays, or by calling the MDEQ Pollution Emergency Alerting System (PEAS) at 1-800-292-4706 during all other times. This notice shall include the following:
    - (i) Information concerning the fire, explosion, release, or discharge of any hazardous waste or hazardous waste constituent that could threaten human health or the environment, that has reached surface water or groundwater, or that may endanger public drinking water supplies or the environment; and
    - (ii) A description of the occurrence and its cause, including all of the information outlined in R 299.9607(2)(a)-(i).
  - (b) The licensee shall also follow up the verbal notice by providing a written report to the Office Chief within five days of the time the licensee becomes aware of the circumstances. The written report shall contain all of the information in

Condition II.I.5.(a)(i)-(ii) of this license along with a description of the noncompliance and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance has been corrected and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance and when those activities occurred or will occur. The Office Chief may waive the 5-day written notice requirement in favor of submittal of a written report within 15 days of the time the licensee becomes aware of the circumstances.

{R 299.9521(1)(a) and R 299.9607 and 40 CFR §270.30(I)(6)}

6. The licensee shall report all other instances of noncompliance with this license, Part 111 of Act 451, the rules, and any other applicable environmental laws or rules that apply to the licensed facility, at the time monitoring reports required by this license are submitted or within 30 days, whichever is sooner. The reports shall contain the information listed in Condition II.I.5. of this license. {R 299.9521(1)(a) and 40 CFR §270.30(I)(10)}
7. The licensee may make minor modifications to the forms contained in the attachments to this license. The modifications may include changing the format, updating existing references and information, adding necessary information, and changing certification and notification information in accordance with Part 111 of Act 451 and its rules and RCRA and its regulations. The licensee shall submit the modifications to the Office Chief prior to implementing the use of the modified form(s). If the Office Chief does not reject or require revision of the modified form(s) within 14 days of receipt, the licensee shall implement use of the modified form(s) and the form(s) shall be incorporated into this license as a replacement for the existing form(s).

#### J. CLOSURE

The licensee shall comply with the closure requirements of R 299.9613. The licensee shall close the facility in accordance with the Closure Plans for the Midland Plant and Salzburg Landfill, Attachments 5 and 6 of this license, respectively, all other applicable requirements of this license, and all other applicable laws. {R 299.9613 and 40 CFR Part 264, Subpart G, except 40 CFR §§264.112(d)(1), 264.115, and 264.120}

#### K. POST CLOSURE

The licensee shall comply with the post closure monitoring requirements of R 299.9613, and monitor and maintain the facility in accordance with the Post Closure Plans for the Midland Plant and Salzburg Landfill, Attachments 5 and 6 of this license, respectively. The licensee shall submit a certification of post closure in accordance with R 299.9613(5). {R 299.9613 and 40 CFR §§264.116 through 264.119}

#### L. FINANCIAL ASSURANCE FOR CLOSURE

1. On the effective date of this license, the facility closure cost estimate is \$100,668,460 for the Midland Plant and \$2,777,000 for the Salzburg Landfill. The licensee shall keep this estimate current as required under R 299.9702 and 40 CFR §264.142.
2. The licensee shall continuously maintain financial assurance for the current closure cost estimate as required under R 299.9703.

**M. FINANCIAL ASSURANCE FOR POST CLOSURE**

1. On the effective date of this license, the facility post closure cost estimate is \$3,992,760 for the Midland Plant and \$11,160,900 for the Salzburg Landfill. The licensee shall keep this estimate current as required under R 299.9702 and 40 CFR §264.144
2. The licensee shall continuously maintain financial assurance for the current post closure cost estimate as required under R 299.9703.

**N. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION**

1. On the effective date of this license, the facility corrective action cost estimate is \$160,560,000 for the Midland Plant. The licensee shall keep this estimate current as required under R 299.9712.
2. On the effective date of this license, corrective action is not required at the Salzburg Landfill facility. If corrective action should become necessary for the Salzburg Landfill, the licensee shall submit a detailed written cost estimate, in current dollars, for performing corrective action to the Office Chief for review and approval. {R 299.9712}
3. The licensee shall continuously maintain financial assurance for corrective action as required under R 299.9713.

**O. FINANCIAL RESPONSIBILITY FOR LIABILITY COVERAGE**

The licensee shall continuously maintain liability coverage for sudden and accidental occurrences and non-sudden accidental occurrences, as required by R 299.9710.

**P. WASTE MINIMIZATION**

The licensee shall certify, at least annually, that the licensee has a hazardous waste minimization program in place. {R 299.9609(1)(a) and 40 CFR §264.73(b)(9)}

**Q. LAND DISPOSAL RESTRICTIONS (LDR) AND SITE-SPECIFIC LDR TREATABILITY VARIANCE**

The licensee shall comply with all of the requirements of 40 CFR Part 268 and the revised Site-specific LDR Treatability Variance referenced in Condition XI.O. of this license, and located in Appendix A3-3 of the Waste Analysis Plan, Attachment 1 of this license. {R 299.9627 and 40 CFR Part 268}

**R. AIR EMISSION STANDARDS**

1. The Midland Plant is not subject to the requirements of 40 CFR Part 264, Subpart AA, Air Emissions from Process Vents.
2. For the Midland Plant, the licensee shall comply with the requirements of 40 CFR Part 264, Subparts BB and CC. In addition, the licensee shall comply with the requirements specified in Subpart BB Air Emissions from Equipment Leaks and Subpart CC Air Emissions from Tanks, Containers, and Surface Impoundments, Attachment 7 of this license.



3. The Salzburg Landfill is not subject to the requirements of 40 CFR Part 264, Subpart AA, Air Emissions from Process Vents, 40 CFR Part 264, Subpart BB, Air Emissions from Equipment Leaks, or 40 CFR Part 264, Subpart CC, Air Emissions from Tanks, Containers, and Surface Impoundments.
4. The licensee shall notify the Office Chief of any hazardous waste management unit or equipment that becomes subject to the requirements of 40 CFR Part 264, Subparts AA, BB, and/or CC within 30 days of the start of the regulated activity. If any hazardous waste management unit or equipment becomes subject to the requirements of 40 CFR, Part 264, Subparts AA, BB, and/or CC, the licensee shall request modification of this license, as appropriate.

{R 299.9630, R 299.9631, and R 299.9634, and 40 CFR Part 264, Subparts AA, BB, and CC}

**S. DOCUMENTS TO BE MAINTAINED AT THE FACILITY**

1. The licensee shall maintain at the facility the following documents and amendments required by this license, until closure/post closure is completed, certified by an independent registered professional engineer, and the facility is released from financial assurance requirements for closure/post closure by the Director:
  - (a) Waste Analysis Plan, including Quality Assurance/Quality Control (QA/QC) Plans.
  - (b) Inspection Schedules and records.
  - (c) Personnel Training Program documents and records.
  - (d) Contingency Plan.
  - (e) Closure and Post Closure Plans.
  - (f) Cost estimates for facility closure, post closure, and corrective action and copies of related financial assurance documents.
  - (g) Operating record.
  - (h) Site Security Plan.
  - (i) Facility engineering plans and specifications.
  - (j) Record keeping procedures.
  - (k) Environmental monitoring plans, including Sampling and Analysis Plans and QA/QC Plans.
  - (l) Environmental monitoring data and statistical records.
  - (m) Preventative procedures (Personnel Protection Plan).
  - (n) Hazardous waste minimization program certification.
2. Approved alternate license-related documents storage locations other than the facilities are the licensee's Global Records Center, 4520 East Ashman, Midland, Michigan 48642 and 1610 Building, 2400 James Savage Road, Midland, Michigan 48642. The licensee shall request a minor modification requiring prior approval from the Office prior to a planned physical change in location of an approved alternate license-related documents storage location or a planned addition of an alternate license-related documents storage location.

{R 299.9521(3)(a)}

**PART III  
CONTAINER STORAGE CONDITIONS FOR MIDLAND PLANT**

**A. TABLE OF CONTAINER STORAGE AREAS**

<b>Container Storage Areas</b>	<b>Container Types</b>	<b>Storage Design Capacity</b>	<b>Drawings</b>
Waste Storage Area I (1143 Building)	Packs, Tanker Trucks, Isotainers, Roll-on/Roll-off Transport Boxes, etc.	443,685 gallons	B2-102-927122, Rev. 03/14 WSA I Dike Addition Plan  B2-103-927122, Rev. 03/96 WSA I Modifications Dike Addition Plan and Sections  B2-104-927122, Rev. 03/96 WSA I Modifications Dike Addition Earth Profiles  B2-105-927122, Rev. 03/96 WSA I Modification Dike Addition Concrete Details
32 Pack Room	Packs and Drums	133,250 gallons	B2-4230-960530, Rev. 01/02 Bldg 32 Foundation Plan
830 Building (Overflow from 32 Pack Room)	Packs and Drums	125,000 gallons, of which no more than 100,000 gallons may be liquid waste	B2-410-870005, Rev. 10/89 Bldg 830 Foundation Plan
<b>32 Incinerator Offload/Storage Spots</b>			
LS-2010 (Spot 1)	Dempsters Offload	750 gallons	B2-4201-960530, Rev. 01/02 Dempster, Dino, and Tanker Truck/Isotainer Foundation Location Plan (LS-2010, LS-2020, LS-2030, LS-2040, LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)  B2-4205-960530, Rev. 01/02 Tanker Truck/Isotainer Foundation Plan (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)  B2-4206-960530, Rev. 01/02 Tanker Truck/Isotainer Sections (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)  B2-4207-960530, Rev. 01/02
LS-2020 (Spot 2)	Dempsters Offload	750 gallons	
LS-2030 (Spot 3)	Dinos Offload	2,500 gallons	
LS-2040 (Spot 4)	Dinos Offload	2,500 gallons	
LS-2050 (Spot 5)	Tanker Trucks/ Isotainers Offload	7,000 gallons	
LS-2060 (Spot 6)	Tanker Trucks/ Isotainers Offload	7,000 gallons	
LS-2070 (Spot 7)	Tanker Trucks/ Isotainers Offload	7,000 gallons	

Container Storage Areas	Container Types	Storage Design Capacity	Drawings
LS-2080 (Spot 8)	Tanker Trucks/ Isotainers Offload	7,000 gallons	Tanker Truck/Isotainer Sections and Details (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)  B2-4208-960530, Rev. 01/02 Tanker Truck/Isotainer Detail 10 (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)  B2-4210-960530, Rev. 01/02 Dino Foundation Plan (LS-2010 & LS-2020)  B2-4211-960530, Rev. 01/02 Dino Details and Sections (LS-2010 & LS-2020)  B2-4215-960530, Rev. 01/02 Dempster Foundation Plan (LS-2030 & LS-2040)  B2-4216-960530, Rev. 01/02 Dempster Foundation Section and Details (LS-2030 & LS-2040)
LS-2090 (Spot 9)	Tanker Trucks/ Isotainers Offload	7,000 gallons	
LS-2100 (Spot 10)	Tanker Trucks/ Isotainers Storage	7,000 gallons	
703 Tank Farm Offload/Storage Spots			
LS-1202/2E (703 Spot 2)	Dempsters Offload	750 gallons	B2-002-830235, Rev. 03/84 Tanker Truck/Isotainer, Dino, & Dempster Concrete Plan & Details (LS-101/4E, LS- 1203/3E & LS-1202/2E)
LS-1203/3E (703 Spot 3)	Dinos Storage	2,500 gallons	
SS-5E* (703 Spot 5)	Tanker Trucks/ Isotainers Storage	7,000 gallons	B2-005-830235, Rev. 03/84 Dino Platform Foundation (LS-1203/3E)
SS-6E* (703 Spot 6)	Tanker Trucks/ Isotainers Storage	7,000 gallons	B2-404-874008, Undated Tanker Truck/Isotainer Plan & Details (SS-5E)
SS-7E* (703 Spot 7)	Tanker Trucks/ Isotainers Storage	6,000 gallons	
SS-8E* (703 Spot 8)	Tanker Trucks/ Isotainers Storage	6,000 gallons	B2-405-874008, Undated Tanker Truck/Isotainer Plan & Details (SS-6E)
LS-1213* (830 Spot 13)	Tanker Trucks/ Isotainers Storage	7,000 gallons	B2-001-880527, Dated 03/88 Tanker Truck/Isotainer Foundations

Container Storage Areas	Container Types	Storage Design Capacity	Drawings
LS-1214* (830 Spot 14)	Tanker Trucks/ Isotainers Storage	7,000 gallons	(SS-7E & SS-8E) B2-002-880527, Dated 03/88 Tanker Truck/Isotainer Foundations (SS-7E & SS-8E)
LS-101/4E* (703 Spot 4)	Tanker Trucks/ Isotainers Offload	7,000 gallons	B2-402-870005, Rev. 10/89 Tanker Truck/Isotainer Plan & Details (LS-1213 & LS-1214)
Rail Car Offloading to 32 Incinerator and Transferring Materials to/from Containers in 703 Tank Farm Spots and 830 Spots Marked Above with Asterisk (*)			
LS-1215 and LS- 1216 (Spots 15 and 16)	Rail Cars	38,000 gallons	B2-230-014207, Rev. 10/92 Rail Car Volume & Grating (LS-1215 & LS-1216)
TOTAL		838,685 gallons	

**B. COVERAGE OF LICENSE**

The hazardous waste container storage areas at the facility shown in the Table of Container Storage Areas in Condition III.A. and the associated drawings listed therein, contained in Use and Management of Containers, Attachment 8 of this license, are covered by and incorporated into this license. Any expansion or enlargement beyond the facility boundary shown in Drawings B2-001-41569891 through B2-009-41569891, Rev. 03/15 (Topographic Map) and B2-010-927122, Rev. 3/13 (Part A Map), Attachment 9 of this license, or beyond the 838,685 gallon storage design capacity, requires a new operating license for the expansion, enlargement, or alteration of an existing facility from the Office Chief. The above-referenced facility boundary drawings are incorporated into this license as Attachment 9. {R 299.9521(1)(b)}

**C. WASTE IDENTIFICATION AND QUANTITY**

1. The licensee may store no more than a total volume of 838,685 gallons of the hazardous wastes listed in the CONTAINER STORAGE column of Attachment 10, List of Acceptable Waste Types for Management at the Dow Michigan Operations, Midland Plant & Salzborg Landfill Facilities, in containers at the facility, subject to the terms of this license. {R 299.9521(2)(d)}
2. The licensee shall not exceed the individual hazardous waste storage design capacities specified for each container storage area in the Table of Container Storage Areas in Condition III.A.

**D. USE AND MANAGEMENT OF CONTAINERS**

1. The licensee shall manage all containers in compliance with R 299.9521(3)(b), R 299.9614, and R 299.9627 and 40 CFR §§264.171, 264.172, 264.173, and 268.50(a)(2)(i).

2. The licensee shall not stack 55-gallon containers of hazardous waste greater than two high and shall not stack 30-gallon containers of hazardous waste greater than three high. The licensee shall maintain a storage configuration (e.g., appropriate aisle space, visible labels, pallets) that allows for the safe and adequate inspection of each container. {R 299.9521(3)(b)}
3. The licensee shall operate and maintain the containment system in accordance with the requirements of R 299.9614 and 40 CFR §264.175, and the attached plans and specifications in Attachment 8 of this license.

**E. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTES**

1. The licensee shall locate containers holding ignitable or reactive wastes in accordance with R 299.9614 and 40 CFR §264.176.
2. The licensee shall take precautions to prevent the accidental ignition or reaction of ignitable or reactive wastes by following the procedures specified in Section C1.G of Attachment 8 of this license. The licensee shall document compliance with this condition and place this documentation in the operating record. {R 299.9605 and 40 CFR §264.17(a) and (c)}

**F. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES OR MATERIALS**

1. The licensee is prohibited from placing incompatible wastes or incompatible wastes and materials in the same container. {R 299.9521(2)(d) and (3)(b)}
2. The licensee shall prevent the placement of hazardous waste in an unwashed container that previously held an incompatible waste or material. {R 299.9614 and 40 CFR §264.177(b)}
3. The licensee shall document compliance with Conditions III.E.1. and III.E.2. of this license and place this documentation in the operating record. {R 299.9605 and 40 CFR §264.17(c)}
4. The licensee shall separate containers of incompatible wastes as indicated in the procedures contained in Section C1.H of Attachment 8 of this license. {R 299.9614 and 40 CFR §264.177(c)} {R 299.9521(2)(d)}

**G. DISPOSITION OF ACCUMULATED LIQUIDS**

The licensee shall remove all liquids accumulated in the containment system and manage the liquids in a timely manner in accordance with the requirements of Part 111 of Act 451 and the rules, and as specified in Section C1.F.1(e) of Attachment 8 of this license. {R 299.9521(3)(b) and R 299.9614(1)(a) and 40 CFR §264.175(b)(5)}

**PART IV  
TANK SYSTEM STORAGE AND TREATMENT CONDITIONS FOR MIDLAND PLANT**

**A. TABLE OF STORAGE AND TREATMENT TANK SYSTEMS**

<b>Storage/ Treatment Tank System</b>	<b>Storage/Treatment Design Capacity</b>	<b>Drawings</b>
1163 Building	1,800 cubic yards or 360,000 gallons  1,950 cubic yards/day or 400,000 gallons/day	B2-298-927122, Rev. 05/04 B2-299-927122, Rev. 06/02 B2-300-927122, Rev. 01/13 B2-301-927122, Rev. 06/02 B2-302-927122, Rev. 06/02
33 Building	900 cubic yards or 181,800 gallons  1,950 cubic yards/day or 400,000 gallons/day	B2-3202-960530, Rev. 06/02 B2-4220-960530, Rev. 10/02 B2-4220A-960530, Rev. 06/02 B2-4221-960530, Rev. 10/02 B2-4222-960530, Rev. 06/02 B2-4223-960530, Rev. 06/02 B2-4258M-960530, Rev. 06/02
TOTAL	541,800 gallons	3,900 cubic yards/day or 800,000 gallons/day

<b>703 Tank Farm Storage Tank Systems</b>	<b>Storage Design Capacity</b>	<b>Drawings</b>
V-101	10,150 gallons	B5-021-61178, Rev. 10/67  B1-103-32, Rev. 08/13 (V-101 P&ID)  B2-422-874008, Rev. 06/09 (Liquid Waste Tank Containment Plan)  B2-409-874008, Undated/B2-410-874008, Undated (Liquid Waste Tank Containment Section & Details)
V-301	18,700 gallons	A5-001-830235, Rev. 09/83 (V-301 & V-302)  B1-070-32, Rev. 01/11 (V-301 P&ID)  B2-422-874008, Rev. 06/09 (Liquid Waste Tank Containment Plan)  B2-409-874008, Undated /B2-410-874008, Undated (Liquid Waste Tank Containment Section & Details)
V-302	18,700 gallons	A5-001-830235, Rev. 09/83 (V-301 & V-302)  B1-071-32, Rev. 01/11 (V-302 P&ID)  B2-422-874008, Rev. 06/09 (Liquid Waste Tank Containment Plan)  B2-409-874008, Undated/B2-410-874008, Undated (Liquid Waste Tank Containment Section & Details)

703 Tank Farm Storage Tank Systems	Storage Design Capacity	Drawings
V-303	18,700 gallons	B5-422-874008, Rev. 03/94 B1-072-32, Rev. 06/08 (V-303 P&ID) B2-422-874008, Rev. 06/09 B2-409-874008, Undated/B2-410-874008, Undated (Liquid Waste Tank Containment Section & Details)
V-401	18,700 gallons	B5-420-874008, Rev. 03/94 (V-401, V-403 & V-404) B1-074-32, Rev. 09/13 (V-401 P&ID) B2-422-874008, Rev. 06/09 (Liquid Waste Tank Containment Plan) B2-409-874008, Undated/B2-410-874008, Undated (Liquid Waste Tank Containment Section & Details)
V-402	15,900 gallons	D-2933, Rev. 07/78 B1-075-32, Rev. 09/13 (V-402 P&ID) B2-422-874008, Rev. 06/09 (Liquid Waste Tank Containment Plan) B2-409-874008, Undated/B2-410-874008, Undated (Liquid Waste Tank Containment Section & Details)
V-403	18,700 gallons	B5-420-874008, Rev. 03/94 (V-401, V-403 & V-404) B1-076-32, Rev. 09/13 (V-403 P&ID) B2-422-874008, Rev. 06/09 (Liquid Waste Tank Containment Plan) B2-409-874008, Undated/B2-410-874008, Undated (Liquid Waste Tank Containment Section & Details)
V-404	18,700 gallons	B5-420-874008, Rev. 03/94 (V-401, V-403 & V-404) B1-077-32, Rev. 09/13 (V-404 P&ID) B2-422-874008, Rev. 06/09 (Liquid Waste Tank Containment Plan) B2-409-874008, Undated /B2-410-874008, Undated (Liquid Waste Tank Containment Section & Details)
V-601	7,000 gallons	Z5-013-760818, Rev. 10/78 B1-054-32, Rev. 09/06 (V-601 P&ID) B2-422-874008, Rev. 06/09 (Liquid Waste Tank Containment Plan) B2-409-874008, Undated/B2-410-874008, Undated (Liquid Waste Tank Containment Section & Details)

703 Tank Farm Storage Tank Systems	Storage Design Capacity	Drawings
V-701	7,000 gallons	B5-405-874008, Rev. 02/87 B1-050-32, Rev. 08/13 (V-701 P&ID) B2-422-874008, Rev. 06/09 (Liquid Waste Tank Containment Plan) B2-409-874008, Undated/B2-410-874008, Undated (Liquid Waste Tank Containment Section & Details)
TOTAL	152,250 gallons	

**B. COVERAGE OF LICENSE**

The hazardous waste tank system storage and treatment areas at the facility shown in the Table of Storage and Treatment Tank Systems in Condition IV.A. and the associated drawings listed therein, contained in Tank Systems, Attachment 11 of this license, are covered by and incorporated into this license. Any expansion or enlargement beyond the facility boundary shown in the drawings in Attachment 9 of this license, or beyond the tank system storage and treatment design capacities listed above, requires a new operating license for the expansion, enlargement, or alteration of an existing facility from the Office Chief. {R 299.9521(1)(b)}

**C. WASTE IDENTIFICATION AND QUANTITY FOR STORAGE AND TREATMENT TANK SYSTEMS**

- The licensee may store no more than the total volume of 541,800 gallons of the hazardous wastes listed in the 1163/33 BLDG column of Attachment 10 in the tank systems identified as Tanks 1163 Building and 33 Building in the Table of Tank Storage and Treatment Systems in Condition IV.A. of this license, subject to the terms of this license. {R 299.9521(2)(d)}

**D. WASTE TREATMENT CAPACITY AND METHODS**

- The licensee may treat no more than a total volume of 1,950 cubic yards/day or 400,000 gallons/day of the hazardous wastes listed in the 1163/33 BLDG column of Attachment 10 in the tank system identified as the 1163 Building in the Table of Storage and Treatment Tank systems in Condition IV.A. of this license via dewatering as described in Attachment 11, subject to the terms of this license. {R 299.9521(2)(d) and (3)(a) and (b)}
- The licensee may treat no more than a total volume of 1,950 cubic yards/day or 400,000 gallons/day of the hazardous wastes listed in the 1163/33 BLDG column of Attachment 10 in the tank system identified as the 33 Building in the Table of Storage and Treatment Tank systems in Condition IV.A. of this license via dewatering as described in Attachment 11, subject to the terms of this license. {R 299.9521(2)(d) and (3)(a) and (b)}

**E. WASTE IDENTIFICATION AND QUANTITY FOR STORAGE TANK SYSTEMS**

- The licensee may store no more than a total volume of 152,250 gallons of the hazardous wastes listed in the INCIN TANK FARM STORAGE column of Attachment 10 in the tank systems identified as Tanks V-101, V-301, V-302, V-303, V-401, V-402, V-403, V-404, V-601,



and V-701 in the Table of Tank Storage and Treatment Systems in Condition IV.A. of this license, subject to the terms of this license. {R 299.9521(2)(d)}

2. Tank systems V-101 and V-601 may only be used for drainage collection from the 830 Building Container Storage Area, 32 Building Container Storage Area, 32 Incinerator Offload/Storage Spots, 703 Tank Farm Offload/Storage Spots, Rail Car Offloading Spots listed in Conditions III.A. and IV.A. of this license, and the 703 Tank Farm secondary containment system. Tank system V-701 may be used in the same manner as tank systems V-101 and V-601 and may also be used to store condensate from the 32 Incinerator Tank Farm carbon bed system. {R 299.9521(2)(d)}

#### **F. DESIGN, CONTAINMENT, AND ASSESSMENT OF TANK SYSTEMS**

The licensee shall operate and maintain all tank systems in accordance with the applicable requirements of R 299.9615 and 40 CFR §§264.191, 264.193, and 264.194, and in accordance with the attached plans and specifications in Attachment 11 of this license.

#### **G. MANAGEMENT OF TANK SYSTEMS**

1. The licensee shall label and manage the tank systems in accordance with the requirements of R 299.9615 and R 299.9627, 40 CFR §§264.194, 264.196, and 268.50(a)(2)(ii), R 29.4101 to R 29.4504 pursuant to the provisions of the Fire Prevention Act, 1941 PA 207, as amended, National Fire Protection Association (NFPA) Standard No. 704, and the spill and overflow prevention procedures specified in Attachment 11 of this license. {R 299.9615}
2. The licensee shall conduct the treatment of hazardous wastes in accordance with the methods and procedures specified in Appendix C2-D of Attachment 11 of this license. {R 299.9633}

#### **H. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTES**

1. The licensee shall not place ignitable or reactive waste in a tank system unless the procedures described in Section C2.J.1 of Attachment 11 of this license are followed. The licensee shall document compliance with this condition and place this documentation in the operating record. {R 299.9605, R 299.9609, R 299.9615 and 40 CFR §§264.17(c), 264.73(b)(3), and 264.198(a)}
2. The licensee shall maintain the protective distances between the tank systems and any public ways, streets, alleys, or adjoining property lines that can be built upon, as required in Tables 2-1 through 2-6 of the NFPA's "Flammable and Combustible Liquids Code" (1977 or 1981) as specified in Section C2.J.2 of Attachment 11 of this license, and as required by R 299.9615 and 40 CFR §264.198(b).

#### **I. SPECIAL REQUIREMENTS FOR STORAGE OF INCOMPATIBLE WASTES OR MATERIALS**

The licensee shall not place incompatible wastes or incompatible wastes and materials, in the same tank system or place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or material unless the procedures specified in Section C2.J.3 of Attachment 11 of this license are followed, as required by R 299.9615 and 40 CFR §264.17(b). The licensee shall document compliance with this condition and place this documentation in the operating record. {R 299.9609 and R 299.9615 and 40 CFR §§264.17(c), 264.73(b)(3), and 264.199}

**J. DISPOSITION OF ACCUMULATED LIQUIDS**

The licensee shall remove spilled or leaked waste and accumulated precipitation from the tank system within 24 hours of detection and manage it in accordance with the requirements of Part 111 of Act 451 and the rules , and the procedures in Section C2.D.3(d) of Attachment 11 of this license.  
{R 299.9521(3)(b), R 299.9615, and 40 CFR §264.193(c)(4)}

**PART V  
INCINERATOR TREATMENT CONDITIONS FOR MIDLAND PLANT**

**A. TABLE OF 32 INCINERATOR AND ANCILLARY EQUIPMENT DRAWINGS**

<b>Drawing Number</b>	<b>Description</b>
B2-1000-960530, Rev. 10/00	Incinerator Upgrade Plot Plan
B4-1-960530, Rev. 01/02	Over-All Iso Cover Sheet
B4-1001-960530, Rev. 01/02	Equipment Key Plot Plan
B4-1200-960530, Rev. 01/02	Pipe Rack North End Equipment Location Plan
B4-2200-960530, Rev. 01/02	C/T Pumps Equipment Location Plan
B4-2300-960530, Rev. 01/02	C/T & IWS Tran I Equipment Location Plan
B4-2400-960530, Rev. 01/02	SK-3300 Platform Equipment Location Plan
B4-3100-960530, Rev. 01/02	Building 34 Equipment Location Plan
B4-3200-960530, Rev. 01/02	Building 33 & Tank Area Equipment Location Plan
B4-3300-960530, Rev. 01/02	IWS Train 2 & 3, SCC Equipment Location Plan
B4-3400-960530, Rev. 01/02	Building 36 Equipment Location Plan
B4-4100-960530, Rev. 01/02	Building 34 Equipment Location Plan
B4-4200-960530, Rev. 01/02	Truck Unloading Equipment Location Plan
B4-4300-960530, Rev. 01/02	Building 32 Equipment Location Plan
B4-4400-960530, Rev. 01/02	Bulk Solids Ramp Equipment Location Plan
B4-4334-960530, Rev. 01/02	Kiln/Front Face & Building 32 Area Piping Elevation Looking East
B4-3331-960530, Rev. 01/02	SCC/Quench Area Piping Elevation Iso View
B4-3333-960530, Rev. 01/02	SCC/Quench Area Piping Elevation Looking East
B4-2335-960530, Rev. 01/02	Condenser/Scrubber Area Piping Elevation Iso View
B4-2337-960530, Rev. 01/02	Condenser/Scrubber Area Piping Elevation Looking East
B4-3335-960530, Rev. 01/02	IWS Area Piping Elevation Iso View
B4-3338-960530, Rev. 01/02	IWS Area Piping Elevation Looking East
CE219-0010, Rev. 06/01	Upper Liquid Cooled Feed Chute Assembly
CE219-0002, Rev. 07/01	Lower Liquid Cooled Feed Chute Assembly
000-0001, Rev. 08/01	Rotary Kiln 04, 4x12m Assembly Drawing
GD001341-1, Rev. 09/13	Rotary Kiln Incinerator KL-2400
R-D-60235-14-2, Rev. 01/03	Sectional Elevation SCC Hot Duct DU-2600 & R-2700
R-D-60235-16-2, Rev. 01/03	Emergency Vent Lid Details SCC Hot Duct DU-2600 & R-2700
R-D-60235-06-2, Rev. 01/03	Sectional Elevation Secondary Combustion Chamber IN-2600

<b>Drawing Number</b>	<b>Description</b>
R-D-60235-17-2, Rev. 01/03	Sectional Elevation Quench Spray Chamber T-2800
R-D-60235-100-2, Rev. 01/03	Process General Arrangement
CR-95231-2, SH.1, Rev. 01/02	GA-Submerged Drag Conveyors Tag No. CV-2500 & CV-2510
E2-84401, Rev. 07/01	B-3000 Induced Draft Fan #1
E2-84403, Rev. 07/01	B-3200 Induced Draft Fan #2
B01-001-32PERMIT, Rev. 04/12	Index Cover & Legend Process Flow Sheet
B01-002-32PERMIT, Rev. 04/12	Index Flow Sheet
B01-003-32PERMIT, Rev. 04/12	Bulk Liquid Waste Unloading Spots LS-2010, 2020, 2030, 2040
B01-004-32PERMIT, Rev. 04/12	Bulk Liquid Waste Unloading Spots LS-2050, 2060
B01-005-32PERMIT, Rev. 04/12	Bulk Liquid Waste Unloading Spots LS-2070, 2080, 2090
B01-006-32PERMIT, Rev. 04/12	Bulk Liquid Waste Unloading Spots LS-1202, 1203, 101
B01-007-32PERMIT, Rev. 04/12	Hot Tar Feed Tanks
B01-008-32PERMIT, Rev. 04/12	Cold Tar Feed Tanks
B01-009-32PERMIT, Rev. 04/12	Rail Car Unloading Spots LS-1215, 1216
B01-010-32PERMIT, Rev. 04/12	Water Containment Tanks
B01-011-32PERMIT, Rev. 04/12	Tank Farm Vent System
B01-013-32PERMIT, Rev. 04/12	Wastewater Treatment Solids Handling and Feed
B01-014-32PERMIT, Rev. 04/12	Packaged Solids Handling and Feed
B01-015-32PERMIT, Rev. 04/12	Bulk Solids Handling and Feed
B01-020-32PERMIT, Rev. 04/12	Kiln Burners – Auxiliary Fuel and Atomization
B01-021-32PERMIT, Rev. 04/12	Kiln Liquid Fuel Distribution
B01-022-32PERMIT, Rev. 04/12	Incineration – Kiln
B01-023-32PERMIT, Rev. 04/12	Secondary Combustion Chamber (SCC) – Auxiliary Fuel and Atomization
B01-024-32PERMIT, Rev. 04/12	SCC Liquid Fuel Distribution
B01-025-32PERMIT, Rev. 04/12	Incineration – SCC and Ash System
B01-035-32PERMIT, Rev. 04/12	Nitrogen Oxide Reagent/Sodium Bisulfite Receiving and Storage
B01-036-32PERMIT, Rev. 04/12	Nitrogen Oxide Reagent Distribution
B01-040-32PERMIT, Rev. 04/12	Quench and Condenser
B01-041-32PERMIT, Rev. 04/12	Venturi Scrubber, Demister/Chlorine Scrubber, & First I.D. Fan
B01-043-32PERMIT, Rev. 04/12	Ionizing Wet Scrubber (IWS) Pumps
B01-044-32PERMIT, Rev. 04/12	Ionizing Wet Scrubber Train 1

Drawing Number	Description
B01-045-32PERMIT, Rev. 04/12	Ionizing Wet Scrubber Train 2
B01-046-32PERMIT, Rev. 04/12	Ionizing Wet Scrubber Train 3
B01-048-32PERMIT, Rev. 04/12	Second ID Fan & Stack
B01-050-32PERMIT, Rev. 04/12	Waste Water Collection
B01-066-32PERMIT, Rev. 04/12	Fuel Oil Storage

**B. COVERAGE OF LICENSE AND WASTE CAPACITY AND IDENTIFICATION**

1. The 32 Incinerator and its ancillary equipment, shown on the drawings listed in the Table of 32 Incinerator and Ancillary Equipment Drawings in Condition V.A., and contained in Incineration or Thermal Treatment, Attachment 12 of this license, are covered by and incorporated into this license. Any expansion or enlargement of the 32 Incinerator beyond the facility boundary shown on the drawings in Attachment 9 of this license, or beyond a maximum heat output capacity of 130 million BTUs per hour requires a new operating license for the expansion, enlargement, or alteration of an existing facility from the Office Chief. {§11123 of Act 451 and R 299.9521(1)(b)}
2. In accordance with R 299.9623, the licensee shall comply with the Air Quality Division (AQD) Renewable Operating Permit Number MI-ROP-A4033-2011e, effective April 11, 2011, and any subsequent revisions to or reissuances of that permit (ROP), pursuant to the 40 CFR Part 63, Subpart EEE National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors regulations when incinerating the hazardous wastes listed in the INCIN TANK FARM STORAGE column of Attachment 10 in the 32 Incinerator. Attachment 12 to this license summarizes the Comprehensive Performance Test and Notification of Compliance information for the 32 Incinerator. {R 299.9521(3)(b) and 40 CFR §270.62}

**C. MAINTENANCE OF FACILITY**

1. The licensee shall maintain the 32 Incinerator in accordance with Attachment 12 of this license and so that it will comply with the provisions of Part 55 of Act 451, as required by R 299.9623(2).
2. No modification to the 32 Incinerator shall be made which would affect the achievement of the performance standards in Condition V.B.2., or any other conditions specified in this license, unless the licensee complies with the facility modification procedures of Condition I.D.4. of this license.

**D. PERFORMANCE STANDARDS, OPERATING CONDITIONS, AND AIR EMISSION REQUIREMENTS FOR INCINERATION**

1. The licensee shall operate the 32 Incinerator in accordance with the performance standards and operating conditions specified in the ROP.
2. The licensee shall comply with all air emission and waste management requirements for incineration required pursuant to Part 55 of Act 451 and the ROP. Failure to abide by the above referenced statute or permits issued thereunder shall constitute a violation of this license.

3. If the Hazardous Waste Section Chief concludes, based on one or more of the factors listed in 40 CFR §270.10(l)(1), that compliance with the standards of 40 CFR Part 63, Subpart EEE alone may not be protective of human health or the environment, the licensee may be required to provide additional information or assessments to determine if additional controls are necessary to ensure protection of human health and the environment. This includes information necessary to evaluate the potential risk to human health or the environment resulting from both direct and indirect exposure pathways. The Hazardous Waste Section Chief may also require the licensee to provide the information necessary to determine if such an assessment should be required. {R 299.9504(4) and R 299.9504(20)}

{R 299.9521(3)(b) and R 299.9602(1)(b)}

**PART VI  
SURFACE IMPOUNDMENTS (TERTIARY POND) STORAGE AND TREATMENT CONDITIONS  
FOR MIDLAND PLANT**

**A. TABLE OF TERTIARY POND DRAWINGS**

<b>Drawing Number</b>	<b>Description</b>
B2-509-927122, Rev. 10/06	Tertiary Pond Plan View
B2-525-927122, Rev. 10/06	Pentag Pond Outfall Weir, Framing Plan & Details
B2-526-927122, Rev. 10/06	Pentag Pond Outfall Weir Placement, Placement Plan
Figure 1 of Appendix B of Attachment XIV.C5, Rev. 09/14	T-Pond Dam Inboard Fill, As-Built Embankment, Fill Conditions, Pipe Supports, and Pipeline

**B. COVERAGE OF LICENSE**

The Tertiary Pond, which consists of the Pentagonal, Rectangular, and Main Pond hazardous waste surface impoundments in series, weir, supply piping, pumps, a cascade, and other associated equipment, shown on the drawings listed in the Table of Tertiary Pond Drawings in Condition VI.A., and contained in Surface Impoundments, Attachment 13 of this license, are covered by and incorporated into this license. Any expansion or enlargement beyond the design capacities of 783,000,000 gallons for storage and 50,000,000 gallons per day for treatment, or beyond the facility boundary shown on the drawings in Attachment 9 of this license requires a new operating license for the expansion, enlargement, or alteration of an existing facility from the Office Chief. {§11123 of Act 451 and R 299.9521(1)(b)}

**C. WASTE IDENTIFICATION AND QUANTITY**

The licensee may store and treat Michigan Operations secondary Wastewater Treatment Plant effluent, identified in the T-POND column of Attachment 10, in the Tertiary Pond prior to discharge to the Tittabawassee River, subject to the terms of this license.

<b>Tertiary Pond Surface Impoundments</b>	<b>Surface Area</b>	<b>Capacity</b>
Pentagonal	7.5 acres	33,000,000 gallons
Rectangular	13 acres	50,000,000 gallons
Main	182 acres	700,000,000 gallons

**D. WASTE TREATMENT CAPACITY AND METHODS**

The licensee may treat no more than a total volume of 50,000,000 gallons per day of the hazardous wastes listed in the T-POND column of Attachment 10 in the Tertiary Pond via conventional tertiary wastewater treatment processes consisting of thermal equalization, surge capacity, aeration, Total

Dissolved Solids management, and other processes authorized in the licensee's National Pollutant Discharge Elimination System permit, subject to the terms of this license. {R 299.9616}

**E. DESIGN AND OPERATING REQUIREMENTS**

1. The licensee shall operate and maintain the facility as described in Attachment 13 of this license and in accordance with R 299.9616 and the plans, specifications, reports, and the Determination Regarding Minimum Technology Requirements Pursuant to §3005(j)(3), dated October 6, 1987, contained in Appendix B of Attachment 13 of this license.
2. The licensee shall operate and maintain the surface impoundments to prevent overtopping resulting from normal or abnormal operations, overfilling, wind and wave action, rainfall, run-on, malfunctions of level controllers, alarms and other equipment, and human error. {R 299.9616 and 40 CFR §264.221(g)}
3. The licensee shall maintain the surface impoundment dikes with sufficient structural integrity to prevent massive failure of the dikes. {R 299.9616 and 40 CFR §264.221(h)}
4. The licensee is prohibited from managing ignitable, reactive and incompatible wastes in the Tertiary Pond.

**F. NOTIFICATION AND RESPONSE REQUIREMENTS**

1. If the level of liquids in the surface impoundments suddenly drops and the drop is not known to be caused by changes in the flows into or out of the impoundments or the surface impoundment dike(s) leak, the licensee shall follow the notification, repair, and removal from service requirements of 40 CFR §264.227 and the procedures outlined in the Contingency Plan, Attachment 4 of this license. {R 299.9616}
2. If the surface impoundments are removed from service and cannot or will not be repaired, the licensee shall close the Tertiary Pond in accordance with Conditions II.J. and II.K. of this license. {R 299.9616 and 40 CFR §§264.227(e) and 264.228}



**PART VII  
POST CLOSURE CARE CONDITIONS FOR CLOSED UNITS FOR MIDLAND PLANT**

**A. COVERAGE OF LICENSE AND UNIT IDENTIFICATION**

1. The licensee shall provide post closure care for the following hazardous waste surface impoundment that was certified closed with hazardous waste in place on the date listed in the table below. The closed unit shown in the drawing listed in the table below is covered by this license. {R 299.9613}

<b>Closed Unit</b>	<b>Closed Unit Process Design Capacities and General Description of Wastes Managed</b>	<b>Drawing</b>
Sludge Dewatering Facility (SDF) Certified Closed January 29, 1990	136,000,000 gallons - Wastewater Treatment Plant Solids; tanker truck flushings; and sludges from the closure of the Diversion Basin and Open Wastewater Conduits	B2-100-874006, Rev. 03/87 in Appendix A11-2 of Attachment 5

2. On the effective date of this license, the following hazardous waste surface impoundments that were certified closed with hazardous waste in place on the dates listed in the table below and previously managed as post closure units became subject to management under Part XI, Corrective Action Conditions for the Midland Plant and Salzburg Landfill, of this license.

<b>Closed Units</b>	<b>Closed Unit Process Design Capacities and General Description of Wastes Managed</b>
Diversion Basin Certified Closed March 8, 1989	37,000,000 gallons Diverted untreated wastewater and manufacturing complex surface run-off
Open Wastewater Conduits Certified Closed December 27, 1988	
Conduit A	50,000 gallons - General influent wastewater
Conduit B	310,000 gallons - Phenolic treatment system influent wastewater
Conduit C-1	1,000,000 gallons - General influent wastewater
Conduit C-2	90,000 gallons - Diverted primary wastewater
Conduit C-3	50,000 gallons - Secondary treated wastewater

**B. WASTE IDENTIFICATION**

The hazardous waste types that were managed in the closed SDF are listed in Condition VII.A.1. and Appendix A11-2 of Attachment 5 of this license.

**C. POST CLOSURE PROCEDURES AND USE OF PROPERTY**

1. The licensee shall conduct post closure care for the SDF in accordance with Attachment 6 MP of this license for 30 years from the effective date of the issuance of this license, except that the 30-year post closure period may be shortened upon application and demonstration approved by the Director that the reduced period is sufficient to protect human health and the environment, or may be extended if the Director finds that the extended period is necessary to protect human health and the environment. {R 299.9601(3) and 40 CFR §264.117(a)}
2. The licensee shall comply with the requirements for closed surface impoundments for the SDF as follows, in accordance with R 299.9616 and 40 CFR §264.228(b)(1) and (3):
  - (a) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap, as necessary, to correct the effects of settling, subsidence, erosion, and other events; and
  - (b) Prevent run-on and run-off from eroding or otherwise damaging the final cover.
3. The licensee shall maintain documentation that a survey plat has been prepared and certified by a professional land surveyor that:
  - (a) Indicates the location and dimensions of the closed SDF with respect to permanently surveyed benchmarks;
  - (b) Has been filed with the Midland County Register of Deeds; and
  - (c) Contains a note that states that the land has been used to manage hazardous wastes and its use is restricted pursuant to R 299.9613 and the 40 CFR 264, Subpart G, regulations.
4. The licensee shall not allow any post closure use of the SDF property, designated in Condition VII.A.1. of this license, on or in which hazardous wastes remain after partial or final closure that will disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the closed unit's monitoring systems during the post closure care period, unless the Director finds in accordance with R 299.9613 and 40 CFR §264.117(c), that the disturbance:
  - (a) Is necessary to the proposed use(s) of the SDF property and will not increase the potential hazard to human health or the environment; or
  - (b) Is necessary to reduce a threat to human health or the environment.
5. If the licensee or any subsequent owner or operator of the land upon which the hazardous waste disposal unit is located, wishes to remove hazardous wastes and hazardous waste residues, then he shall request a modification to this license in accordance with the applicable requirements of R 299.9613(1) and 40 CFR §264.119(c). The licensee or any subsequent owner or operator of the land shall demonstrate that the removal of hazardous wastes will satisfy the criteria of 40 CFR §264.117(c).

6. If the licensee is granted a license modification or otherwise granted approval to conduct hazardous waste removal activities, the licensee may request that the Director approve either:
  - (a) The removal of the notation on the deed to the subject property or other instrument normally examined during title search; or
  - (b) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

{R 299.9613(1) and 40 CFR §264.119(c)(1) and (2)}

7. No later than 60 days after completion of the established post closure period for the SDF, specified in Condition VII.C.1. of this license, the licensee shall submit to the Director by registered mail, a certification that the post closure care for the hazardous waste management unit was performed in accordance with the specifications in this license, as required by R 299.9613(1) and 40 CFR §120. The certification must be signed by an independent, registered professional engineer. Documentation supporting the independent, registered professional engineer's certification must be furnished to the Director upon request until the Director releases the licensee from the financial assurance requirements for post closure care under R 299.9703.
8. The licensee shall conduct post closure environmental monitoring for the closed SDF in accordance with the requirements in Condition IX.F. of this license. {R 299.9611(2)(b) and R 299.9612}

**PART VIII  
LANDFILL DISPOSAL CONDITIONS FOR SALZBURG LANDFILL**

**A. TABLE OF SALZBURG LANDFILL DRAWINGS**

<b>General Salzburg Landfill Drawings</b>	
B2-102-1374, Rev. 9/08	Figure II.P-3 Surrounding Land Uses Map (Sheet 1 of 2)
B2-103-1374, Rev. 9/08	Figure II.P-3 Surrounding Land Uses Map (Sheet 2 of 2)
B2-104-1374, Rev. 11/05	Appendix 8 Site Sewers & Sampling Points Map (Sheet 1 of 2)
B2-105-1374, Rev. 10/08	Figure II.P-6 Site Sewers & Sampling Points Map (Sheet 2 of 2)
B2-001-1374, Rev. 06/15	Existing & Future Cell Layout
B2-002-1374, Rev. 06/15	Existing & Future Capping Layout
<b>Drawings for Cells 20-22</b>	
B2-001-852, Rev. 08/05	General Plan
B2-002-852, Rev. 10/02	Site Map & Haul Routes
B2-003-852, Rev. 12/00	Subgrade Plan
B2-004-852, Rev. 12/00	Subgrade Sections
B2-005-852, Rev. 12/00	Subgrade Sections
B2-006-852, Rev. 12/00	Subgrade Sections
B2-007-852, Rev. 12/00	North Wall Subgrade Sections
B2-008-852, Rev. 12/00	Subgrade Sections
B2-009-852, Rev. 12/00	Toe Drain Header Plan & Details
B2-010-852, Rev. 08/05	SSL & LDCRS Plan
B2-011-852, Rev. 08/05	SSL & LDCRS Sections
B2-012-852, Rev. 12/00	12" Gravity Sewer – Boot Details
B2-013-852, Rev. 12/00	12" Gravity Sewer – Boot Details
B2-014-852, Rev. 10/06	Finish Clay & Leachate Piping Plan
B2-015-852, Rev. 10/06	Typical Sections
B2-016-852, Rev. 08/05	North Wall Sections
B2-017-852, Rev. 08/05	North Wall Sections
B2-018-852, Rev. 08/05	L.S. Area & South End Sections
B2-019-852, Rev. 12/00	Miscellaneous Details
B2-020-852, Rev. 04/04	Miscellaneous Details
B2-021-852, Rev. 12/00	Manhole #24
B2-022-852, Rev. 12/00	LCRS Lift Station #25
B2-023-852, Rev. 12/00	LCRS Lift Station #26
B2-024-852, Rev. 01/01	GSE As-Built for Primary Liner
B2-025-852, Rev. 01/01	GSE As-Built for Secondary Liner
B2-100-852, Rev. 01/01	Density & Permeability Test Location Map Subgrade
B2-101-852, Rev. 01/01	Density & Permeability Test Location Map CCL
B2-102-852, Rev. 01/01	Elk Ranch Clay Borrow Pit
<b>Drawings for Phase 1 of Cells 23-28 (Cells 23-26)</b>	
B2-003-1374, Rev. 9/08	Cells 23-28 Construction–Fill Sequence
B2-007-1374, Rev. 9/08	Appendix 15 Cells 23-28 East-West Cross Section
B2-008-1374, Rev. 9/08	Appendix 15 Cells 23-28 North-South Cross Section
B2-001-119217, Rev. 01/15	General Plan/Title Sheet
B2-002-119217, Rev. 01/15	Existing Topography
B2-003-119217, Rev. 01/15	Subgrade Plan
B2-003A-119217, Rev. 01/15	SSL and GDM Plan
B2-004-119217, Rev. 01/15	Subgrade Sections A-A and B-B

B2-005-119217, Rev. 01/15	Subgrade Sections C-C and D-D
B2-006-119217, Rev. 01/15	Subgrade Sections E-E and F-F
B2-007-119217, Rev. 01/15	Subgrade Sections G-G and H-H
B2-008-119217, Rev. 01/15	North Wall Subgrade Sections
B2-009-119217, Rev. 01/15	South Wall Subgrade Sections
B2-010-119217, Rev. 01/15	Leak Detection System Sump and Piping Plan
B2-011-119217, Rev. 01/15	Finished Clay Plan
B2-012-119217, Rev. 01/15	Leachate Collection System Piping Plan
B2-012A-119217, Rev. 01/15	PSL, GDM and GTX Plan
B2-013-119217, Rev. 01/15	Leachate Collection System Sump and Piping Plan
B2-014-119217, Rev. 01/15	Finished Clay Sections A-A and B-B
B2-015-119217, Rev. 01/15	Finished Clay Sections C-C and D-D
B2-016-119217, Rev. 01/15	Finished Clay Sections E-E and F-F
B2-017-119217, Rev. 01/15	Finished Clay Sections G-G and H-H
B2-018-119217, Rev. 01/15	North Wall Finished Clay Sections
B2-019-119217, Rev. 01/15	South Wall Finished Clay Sections
B2-020-119217, Rev. 01/15	Typical Intermediate Dike Section
B2-021-119217, Rev. 01/15	Typical East-West Floor Profile
B2-022-119217, Rev. 01/15	Profile Through LDS and LCS Header Pipes
B2-023-119217, Rev. 01/15	Typical Cross Section Through North Wall
B2-024-119217, Rev. 01/15	Sections Through 24 Inch LS Risers
B2-025-119217, Rev. 01/15	Typical Header Through Profile
B2-026-119217, Rev. 01/15	24 Inch & 6 Inch Riser Pipe Details
B2-027-119217, Rev. 01/15	Cells 22/23 Top of Dike & Anchor Trench Details
B2-028-119217, Rev. 01/15	Stand Pipe and Tire String Details
B2-029-119217, Rev. 01/15	12" Gravity Sewer Boot Details
B2-032-119217, Rev. 01/15	North Culvert Plan
B2-033-119217, Rev. 01/15	South Culvert Plan
B2-034-119217, Rev. 01/15	Operational Access Ramp
B2-035-119217, Rev. 04/15	Primary Liner As-Built Conditions
B2-036-119217, Rev. 04/15	Secondary Liner As-Built Conditions
B2-101-119217, Rev. 01/15	Side Slope Lift Stations LS Discharge Piping and Conduit Plan
B2-102-119217, Rev. 01/15	Side Slope Lift Stations LS Discharge Piping Sections
B2-103-119217, Rev. 01/15	Side Slope Lift Stations LS Above Ground Discharge Piping Details
B2-104-119217, Rev. 01/15	Side Slope Lift Stations LS Discharge Piping Meter Run
B2-105-119217, Rev. 01/15	Side Slope Lift Stations LS Pipe Support Details
B2-106-119217, Rev. 01/15	LS Electric Panel Support Details
B2-107-119217, Rev. 01/15	Access Stair Details

**B. COVERAGE OF LICENSE**

The hazardous waste landfill and related appurtenances (piping, pumps, operation and maintenance buildings, etc.) shown on the Drawings listed in the Table of Salzburg Landfill Drawings in Condition VIII.A., and in Drawings B2-100-1374/B2-101-1374, Rev. 09/08, the Site Topographic Map, and contained in Salzburg Landfill Drawings and Topographic Maps, Attachment 14 of this license, are covered by and incorporated into this license. Any expansion or enlargement beyond the design capacity of 3,090,000 cubic yards or beyond the facility boundary shown in Drawings B2-100-1374/B2-101-1374 requires a new operating license for the expansion, enlargement, or alteration of an existing facility from the Office Chief. {R 299.9521(1)(b)}

**C. WASTE IDENTIFICATION AND QUANTITY**

1. The licensee may, subject to the terms of this license and except to the extent prohibited under Condition VIII.C.2. below, dispose a total volume of 3,090,000 cubic yards of:
  - (a) Hazardous waste generated on-site and certain hazardous wastes generated off-site or by non-Dow generators in support of Dow operations or strategic business relationships as described in Section A3.A of the Waste Analysis Plan, Attachment 1 of this license; and
  - (b) Compatible nonhazardous waste generated by the licensee and subsidiaries, or Dow-related remediation activities, in the landfill, subject to the terms of this license. If the nonhazardous waste is regulated as solid waste under Part 115, Solid Waste Management, of Act 451, and is generated outside Midland County, disposal must be consistent with any applicable provisions restricting importation of waste into Midland County contained in the Midland County Solid Waste Management Plan and must also be consistent with any applicable provisions restricting exportation of waste from the county where the waste is generated, as contained in that county's Solid Waste Management Plan. All references to county Solid Waste Management Plans mean the plan(s) as approved at the time of solid waste shipment in accordance with the provisions of Part 115 of Act 451. The obligation to comply with county Solid Waste Management Plans arises under Part 115 of Act 451 independently of this license and the process for counties to revise their plans is governed by Part 115 of Act 451. Such revisions need not be incorporated into this license through Part 111 of Act 451 license modification procedures. Any failure to comply with a county Solid Waste Management Plan is subject to enforcement under this license pursuant to the provisions of Part 115 of Act 451.

The licensee shall not dispose of any hazardous waste not listed in the SALZBURG LANDFILL column of Attachment 10 of this license, unless the Office Chief approves the disposal of such waste types through an amendment to this license. {R 299.9521(2)(d)}

2. The licensee shall not accept for disposal any hazardous waste not listed in the SALZBURG LANDFILL column of Attachment 10 of this license or any incompatible nonhazardous wastes or materials that meet any of the following criteria {R 299.9521(2)(d)}:
  - (a) Ignitable wastes as described in R 299.9212(1), unless the provisions of 40 CFR §264.312 are met. {R 299.9619}
  - (b) Reactive wastes as described in R 299.9212(3), unless the provisions of 40 CFR §264.312 are met. {R 299.9619}
  - (c) Bulk or noncontainerized liquid waste or waste containing free liquids. {R 299.9619(2) and 40 CFR §264.314(b)}
  - (d) Containers holding free liquids. {R 299.9619(5) and 40 CFR §264.314(d)}
  - (e) Waste that will:
    - (i) Adversely affect the permeability of the clay liner. {R 299.9521(3)(b), R 299.9619, and R 299.9620 and 40 CFR §264.301}

- (ii) Produce a leachate that is incompatible with the clay liner, leachate collection system piping, or the off-site sewer system. {R 299.9521(3)(b), R 299.9619, and R 299.9620(3) and 40 CFR §264.301}
  - (iii) Generate gases that will adversely affect the permeability of the clay cap or create a violation of Part 55 of Act 451. {R 299.9602 and R 299.9619(5)(c)}
3. The licensee shall not accept hazardous wastes for landfilling unless the wastes are placed in closed containers or otherwise totally contained or covered during transportation. {R 299.9521(3)(b)}

**D. DESIGN AND RUN-ON, RUN-OFF, AND CONTAMINANT CONTROL**

1. The licensee shall construct, design, and maintain a liner system in accordance with R 299.9619, R 299.9620, and R 299.9621. {R 299.9619, R 299.9620, and R 299.9621 and 40 CFR §§264.301 and 264.303}
2. The licensee shall submit a certification for the construction of newly constructed cells. No waste shall be placed in a newly-constructed cell until the certification is approved by the Hazardous Waste Section Chief.
3. The licensee shall submit post construction documentation to the Office Chief following construction of each newly constructed cell pursuant to §11125 of Part 111 of Act 451, as amended.
4. The licensee shall insure that all uncovered portions of the constructed liners, leak detection systems, and leachate collection systems are adequately protected from vegetation, desiccation, clogging, freeze-thaw effects, weathering, and all other deterioration processes. {R 299.9619 and R 299.9620 and 40 CFR §§264.301 and 264.303}
5. The licensee shall have a licensed professional engineer inspect any portions of the natural or recompacted clay not protected from weathering for more than 90 days and the leachate collection system not protected from clogging and weathering for more than 90 days. If repair is necessary the engineer shall specify repair of any areas in accordance with the approved plans and specifications where he or she determines by visual inspection that desiccation, erosion, clogging, or weathering has occurred to the extent that the design specifications are no longer met. The results of these inspections shall be maintained in accordance with Condition II.I. of this license. {R 299.9619, R 299.9620, R 299.9621, and R 299.9622 and 40 CFR §§264.301 and 264.303}
6. All areas repaired in accordance with Condition VIII.D.5. of this license must be recertified by a licensed professional engineer. The licensee shall submit the recertification to the Office Chief. {R 299.9619, R 299.9620, R 299.9621, and R 299.9622 and 40 CFR §§264.301 and 264.303}
7. The licensee shall operate and maintain a run-on control system capable of preventing storm water flow onto the active portions of the landfill during peak discharge from at least a 24-hour, 25-year storm. {R 299.9604(1)(a)}
8. The licensee shall operate and maintain a run-off management system to collect and control the storm water volume resulting from at least a 24-hour, 100-year storm. {R 299.9604(1)(b)}

9. The licensee shall expeditiously empty or otherwise manage collection and holding facilities (e.g., tanks or catch basins) associated with run-on and run-off control systems after storms to maintain the design capacity of the system. {R 299.9619 and 40 CFR §264.301(h)}
10. The licensee shall cover or otherwise manage the landfill to control dispersal of particulate matter, particularly when landfilling waste above grade. {R 299.9619 and 40 CFR §264.301(j)}
11. The licensee shall operate and maintain a vehicle wash facility. The licensee shall ensure that all vehicles traveling on active portions of the site are cleaned and decontaminated at this facility before leaving the active area. {R 299.9521(3)(b)}
12. The licensee shall operate all vehicles in a manner that will minimize the contamination of internal haul roads. The licensee shall ensure that hauling vehicles minimize driving on waste, and any trackout of waste from the landfill shall be returned to the landfill immediately. {R 299.9521(3)(b) and R 299.9604(1)(c)}
13. The licensee shall operate and maintain a leachate collection and removal system in accordance with R 299.9619, 40 CFR §264.301(a)(2), and the plans and specifications in Attachment 14 of this license. As part of leachate collection and removal system maintenance, the licensee shall jet out the leachate collection system through the leachate cleanout pipes once every two years or more frequently, if needed, to ensure that it functions without clogging in accordance with 40 CFR §264.301(a)(2)(ii) and R 299.9619(4)(c)(i). As shown in Drawing B2-105-1374 in Attachment 14 of this license, the leachate captured by this system shall be transported via the dual-contained high-density polyethylene pipeline in combination with an above-ground, visually-inspected steel pipeline from the landfill to the sewer at the Michigan Operations facility and ultimately to the Dow-owned and operated wastewater treatment plant.

**E. WASTE PLACEMENT**

1. The licensee shall ensure that the placement of all hazardous waste in the landfill is conducted in accordance with 40 CFR §§264.17(b), 264.313, 264.315, and 264.316. If containers of hazardous waste are crushed at the facility, the containers shall be crushed only inside the active landfill cell. {R 299.9521(2)(d) and (3)(b) and R 299.9619}
2. The licensee shall record the contents, quantity, and location of each daily waste deposit and place this documentation in the operating record. This information shall be recorded on a map or diagram of the landfill and shall include cross references to specific manifest document numbers, if the waste was accompanied by a manifest. {R 299.9609 and R 299.9619 and 40 CFR §§264.73(b)(2) and 264.309}
3. After waste placement reaches the grade of the perimeter of the active landfill cell, the licensee shall annually survey and record the elevations of waste in the cell to insure that final grades as shown in Drawing B2-002-1374 in Attachment 14 of this license are not exceeded. The results of the survey shall be submitted to the Office Chief within 60 days of completion of the survey. {R 299.9521(1)(b) and (3)(a)}

**F. CLOSURE/POST CLOSURE**

1. The licensee shall complete closure in accordance with the engineering plans and specifications and the construction quality assurance plan in the approved Closure Plan, Attachment 6 of this license. {R 299.9613 and R 299.9619(1) and (5) and 40 CFR §264.310}



2. The licensee shall notify the Office's Saginaw Bay District staff and Hazardous Waste Section staff, at least one week in advance of key events, to enable staff to be present to observe and/or take samples during the final cover placement activities. Key events may include test pad construction, placement of clay liner, placement and seaming of synthetic liner, and placement of drainage media and topsoil. {R 299.9521(1)(a) and (3)(a) and 40 CFR §270.30(i)}
3. The licensee shall construct the clay component of the final cover by using the same types of materials, equipment, and methods used in constructing the test fill, if required by the Office. If the materials, equipment, or methods change significantly, a new test fill shall be constructed. {R 299.9521(3)(a) and (b), R 299.9619(5), R 299.9620, and R 299.9621}
4. The licensee shall conduct cap elevation surveys of existing and newly-closed cells in accordance with, and on the frequency described in, the survey schedule contained in the Cap Elevation Survey Plan included in the Post Closure Plan, Attachment 6 of this license. A final cover survey report, including a contour map of the final cover, shall be submitted to the Office for review and approval within 90 days of the completion of each survey. In addition, the licensee shall survey facility benchmarks every three years. {R 299.9619 and R 299.9521(3)(a) and 40 CFR §264.310(b)(1), (5), and (6)}

**G. ADDITIONAL REPORTING**

The licensee shall submit an annual inspection and maintenance summary report to the Office by March 1 of each year during the active life of the landfill and the post closure care period. The annual inspection and maintenance report shall include a summary of all maintenance activities performed by the licensee to maintain the integrity of the active landfill and the final cover such as mowing, fertilization, and liming and a copy of the associated inspection logs.

{R 299.9521(2)(a) and (b) and 40 CFR §270.31}

**H. PERIODIC VERIFICATION THAT SCHOOL BUS ROUTES DO NOT OVERLAP HAUL ROUTE**

At the time of the land disposal facility five-year review and at the time of reapplication, the licensee shall reverify with the Midland Public Schools' Transportation Department that no school bus routes overlap with Dow's hazardous waste hauling route from the Michigan Operations, Midland Plant site to the Salzburg Landfill and report this information to the Office Chief.

**PART IX  
ENVIRONMENTAL MONITORING CONDITIONS FOR MIDLAND PLANT**

**A. GENERAL ENVIRONMENTAL MONITORING CONDITIONS**

1. Environmental Monitoring Programs. The licensee shall conduct environmental monitoring programs in accordance with Part IX of this license. Under these programs, the licensee shall operate and maintain environmental monitoring systems in accordance with the Midland Plant Environmental Monitoring Program Sampling and Analysis Plan (MP SAP), Attachment 15 of this license, and the Midland Plant Ambient Air Monitoring Program, Attachment 16, of this license. {R 299.9611(2)(b) and R 299.9612}
  
2. Proposed Revisions to the MP SAP. The licensee shall submit proposed revisions to the MP SAP to the Office for approval prior to implementation. If approved, the licensee shall revise any other affected document(s) accordingly. The approved revisions to the MP SAP shall become part of this license in accordance with the applicable procedures specified below. {R 299.9519(5)(c)(ii), R 299.9519(9), R 299.9611(2)(a), and R 299.9612 and 40 CFR §264.97(d) and (e)}
  - (a) The revised MP SAP shall require a major modification of the license if the Office Chief determines that the approved change eliminates or substantially alters the scope or intent of a monitoring program identified in Part IX of this license or reduces the capacity of the facility to protect human health or the environment. {R 299.9519(9)}
  
  - (b) The revised MP SAP shall require a major or minor license modification, as specified in the table below, if the approved revision to the MP SAP is a reduction in the number of monitoring points (e.g., wells, piezometers, soil boxes), analytical parameters, or frequency in monitoring, evaluation or reporting unless:
    - (i) The reduction is result of the implementation of corrective action approved by the Office as required by Part X of this license and/or the Corrective Action Implementation Plan in Attachment 19, of the license, in which case Condition IX.A.2.(c) applies; or
  
    - (ii) The reduction is the result of monitoring and evaluation as required by Part IX of this license and/or the current MP SAP, Attachment 15 of this license, in which case Condition IX.A.2.(c) applies.

Environmental Monitoring Program	License Condition and Program Type	Type of License Modification Required	
		Major	Minor
Glacial Till and Regional Aquifer Detection Groundwater Monitoring Program	IX.C.1. Detection	x	
East-Side Main Plant Revetment Groundwater Interception System (RGIS) Monitoring Program	IX.D.2. Corrective Action		x
West-Side and Tertiary Pond RGIS Monitoring Program	IX.D.3. Corrective Action		x
6 Pond Collection Tile Monitoring Program	IX.D.4. Corrective Action		x
River Corrective Action Management Program	IX.D.5. Corrective Action		x

Environmental Monitoring Program	License Condition and Program Type	Type of License Modification Required	
		Major	Minor
Seventh Street Purge Well Area Groundwater Monitoring Program	IX.D.6. Corrective Action		x
Ash Pond Area Groundwater Monitoring Program	IX.D.7. Corrective Action		x
Former 47 Building Surface Water Protection Monitoring Program	IX.D.8. Corrective Action		x
Northeast Perimeter Groundwater Monitoring Program	IX.E.1. Corrective Action		x
West-Side Shallow Groundwater Monitoring Program	IX.E.2. Corrective Action		x
Facility Shallow Groundwater Monitoring Program	IX.E.3. Corrective Action		x
South Saginaw Road Tile Performance Monitoring Program	IX.E.4. Corrective Action		x
Sludge Dewatering Facility Monitoring Program	IX.F.1. Detection	x	
Poseyville Landfill Monitoring Program	IX.G.1. Corrective Action		x
LEL I Site Monitoring Program	IX.G.2. Corrective Action		x
LEL II Site Monitoring Program	IX.G.3. Corrective Action		x
LEL III Site Monitoring Program	IX.G.4. Corrective Action		x
1925 Landfill Monitoring Program	IX.G.5. Corrective Action		x
Tertiary Pond Groundwater Recovery Monitoring Program	IX.H.1. Corrective Action		x
Tertiary Pond Slurry Wall Hydraulic Monitoring Program	IX.H.2. Corrective Action		x
Overlook Park Groundwater Monitoring Program	IX.I.1. Corrective Action		x
US-10 Tank Farm Monitoring Program	IX.I.2. Corrective Action		x
Ambient Air Monitoring Program	IX.J. Detection		x
Soil Monitoring Program	IX.K. Detection	x	

- (c) All other approved changes to the MP SAP not addressed by Condition IX.A.2.(a) or IX.A.2.(b) shall become part of the license without the need for a license modification.

3. Notification Requirements.

- (a) Unless specified otherwise, all initial notifications to the Office required by Part IX of this license shall be made by telephone to a MDEQ project team staff member

assigned to the Dow license (project geologist, engineer, environmental quality analyst, district inspector, or their supervisor) or the MDEQ PEAS at 1-800-292-4706. Unless specified otherwise, all written reports, notifications, or submissions to the Office required by Part IX of this license shall be made to the Office Chief.

- (b) If performance criteria are not being met as determined by Conditions IX.B.2.(c) or (d) or IX.B.3.(c) or (d) of this license, the licensee shall notify the Office by telephone within three business days and provide a written notification to the Office within seven calendar days of the initial determination.
- (c) If the licensee confirms pursuant to Conditions IX.B.2.(c) or (d) or IX.B.3.(c) of this license that performance criteria are not being met, the licensee shall:
  - (i) Notify the Office within three business days of the determination.
  - (ii) Provide written notification to the Office within seven calendar days of the initial determination. The written notification shall indicate what constituents have not met performance criteria and the affected monitoring points.  
{R 299.9612 and 40 CFR §264.98(f) and (g)}
- (d) If the licensee intends to demonstrate that a source other than the licensed facility caused the increase or that the increase resulted from error in sampling, analysis or evaluation, the licensee shall notify the Office in writing within seven calendar days of the determination made under Condition IX.B.2.(c)(ii) or IX.B.3.(d)(vi).
- (e) If the licensee determines pursuant to Conditions IX.D.2., IX.D.3., IX.D.4., IX.D.5., or IX.D.6. of this license that a loss of gradient reversal has occurred, the licensee shall notify the Office within one business day of the determination. Notification shall include the results of the investigative and repair activities that were performed during the initial response period. If the collection tile system(s) and/or purge well system(s) were not repaired, there will be a planned response to repair or replace the impacted section of the collection tile system(s) and/or purge well system(s) to regain gradient reversal in as timely a manner as possible. If a planned response to repair or replace a section of the collection tile system(s) and/or purge well system(s) is necessary and/or if there has been a release, a work plan shall be submitted to the Office for review and approval. The submittal shall include a plan and a timetable that summarizes the time required to complete the repairs and shall assess any release(s) to the adjacent surface water and/or groundwater and include any necessary response activity to address any release(s) of contaminated groundwater to the adjacent surface water and/or groundwater. Groundwater assessments may be conducted consistent with Condition IX.E.3.(d).

#### 4. Reporting.

- (a) Quarterly Environmental Monitoring. Unless otherwise approved in accordance with Condition IX.A.4.(c), the licensee shall provide the results of all environmental monitoring required by this license to the Office in accordance with Conditions II.I.3. of this license. The results shall be provided as follows:
  - (i) During calendar years 2015 and 2016, the licensee shall submit Quarterly Environmental Monitoring Reports to the Office. At a minimum, the report shall include the following information:

- (1) A narrative summary of the quarter's sampling events.
  - (2) Data tables with the monitoring data obtained during the quarter.
  - (3) Indication of any increased frequency beyond what is required by the license.
  - (4) Program specific quarterly evaluations listed in Table 2 of the MP SAP, Attachment 15 of this license.
- (ii) Beginning in 2017 the license shall provide the results of environmental monitoring required by this license to the Office either by a Report as specified in Condition IX.A.4.(a)(i) of this license or by updating an Environmental Monitoring Information System approved by the Office pursuant to Condition IX.A.4.(c).
- (b) Annual Environmental Monitoring Report. The licensee shall submit an Annual Environmental Monitoring Report to the Office no later than March 1 for the previous calendar year's activities. At a minimum, the report shall include the following information:
- (i) A narrative summary of the previous calendar year's sampling events, including the dates of the sampling events, and the identification of any significant problems with respect to MP SAP defined procedures.
  - (ii) Data tables with the monitoring data obtained during the calendar year that has not been previously provided in Quarterly Environmental Monitoring Report pursuant to Condition IX.A.4.(a)(i) of this license.
  - (iii) Program specific quarterly and annual evaluations listed in Table 2 of the MP SAP, Attachment 15 of this license.
  - (iv) An analysis and discussion of laboratory and field related QA/QC information. This shall include results of equipment, field, and trip blanks, and discussion and evaluation of the adequacy of the data with respect to MP SAP specifications and requirements.
  - (v) This annual report is in addition to the reporting requirements of Condition II.I.3. of this license. {R 299.9521(3)(b) and R 299.9612(1) and 40 CFR §264.97(j)}
- (c) Environmental Monitoring Information System (EMIS). The licensee may develop an EMIS for environmental monitoring data required by this license and provide access to the Office for its review and evaluation of the data. This EMIS may be used to provide environmental monitoring data to the Office as specified in Condition IX.A.4.(a)(ii) if the following conditions have been met:
- (i) The licensee submits a plan for the EMIS to the Office for review and approval describing system capabilities, proposed content, procedures for providing validated environmental monitoring data, schedules and other details necessary for the Office to evaluate the EMIS;

- (ii) A pilot program of a minimum duration of two calendar quarters has been implemented demonstrating to the Office's satisfaction that environmental monitoring data required by this license is being adequately provided and accessible through the EMIS; and
  - (iii) The Office approves the use of the EMIS as specified in the plan and demonstrated in the pilot study. Upon written approval, the licensee may use this system to provide environmental monitoring data to the Office as specified in Condition IX.A.4.(a)(ii) of this license.
- (d) Changes in Reporting. Changes to the method of reporting may be made under the following circumstances:
- (i) The licensee may make modifications to the EMIS by providing a summary and basis of proposed modification to the Office and receiving approval from the Office for the modifications.
  - (ii) If the Office determines the EMIS is not performing as anticipated, and after providing the licensee reasonable opportunity to correct identified issues, the Office may withdraw approval for use of the EMIS within 60 days written notice to the licensee.
  - (iii) The licensee may discontinue use of the approved EMIS by providing 60 days written notice to the Office and providing Quarterly Environmental Monitoring Reports as specified in Condition IX.A.4.(a)(i) of this license.
  - (iv) Any discontinuance of the use of the approved EMIS shall be coordinated in such a manner as to prevent reporting gaps.

## **B. GENERAL GROUNDWATER MONITORING CONDITIONS**

1. Groundwater Monitoring. The licensee shall collect and analyze samples according to the schedule, constituents, and procedures specified in the MP SAP, Attachment 15 of this license. {R 299.9612 and 40 CFR §264.97(c)-(e)}.
  - (a) Static water level measuring devices, pumps, and/or sampling equipment shall be compatible with the constituents sampled and must be thoroughly cleaned and rinsed before use. Sampling procedures shall assure that cross-contamination and changes in water chemistry do not occur. {R 299.9612 and 40 CFR §264.97(d) and (e)}
  - (b) The static water elevation shall be determined by methods giving precision to 1/8 inch or 0.01 foot prior to purging water from the wells for sampling. Measurements shall be made from a marked point on the top of the casing with the elevation of all casings in the monitoring well system related to a permanent reference point, using United States Geological Survey (USGS) datum. {R 299.9612 and 40 CFR §264.97(f)}
  - (c) For flowing wells, a static water level will be calculated from pressure readings taken from the valve stem on the top of the well head. A digital pressure gauge is attached to a valve stem and the water level will be read to the precision of 0.01 foot of water prior to purging water from the wells for sampling.
  - (d) To ensure a representative sample, a volume of water shall be purged before obtaining a sample for analysis as specified in the Well Purging Procedures in the MP SAP,

Attachment 15 of this license. Wells shall be sampled immediately after purging where recovery rates allow. Where wells are pumped dry during purging, recovery rates shall be determined and samples taken as soon as sufficient recovery occurs. {R 299.9612 and 40 CFR §264.97(d) and (e)}

- (e) Water removed from each monitoring well shall be managed as specified in the Well Purging Procedures in the MP SAP, Attachment 15 of this license. {R 299.9521(3)(b)}
  - (f) All monitoring wells or piezometers shall have protective barriers, be clearly labeled, securely capped, and be locked when not in use (or be located within a secured plant fence line). {R 299.9612 and 40 CFR §264.97(c) - (e)}
  - (g) Replacement and/or abandonment of a damaged or inoperable monitoring well or piezometer shall be conducted in accordance with Appendix K of the MP SAP, Attachment 15 of this license.
    - (i) If the location and depth of the replacement monitoring well or piezometer will be unchanged and the design is unchanged or is consistent with the specification in Appendix K of the MP SAP, Attachment 15 of this license, the licensee shall provide notification and schedule for planned work to the Office, Hazardous Waste Section, 14 days prior to replacement. If the Office does not reject or require revision to the design, the licensee may proceed with well replacement and modify the MP SAP as identified in Condition IX.A.2.(c). {R 299.9519(5)(c) and R 299.9519(6)}
    - (ii) If the location or depth of the replacement monitoring well or piezometer will be changed and/or the design is not consistent with the existing well or Appendix K of the MP SAP, the licensee shall obtain the prior written approval of the Office Chief and modify the MP SAP and license as identified in the Condition IX.A.2.(b) table in this license. {R 299.9519}
  - (h) Prior to replacement and/or relocation of a functioning monitoring well or piezometer, the licensee shall obtain the prior written approval of the Office Chief and modify the MP SAP and license as identified in the Condition IX.A.2.(b) table in this license. {R 299.9519}
  - (i) All monitoring wells, piezometers, purge wells, and other sampling equipment will be inspected and maintained as described in the MP SAP, Attachment 15 of this license.
2. Groundwater Detection Monitoring Program. The licensee shall conduct groundwater detection monitoring programs for relevant program(s) identified in Part IX of this license. The licensee shall sample the monitoring wells and analyze the samples for the primary constituents and tracking parameters in accordance with Table 2 of the MP SAP, Attachment 15 of this license.
- (a) Hydraulic Monitoring. The licensee shall operate and maintain a hydraulic monitoring program associated with the detection monitoring programs in accordance with Table 2 of the MP SAP, Attachment 15 of this license.
  - (b) Background Groundwater Quality. The licensee shall use established background groundwater quality values for primary constituents at monitoring wells as specified in Table 2 of the MP SAP, Attachment 15 of this license.

- (i) Established background values, which for primary organic groundwater constituents are the approved reporting limits specified in Appendix B of the MP SAP, Attachment 15 of this license.
  - (ii) If required, background values for the primary metal constituents shall be established by sampling quarterly for a minimum of two years, statistically evaluating the distribution of the results, and determining a representative background value. Within 30 days after reporting all of the relevant background data, the licensee shall submit new background values for approval by adding them to Appendix J of the MP SAP, Attachment 15 of this license in accordance with Condition IX.A. of this license. The licensee shall at a minimum provide the mean background values, variance, standard deviations, and method for determining the representative background values for each primary constituent at each well to the Office.
  - (iii) In the event that groundwater quality at the up-gradient monitoring well(s) (or change in background for intra-well comparison) shows a significant change, a petition may be submitted to the Office to reestablish background quality. Background values may be reestablished only upon written approval of the Office.
- (c) Primary Constituents. The licensee shall determine if concentrations of primary constituents meet performance criteria identified in Table 2 of the MP SAP, Attachment 15 of this license. {R 299.9612(1)(e) and 40 CFR §264.97(h) and (i)}
- (i) If the licensee determines that performance criteria are not being met according to the evaluation in Condition IX.B.2.(c), the licensee shall provide notification in accordance with Condition IX.A.3.(b) of this license and arrange a resampling as soon as possible to confirm if a statistically significant increase exists. Resampling must be conducted in accordance with the MP SAP, Attachment 15 of this license. Confirmation that performance criteria are not being met shall be determined using  
  
the statistical procedures listed in Table 2 of the MP SAP, Attachment 15 of this license. {R 299.9612 and 40 CFR §264.97(g)}
  - (ii) If the licensee confirms pursuant to Condition IX.B.2.(c)(i) of this license that performance criteria are not being met for primary constituents, the licensee shall:
    - (1) Provide notification in accordance with Condition IX.A.3.(c) of this license.
    - (2) As soon as possible, sample the groundwater in the detection monitoring wells for the relevant monitoring program within 1,000 feet of the affected well for primary constituents and tracking parameters and determine the concentration of all constituents identified in Appendix IX of 40 CFR Part 264 (Appendix IX) that are present in groundwater and for which approved analysis methods exist. For any Appendix IX constituents detected, the licensee may propose to resample within one month those wells for the Appendix IX constituents detected to confirm their presence and concentrations. The licensee shall, as necessary,



also establish background values for Appendix IX constituents detected pursuant to R 299.9612 and 40 CFR §264.98(g)(3).

- (3) Immediately take steps to determine the cause of the contamination and control, minimize, or eliminate the source of the discharge to protect human health and the environment.

{R 299.9612 and 40 CFR §264.98(f) and (g)}

- (iii) Within 90 days after the confirmation that performance criteria are not being met for primary constituents, submit to the Office an application for a license modification to establish a compliance monitoring and corrective action program meeting the requirements of R 299.9612. The application shall include the following information:
  - (1) An identification of the concentration of all Appendix IX constituents found in the groundwater.
  - (2) Any proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of R 299.9612.
  - (3) Any proposed changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical procedures used at the facility necessary to meet the requirements of R 299.9612.
- (iv) Within 180 days after the confirmation, submit to the Office a detailed description of the corrective action(s) that shall achieve compliance with applicable laws and rules, including a schedule of implementation. Corrective action shall also meet the requirements of R 299.9629 and include a plan for a groundwater monitoring program that shall demonstrate the effectiveness of the corrective action. Such a groundwater monitoring program may be based on a compliance monitoring program developed to meet the requirements of 40 CFR §264.99.
- (v) During the period prior to a license modification requiring a compliance monitoring and corrective action program, the licensee shall provide the Office with updates by any reasonable means (e.g., telephone, voice mail, e-mail) and written reports regarding the progress to date in determining the cause of contamination and eliminating the discharge at regular intervals on a frequency agreed to by the Office. The licensee shall include in the written report the results of all samples analyzed to determine the cause of contamination and any additional compliance or corrective action monitoring performed by licensee on a schedule agreed to by the Office. {R 299.9521(3)(b)}
- (vi) If the licensee confirms pursuant to Condition IX.B.2.(c)(ii) of this license that performance criteria are not being met for a primary constituent(s) in groundwater, it may demonstrate that a source other than the licensed facility caused the performance criteria not to be met or that the performance criteria were not met as a result of an error in sampling, analysis, or evaluation. While the licensee may make a demonstration under this condition in addition to, or in lieu of, submitting a license modification application and implementing corrective action within the time specified in Conditions IX.B.2.(c)(iii) and (iv), respectively,

of this license, the licensee is not relieved of the requirement to submit a license modification application and implement corrective action within the time specified, unless the Office finds that the demonstration made under this condition successfully shows that a source other than the licensed facility caused the performance criteria not to be met or that the performance criteria were not met as a result of an error in sampling, analysis, or evaluation. In making a demonstration under this condition, the licensee shall:

- (1) Notify the Office pursuant to Condition IX.A.3.(d) that it intends to make a demonstration under this condition.
- (2) Within 90 days after the confirmation, submit a report to the Office that demonstrates that a source other than the licensed facility solely caused the performance criteria not to be met or that the performance criteria were not met as a result of an error in sampling, analysis, or evaluation.
- (3) Within 90 days after the confirmation of a statistically significant increase, submit to the Office an application for a license modification to make any appropriate changes to the groundwater monitoring program at the facility.
- (4) Continue to monitor groundwater in compliance with this license.

{R 299.9612 and 40 CFR §264.98(g)(6)}

- (vii) In the event that the Office Chief determines from the findings of Condition IX.B.2.(c)(ii) of this license that performance criteria are not being met for a primary constituent(s) has been confirmed in groundwater, and the Director finds, in accordance with Section 11148 of Act 451, that the failure to meet performance criteria may present an imminent and substantial hazard to the health of persons or to the natural resources, or is endangering or causing damage to public health or the environment, the licensee shall immediately comply with an order issued by the Director pursuant to Section 11148(1) of Act 451 specifying the steps the Director determines are necessary to prevent the act or eliminate the practice that constitutes that hazard, including, if specified, permanent or temporary cessation of the operation of the facility. This condition does not limit the MDEQ's ability to take enforcement action pursuant to Sections 11148 and 11151 of Act 451. {R 299.9612(1)(g)}

- (d) Tracking Parameters. The licensee shall evaluate the tracking parameter data according to Table 2 of the MP SAP, Attachment 15 of this license. As applicable, performance criteria for tracking parameters are specified in Table 2 of the MP SAP, Attachment 15 of this license. {R 299.9612(1)(c)}
- (i) If the licensee determines pursuant to Condition IX.B.2.(d) of this license that performance criteria are not being met for any tracking parameter, the licensee shall:
- (1) Provide notification in accordance with Condition IX.A.3.(b) of this license.

- (2) Resample for the tracking parameter(s) in the affected well(s), taking not less than four samples at each well; or re-sample the affected well(s) for primary constituents in quadruplicate.
        - (3) For tracking parameters, confirmation that performance criteria are not being met shall be determined using the statistical methods defined in Table 2 of the MP SAP, Attachment 15 of this License.
        - (4) If it is confirmed that performance criteria are not being met for tracking parameters, the licensee shall provide notification in accordance with Condition IX.A.3.(c) and resample for both primary constituents and tracking parameters in the affected well(s) in quadruplicate to determine if performance criteria are not being met for the primary constituents in accordance with Condition IX.B.2.(c)(i). If performance criteria are not being met, the licensee shall meet the requirements listed in Conditions IX.B.2.(c)(ii), (iii), and (iv), as applicable.
        - (5) In the event that the wells where performance criteria are not being met are re-sampled for primary constituents and performance criteria for primary constituents are being met, the licensee may propose an alternate means to perform the evaluation required by Condition IX.B.2.(d) for Office review and approval according to Condition IX.A.2.(c).
3. General Corrective Action Monitoring Programs. The licensee shall conduct corrective action monitoring programs as described in the specific conditions and in accordance with the MP SAP, Attachment 15 of this license. {R 299.9611(2)(b) and R 299.9612}
  - (a) Corrective Action Hydraulic Monitoring Program. The licensee shall operate and maintain a corrective action hydraulic monitoring program for water levels, consisting of relevant wells and piezometers indicated in Table 2 of the MP SAP, Attachment 15 of this license.
    - (i) The licensee shall measure the static groundwater water elevations at the frequencies specified in Table 2 of the MP SAP, Attachment 15 of this license. Any missing data points shall be explained by the licensee in a summary evaluation that shall accompany the data.
    - (ii) If the hydraulic monitoring data do not meet the performance criteria established in Table 2 of the MP SAP, Attachment 15 of this license, the licensee shall respond as described below:
      - (1) The licensee will attempt to determine the cause of the anomalous reading(s). This initial response may include, but is not limited to, the following: integrity check of the piezometer for damage or silting, resurvey and/or collection of additional water level measurements to confirm the initial water level measurements.
      - (2) Unless otherwise specified in Table 2 of the MP SAP, Attachment 15 of this license, this initial response period will not last longer than 14 calendar days from the time of the discovery of the anomalous hydraulic reading. Within this initial response period, the licensee will have

determined whether the performance criteria are being met.

- (3) If investigations required by Conditions IX.B.3.(a)(ii)(1) and (2) determine that the performance criteria specified in the MP SAP, Attachment 15 of this license, have not or are not being met, the licensee shall conduct corrective action response activities in accordance with Condition IX.B.3.(d).
- (b) Background Groundwater Quality. The licensee shall use established background groundwater quality values for constituents at monitoring wells as specified in the relevant section of the MP SAP, Attachment 15 of this license.
- (i) Background values for primary organic groundwater constituents are listed in Appendix J of the MP SAP, Attachment 15 of this license.
  - (ii) If required, background values for the primary constituents shall be established by sampling quarterly for a minimum of two years, statistically evaluating the distribution of the results, and determining a representative background value. Within 30 days after reporting all of the relevant background data, the licensee shall submit new background values for approval by adding them to Appendix J of the MP SAP, Attachment 15 of this license, in accordance with Condition IX.A. of this license. The licensee shall at a minimum provide the mean background values, variance, standard deviations, and method for determining the representative background values for each primary constituent at each well to the Office.
  - (iii) In the event that groundwater quality at the up-gradient monitoring well(s) (or change in background for intra-well comparison) shows a significant change, a petition may be submitted to the Office to reestablish background quality. Background values may be reestablished only upon written approval of the Office.
- (c) Corrective Action Chemical Monitoring Program. The licensee shall conduct a corrective action chemical monitoring program in accordance with the MP SAP, Attachment 15 of this license, as follows:
- (i) Groundwater Chemical Monitoring. The licensee shall conduct a groundwater chemical monitoring program in accordance with the MP SAP, Attachment 15 of this license.
    - (1) Primary Constituents. The licensee shall determine if concentrations of primary constituents meet the performance criteria established in Table 2 of the MP SAP, Attachment 15 of this license.
    - (2) If the performance criteria are not being met, the licensee shall notify the Office pursuant to Condition IX.A.3.(b) of this license. Resampling must be scheduled as soon as practicable and conducted in accordance with the MP SAP, Attachment 15 of this license. Confirmation that a performance criterion is not being met shall be determined based on the evaluations listed in the MP SAP, Attachment 15 of this license.

- (3) If the licensee determines pursuant to Condition IX.B.3.(c)(i)(1) of this license that a performance criterion has not been or is not being met for primary constituents, the licensee shall conduct corrective action response activities in accordance with Condition IX.B.3.(d).
- (ii) Sump/Purge Well Chemical Monitoring. The licensee shall conduct a sump or purge well chemical monitoring program for collected groundwater in accordance with Table 2 of the MP SAP, Attachment 15 of this license.
  - (1) Primary Constituents. At the frequency specified in Table 2 of the MP SAP, Attachment 15 of this license, the licensee shall obtain samples of collected groundwater from designated sumps or purge wells for primary constituents listed in Table 2 of the MP SAP, Attachment 15 of this license.
  - (2) At the frequency specified in the MP SAP, Attachment 15 of this license, the collected groundwater shall be sampled for Appendix IX constituents. The licensee shall evaluate this data to determine if the list of primary constituents needs to be revised to improve monitoring effectiveness. Pursuant to Condition IX.A.2. of this license, the licensee shall propose a modification to the list of primary constituents identified in Table 2 of the MP SAP, Attachment 15 of this license.
- (d) Corrective Action Response. In the event that the licensee determines, based on evaluations required by Conditions IX.B.3.(a) or (c) of this license, that corrective action monitoring performance criteria are not being met, the licensee shall do the following:
  - (i) The licensee shall notify the Office according to Condition IX.A.3.(b) of this license and will have either fixed the corrective action system such that the system is operating as designed or have a planned response to fix or modify the system (as applicable). The planned response, any modification of the system, and the schedule for correcting the system and addressing any releases are subject to approval by the Office.
  - (ii) If the licensee determines from the information required by Conditions IX.B.3.(a) or (c) of this license that contaminated groundwater in the monitored zone is flowing or may flow beyond the facility boundary, then the licensee shall immediately take steps to determine the cause of the contamination, control, minimize, or eliminate the source of the discharge to protect human health and the environment, and comply with the requirements of Condition XI.C.4. of this license.
  - (iii) Perform interim response activities (IRA) in accordance with Condition XI.G. of this license, if determined necessary by the licensee or the Office, to clean up or remove a released contaminant or to take other actions, prior to the implementation of a remedial action.
  - (iv) In the event that a change in or additional corrective actions are needed in accordance with Part XI of this license, within 90 days of the determination required by Conditions IX.B.3.(a) or (c) of this license, the licensee shall submit to the Office an application for a license modification to establish a compliance monitoring and corrective action program meeting the requirements of

R 299.9612. The application shall include the following information:

- (1) An identification of the concentration of all Appendix IX constituents found in the groundwater.
  - (2) Any proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of R 299.9612.
  - (3) Any proposed changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical procedures used at the facility necessary to meet the requirements of R 299.9612.
- (v) In the event that a change in the current corrective action is necessary or additional corrective actions are needed, in accordance with Part XI of this license, the licensee shall within 180 days after the determination submit to the Office a detailed description of the corrective action(s) that shall achieve compliance with applicable laws and rules, including a schedule of implementation. Corrective action shall also meet the requirements of R 299.9629 and include a plan for a groundwater monitoring program that shall demonstrate the effectiveness of the corrective action. Such a groundwater monitoring program may be based on a compliance monitoring program developed to meet the requirements of 40 CFR §264.99.
- (vi) During the period prior to a license modification requiring a compliance monitoring and corrective action program, the licensee shall provide the Office with updates by any reasonable means (e.g., telephone, voice mail, e-mail) and written reports regarding the progress to date in determining the cause of contamination and eliminating the discharge on a frequency agreed to by the Office. The licensee shall include in the written report the results of all samples from environmental monitoring conducted by the licensee on a schedule approved by the Office. {R 299.9521(3)(b)}
- (vii) If the licensee determines pursuant to Conditions IX.B.3.(c) or (d) of this license that a failure to meet a performance criterion has been confirmed, it may demonstrate that a source other than the licensed facility caused the failure or that the failure resulted from error in sampling, analysis, or evaluation. While the licensee may make a demonstration under this condition in addition to, or in lieu of, submitting a license modification application and implementing corrective action within the time specified in Conditions IX.B.3.(d)(iv) and (v), respectively, of this license, the licensee is not relieved of the requirement to submit a license modification application and implement corrective action within the time specified, unless the Office finds that the demonstration made under this condition successfully shows that a source other than the licensed facility caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. In making a demonstration under this condition, the licensee shall:
- (1) Notify the Office pursuant to Condition IX.A.3.(d) that it intends to make a demonstration under this condition.
  - (2) Within 90 days after the determination, submit a report to the Office that demonstrates that a source other than the licensed facility solely caused

the increase or that the increase was caused by error in sampling, analysis, or evaluation.

- (3) Within 90 days after the confirmation of a statistically significant increase, submit to the Office an application for a license modification to make any appropriate changes to the groundwater monitoring program at the facility.
  - (4) Continue to monitor groundwater in compliance with this license.
- (viii) In the event that the Office Chief determines from the findings of Conditions IX.B.3.(a), (c), or (d) of this license that the failure to meet performance standards listed in the MP SAP, Attachment 15 of this license, has been confirmed and the Director finds, in accordance with §11148 of Act 451, that the failure to meet performance standards may present an imminent and substantial hazard to the health of persons or to the natural resources or is endangering or causing damage to public health or the environment, the licensee shall immediately comply with an order issued by the Director pursuant to §11148(1) of Act 451 specifying the steps the Director determines are necessary to prevent the act or eliminate the practice that constitutes that hazard, including if specified, permanent or temporary cessation of the operation of the facility. This condition does not limit the Office's ability to take enforcement action pursuant to §§11148 and 11151 of Act 451.

**C. GLACIAL TILL AND REGIONAL AQUIFER DETECTION GROUNDWATER MONITORING PROGRAM**

1. The licensee shall conduct a groundwater detection monitoring program for the Glacial Till and Regional Aquifer (GTRA) in accordance with Conditions IX.A., IX.B.1., and IX.B.2. and Table 2-A of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-A of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate, maintain, sample, and analyze the GTRA groundwater monitoring system in accordance with the MP SAP, Attachment 15 of this license. {R 299.9611(2)(b) and R 299.9612}

**D. SURFACE WATER PROTECTION MONITORING PROGRAMS**

1. The licensee shall conduct the surface water protection monitoring programs according to Conditions IX.A., IX.B., and IX.D.2. through IX.D.9.
2. East-Side Main Plant Revetment Groundwater Interception System Monitoring Programs.
  - (a) East-Side RGIS Hydraulic Monitoring Program. The licensee shall conduct a hydraulic monitoring program for the East-Side RGIS according to Conditions IX.A., IX.B., and IX.D.2.(a) and Table 2-B of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Condition IX.A. shall refer to Table 2-B of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate and maintain the East-Side RGIS hydraulic monitoring system in accordance with the MP SAP, Attachment 15 of this license.
    - (i) East-Side RGIS operation is effective when the groundwater levels, as measured at the primary piezometers, are lower than the adjacent water level in

the Tittabawassee River, unless specified otherwise in Table 2-B of the MP SAP, Attachment 15 of this license.

- (ii) The licensee shall continuously measure static water level in each piezometer listed in Table 2-B of the MP SAP, Attachment 15 of this license, under all environmental conditions. The static water level in each piezometer shall be referenced to National Geodetic Vertical Datum (NGVD) 29 vertical datum, recorded to the nearest 0.01 foot, and averaged at 12-hour intervals.
  - (iii) The licensee shall continuously measure the Tittabawassee River level above and below the Dow Dam under all environmental conditions. The Tittabawassee River level (NGVD 29 vertical datum) shall be recorded to the nearest 0.01 foot and averaged at 12-hour intervals.
  - (iv) The licensee shall maintain an alarm system that alerts the operator when an instantaneous (real-time) primary piezometer reading(s) does not meet the Pro-Active Response Performance Criteria specified in Table 2-B of the MP SAP, Attachment 15 of this license.
  - (v) Within two business days of measuring the primary piezometer levels, the licensee shall confirm that the instantaneous static water levels meet the Pro-Active Response Performance Criteria established in Table 2-B of the MP SAP, Attachment 15 of this license.
- (1) If the licensee determines that the instantaneous water levels do not meet the Pro-Active Response Performance Criteria, the licensee shall do the following:
- a. Conduct an investigation of the affected piezometer and corresponding RGIS area in an attempt to determine why performance criteria are not being met, unless high river levels prevent a complete investigation. This investigation may include, but is not limited to, the following: a check of the computer program/alarm sequence; an on-line check of adjacent piezometer levels, lift station levels, and flow rates; a visual observation of the concern area along the RGIS; and/or manual static water level measurements in the concern area. Unless high river levels prevent the investigation, this pro-active response period will not last longer than two calendar days from the time of the initial evaluation.
  - b. If it is determined that the piezometer is not reflecting true conditions within the area of the system it monitors, the affected piezometer will be fixed or a planned response to fix or modify the piezometer will be formulated. The planned response may include, but is not limited to, redeveloping the piezometer, repairing a leak in the piezometer, or other actions that are necessary to alleviate the problem. If a planned response to replace a piezometer(s) is necessary, the licensee shall complete it in accordance with Condition IX.B.1.(g).
  - c. If the pro-active response investigation indicates that the piezometer is reflecting real conditions along its monitoring



section of the RGIS, then the licensee shall investigate the cause of the elevated hydraulic levels in the RGIS. This investigation may include, but is not limited to, the following: an on-line check of adjacent piezometer levels; close monitoring of the hydraulic level trend including lift station levels and flow rates; a visual observation of the area of concern along the RGIS; and/or manual static water level measurements in the area of concern piezometers and clean-outs. As a result of this investigation, the licensee will determine what additional actions, if any, are necessary to bring the water levels in that section of RGIS below the pro-active response level. If a planned response to repair or replace a section of the RGIS is necessary, it will be submitted to the Office for review and approval. The submittal will include a timetable that will summarize the time required to complete the repairs.

- (vi) The licensee shall maintain an alarm system that alerts the operator when a 12-hour average primary piezometer reading(s) does not meet the Initial Response Performance Criteria specified in Table 2-B of the MP SAP, Attachment 15 of this license.
  - (vii) Within two business days of measuring the 12-hour average primary piezometer static water levels, the licensee shall confirm that the 12-hour average primary piezometer static water levels meet the Initial Response Performance Criteria established in Table 2-B of the MP SAP, Attachment 15 of this license.
- (1) If the licensee determines that the 12-hour average static water levels do not meet the Initial Response Period Performance Criteria, the licensee shall do the following:
- a. Attempt to determine why performance criteria are not being met. If not already completed, the initial response will include, but is not limited to, the following: a check of the operating components of the RGIS in the vicinity of the piezometer (a check for standing water in nearby clean-outs, an integrity check of the piezometer itself, and the functioning of the lift station into which the section drains) and the collection of follow-up manual water level measurements to confirm the initial water level measurements.
  - b. This initial response period will not last longer than five calendar days from the time of discovery that performance criteria are not being met. Within this initial response period it will be determined whether there was a loss of gradient reversal. If the gradient reversal was lost, the RGIS will have been fixed so that the gradient is corrected or there will be a planned response to fix or modify the RGIS in as timely a manner as possible. The planned response may include cleaning the collection tile, replacing a pump, fixing electrical wiring, or other actions that are necessary to alleviate the problem.
  - c. If it is determined that a loss of gradient reversal has occurred, notify the Office pursuant to Condition IX.A.3.(e).



surrounding the Tertiary Pond (on the outside of the tile system), as appropriate.

- (ii) The licensee shall collect static water level measurements manually at each piezometer listed in Table 2-C of the MP SAP, Attachment 15 of this license.
  - (1) Manual static water level measurements shall be made at the frequency specified in Table 2-C of the MP SAP, Attachment 15 of this license. During some weather conditions it may not be possible to collect a manual reading from the piezometers due to ice or high water conditions.
  - (2) Within seven calendar days of collecting the manual static water levels, the licensee shall determine if the manual static water level measurements meet the performance criteria established in Table 2-C of the MP SAP, Attachment 15 of this license.
  - (3) If the licensee determines that the manual static water levels do not meet the Initial Response Period Performance Criteria established in Table 2-C of the MP SAP, Attachment 15 of this license, the licensee shall do the following:
    - a. Attempt to determine why performance criteria are not being met. If not already completed, the initial response will include, but is not limited to, the following: a check of the operating components of the RGIS in the vicinity of the piezometer (a check for standing water in nearby clean-outs, an integrity check of the piezometer itself, and the functioning of the lift station into which the section drains) and the collection of follow-up manual water level measurements to confirm the initial water level measurements.
    - b. This initial response period will not last longer than five calendar days from the time of discovery that performance criteria are not being met. Within this initial response period it will be determined whether there was a loss of gradient reversal. If the gradient reversal was lost, the RGIS will have been fixed so that the gradient is corrected or there will be a planned response to fix or modify the RGIS in as timely a manner as possible. The planned response may include cleaning the collection tile, replacing a pump, fixing electrical wiring, or other actions that are necessary to alleviate the problem.
    - c. If it is determined that a loss of gradient reversal has occurred, notify the Office pursuant to Condition IX.A.3.(e).
    - d. If, after the initial response, it is determined that a gradient reversal was maintained and that the piezometer reading was high due to some other cause, this information will be communicated in the report accompanying the submittal of quarterly hydraulic data.

- (iii) Typically, water levels in the RGIS are to be maintained at or near the bottom elevation of the tile to provide the maximum possible time to respond to a system problem and to remain below the pro-active response level identified in Table 2-C of the MP SAP, Attachment 15 of this license. The licensee may propose alternate set points for the typical operation of the RGIS to the Office for review and approval. Upon approval, these alternate set points will be incorporated into the MP SAP, Attachment 15 of this license, without the need for a minor license modification.
  - (b) West-Side RGIS Chemical Monitoring Program. The licensee shall conduct a sump/purge well chemical monitoring program for the West-Side RGIS according to Conditions IX.A. and IX.B.3.(c)(ii) and Table 2-C of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-C of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate, maintain, sample, and analyze the West-Side RGIS system in accordance with the MP SAP, Attachment 15 of this license.
4. 6 Pond Collection Tile Monitoring Programs.
- (a) 6 Pond Hydraulic Monitoring Program. The licensee shall conduct a hydraulic monitoring program for the 6 Pond Collection Tile according to Conditions IX.A., IX.B., and IX.D.4.(a), and Table 2-D of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-D of the MP SAP, Attachment 15 of this license.
    - (i) 6 Pond Collection Tile operation is effective when the groundwater level, as measured at the primary piezometers, is lower than the adjacent water level, as measured by the outboard piezometers, unless specified otherwise in Table 2-D of the MP SAP, Attachment 15 of this license.
    - (ii) The licensee shall collect static water level measurements manually at each piezometer listed in Table 2-D of the MP SAP, Attachment 15 of this license.
      - (1) Manual static water level measurements shall be made at the frequency specified in Table 2-D of the MP SAP, Attachment 15 of this license. During some weather conditions it may not be possible to collect a manual reading from the piezometers due to ice or high water conditions.
      - (2) Within seven calendar days of collecting the manual static water levels, the licensee shall determine if the manual static water level measurements meet the performance criteria established in Table 2-D of the MP SAP, Attachment 15 of this license.
      - (3) If the licensee determines that the manual static water levels do not meet the Initial Response Period Performance Criteria established in Table 2-D of the MP SAP, Attachment 15 of this license, the licensee shall do the following:
        - a. Attempt to determine why performance criteria are not being met. If not already completed, the initial response will include, but is not limited to, the following: a check of the operating components of the 6 Pond Collection Tile in the vicinity of the



- (a) Sandbar Hydraulic Monitoring Program. The licensee shall operate and maintain a hydraulic monitoring program for water levels associated with the Sand Bar dewatering system consisting of the wells listed in Table 2-E of the MP SAP, Attachment 15 of this license.
- (i) The licensee shall continuously measure static water level in each piezometer listed in Table 2-E of the MP SAP, Attachment 15 of this license, under all environmental conditions. The static water level in each piezometer shall be referenced to NGVD 29 vertical datum, recorded to the nearest 0.01 foot, and averaged at 12-hour intervals.
  - (ii) The licensee shall maintain an alarm system that alerts the operator when a 12-hour average primary piezometer reading(s) does not meet the Initial Response Performance Criteria specified in Table 2-E of the MP SAP, Attachment 15 of this license.
  - (iii) Within two business days of measuring the 12-hour average piezometer static water levels, the licensee shall confirm that the 12-hour average piezometer static water levels meet the Initial Response Performance Criteria established in Table 2-E of the MP SAP, Attachment 15 of this license.
  - (iv) If the data shows that the Initial Response Performance Criteria are not being met, the licensee shall respond as described below:
    - a. The licensee shall attempt to determine the cause of the anomalous reading(s). This initial response shall include the following: checking the operating components of the horizontal well and sump system; an integrity check of the well for damage or silting; and the collection of additional water level measurements from Monitoring Well 5678 and other Sand Bar wells and/or piezometers to confirm the initial water level measurements.
    - b. This initial response period shall not last longer than five calendar days from the time of the discovery of the anomalous hydraulic reading. Within this initial response period, the licensee will have determined whether the system was functioning effectively. At the end of the initial response period, the licensee will have either fixed the dewatering system such that the system is operating as designed or have a planned response to fix or modify the system and to address any releases as necessary. The response to ineffective operation and the schedule for correcting the system and addressing any releases is subject to review and approval by the Office.
    - c. If it is determined that a loss of gradient reversal has occurred, notify the Office pursuant to Condition IX.A.3.(e).
    - d. If, after the initial response, it is determined that a gradient reversal was maintained and that the piezometer reading was high due to some other cause, this information will be communicated in the report accompanying the submittal of quarterly hydraulic data.

- (v) The licensee shall collect static water level measurements manually at each piezometer listed in Table 2-E of the MP SAP, Attachment 15 of this license.
  - a. Manual static water level measurements shall be made at the frequency specified in Table 2-E of the MP SAP, Attachment 15 of this license. During some weather conditions it may not be possible to collect a manual reading from the piezometers due to ice or high water conditions.
  - b. The licensee shall determine if the automated primary piezometers are calibrated by the methods established in Table 2-E of the MP SAP, Attachment 15 of this license.
  - c. If the licensee determines that the automated primary piezometers listed in Table 2-E are not calibrated, the licensee shall perform maintenance, re-calibrate and/or replace the automated instrument, and note it in the quarterly maintenance summary.
- (b) Sand Bar Chemical Monitoring Program. The licensee shall annually collect a representative sample from the Sand Bar Lift Station and analyze the sample for the constituents identified in Table 2-E of the MP SAP, Attachment 15 of this license. The data from the annual sampling event must be submitted to the Office Chief in accordance with Condition II.L.4. of this license.
- (c) Performance Summary. In accordance with Condition IX.A.4.(b) of this license, the licensee shall submit, to the Office a summary of maintenance activities from the previous year and a performance evaluation of the River Corrective Action Management Program Area, including the chemical monitoring data obtained pursuant to Condition IX.D.5. of this license; trend evaluations of water quality over time; and trend evaluations of hydraulic performance over time.
- 6. Seventh Street Purge Well Area Groundwater Monitoring Programs. The licensee shall conduct a corrective action monitoring program in accordance with Conditions IX.A., IX.B.1., and IX.B.3. and Table 2-F of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-F of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate, maintain, sample, and analyze the Seventh Street Purge Well Area corrective action monitoring system in accordance with the MP SAP, Attachment 15 of this license.
  - (a) If the licensee determines that the manual static water levels do not meet the Initial Response Period Performance Criteria or other information indicates that the purge well system is not functioning properly (routine inspection, operation alarm, etc.), the licensee shall do the following:
    - (i) Attempt to determine why performance criteria are not being met. If not already completed, the initial response will include, but is not limited to, the following: a check of the operating components of the purge well system (an integrity check of the piezometer(s) and the functioning of the purge wells) and the collection of follow-up manual water level measurements to confirm the initial water level measurements.

- (ii) This initial response period will not last longer than five calendar days from the time of discovery that performance criteria are not being met. Within this initial response period it will be determined whether there was a loss of gradient reversal. If the gradient reversal was lost, the RGIS will have been fixed so that the gradient is corrected or there will be a planned response to fix or modify the RGIS in as timely a manner as possible. The planned response may include cleaning the collection tile, replacing a pump, fixing electrical wiring, or other actions that are necessary to alleviate the problem.
  - (iii) If it is determined that a loss of gradient reversal has occurred, notify the Office pursuant to Condition IX.A.3.(e) of this license.
  - (iv) If, after the initial response, it is determined that a gradient reversal was maintained and that the piezometer reading was high due to some other cause, this information will be communicated in the report accompanying the submittal of quarterly hydraulic data.
7. Ash Pond Area Groundwater Detection Monitoring Program. The licensee shall conduct a groundwater corrective action monitoring program for the Ash Pond Area in accordance with Conditions IX.A., IX.B.1., and IX.B.3. and Table 2-G of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-G of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate, maintain, sample, and analyze the Ash Pond Area action monitoring system in accordance with the MP SAP, Attachment 15 of this license.
8. Former 47 Building Surface Water Protection Monitoring Program. The licensee shall conduct a groundwater monitoring program for the Former 47 Building Area groundwater in accordance with Conditions IX.A., IX.B.1., and IX.B.3. and Table 2-H of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-H of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate, maintain, sample, and analyze the Former 47 Building corrective action monitoring system in accordance with the MP SAP, Attachment 15 of this license.

#### **E. SITE-WIDE WASTE MANAGEMENT UNITS MONITORING PROGRAMS**

1. Northeast Perimeter Groundwater Monitoring Program. The licensee shall conduct a corrective action groundwater monitoring program for the Northeast Perimeter in accordance with Conditions IX.A., IX.B.1., and IX.B.3. and Table 2-I of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-I of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate, maintain, sample, and analyze the Northeast Perimeter corrective action monitoring system in accordance with the MP SAP, Attachment 15 of this license. {R 299.9611(2)(b) and R 299.9612}.
2. West-Side Shallow Groundwater Monitoring Program. The licensee shall conduct a groundwater corrective action monitoring program for the West-Side Shallow groundwater in accordance with Conditions IX.A., IX.B.1., and IX.B.3. and Table 2-J of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-J of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate, maintain, sample, and analyze the West-Side Shallow Groundwater corrective action monitoring system in accordance with the MP SAP, Attachment 15 of this license.



3. Facility Shallow Groundwater Hydraulic Monitoring Program. The licensee shall operate and maintain a hydraulic monitoring program for the shallow groundwater within the facility boundary in accordance with Conditions IX.A., IX.B., and IX.E.3.(a) through (e) and Table 2-K of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-K of the MP SAP, Attachment 15 of this license. The licensee shall obtain hydraulic data from the piezometers according to the schedule and procedures specified of the MP SAP, Attachment 15 of this license. {R 299.9612 and 40 CFR §264.97(c)-(e)}
- (a) The licensee shall develop typical groundwater contour maps of the static water elevations according to Table 2-K of the MP SAP, Attachment 15 of this license. The contour interval used shall be sufficiently detailed to accurately assess groundwater flow conditions and identify any areas of off-site shallow groundwater flow. Any missing data points shall be explained by the licensee in a summary evaluation that shall accompany these maps. These contour maps shall be submitted to the Office in accordance with Condition IX.A.4.(a) of this license.
  - (b) If the data and maps that are required to be developed pursuant to Condition IX.E.3.(a) of this license do not provide sufficient detail to determine if groundwater is being maintained within the facility boundary and the area(s) of concern is not being addressed under Part IX or X of this license, the licensee shall, in the summary evaluation required pursuant to Condition IX.E.3.(a) of this license, propose a work plan for Office review and approval to add any additional wells or piezometers necessary to determine if there are areas of off-site shallow groundwater flow. Upon approval, the licensee shall install the additional wells or piezometers and modify the MP SAP to include the additional monitoring points in accordance with Condition IX.A.2. of this license.
  - (c) The licensee shall include an annual groundwater hydraulic report in the Annual Environmental Monitoring Report pursuant to Condition IX.A.4.(b) of this license. This report shall summarize the previous year's data along with a detailed description of any anomalous data found. The report shall include diagrams showing the horizontal and vertical flow components in the monitored zone(s) and/or hydrographs prepared from data collected from the piezometers specified in the MP SAP, Attachment 15 of this license.
  - (d) If the licensee or the Office Chief determines from the information required pursuant to Condition IX.E.3.(b) of this license that shallow groundwater is flowing or has the potential to flow beyond the facility boundary, the licensee shall take the following actions:
    - (i) Within 60 days of submitting the report required pursuant to Condition IX.E.3.(a) of this license or written notification by the Office, the licensee shall prepare a work plan for the Office review and approval to confirm the existence of or the potential for off-site groundwater flow and to characterize the groundwater for the presence of contaminants. The licensee shall implement and report the results of the approved work plan on a schedule contained within the work plan.
    - (ii) If the existence or the potential for off-site flow is confirmed, based on the results of the hydraulic and chemical characterization program required pursuant to Condition IX.E.3.(d)(i) of this license, the licensee shall propose, as appropriate, a groundwater detection, compliance, or corrective action monitoring program for review and approval. Upon approval by the Office, the

groundwater monitoring program becomes an enforceable condition of this license.

- (iii) If the results of the investigation required pursuant to Condition IX.E.3.(d)(i) of this license indicate that contaminated groundwater has flowed or may flow beyond the facility boundary, the licensee shall immediately comply with the requirements of Condition XI.C.4. of this license.
- (e) If contaminated shallow groundwater is found to be flowing beyond the facility boundary or has the potential to flow beyond the facility boundary and the Director finds, in accordance with §11148 of Act 451, that the contamination may present an imminent and substantial hazard to the health of persons or to the natural resources or is endangering or causing damage to public health or the environment, the licensee shall immediately comply with an order issued by the Director pursuant to §11148(1) of Act 451 specifying the steps the Director determines are necessary to prevent the act or eliminate the practice that constitutes that hazard, including if specified, permanent or temporary cessation of the operation of the facility. This condition does not limit the Office's ability to take enforcement action pursuant to §§11148 and 11151 of Act 451. {R 299.9612(1)(g)}

4. South Saginaw Road Tile Performance Monitoring Program.

- (a) South Saginaw Road Tile Hydraulic Monitoring. The licensee shall operate and maintain a monitoring program for the South Saginaw Road Tile according to Conditions IX.A. and IX.B.3.(a) and Table 2-L of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-L of the MP SAP, Attachment 15 of this license. The licensee shall obtain hydraulic data from the piezometers according to the schedule and procedures specified of the MP SAP, Attachment 15 of this license.
- (b) The licensee shall record and evaluation the water elevation of the piezometers and sump according to Table 2-L of the MP SAP, Attachment 15 of this license.
- (c) The licensee shall include an annual hydraulic report in the Annual Environmental Monitoring Report pursuant to Condition IX.A.4.(b) of this license. This report shall summarize the previous year's data along with a detailed description of any anomalous data found. The report shall include monthly total and average flows to assess performance of the piezometers as specified in Table 2-L of the MP SAP, Attachment 15 of this license.
- (d) If the licensee determines from the information required pursuant to Table 2-L of the MP SAP, Attachment 15 of this license that performance criteria are not being met, the licensee shall conduct corrective action response activities in accordance with Condition IX.B.3.(d) of this license.

**F. POST CLOSURE MONITORING PROGRAMS**

1. Sludge Dewatering Facility Monitoring Program.

- (a) Groundwater Detection Monitoring. The licensee shall conduct a groundwater detection monitoring program for the Sludge Dewatering Facility (SDF) in accordance with Conditions IX.A., IX.B.1., and IX.B.2. and Table 2-M of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in

Conditions IX.A. and IX.B. shall refer to Table 2-M of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate, maintain, sample, and analyze the SDF groundwater monitoring system in accordance with the MP SAP, Attachment 15 of this license. {R 299.9611(2)(b) and R 299.9612 and 40 CFR §264.97(c)-(e)}

- (b) Leachate Monitoring. The licensee shall conduct a leachate monitoring program for the SDF according to Conditions IX.A. and IX.F.1.(b)(i) through (iv) and Table 2-M of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate, maintain, sample, and analyze the SDF leachate monitoring system in accordance with the MP SAP, Attachment 15 of this license.
- (i) The licensee shall sample the leachate from Lift Station 50 according to the MP SAP, Attachment 15 of this license, for Appendix IX constituents. The licensee shall evaluate this data to determine if specific monitoring constituents need to be added to or eliminated from the routine detection and perimeter groundwater monitoring program in accordance with Condition IX.A.2. of this license.
- (ii) The licensee shall monitor the volume of leachate pumped from the facility and record the volume in the operating record. {R 299.9609(1)(b) and R 299.9619(4)(c)(iii)}
- (iii) Any organic constituent that is added to the monitored constituents due to its elevated presence in the leachate monitoring conducted as specified in Condition IX.F.1.(b) of this license shall be added to the groundwater monitoring constituents by the licensee.
- (iv) The licensee shall include an annual leachate monitoring report in the Annual Environmental Monitoring Report pursuant to Condition IX.A.4.(b) of this license. The report shall include:
- (1) Volume of leachate removed.
  - (2) A graphical presentation of the monthly and annual quantities of leachate being pumped from SDF.
  - (3) A graphical comparison between leachate quantities pumped during the reported year and the leachate quantities pumped from previous years.
  - (4) The reasons for increases/decreases in leachate quantities. If there is an increase in leachate quantities, the source shall be indicated in the leachate monitoring report. {R 299.9521(3)(a) and (b), R 299.9611(5), and R 299.9619(4)}

## G. **CLOSED WASTE MANAGEMENT UNITS MONITORING PROGRAMS**

1. Poseyville Landfill Monitoring Program. The licensee shall conduct a corrective action monitoring program for Poseyville Landfill in accordance with Conditions IX.A., IX.B.1., IX.B.2., and IX.B.3.(a), (b), and (c) and Table 2-N of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-N of the MP SAP, Attachment 15 of this license. Under this program, the licensee

shall operate, maintain, sample, and analyze the Poseyville Landfill corrective action monitoring system in accordance with the MP SAP, Attachment 15 of this license.

2. LEL I Site Monitoring Program. The licensee shall conduct a corrective action hydraulic monitoring program for LEL I in accordance with Conditions IX.A., IX.B.1., and IX.B.3.(a) and Table 2-O of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-O of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate and maintain the LEL I corrective action hydraulic monitoring system in accordance with the MP SAP, Attachment 15 of this license.
3. LEL II Site Monitoring Program. The licensee shall conduct a corrective action hydraulic monitoring program for LEL II in accordance with Conditions IX.A., IX.B.1., and IX.B.3.(a) and Table 2-P of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-P of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate and maintain the LEL II corrective action hydraulic monitoring system in accordance with the MP SAP, Attachment 15 of this license.
4. LEL III Site Monitoring Program. The licensee shall conduct a corrective action hydraulic monitoring program for LEL III in accordance with Conditions IX.A., IX.B.1., and IX.B.3.(a) and Table 2-Q of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-Q of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate and maintain the LEL III corrective action hydraulic monitoring system in accordance with the MP SAP, Attachment 15 of this license.
5. 1925 Landfill Monitoring Program. The licensee shall conduct a corrective action hydraulic monitoring program for the 1925 Landfill in accordance with Conditions IX.A., IX.B.1., and IX.B.3.(a) and Table 2-R of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-R of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate and maintain the 1925 Landfill corrective action hydraulic monitoring system in accordance with the MP SAP, Attachment 15 of this license.

#### H. TERTIARY POND MONITORING PROGRAMS

1. Recovery Monitoring. The licensee shall conduct a groundwater monitoring program for the Tertiary Pond in accordance with Conditions IX.A., IX.B.1., and IX.B.3. and Table 2-S of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-S of the MP SAP, Attachment 15 of this license. For the purposes of Condition IX.B.3., the word “baseline” shall replace the word “background”. Under this program, the licensee shall operate and maintain the Tertiary Pond groundwater monitoring system in accordance with the MP SAP, Attachment 15 of this license.
2. Tertiary Pond Slurry Wall Hydraulic Monitoring. The licensee shall operate and maintain a monitoring program for the Tertiary Pond Slurry Wall pursuant to Conditions IX.A., IX.B.1., and IX.B.3.(a) and Table 2-S of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-S of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall operate and maintain Tertiary Pond Slurry Wall hydraulic monitoring system in accordance with the MP SAP, Attachment 15 of this license.

**I. MONITORING OF AREAS OF CONCERN**

1. Overlook Park Monitoring Program. The licensee shall conduct a groundwater monitoring program for the Overlook Park area till sand in accordance with Part IX and Table 2-T of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Part IX shall refer to Table 2-T of the MP SAP, Attachment 15 of this license. Under this program, the licensee shall collect and analyze samples from the monitoring wells according to the schedule, constituents, and procedures specified in the MP SAP, Attachment 15 of this license. {R 299.9611(2)(b) and R 299.9612 and 40 CFR §264.97(c)-(e)}
2. US-10 Tank Farm Monitoring Program. The licensee shall conduct monitoring program for the US-10 Tank Farm in accordance with Conditions IX.A. and IX.B.3.(c)(ii) and Table 2-U of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Conditions IX.A. and IX.B. shall refer to Table 2-U of the MP SAP, Attachment 15 of this license. Under this program the licensee shall collect and analyze samples from the monitoring wells according to the schedule, constituents, and procedures specified in the MP SAP, Attachment 15 of this license. {R 299.9611(2)(b) and R 299.9612 and 40 CFR §264.97(c)-(e)}.

**J. AMBIENT AIR MONITORING PROGRAM**

1. The licensee shall conduct ambient air monitoring and reporting of monitoring results for the Midland Plant in accordance with the program specified in Ambient Air Monitoring Program, Attachment 16 of this license. {R 299.9611(2)(c)}

**K. SOIL MONITORING PROGRAM**

1. The licensee shall conduct a soil monitoring program in accordance with Conditions IX.A. and IX.K.1.(a) through (d) and Table 2-V of the MP SAP, Attachment 15 of this license. For the purpose of this condition, all references to Table 2 in Condition IX.A. shall refer to Table 2-V. Under this program, the licensee shall operate and maintain the soil monitoring system in accordance with the MP SAP, Attachment 15 of this license. {R 299.9611(2)(d)}
  - (a) All dioxin and furan data required pursuant to Condition IX.K. of this license shall be reported on a dry weight basis and include the concentrations of the 17 World Health Organization (2005 WHO) Toxicity Equivalency Factor congeners and the total Toxic Equivalence.
  - (b) The licensee shall evaluate the data in accordance with Table 2-V of the MP SAP, Attachment 15 of this license. If the licensee determines, from the information required pursuant to Condition IX.K.1. of this license, performance criteria are not being met, the licensee shall notify the Office in accordance with Condition IX.A.3. of this license.
  - (c) If the licensee or the Office determines, from the information required pursuant to Condition IX.K.1. of this license, that off-site migration has occurred, or has the potential to occur, at concentrations that may exceed an environmental protection standard, the licensee shall immediately comply with the requirements of Condition XI.C.4. of this license and the licensee shall propose modification to the Soil and Groundwater Exposure Control Program, or other appropriate action for review and approval by the Office.

- (d) If dioxins and furans are migrating beyond the Midland Plant facility boundary, or have the potential to migrate beyond the Midland Plant facility boundary, and the Director finds, in accordance with §11148 of Act 451, that the presence of these contaminants may present an imminent and substantial hazard to the health of persons or to the natural resources or is endangering or causing damage to public health or the environment, the licensee shall immediately comply with an order issued by the Director pursuant to §11148(1) of Act 451 specifying the steps the Director determines are necessary to prevent the act or eliminate the practice that constitutes the hazard, including, if specified, permanent or temporary cessation of the operation of the facility.

**PART X**  
**ENVIRONMENTAL MONITORING CONDITIONS FOR SALZBURG LANDFILL**

**A. GROUNDWATER MONITORING PROGRAM**

1. The licensee shall conduct a detection monitoring program for primary parameters. Under this program, the licensee shall operate and maintain a groundwater monitoring system in accordance with the Salzburg Landfill Environmental Monitoring Program Sampling and Analysis Plan (SLF SAP), Attachment 17 of this license. {R 299.9611(2)(a) and (b), R 299.9612, and R 299.9629 and 40 CFR, Part 264, Subpart F, excluding 40 CFR §§264.94(a)(2) and (3), 264.94(b) and (c), 264.100, and 264.101}
2. The licensee shall submit proposed revisions to the SLF SAP to the Office Chief for approval prior to implementation and shall revise any other affected document accordingly. If approved, the revisions to the SLF SAP shall become part of this license without the need for a minor license modification. {R 299.9519(5)(c)(ii), R 299.9611(2)(a), and R 299.9612 and 40 CFR §264.97(d) and (e)}
3. Purge water removed from each monitoring well shall be managed as specified in the SLF SAP, Attachment 17 of this license. {R 299.9521(3)(b)}
4. The licensee shall submit an annual environmental monitoring report to the Office Chief no later than March 1 of each year for the previous calendar year's activities. At a minimum, the report shall include the following information:
  - (a) A narrative summary of the previous calendar year's sampling events, including sampling event dates, the identification of any significant problems with respect to SAP procedures, and copies of field log sheets.
  - (b) A determination of the groundwater flow rate and direction in the monitored zone(s), including the preparation of a groundwater level contour map and flow net diagram and/or graphs from this data, a diagram(s) showing the horizontal and vertical flow components in the monitored zone(s), and/or hydrographs of these data.
  - (c) A summary of groundwater quality data results, including a narrative summary of results and trends and data tables.
  - (d) A presentation of the statistical analysis of the data and the identification of any statistically significant increases pursuant to Condition X.A.6. of this license.
  - (e) An analysis and discussion of laboratory and field related QA/QC information. This shall include results of equipment, field and trip blanks, and discussion and evaluation of the adequacy of the data with respect to SAP specifications and requirements.
  - (f) An evaluation of the tracking parameter data by developing Stiff diagrams or other geochemical graphical representations. Tracking parameters are listed in Table 2-A of the SLF SAP, Attachment 17 of this license.
  - (g) For the wells specially noted in the SLF SAP, Attachment 17 of this license, an evaluation that includes a descriptive summary of recovery or other changes in groundwater geochemistry over time to determine if operational changes to dust control activities at the facility are resulting in the reduction of the concentration of parameters in the groundwater associated with the historical road brining activities. It is expected

that this evaluation will incorporate and reference the tracking parameter data presented as required by Condition X.A.4.(f).

{R 299.9521(3)(b) and R 299.9612(1) and 40 CFR §264.97(j)}

5. The licensee shall establish background groundwater quality values at each monitoring well for the parameters specified in Table 2-B, using the procedures in Attachment E of the SLF SAP, Attachment 9 of this license. Background values may be modified only upon written approval of the Office Chief. {R 299.9612(1)(c), (d), and (e) and 40 CFR §264.97(a) and (g)}
6. Within 60 days of each sampling of each monitoring well, the licensee shall determine if a statistically significant increase has occurred compared to background levels for each primary parameter listed in Table 2-B of the SLF SAP, Attachment 17 of this license. For the volatile and semivolatile organic primary parameters, any occurrence above the laboratory reporting limit(s) for the parameter(s) shall be considered statistically significant. The laboratory reporting limits are specified in Appendix B of the SLF SAP, Attachment 17 of this license. For primary metal parameters, a statistically significant increase shall be determined using the procedure identified in Table 2-A of the SLF SAP, Attachment 17 of this license. {R 299.9612(1)(c) and (e) and 40 CFR §264.97(h) and (i)}
7. If a statistically significant increase is detected for any primary parameter listed in Table 2-B of the SLF SAP, Attachment 17 of this license, the licensee shall notify the Office, Hazardous Waste Section, by telephone within one business day and arrange a resampling as soon as possible to confirm if a statistically significant increase exists. Resampling must include not less than four replicate samples at the affected well(s) for the parameter(s) in question. A statistically significant increase shall be confirmed as identified in Table 2-A of the SLF SAP, Attachment 17 of this license. {R 299.9612 and 40 CFR §264.97(g)}
8. If the licensee determines pursuant to Conditions X.A.6. and X.A.7. of this license that a statistically significant increase has occurred for a primary parameter(s), the licensee shall address the increase in accordance with R 299.9612 and 40 CFR §264.98(f) and (g) and:
  - (a) Notify the Office Chief within one business day, by contacting the Office project geologist or permit engineer for the site, or the appropriate Office District Supervisor, or in the event of their unavailability, the MDEQ PEAS at 1-800-292-4706.
  - (b) Provide written notification to the Office Chief within seven days of the determination. The written notification shall indicate what parameters have shown statistically significant changes and the well(s) in which the changes have occurred.
  - (c) As soon as possible, sample the groundwater in the well where the statistically significant increase occurred and other glacial till and regional aquifer detection monitoring wells within 1,000 feet of the affected well and determine the concentration of all parameters identified in Appendix IX, that are present in groundwater and for which approved analysis methods exist. However, the Office Chief may allow sampling for a site-specific subset of parameters from the Appendix IX list and other representative/related waste constituents. For parameters detected, the licensee may resample within one month or at an alternative schedule approved by the Director and repeat the analysis. If the results of the second analysis confirm the initial results, then these parameters will be included as primary parameters. If the licensee does not resample, the detected parameters will be included as primary parameters. The licensee shall also establish background values for the Appendix IX constituents



detected pursuant to R 299.9612 and 40 CFR §264.98(g)(3).

- (d) Immediately take steps to determine the cause of the contamination and control, minimize, or eliminate the source of the discharge to protect human health and the environment.
  - (e) Prior to a license modification requiring a compliance monitoring or corrective action program, the licensee shall provide the Office Chief, or his or her designee, with weekly telephone updates and written reports every two weeks regarding the progress to date in determining the cause of contamination and eliminating the discharge. The written report shall include the results of all samples from environmental monitoring conducted by the licensee. {R 299.9521(3)(b)}
  - (f) Within 90 days after the confirmation of a statistically significant increase, submit to the Office Chief an application for a license modification to establish a compliance monitoring or corrective action program meeting the requirements of R 299.9612 and 40 CFR §264.98(g)(4).
  - (g) Within 180 days after the determination, submit to the Office Chief a detailed description of corrective actions that shall achieve compliance with applicable laws and rules, including a schedule of implementation. Corrective action shall also meet the requirements of R 299.9629 and include a plan for a groundwater monitoring program that shall demonstrate the effectiveness of the corrective action. Such a groundwater monitoring program may be based on a compliance monitoring program developed to meet the requirements of 40 CFR §264.99.
9. If the licensee determines pursuant to Conditions X.A.6. and X.A.7. of this license that a statistically significant increase in primary parameters has been confirmed in groundwater, the licensee may demonstrate that a source other than the licensed facility or an error in sampling, analysis, or evaluation solely caused the identification of a statistically significant increase. While the licensee may make a demonstration under this condition in addition to, or in lieu of submitting a license modification application and implementing corrective action within the time specified in Conditions X.A.8.(f) and X.A.8.(g), the licensee is not relieved of the requirement to submit a license modification application and implement corrective action within the time specified, unless the MDEQ finds that the demonstration made under this condition successfully shows that a source other than the licensed facility caused the statistically significant increase or that the statistically significant increase resulted from an error in sampling, analysis, or evaluation. In making a demonstration under this condition, the licensee shall:
- (a) Notify the Office Chief in writing within seven days of determining a statistically significant increase pursuant to Condition X.A.7. of this license that it intends to make a demonstration under this condition.
  - (b) Within 90 days after the determining a statistically significant increase pursuant to Condition X.A.6. of this license, submit a report to the Office Chief that demonstrates a source other than the licensed facility solely caused the statistically significant increase, or that the statistically significant increase was caused by an error in sampling, analysis, or evaluation.
  - (c) Within 90 days of determining a statistically significant increase pursuant to Condition X.A.6. of this license, submit to the Office Chief an application for a license

modification to make any appropriate changes to the groundwater monitoring program at the facility.

- (d) Continue to monitor groundwater in compliance with this license.

{40 CFR §264.98(g)(6)}

10. In the event that the Office Chief determines from the findings of Conditions X.A.6. and X.A.7. of this license that a statistically significant increase in hazardous constituents has occurred in the groundwater and the Director finds, in accordance with §11148 of Act 451, that the increase may present an imminent and substantial hazard to the health of persons or to the natural resources, or is endangering or causing damage to public health or the environment, the licensee shall immediately comply with an order issued by the Director pursuant to §11148(1) of Act 451 to cease waste receipt and disposal at the affected unit(s) and conduct other activities as required by the Director to eliminate the said endangerment.  
{R 299.9612(1)(g)}

## **B. AMBIENT AIR MONITORING PROGRAM**

The licensee shall conduct ambient air monitoring for the Salzburg Landfill in accordance with the program specified in the SLF SAP, Attachment 17 of this license. {R 299.9611(2)(c)}

## **C. SOIL MONITORING PROGRAM**

1. The licensee shall conduct a soil monitoring program for the Salzburg Landfill in accordance with Conditions X.C.1.(a) through (d), Table 2-A, and Attachment H, Soil Box Data Evaluation Plan, of the SLF SAP, Attachment 17 of this license. {R 299.9611(2)(d)}
- (a) All dioxin and furan data required pursuant to Condition X.C. of this license shall be reported on a dry weight basis and include the concentrations of the 17 World Health Organization (2005 WHO) Toxicity Equivalency Factor congeners and the total Toxic Equivalence.
- (b) If the licensee determines pursuant to Condition X.C.1. of this license that a consistent and significant increase has occurred, the licensee shall address the increase in accordance with the following:
- (1) Notify the Office Chief within one business day, by contacting the Hazardous Waste Section project geologist or permit engineer for the site, or the appropriate Office District Supervisor, or in the event of their unavailability, the DEQ PEAS at 1-800-292-4706.
  - (2) Provide written notification to the Office Chief within seven days of the determination. The written notification shall indicate what parameters have shown consistent and significant increases and the soil box(es) in which the increases have occurred.
  - (3) As soon as possible, determine the area affected by the increase.
  - (4) Immediately take steps to determine the cause of the contamination and control, minimize, or eliminate the source of the discharge to protect human

health and the environment.

- (5) Prior to a license modification requiring a compliance monitoring and corrective action program, the licensee shall provide the Office Chief, or his or her designee, with weekly updates and written reports every two weeks regarding the progress to date in determining the cause of contamination and eliminating the discharge. The written report shall include the results of all samples from environmental monitoring conducted by the licensee. {R 299.9521(3)(b)}
  - (6) Within 90 days after the confirmation of a consistent and significant increase, submit to the Office Chief an application for a license modification to establish a compliance monitoring and corrective action program.
  - (7) Within 180 days after the determination, submit to the Office Chief a detailed description of corrective actions that shall achieve compliance with applicable laws and rules, including a schedule of implementation. Corrective action shall also meet the requirements of R 299.9629 and include a monitoring plan that shall demonstrate the effectiveness of the corrective action.
- (c) If the licensee determines pursuant to Conditions X.C.1. of this license that a consistent and significant increase has occurred, the licensee may demonstrate that a source other than the licensed facility or an error in sampling, analysis, or evaluation solely caused the identification of an increase. While the licensee may make a demonstration under this condition in addition to, or in lieu of, submitting a license modification application and implementing corrective action within the time specified in Conditions X.C.1.(b), the licensee is not relieved of the requirement to submit a license modification application and implement corrective action within the time specified, unless the DEQ finds that the demonstration made under this condition successfully shows that a source other than the licensed facility caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. In making a demonstration under this condition, the licensee shall:
- (1) Notify the Office Chief in writing within seven days of determining a consistent and significant increase pursuant to Condition X.C.1. of this license that it intends to make a demonstration under this condition.
  - (2) Within 90 days after determining a consistent and significant increase pursuant to Condition X.C.1. of this license, submit a report to the Office Chief that demonstrates a source other than the licensed facility solely caused the increase, or that the increase was caused by an error in sampling, analysis, or evaluation.
  - (3) Within 90 days of determining a consistent and significant increase pursuant to Condition X.C.1., submit to the Office Chief an application for a license modification to make any appropriate changes to the soil monitoring program at the facility, if necessary.
  - (4) Continue to conduct soil monitoring in compliance with this license.
- (d) If the licensee or the Office determines, from the information required pursuant to Condition X.C.1. of this license, that off-site migration has occurred, or has the potential to occur, at concentrations that may exceed an environmental protection standard, the

licensee shall immediately comply with the requirements of Condition XI.D. of this license and the licensee shall propose appropriate action for review and approval by the Office.

2. If dioxins and furans are migrating beyond the Salzburg Landfill facility boundary, or have the potential to migrate beyond the Salzburg Landfill facility boundary, and the Director finds, in accordance with §11148 of Act 451, that the presence of these contaminants may present an imminent and substantial hazard to the health of persons or to the natural resources or is endangering or causing damage to public health or the environment, the licensee shall immediately comply with an order issued by the Director pursuant to §11148(1) of Act 451 specifying the steps the Director determines are necessary to prevent the act or eliminate the practice that constitutes the hazard, including, if specified, permanent or temporary cessation of the operation of the facility.

#### **D. SURFACE WATER MONITORING PROGRAM**

1. The licensee shall conduct a surface water monitoring program as described in the SLF SAP, Attachment 17 of this license.
2. Within 60 days of each sampling, the licensee shall determine if a confirmed statistically significant increase has occurred compared to baseline levels for each parameter listed in Table 2-B of the SLF SAP, Attachment 17 of this license. A significant increase shall be determined using the statistical evaluation method specified in Table 2-B of the SLF SAP, Attachment 17 of this license.
3. Duplicate samples shall be collected from each sampling location as described in the SLF SAP, Attachment 17 of this license. Initially, the licensee is required to analyze only one of the two samples. The licensee shall hold the duplicate sample pending the results of the initial sample. If a significant increase is detected in a monitoring parameter(s), the duplicate sample shall be analyzed for confirmation purposes.
4. If significant increases of monitored parameters are confirmed, the licensee must immediately notify the Office Chief within one business day and within seven days in writing.
5. Within 30 days of the determination of a statistically significant increase, the licensee shall determine whether a discharge to surface waters is occurring, determine the source, and take immediate steps to eliminate and prevent any such discharge.

{R 299.9521(3)(a) and (b) and R 299.9611(5)}

#### **E. LEACHATE MONITORING PROGRAM**

1. The licensee shall conduct a leachate monitoring program as described in the SLF SAP, Attachment 17 of this license.
2. The licensee shall tabulate and monitor the volume of leachate pumped from each leachate removal lift station at the facility and record the volume by month and place this documentation in the operating record. {R 299.9609(1)(b) and R 299.9619(4)(c)(iii)}
3. The results of the leachate characterization will be used to update the routine chemical monitoring target list, shown in Table 2-B of the SLF SAP, Attachment 17 of this license.

4. The licensee shall include a summary of leachate monitoring data in the annual environmental monitoring report submitted to the Office by March 1 of each year during the active life of the landfill and the post closure care period. The leachate monitoring data shall include:
  - (a) Volume of leachate pumped from each leachate removal lift station.
  - (b) A graphical comparison between leachate quantities pumped/generated from each leachate removal lift station during the reported year and the leachate quantities pumped/generated from previous years.
  - (c) Summary and recommendations of the leachate characterization evaluation conducted pursuant to Condition X.E.3.
  - (d) A description of changes in leachate quantities, including system performance evaluation or causes for the change(s).

{R 299.9521(3)(a) and (b) and R 299.9611(5)}

**F. LEAK DETECTION SYSTEM MONITORING PROGRAM**

1. The licensee shall withdraw liquid collected in the leak detection system in all cells on a monthly basis and record the volume of liquid withdrawn and discharged via the dual-contained high-density polyethylene pipeline in combination with an above-ground, visually-inspected steel pipeline from the landfill to the sewer at the Michigan Operations, Midland Plant facility and ultimately to the Dow-owned and operated wastewater treatment plant.
2. The licensee shall sample and analyze the water withdrawn from the leak detection system on a quarterly basis in accordance with the SLF SAP, Attachment 17 of this license.
3. The licensee shall compare flow in the leak detection system to the Flow Rate Screening Criteria in accordance with Table 2-A of the SLF SAP and take the response actions specified therein if the Flow Rate Screening Criteria are exceeded.
4. The licensee shall establish background in the leak detection system for each of the leachate monitoring parameters identified in Table 2-A of the SLF SAP, Attachment 17 of this license.
  - (a) Background shall be calculated as described in Attachment E of the SLF SAP, Attachment 17 of this license.
  - (b) For new cells, the background sampling period shall not extend beyond one year following the initial date of certification. Background shall be calculated by including the collection of a series of at least four samples from each leak detection system sump prior to placement of waste.
5. If additional parameters must be added to the leak detection monitoring program in accordance with Condition X.E.3. of this license, the licensee must provide written notification to the Office Chief requesting modification to the program. If background has not already been established for these additional parameters, the licensee must determine background for these parameters within one year.
6. The licensee shall provide written notification to the Office Chief requesting any changes that need to be made to the approved Leak Detection Monitoring Program in the SLF SAP,

Attachment 17 of this license, and obtain written approval prior to implementation.

7. The licensee shall, within 60 days after the sampling, report in writing to the Office Chief the laboratory data and the results from the statistical evaluation performed in accordance with the Leak Detection Monitoring Program in the SLF SAP, Attachment 17, of this license. For the nonnaturally occurring leak detection monitoring parameters listed in Table 2-B of the SLF SAP, Attachment 17 of this license, any occurrence above the laboratory detection limit(s) for the parameter(s) shall be considered statistically significant. For primary tracking parameters, a statistically significant increase shall be determined using the procedure identified in Table 2-A of the SLF SAP, Attachment 17 of this license.
8. If a statistically significant increase is detected in any of the monitored parameters, the licensee shall immediately notify the Office that this situation has occurred and arrange for a resampling as soon as possible to confirm if the statistical increase exists. If adequate water can be obtained from the system, confirmation samples shall be collected in quadruplicate. A statistically significant increase shall be confirmed as identified in Table 2-A of the SLF SAP, Attachment 17 of this license.
9. If the licensee confirms that a statistically significant increase in a primary constituent has occurred, the following actions must be taken:
  - (a) Immediately notify the Office Chief within one business day, by contacting the Office project geologist or permit engineer for the site, or the appropriate Office District Supervisor, or in the event of their unavailability, the MDEQ PEAS at 1-800-292-4706.
  - (b) Provide follow up notification to the Office Chief in writing within five days of the initial contact in accordance with Condition II.I.5. of this license.
  - (c) Begin immediate action to implement the current contingency plan, as appropriate.
  - (d) Determine, within 30 days of notification, whether a failure in the liner system has occurred.
  - (e) Provide the Office Chief, or his or her designee, with weekly updates and written reports every two weeks regarding the progress to date in determining the cause of contamination and the results of all samples from environmental monitoring conducted by the licensee.
10. If the determinations made pursuant to Condition X.F.9.(d) of this license, indicate a release of contaminants from the primary systems of the hazardous waste cells, the licensee shall do either of the following:
  - (a) Begin immediate action to repair failures in the liner system or otherwise correct the problem and demonstrate to the Office Chief within 72 hours that the action being taken will contain the release of contaminants and maintain the capability of the system to detect contaminants that may enter the leak detection system. The licensee shall complete the repair and corrective activities pursuant to a schedule approved by the Office Chief and shall obtain the certification of a registered professional engineer that, to the best of his or her knowledge or opinion, the remedial actions have been completed. If the Office Chief determines that the failure cannot be corrected on a schedule that insures the protection of human health and the environment, the licensee shall comply with Condition X.F.10.(b) of this license.

- (b) Cease placing waste into the affected cell(s), take action to prevent the migration of hazardous waste and hazardous waste constituents from the leak detection system with an identified failure on a schedule approved by the Office Chief, and propose a plan to address any environmental damage that may have occurred as a result of the failure.
11. If the license determines pursuant to Condition X.F.7. of the license that a statistically significant increase was detected for any tracking parameters, the licensee shall:
- (a) Immediately notify the Office that this situation has occurred.
  - (b) As soon as possible arrange for arrange for a resampling for the tracking parameter(s) in the affected lift station(s); **or** re-sample the affected lift station(s) for primary constituents. The resampling plan shall be approved in advance by the Office for any lift station where a statistically significant increase was detected for more than one tracking parameter or where the statistically significant increase was greater than one order of magnitude.
  - (c) For tracking parameters, confirmation that performance criteria are not being met shall be determined using the statistical methods defined in Table 2-A of the SAP, Attachment 17 of this license.
  - (d) If the licensee confirms that a statistically significant increase in a tracking parameter exists, the licensee shall immediately notify the Office that this situation has occurred and resample for both primary constituents and tracking parameters in the affected lift station(s) and confirm that if a statistically significant increase for primary constituents exists. If the licensee confirms that a statistically significant increase in a primary constituent exists, the licensee shall take the actions identified in Condition X.F.9.
  - (e) In the event that the affected lift station(s) has been resampled for primary constituents pursuant to Condition X.F.11.(b) and a statistically significant increase in primary constituents is not identified, the licensee shall provide the results of the resampling within 30 days of sampling and may propose a change to the background for tracking parameters or an alternate means to perform the evaluation required by Condition X.F.7. and a determination whether additional investigation is needed for Office review and approval.
12. The licensee shall provide the Office Chief with a written annual report by March 1 of each year summarizing the data and the monitoring program results from the previous calendar year. The annual report shall include graphical presentations summarizing volume pumped from the leak detection system per month and volume pumped from the leak detection system versus volume pumped from the leachate collection system and a discussion and evaluation of monthly flow volumes versus the flow rate screening criteria for each cell.

{R 299.9521(3)(a) and (b) and R 299.9611(5)}

**PART XI**  
**CORRECTIVE ACTION CONDITIONS FOR MIDLAND PLANT AND SALZBURG LANDFILL**

**A. CORRECTIVE ACTION AT THE MIDLAND PLANT AND SALZBURG LANDFILL FACILITIES**

1. The licensee shall implement corrective action for all releases of a contaminant from any waste management units (WMUs) at the Midland Plant or Salzburg Landfill facilities, regardless of when the contaminant may have been placed in or released from the WMU. For the purposes of this license, the term “corrective action” means an action determined by the Office Chief to be necessary to protect the public health, safety, welfare, or the environment, and includes, but is not limited to, investigation, evaluation, cleanup, removal, remediation, monitoring, containment, isolation, treatment, storage, management, the temporary relocation of people, and the provision of alternative water supplies, or any corrective action allowed under Title II of the federal Solid Waste Disposal Act, PL 89-272, as amended, or regulations promulgated pursuant to that act. In accordance with R 299.9629, the licensee shall take corrective action to ensure compliance with the groundwater protection standards, and, if necessary, other applicable environmental protection standards, established by the Director. The Office Chief shall specify schedules of compliance for corrective action and other requirements, including any of the following:
  - (a) A list of the hazardous wastes and hazardous constituents. The list of hazardous constituents are identified pursuant to the provisions of 40 CFR §264.93.
  - (b) The groundwater protection standards that are expressed as concentration limits that are established pursuant to the provisions of R 299.9612(1)(d) or as concentration limits established pursuant to the provisions of Part 31, Water Resources Protection, or Part 201, Environmental Remediation, of Act 451 if the limits are not less stringent than allowed pursuant to the provisions of RCRA.
  - (c) The environmental protection standards that are necessary for the cleanup and protection of soil, surface water, sediments, and ambient and indoor air that are established pursuant to the provisions of Part 201 of Act 451 if the limits are not less stringent than allowed pursuant to the provisions of RCRA.
  - (d) The compliance point or points at which the standards apply and at which monitoring shall be conducted, which for groundwater are specified pursuant to the provisions of 40 CFR §264.95.
    - (i) With respect to the Midland Plant, the point(s) of compliance for the WMUs and areas of concern (AOCs) is the Midland Plant facility boundary, unless otherwise specified by the Office Chief.
    - (ii) The Office Chief will specify a unit(s)-specific point of compliance for WMUs and AOCs located within the Facility Solid Waste Management Unit (SWMU), if necessary, on a case-by-case basis as the corrective action process is implemented in accordance with this license and Part 111 of Act 451.
    - (iii) With respect to the Salzburg Landfill, the point(s) of compliance for the WMUs are the boundaries of the WMUs, unless otherwise specified by the Office Chief.



- (e) The compliance period, which for groundwater is specified pursuant to 40 CFR §264.96.
- (f) The restoration and mitigation measures that are necessary to mitigate damage to the natural resources of the state, including wildlife, fish, wetlands, or other ecosystems.

The Office Chief may approve a substantively equivalent remedial process that meets the requirements of R 299.9629 to satisfy the corrective action obligations under this license. {§§11102 and 11115a of Act 451 and R 299.9629}

- 2. To the extent that a release of a hazardous substance, as defined in §20101(x) of Act 451, that is not also a contaminant, as defined in §11102(2) of Act 451, is discovered while performing corrective action under this license, the licensee shall take concurrent actions as necessary to address the Part 201 of Act 451 remedial obligations for that release. {R 299.9521(3)(b)}

## **B. CORRECTIVE ACTION BEYOND THE MIDLAND PLANT FACILITY BOUNDARY**

- 1. The licensee shall implement corrective action beyond the Midland Plant facility boundary if the release of a contaminant has or may have migrated, or has or may have been emitted, beyond the facility boundary, unless the licensee demonstrates to the satisfaction of the Office Chief that, despite the licensee's best efforts, the licensee was unable to obtain the necessary permission to undertake this corrective action. The licensee shall not be relieved of all responsibility to clean up a release that has migrated or has been emitted beyond the facility boundary where off-site access is denied. On-site measures to address such releases shall be addressed under this part of the license, as determined to be necessary on a case-by-case basis. Assurances of financial responsibility for such corrective action shall be provided as specified in Condition II.N. of this license. {§11115a of Act 451 and R 299.9629}
- 2. Off-site Area Requiring Further Corrective Action: Midland Area Soils. Soils in certain parts of Midland have been determined to require corrective action due to releases of contamination from the Midland Plant facility. This work is being performed in accordance with an Interim Response Activity Plan Designed to Meet Criteria (IRDC) submitted by the licensee on March 6, 2012, that was approved by the MDEQ on June 1, 2012, and is substantively complete. In accordance with the IRDC, the licensee submitted a written Remedial Investigation (RI) Report and a Remedial Action Plan/Corrective Measures Implementation Report (RAP/CMI Report) to the Office Chief for review and approval on December 15, 2014. The RI Report and RAP/CMI Report are under review and revision.
  - (a) Once the MDEQ review has been completed, the RI Report and RAP/CMI Report will be made available for public review. The MDEQ will consider and respond to public comment as part of the RAP/CMI Report approval process.
  - (b) Once approved, the Final RAP/CMI Report becomes an enforceable condition of this license. Additional corrective action required for Midland Area Soils will be described in the approved Final RAP/CMI Report, which will be placed into Attachment 18 of this license.

3. Other Off-site Areas Requiring Further Corrective Action. The following off-site areas identified in the table below have been impacted by contaminants that were released from the Midland Plant facility and require further corrective action. These areas are currently being addressed via a federal led action taken pursuant to CERCLA as further set forth in Condition XI.B.5. of this license. By identifying the off-site areas in the table below, the MDEQ does not preclude the potential responsibility of other parties for contamination in those areas.

<b>Releases Beyond the Facility Boundary</b>	<b>Off-Site Areas that Exceed the Environmental Protection Standards Pursuant to R 299.9629</b>
Tittabawassee River Sediments	Areas Impacted by Off-Site Migration or Transportation of Contaminants
Tittabawassee River Flood Plain	Areas Impacted by Off-Site Migration or Transportation of Contaminants
Saginaw River Sediments	Areas Impacted by Off-Site Migration or Transportation of Contaminants
Saginaw River Flood Plain	Areas Impacted by Off-Site Migration or Transportation of Contaminants
Saginaw Bay	Areas Impacted by Off-Site Migration or Transportation of Contaminants

4. The Office Chief may require the licensee to implement interim measures to prevent, minimize, or mitigate injury to the public health, safety, or welfare or the environment in accordance with Condition XI.I. of this license at any of the specific off-site area(s) identified in Condition XI.B. of this license at any time during the corrective action process where information indicates that the injury has or may have resulted directly or indirectly from the facility.
5. The licensee, the MDEQ and the U.S. EPA are parties to an Administrative Settlement Agreement and Order on Consent for Remedial Investigation, Feasibility Study and/or Engineering Evaluation and Cost Analysis, and Response Design, CERCLA Docket No. V-W-10-C-942 effective January 21, 2010 (Settlement Agreement). Among other things, the Settlement Agreement requires the licensee to conduct a Remedial Investigation and Feasibility Study (RI/FS) pursuant to the requirements of CERCLA for areas defined as the "Site" under the Settlement Agreement (Settlement Agreement Site).
- (a) As they pertain to the Settlement Agreement Site, the license corrective action obligations set forth in Appendix H to the Settlement Agreement are held in abeyance and may be satisfied by compliance with the Settlement Agreement as provided by Condition XI.B.5.(d) of this license, below.
  - (b) "Site" shall mean the area located in and along the Tittabawassee River and its floodplains, beginning at and including Reach A, starting upstream of the Midland Plant, and extending downstream to, and including, the Saginaw River and its floodplains, and Saginaw Bay, and any other areas in or proximate to the

Tittabawassee River and its floodplains, the Saginaw River and its floodplains, and Saginaw Bay, where hazardous substances, pollutants, or contaminants from the Midland Plant have or may have come to be located, all depicted generally on the map attached as Appendix C to the Settlement Agreement. Areas that are not part of the Site include but are not limited to the city of Midland, Michigan, generally, and the Midland Plant. Limited areas of the Tittabawassee River floodplain are located within the city limits of the city of Midland and are part of the Site as depicted in Appendix C to the Settlement Agreement. The Midland Plant is depicted in Appendix D to the Settlement Agreement.

- (c) "Saginaw Bay" means the area encompassed by an imaginary line drawn between Au Sable Point and Point Aux Barques as depicted in Appendix G of the Settlement Agreement. Saginaw Bay is operationally considered to have an inner and outer Bay. The inner Bay consists of the area encompassed by an imaginary line drawn between Au Gres and Fish Point, also depicted in Appendix G of the Settlement Agreement.
- (d) The MDEQ will review the plans, reports, and other items submitted or determinations made under the Settlement Agreement. Each plan, report, or other item or determination, once approved or made by the U.S. EPA, after opportunity for review and comment by the MDEQ, will be considered to be consistent with, and to satisfy, the corresponding obligation of the licensee as set forth in Appendix H of the Settlement Agreement unless within no more than 10 business days after the U.S. EPA approval of a plan, report, or other item or U.S. EPA determination, the MDEQ invokes the dispute resolution process set forth in Section XVII of the Settlement Agreement with respect to that approval or determination.
- (e) If after the dispute resolution process in Section XVII of the Settlement Agreement is completed, and the MDEQ has determined, consistent with the standards set forth in paragraph 69 of the Settlement Agreement, that the licensee must undertake additional response activities/corrective actions to fulfill the requirement under this license that was the subject of the dispute resolution process, then the MDEQ will provide the licensee with a written notice directing the licensee to conduct such work as necessary to meet the substantive corrective action requirements of Part 111 and this license. The notice will include a description of the corrective action that is necessary, identify the provision of this license that requires the corrective action, and provide a reasonable time schedule for undertaking the corrective action. The notice will also set forth the reasons why:
  - (i) Such work is necessary to meet the substantive corrective action requirements of this license; and
  - (ii) Compliance with such substantive corrective action requirements under this license will not be achieved by the implementation of the Work taken or to be taken by licensee pursuant to the Settlement Agreement.

The licensee shall promptly comply with the required corrective action on the identified schedule, subject to all of licensee's rights under this license and applicable law, including any rights the licensee may have to seek judicial review

of the MDEQ's decision under Section 600.631 of the Michigan Compiled Laws or any other applicable provision of law.

- (f) The obligations listed in Exhibit A to the Statement of Work, and the Statement of Work is Appendix A to the AOC (Exhibit A), have been removed as obligations under this license and the work will be undertaken in accordance with the AOC.
- (g) Condition XI.V. of this license does not apply to the Settlement Agreement Site.

**C. IDENTIFICATION OF EXISTING MIDLAND PLANT WASTE MANAGEMENT UNITS AND AREAS OF CONCERN**

The WMUs and AOCs that have been identified at the Midland Plant facility or contiguous to the facility are listed in Table B2-1 in the Corrective Action Information, Attachment 19 of this license. As used in this license, AOCs means those areas that may not meet the definition of a WMU where contaminants or hazardous substances may have been released to the environment on a non-routine basis, which may present an unacceptable risk to the public health, safety, welfare, or the environment, and are subject to the corrective action requirements of Part 111 of Act 451 and, in the case of hazardous substances that are not contaminants, the requirements of Part 201 of Act 451.

1. The WMUs identified in Table B2-1A of Attachment 19 require further corrective action investigation or have ongoing corrective action operation, maintenance, and/or monitoring requirements at this time as described in Parts IX, X, and XI and the Corrective Action Implementation Plan (CAIP) included in Appendix G of Attachment 19 of this license. The Office Chief may require additional corrective action according to Condition XI.R. of this license for these WMUs.
2. The AOCs identified in Table B2-1A of Attachment 19 require further corrective action investigation, which includes, at a minimum, a RCRA Facility Investigation (RFI) Phase I type investigation/preliminary assessment (PA), if not already done, as described in Parts IX, X, and XI and the CAIP included in Attachment 19 of this license. Based on a review of the PA results, the Office Chief may require additional corrective action according to Condition XI.R. of this license for these AOCs .
3. The WMUs identified in Table B2-1 of Attachment 19 that are not included in Table B2-1A of Attachment 19 do not require additional corrective action investigation at this time, other than the site-wide investigation requirements and ongoing monitoring and maintenance requirements under Parts IX, X, and XI of this license. The determination that no further corrective action is required at this time is based on the design of the units and the available information regarding the units that indicates that no known or suspected releases of contaminants from the units have occurred. The MDEQ may require corrective action for these WMUs based upon new information or changed conditions that lead the MDEQ to determine that there is, or may have been, a release of a contaminant(s).
4. Within 30 days after the discovery of a release of a contaminant from a WMU or AOC, the licensee shall provide written notification to the Office Chief. The written notification shall include all available information pertaining to the release. Based on a review of all of the information, the Office Chief may require corrective action for the newly identified release pursuant to Condition XI.I. of this license. The Office Chief may require the licensee to

update the CAIP in advance of the routine annual update to address such releases in accordance with Condition XI.H. At that time, the licensee shall also update Table B2-1 of Attachment 19 to reflect any WMU/AOC status changes and/or additions. The Office Chief may require additional corrective action according to Condition XI.R. of this license for these WMUs/AOCs.

{§§11102 and 11115a of Act 451 and R 299.9629}

**D. CORRECTIVE ACTION BEYOND THE SALZBURG LANDFILL FACILITY BOUNDARY**

1. The licensee shall implement corrective action beyond the Salzburg Landfill facility boundary if the release of a contaminant has or may have migrated, or has or may have been emitted, beyond the facility boundary, unless the licensee demonstrates to the satisfaction of the Office Chief that, despite the licensee’s best efforts, the licensee was unable to obtain the necessary permission to undertake this corrective action. The licensee shall not be relieved of all responsibility to clean up a release that has migrated or has been emitted beyond the facility boundary where off-site access is denied. On-site measures to address such releases shall be addressed under this part of the license, as determined to be necessary on a case-by-case basis. Assurances of financial responsibility for such corrective action shall be provided as specified in Condition II.N. of this license. {§11115a of Act 451 and R 299.9629}
2. The following off-site areas identified in Condition XI.D.2.(a) below require further corrective action
  - (a) None identified at the time of license issuance.

**E. IDENTIFICATION OF EXISTING SALZBURG LANDFILL WASTE MANAGEMENT UNITS**

The WMUs at the Salzburg Landfill facility are identified below.

1. The following WMUs do not require corrective action at this time:
  - (a) The following WMUs that are currently operating pursuant to Part 111 of Act 451 and its rules with no evidence of a release of any contaminants. Corrective action may be required when any of the unit(s) undergo final closure.

<b>WMU</b>	<b>Description</b>	<b>Approximate Cell Acreage</b>
Cells 20-22	Active hazardous and solid waste cells	7.2
Cells 23-28 Phase 1 (Cells 23-26)	Active hazardous and solid waste cells	8.4
Wash Building 3601	Vehicle wash facility	NA

- (b) The following WMUs, based on the design of the units and available information that indicates that no known or suspected releases of contaminants from the units have occurred.

<b>WMUs</b>	<b>Description/Year Closed</b>	<b>Approximate Cap Acreage</b>
Cells 1-2	Closed hazardous/solid waste cells/1984	1.9

Cells 3-5	Closed hazardous waste cells/1984	2.2
Cells 6-8	Closed hazardous waste cells/1986	1.7
Cells 9-10	Closed hazardous waste cells/1986	1.7
Cells 11-12	Closed hazardous waste cells/1986	2.5
Cells 13-14	Closed hazardous waste cells/1988	3.2
Cells 15-16	Closed hazardous waste cells/1991	3.5
Cells 17-19	Closed hazardous waste cells/2005	6.1
Cells 38-39	Closed solid waste cells/1988	4
Cells 40-43	Closed solid waste cells/2005	9.4

2. The following WMUs require further corrective action at this time that includes, at a minimum, further investigation to determine if a release of a contaminant has occurred and, if a release has occurred, the nature and extent of the release.
  - (a) None identified at the time of license issuance; however, if any new WMUs or AOCs that require corrective action should be identified in the future, they will be added to the license via a license modification.

{§§11102 and 11115a of Act 451 and R 299.9521(3)(b) and R 299.9629}

**F. IDENTIFICATION OF NEW WASTE MANAGEMENT UNITS AND AREAS OF CONCERN AT MIDLAND PLANT OR SALZBURG LANDFILL**

1. Within 30 days after discovery of a new WMU or AOC or a release of a contaminant from a new WMU or AOC, the licensee shall provide written notification to the Office Chief. As used below in this condition, the term "unit" refers to either a WMU or AOC. The written notification shall include all of the following information to the extent that it is available:
  - (a) The location of the unit on the facility topographic map.
  - (b) The designation of the type of unit.
  - (c) The general dimensions and structural description, including any available drawings of the unit.
  - (d) The date the unit was operated.
  - (e) Specification of all waste(s) that have been managed in the unit.
  - (f) All available information pertaining to any release of a contaminant from the unit.
2. Based on a review of all of the information provided in Condition XI.F.1. of this license the Office Chief may require further information or corrective action for the newly identified WMU or AOC and/or their releases. The licensee shall update its annual CAIP to address the unit after written notification by the Office Chief that corrective action for the unit is required. If more timely action is required, the Office Chief may require an interim measure(s) to be implemented pursuant to Condition XI.I. of this license. The Office Chief may require additional corrective action according to Condition XI.R. of this license for these WMUs/AOCs and/or their releases.

{§§11102 and 11115a of Act 451 and R 299.9629 and 40 CFR §270.14(d)}

**G. DISPUTE RESOLUTION FOR CORRECTIVE ACTION REVIEWS**

1. The MDEQ and the licensee shall use their best efforts to informally, and in good faith, resolve any dispute that arises with respect to the implementation or administration of Conditions XI.H.3., XI.I., XI.K., XI.L. and XI.M.3. of this license. Upon request by the licensee, the MDEQ will provide the licensee a written statement of its decision on any matter that the parties are unable to resolve.
2. If the MDEQ approves with modifications the Remedial Investigation/Corrective Action Investigation Work Plan, Interim Response Activities/Interim Measures Work Plan, Corrective Measures Study, Remedial Action Plan/Corrective Measures Implementation Plan, Remedial Action Plan/Corrective Measures Implementation Final Report, and Cost Estimate for Corrective Action submittals under Conditions XI.H.3., XI.I., XI.K., XI.L., and XI.N. of this license and the matter has not been resolved through informal discussions under Condition XI.G.1. above, the licensee may seek further review of the approval with modifications by filing written objections with the Director within 15 days of receiving the MDEQ's notice of approval with modifications, or under an alternate time frame approved by the MDEQ. The written objection shall set forth the specific points of dispute, the relevant facts upon which the dispute is based, the basis for the licensee's position, including any factual data, analysis or opinion, and any matters that the licensee considers necessary for a determination.
3. Within 14 days of the receipt of the licensee's request for a review of disputed issues under Condition XI.G.2. of this license, the Director will provide a written statement of decision to the licensee. This statement will include a statement of his/her understanding of the issues in dispute; the relevant facts upon which the dispute is based; any factual data, analysis, or opinion supporting his/her position; and any other supporting documentation relied upon by the Director in making his/her decision. The time period for the Director's review of the disputed issues may be extended by written agreement between the parties.
4. The written statement of the Director issued under Condition XI.G.3. of this license shall be binding on the licensee subject to any rights the licensee may have to seek judicial review of the MDEQ's decision under §600.631 of the Michigan Compiled Laws or any other applicable provision of law. Nothing in this paragraph shall be construed to limit any defenses the MDEQ may raise should the licensee seek such judicial review. This condition is not intended to limit any right the licensee may have to seek judicial review of matters not subject to dispute resolution under Condition XI.G. of this license.

**H. REMEDIAL INVESTIGATION/CORRECTIVE ACTION INVESTIGATION**

1. The licensee shall conduct an investigation to determine if a release of a contaminant(s) from any of the WMUs or AOCs identified in Condition XI.C.1., XI.C.2., or XI.E.2. of this license has occurred and, if a release(s) has occurred, evaluate the nature and extent of the release(s).
  - (a) Corrective action work for the Midland Plant shall be conducted in accordance with the approved CAIP, annual work plans, and schedules to be developed as specified in Attachment 19 of this license.

- (b) If corrective action work is required for the Salzburg Landfill, the licensee may incorporate such work into the CAIP.
2. The Office reserves its rights to require additional corrective action beyond the work identified Condition XI.H.1. and to direct the licensee to use the processes in Conditions XI.H.3. and XI.R. of this license for all, or a portion, of the required corrective action work.
3. If directed by the Office, the licensee shall submit a written Remedial Investigation/ Corrective Action Investigation Work Plan, Final Report documenting compliance with the approved Work Plan and supporting further corrective action at the facility(ies) or a portion of the facility(ies), and progress reports to the Office Chief for review and approval in accordance with Condition XI.R. of this license. The Office Chief will approve, modify and approve, or provide a Notice of Deficiency (NOD) for the Work Plan and Final Report. Upon approval, the Work Plan and Final Report become enforceable conditions of this license.

{Sections 11102 and 11115a of Act 451 and R 299.9629}

#### **I. INTERIM RESPONSE ACTIVITIES/INTERIM MEASURES**

The licensee shall conduct interim measures (IM) at the facility(ies), as defined in R 299.9103(q), and/or beyond the facility boundary, if determined necessary by the licensee or the Office Chief, to clean up or remove a released contaminant or to take other actions, prior to the implementation of corrective measures, as may be necessary to prevent, minimize, or mitigate injury to the public health, safety, or welfare, or to the environment. The licensee shall submit a written IM Work Plan, an IM Final Report documenting compliance with the approved Work Plan and supporting further corrective action at the facility(ies), and IM progress reports to the Office Chief for review and approval in accordance with Condition XI.R. of this license. The Office Chief will approve, modify and approve, or provide an NOD for the Work Plan and Final Report. Upon approval, the Work Plan and Final Report become enforceable conditions of this license.

{§§11102 and 11115a of Act 451 and R 299.9629}

#### **J. DETERMINATION OF NO FURTHER ACTION**

1. The licensee shall continue corrective action measures to the extent necessary to ensure that the applicable environmental protection standards adopted in Part 111 of Act 451, are met, if the limits are not less stringent than allowed pursuant to the provisions of RCRA.
2. Based on the results of the Corrective Action Investigation and other relevant information, the licensee shall submit a written request for a license minor modification to the Office Chief if the licensee wishes to terminate corrective action for a specific WMU or AOC identified in Conditions XI.C., XI.E., and XI.F. of this license. The licensee must demonstrate that there have been no further releases of a contaminant(s) from the WMU or AOC and that the WMU or AOC or their releases do not pose a threat to public health, safety, welfare, or the environment.
3. Based on the results of the Corrective Action Investigation and other relevant information, the licensee shall submit a written request for a license major modification to the Office Chief if the licensee wishes to terminate facility-wide corrective action under Conditions



XI.C. and/or XI.E. or corrective action beyond the facility boundary(ies) required by Condition XI.B.2., Condition XI.B.3., and/or Condition XI.D. The licensee must conclusively demonstrate that there have been no further releases of a contaminant(s) from any of the WMUs or AOCs at the facility(ies) and that none of the WMUs or AOCs or their releases pose a threat to public health, safety, welfare, or the environment.

4. If, based upon a review of the licensee's request for a license modification pursuant to Condition XI.J.3. of this license, the results of the completed Corrective Action Investigation, and other relevant information, the Office Chief determines that the releases or suspected releases of a contaminant(s) do not exist and/or that the WMU/AOC(s) and/or the release(s) do not pose a threat to public health, safety, welfare, or the environment, the Office Chief will approve the requested modification, subject to Conditions XI.J.5. and XI.J.6. of this license.
5. A determination of no further action shall not preclude the Office Chief from requiring continued or periodic monitoring of air, soil, groundwater, or surface water, if necessary to protect public health, safety, welfare, or the environment, when facility-specific circumstances indicate that potential or actual releases of a contaminant(s) may occur.
6. A determination of no further action shall not preclude the Office Chief from requiring further corrective action at a later date, if new information or subsequent analysis indicates that a release or potential release of a contaminant(s) from a WMU/AOC at the facility may pose a threat to public health, safety, welfare, or the environment. The Office Chief will initiate the necessary license modifications if further corrective action is required at a later date.

{§§11102 and 11115a of Act 451 and R 299.9629}

#### **K. CORRECTIVE MEASURES STUDY**

If the Office Chief determines, based on the results of the Corrective Action Investigation(s) conducted pursuant to Conditions XI.H.1. or XI.H.3. and/or other relevant information, that remedial activities are necessary, the Office Chief may notify the licensee in writing that a Corrective Measures Study (CMS) is required. If notified by the Office Chief, the licensee shall conduct a CMS to develop and evaluate the corrective measures alternative(s) necessary to address the release(s) of a contaminant(s) or hazardous substances and the WMU/AOC(s) that are identified in the approved Corrective Action Investigation Final Report as requiring final remedial activities. The licensee shall submit a written CMS Work Plan, a CMS Final Report documenting compliance with the approved Work Plan and supporting further corrective action at the facility(ies), and CMS progress reports to the Office Chief for review and approval in accordance with Condition XI.R. of this license. The Office Chief will approve, modify and approve, or provide an NOD for the Work Plan and Final Report. Upon approval, the Work Plan and Final Report become enforceable conditions of this license.

{§§11102 and 11115a of Act 451 and R 299.9629}

#### **L. REMEDIAL ACTION PLAN/CORRECTIVE MEASURES IMPLEMENTATION PLAN**

1. The licensee shall conduct final corrective measures based on the CMS Final Report and/or other relevant information approved by the Office Chief. The licensee shall submit a written Remedial Action Plan/Corrective Measures Implementation Plan (RAP/CMIP) to

the Office Chief for review and approval. The licensee shall also submit a written RAP/CMIP Final Report documenting compliance with the approved Plan and providing justification that the corrective actions may cease, and RAP/CMIP progress reports to the Office Chief for review and approval in accordance with Condition XI.R. of this license. The Office Chief will approve, modify and approve, or provide an NOD for the Work Plan and Final Report. Upon approval, the Work Plan and Final Report become enforceable conditions of this license.

2. The Office will provide notice of its draft decision on the RAP/CMIP to persons on the facility mailing list and an opportunity for a public hearing.
3. The licensee shall implement the approved RAP/CMIP within 45 days of receipt of the Office Chief's written approval of the Work Plan.

{§§11102, 11115a and R 299.9629}

**M. SITE-SPECIFIC LDR TREATABILITY VARIANCE**

The licensee has been granted a revised Site-Specific LDR Treatability Variance in accordance with 40 CFR 268.44(h) and R 299.9311. The Variance is for contaminated media exhibiting a hazardous waste characteristic or containing listed hazardous waste generated at the Midland Plant or Salzburg Landfill facilities during corrective action, upgrade or maintenance of corrective action systems, or during non-routine maintenance of the Tertiary Pond (Pentagonal, Rectangular or Main Ponds). The Material Subject to the Variance, which is hazardous waste according to the provisions of Part 111 of Act 451, is subject to the alternative treatment standards as specified in Appendix A3-3 of the Waste Analysis Plan, Attachment 1 of this license.

**N. CORRECTIVE ACTION MANAGEMENT UNITS**

The licensee shall comply with the requirements of R 299.9635 in order to designate an area at the facility as a CAMU for implementation of response activities. The licensee has a designated CAMU as specified in Condition XI.O. of this license. {R 299.9521(3)(a)}

**O. DESIGNATION OF CORRECTIVE ACTION MANAGEMENT UNIT**

1. The licensee was authorized on May 30, 2013, to submit detailed plans to the Office for review and approval to construct and operate project-specific storage and treatment CAMUs, subject to Condition XI.O.4. of this license, in the same location as the designated staging pile under Condition XI.Q. of this license, for the management of CAMU-eligible waste as defined in R 299.9102(u) from corrective action activities at the facility. The licensee's anticipated overall CAMU design is shown in Drawings B2-903A-994072, B2-904A-994072, and B2-905A-994072 in Appendix B, Staging Pile and Corrective Action Management Unit Design Information, of Attachment 19 of this license. This attachment also contains general construction, operation, treatment, and closure information for the CAMU.
2. The project-specific CAMUs will be constructed and operated within the former Geotube Containment Facility that was authorized, engineered, and constructed in 2007 on the cap of the Diversion Basin, a hazardous waste surface impoundment that was certified closed with hazardous waste in place on March 8, 1989. Effective September \_\_, 2015, the

Diversion Basin, which was previously managed as a post closure unit, became subject to management as a corrective action WMU under Part XI of this license. In accordance with R 299.9613 and 40 CFR §264.117(c), construction and operation of a CAMU was determined to be consistent with the proposed necessary post closure use(s) of the Diversion Basin and will not increase the potential hazard to human health or the environment. Designating a portion of the closed Diversion Basin as a CAMU enhances the implementation of effective, protective, and reliable remedial actions for the facility and is allowed pursuant to R 299.9635(8).

3. The design, construction, operation, and closure of each project-specific storage and treatment CAMU shall comply with the requirements of R 299.9635. Such CAMUs are subject to the requirements for Staging Piles in 40 CFR §§264.554(d)(1)(i) and (ii), (d)(2), (e), (f), (j), and (k) instead of the performance standards and requirements for CAMUs in R 299.9635(10) and R 299.9635(12)(d) to (f). Specific license conditions applicable to the design, construction, operation, and closure of each project-specific CAMU shall be specified in a minor license modification requiring the approval of the Hazardous Waste Section Chief prior to project-specific CAMU construction and operation.
  - (a) The specific license conditions will be developed in compliance with R 299.9635(12) and will include the acceptable waste types allowed to be managed in the CAMU pursuant to R 299.9635(11), as well as the anticipated project-specific storage and treatment capacities that do not exceed the process design capacities specified in Condition XI.O.4. of this license. The waste to be managed in the CAMU is expected to be contaminated media that is characteristically hazardous waste or listed hazardous waste that is included under the 1163/33 BLDGS column of Attachment 10 of this license (e.g., F039 soil generated as a result of RGIS upgrade or maintenance activities or other corrective action activities at the facility). As-generated nonhazardous waste from the facility may be placed in a CAMU if the licensee demonstrates to the Office that the waste will be used to facilitate treatment or the performance of the CAMU, in accordance with R 299.9102(u).
  - (b) Pursuant to R 299.9635(15)(b), each project-specific CAMU shall operate pursuant to a time limit established by the Hazardous Waste Section Chief, as part of the project-specific CAMU license conditions, that is no longer than necessary to achieve a timely remedy selected for the waste.
  
4. The CAMU storage and treatment area at the facility, designated pursuant to R 299.9635(3), shown in Drawing B2-903A-994072 in Appendix B of Attachment 19 of this license, is covered by this license. Any expansion or enlargement beyond the facility boundary shown in the drawings in Attachment 9 of this license, or beyond the storage and treatment design capacities shown in the table below requires a new operating license for the expansion, enlargement, or alteration of an existing facility from the Office Chief. {§11123 of Act 451 and R 299.9521(1)(b)}

<b>CAMU Containment Units</b>	<b>Storage Design Capacity</b>	<b>Treatment Design Capacity</b>
#1 and #2	26,500 cubic yards (total) CAMU-eligible waste	2,000,000 gallons/day dewatering/other treatment

#3	1,000,000 gallons CAMU-eligible waste liquids or other contaminated or noncontaminated run-off	6,500 cubic yards/day stabilization/solidification/debris treatment
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5. The licensee is prohibited from managing ignitable, reactive, or incompatible remediation wastes in the CAMU unless a minor license modification approved by the Hazardous Waste Section Chief includes project-specific CAMU license conditions for such activities consistent with 40 CFR §§264.554(e) and (f) and §264.17(b).

{R 299.9635 and R 299.9521(1)(c) and (3)(b)}

**P. TEMPORARY UNITS**

The licensee shall comply with the requirements of R 299.9636 in order to designate tank or container storage units used for the treatment or storage of remediation wastes as temporary units for implementation of response activities. {R 299.9521(3)(a)}

**Q. DESIGNATION OF STAGING PILE**

The licensee was granted approval on September 30, 2009, to construct and operate a single staging pile, within the former Geotube Containment Facility, with a capacity of up to 6,000 cubic yards for the storage of solid, nonflowing hazardous remediation waste in compliance with the requirements of R 299.9638 and the design and operating criteria described in in Appendix B of Attachment 19 of this license. If the licensee constructs the single Staging Pile authorized pursuant to this condition, it may be operated pursuant to the time limits established in 40 CFR §§264.554(d)(1)(iii), (h), and (i). Upon expiration of the operating term, closure of the Staging Pile must be completed pursuant to 40 CFR §§264.554(j) so that the former Geotube Containment Facility is restored back to its base condition (i.e., asphalt paved surface) for project-specific CAMU use pursuant to Condition XI.O. of this license. Any subsequent staging pile(s) shall be designated only through a written request by the licensee and issuance of a major license modification or renewal license by the Hazardous Waste Section Chief. {R 299.9638}

**R. SUMMARY OF CORRECTIVE ACTION SUBMITTALS**

The licensee shall submit required corrective action documents in accordance with the schedule below unless otherwise approved in writing by the Office.

CORRECTIVE ACTION DOCUMENT	SUBMITTAL DEADLINE
Annual Corrective Action Implementation Work Plan and Updated Table B2-1 of Attachment 19	December of each year, starting in 2015
Annual Corrective Action Summary Report	December of each year, starting in 2016
Written notification of a new release of a contaminant from an existing WMU/AOC, a new WMU/AOC, or a release of a contaminant from a new WMU/AOC	Within 30 days of discovery

CORRECTIVE ACTION DOCUMENT	SUBMITTAL DEADLINE
PA for new WMU/AOC or a release of a contaminant from a new WMU/AOC	Within 60 days of receipt of notification that a PA is required
RI/CAI Work Plan for a newly identified release of a contaminant from an existing WMU/AOC, a new WMU/AOC, or a release of a contaminant from a new WMU/AOC	Within 60 days of receipt of notification that a RI/CAI is required
Revised RI/CAI Work Plan for WMUs/AOCs and contaminant releases	Within 60 days of receipt of RI/CAI NOD
RI/CAI progress reports	Bimonthly after initiation of the RI
RI/CAI Final Report for WMUs/AOCs and contaminant releases	Within 60 days of completion of RI/CAI
Revised RI/CAI Final Report for WMUs/AOCs and contaminant releases	Within 45 days after receipt of RI/CAI Final Report NOD
IM Work Plan for WMUs/AOCs and contaminant releases	Within 60 days after receipt of notification that an IM Work Plan is required
Revised IM Work Plan for WMUs/AOCs and contaminant releases	Within 60 days of receipt of IM Work Plan NOD
IM progress reports	Monthly after initiation of the IM
IM Final Report for WMUs/AOCs and contaminant releases	Within 60 days after completion of the IM
Revised IM Final Report for WMUs and contaminant releases	Within 45 days of receipt of IM Final Report NOD
CMS Work Plan for WMUs/AOCs and contaminant releases	Within 60 days of receipt of notification that a CMS Work Plan is required
Revised CMS Work Plan for WMUs/AOCs and contaminant releases	Within 60 days of receipt of CMS Work Plan NOD
CMS progress reports	Bimonthly after initiation of the CMS
CMS Final Report for WMUs/AOCs and contaminant releases	Within 60 days of completion of the CMS
Revised CMS Final Report for WMUs/AOCs and contaminant releases	Within 45 days of receipt of CMS Report NOD
RAP/CMIP for WMUs/AOCs and contaminant releases	Within 60 days of approval of the CMS Final Report
Revised RAP/CMIP for WMUs/AOCs and contaminant releases	Within 60 days of receipt of RAP/CMIP NOD
RAP/CMIP progress reports	Monthly after implementation of the RAP/CMIP

CORRECTIVE ACTION DOCUMENT	SUBMITTAL DEADLINE
RAP/CMIP Final Report for remediated WMUs/AOCs and contaminant releases	Within 60 days after the remedial actions have been completed and cleanup criteria have been met
Revised RAP/CMIP Final Report for WMUs/AOCs and contaminant releases	Within 45 days after receipt of RAP/CMIP Final Report NOD

**S. CORRECTIVE ACTION DOCUMENTS RETENTION**

The licensee shall maintain all corrective action documents required by this license at the facilities or at the alternate locations specified in Condition II.S.2. of this license. The documents shall be maintained for the operating life of the facility or until the facility is released from financial assurance requirements for corrective action by the Office Chief, whichever is longer. The licensee shall offer such documents to the Office Chief prior to discarding those documents. {§§11102 and 11115a of Act 451 and R 299.9629}

**T. WORKER EXPOSURE CONTROL PROGRAM FOR MIDLAND PLANT**

The licensee shall implement the Worker Exposure Control Program, Appendix C of Attachment 19 of this license. Proposed revisions to the Worker Exposure Control Program shall be submitted to the Office Chief for review and approval. If approved, the revised Worker Exposure Control Program, including revised Fugitive Dust Control Programs approved by the AQD, shall become part of this license without the need for a minor license modification. Semiannual revisions to the site Fugitive Dust Control Plan Map do not require approval by the AQD or the Office. {§§11102, 11115a of Act 451 and R 299.9629}

**U. SOURCE CONTROL**

1. The licensee shall implement source control activities to permanently and significantly reduce the volume, toxicity, and/or control the mobility of contaminants and hazardous substances in soil and groundwater at the facility. The licensee shall conduct source control activities to address free phase liquids in soil or groundwater, highly concentrated dissolved contaminants or hazardous substances in groundwater, and high levels of soil contamination. {R 299.9629}
2. The Hazardous Waste Section Chief may require the licensee to conduct source control activities under Part 111 of Act 451. {R 299.9629}
3. Within 60 days of the discovery of free product that has not been previously reported to the MDEQ, the licensee shall submit to the Hazardous Waste Section Chief the following information:
  - (a) The location of the area that is known to the licensee where a hazardous substance(s) or contaminant(s) is present in a liquid phase equal to or greater than 1/8 inch of measurable thickness (free product) in soil or groundwater .
  - (b) The specific contaminant(s) or hazardous substance(s) that is present at the locations identified in Condition XI.U.3.(a) of this license.

- (c) An estimate of the horizontal and vertical extent of the liquid phase hazardous substance(s).
  - (d) A description of any actions the licensee has taken or is taking to meet the source control requirements of Part 111 of Act 451.
- 4. Based on the review of the information required pursuant to Condition XI.U.3. of this license, or other relevant information, the Hazardous Waste Section Chief may require the licensee to address the liquid phase hazardous substance by updating its Annual CAIP or conducting an IM in accordance with Condition XI.I. of this license.
  - 5. The point of compliance for purposes of source control activities shall be the boundary of the individual WMU or AOC, unless otherwise specified by the Hazardous Waste Section Chief. {R 299.9629(3)(a)(iv)}

{§§11102 and 11115a of Act 451 and R 299.9629}

**V. RESERVATION OF CORRECTIVE ACTION RESPONSE ACTIVITY AND ENFORCEMENT AUTHORITY**

The specific corrective action requirements identified in Conditions XI.A. through XI.U. are measures that the MDEQ has at this time concluded the licensee should, as a minimum, perform pursuant to this license and Part 111 of Act 451. Additional corrective action measures may be required to satisfy the licensee's obligations under Part 111 or Part 201 of Act 451, or other applicable law, or to otherwise assure protection of public health, safety, welfare, or the environment. The MDEQ reserves all of its rights under applicable laws to:

- 1. Require the licensee to perform further corrective action or response activities beyond those specified in Conditions XI.A. through XI.U. of this license;
- 2. Undertake corrective action or response activities and seek cost recovery from the licensee or any other person; and
- 3. Take enforcement action against the licensee or any other person with respect to any release of contaminants or hazardous substances into the environment.

**W. RESERVATION OF RIGHTS RELATED TO THE SETTLEMENT AGREEMENT SITE**

Except as specifically provided in the Settlement Agreement, for the area included in the Settlement Agreement Site, the MDEQ reserves all of its rights to:

- 1. Require additional remedial investigation and feasibility study activities pursuant to the procedures set forth in Sections XI and XVII of the Settlement Agreement and Conditions XI.B.3. and XI.B.5. of this license;
- 2. Require IMs/Interim Response Actions pursuant to the procedures set forth in Section XI, paragraph 29(e) and Section XVII of the Settlement Agreement;
- 3. Require corrective action for currently unknown releases or potential future releases to the Settlement Agreement Site from areas outside of the Settlement Agreement Site that

may require actions to be taken in the area defined as the Settlement Agreement Site as provided in Settlement Agreement Section XI, paragraph 46;

4. Require submission and implementation of a RAP/CMIP for the Settlement Agreement Site;
5. Undertake corrective action or response activities and seek cost recovery from the licensee or any other person; and
6. Take enforcement action against the licensee or any other person with respect to any release of contaminants or hazardous substances into the environment.



**PART XII  
 SCHEDULE OF COMPLIANCE FOR MIDLAND PLANT AND SALZBURG LANDFILL**

**A. SALZBURG LANDFILL APPLICATION SECTIONS/ATTACHMENTS TO BE UPDATED TO TEMPLATE FORMAT**

<b>Application Section/Attachment</b>	<b>Submittal Due Date for Template</b>
Topographic Map	October 16, 2015
Personnel Training Program	December 4, 2015
Closure and Post Closure Care Plans	February 5, 2016
Closure/Post Closure Cost Estimate	February 5, 2016
Updated Hydrogeological Report	April 22, 2016 (Not a License Attachment)
Environmental Assessment	April 22, 2016 (Not a License Attachment)

The licensee shall submit updated application templates for the Salzburg Landfill to the Hazardous Waste Section by the due dates in the schedule contained in Condition XII.A., providing shared Midland Plant/Salzburg Landfill templates for incorporation into the license as attachments, when possible and appropriate. The Hazardous Waste Section will review the templates and provide any technical review comments and set a response due date in a timely manner. Final templates that need to be incorporated into the license as enforceable attachments will be added via a minor modification(s).

**B. SCHEDULE FOR MERGING MIDLAND PLANT AND SALZBURG LANDFILL ENVIRONMENTAL MONITORING PROGRAMS**

<b>Parts of License</b>	<b>Schedule for Updating</b>
Combined Midland Plant/Salzburg Landfill Environmental Monitoring Program and SAP – Parts IX and X	August 1, 2016

The licensee has the option to submit a merged Midland Plant and Salzburg Landfill Sampling and Analysis Plan to the Hazardous Waste Section for incorporation into the license as a revised attachment that will allow the MDEQ to amend the license to include a combined Environmental Monitoring Program for the Midland Plant and Salzburg Landfill as a minor license modification. The Hazardous Waste Section will review the merged SAP and provide any technical review comments and set a response due date in a timely manner. The merged SAP shall be incorporated into the license as an enforceable attachment via a minor license modification.