



March 1, 2023

LARRY OLDENKAMP MANAGER
NORTHWEST IOWA AREA SOLID WASTE AGENCY
4540 360TH ST
SHELDON IA 51201

**RE: Northwest Iowa Area Sanitary Landfill
Permit #84-SDP-01-74P
2023 Application for Landfill Permit Renewal
([Document No. 105417](#))
Permit Renewal**

Dear Mr. Oldenkamp:

Enclosed is the renewed permit, for the Northwest Iowa Area Sanitary Landfill. The renewed permit and the approved plans must be kept at the sanitary disposal project in accordance with the recordkeeping and reporting requirements of [subparagraph 113.11\(1\)](#). Please review this amendment with your operators, as they must become familiar with it.

The Iowa Department of Natural Resources (DNR) approves the 2023 Application for Landfill Permit Renewal, dated January 3, 2023, as submitted by Evora Consulting. Note that the permit may contain conditions that require a response or action by you, which if not properly complied with, may prompt enforcement action by the DNR.

If you have any questions, you may contact me at [515-229-8356](tel:515-229-8356) or by email at mike.smith@dnr.iowa.gov.

Sincerely,

Michael W. Smith
Digitally signed
by Michael W.
Smith
Date: 2023.03.01
07:28:03 -06'00'

Michael W. Smith P.E.
Environmental Engineer Senior

cc: Mathew Corry, P.E.
SCS Engineers
1690 All State Ct Suite 100
West Des Moines, IA 50265

DNR Field Office #3

**IOWA DEPARTMENT OF NATURAL RESOURCES
SANITARY DISPOSAL PROJECT PERMIT**

- I. Permit Number: 84-SDP-1-74P
Northwest Iowa Area Sanitary Landfill
- II. Permitted Agency: Northwest Iowa Area Solid Waste Agency
- III. Project Location: SW 1/4 of Section 14, T96N, R43W, Sioux
County, Iowa
- IV. Responsible Official
Name: Larry Oldenkamp, Manager
Address: Northwest Iowa Area Solid Waste Agency
4540 360th Street
Sheldon, IA 51201
Phone: 712-324-4026
Email: nwlflarry@netllc.net
- V. Licensed Design Engineer
Name: Matthew Corry, PE
Address: SCS Engineers
1690 All State Ct Suite 100
West Des Moines, IA 50265
Phone: 515-256-8814
Email: mcorry@scsengineers.com
Iowa License Number: 25067
- VI. Date Permit Issued: March 1, 2023
- VII. Permit Expiration Date: March 1, 2028

Michael
W. Smith

Digitally signed by
Michael W. Smith
Date: 2023.03.01
07:26:01 -06'00'

- VIII. Issued by: _____
Iowa Department of Natural Resources

IX. General Provisions

The above named permitted agency is hereby authorized to operate a sanitary disposal project at the described location in conformance with Iowa Code section 455B, the rules pursuant thereto existing at the time of issuance, and any subsequent new rules which may be duly adopted, and any provisions contained in Section X of this permit.

The issuance of this permit in no way relieves the applicant of the responsibility for complying with all other local, state, and federal statutes, ordinances, and rules or other requirements applicable to the establishment and operation of this sanitary disposal project.

No legal or financial responsibility arising from the construction or operation of the approved project shall attach to the State of Iowa or the Department of Natural Resources (DNR) due to the issuance of this permit.

If title to this project is transferred, the new owner must apply to the DNR for a transfer of this permit within thirty days of the date of title transfer pursuant to subrule 113.4(3). This permit is void sixty days after the date of title transfer unless the DNR has transferred the permit.

The permit holder shall file a Quarterly Solid Waste Fee Schedule and Retained Fee Report utilizing the DNR's Form 542-3276 and remit tonnage fee payment, as applicable, for all wastes disposed at the sanitary disposal project in accordance with Iowa Code section 455B.310. The Reports will be due January 1, April 1, July 1 and October 1 for the quarters ending September 30, December 31, March 31 and June 30, respectively. The permit holder shall mail the completed report to the Solid Waste Section, Wallace State Office Building, 502 East Ninth Street, Des Moines, Iowa 50319. This reporting procedure supersedes any previous conflicting permit provisions.

The permit holder shall weigh all solid waste collection vehicles and solid waste transport vehicles on a scale certified by the Iowa Department of Agriculture and Land Stewardship. If conditions are such that make it impractical to provide an on-site scale, then off-site scale facilities may be used if justified and approved by the DNR. The permit holder shall comply with the waste weighing, record keeping and tonnage fee reporting requirements defined in rule 101.14(455B,455D). The scale weighing facilities shall comply with the certification and licensing requirements of the Iowa Department of Agriculture and Land Stewardship at all times. The permit holder shall maintain a current copy of the weighing scale facility licensing certificate issued by the Iowa Department of Agriculture and Land Stewardship at all times.

The permit holder shall ensure that the sanitary disposal project does not (1) cause a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements, pursuant to Section 402 of the Clean Water Act, and (2) cause the discharge of a nonpoint source of pollution into waters of the United States, including wetlands, that violates any requirement of an areawide or statewide water quality management plan that has been approved under Section 208 or 319 of the Clean Water Act.

The permit holder shall submit an updated Municipal Solid Waste Sanitary Landfill Financial Assurance Report Form no later than April 1st, annually, pursuant to rule 113.14(455B). Use of this form provides permit holders a uniform means of submitting all required documentation to ensure that closure and postclosure cost estimates and applicable financial assurance instruments are updated as required.

Failure to comply with Iowa Code section 455B, or any rule of order promulgated pursuant thereto, or any provisions of this permit may result in 1) a civil penalty of up to \$5000 for each

day of violation, pursuant to Iowa Code section 455B.307, or 2) the suspension or revocation of this permit, pursuant to Iowa Code section 455B.305.

X. Special Provisions

1. The permit holder is authorized to accept solid waste for disposal in accordance with the approved Northwest Iowa Area Solid Waste Agency Comprehensive Plan. The Comprehensive Plan as approved by the DNR on September 17, 2018; any approved amendments to the plan; and the latest plan update, are incorporated as part of the permit plan documents.

The permitted service area includes: All cities, excluding Spencer and the unincorporated area in Clay County; all cities and the unincorporated area in Lyon County; all cities and the unincorporated area in O'Brien County; all cities and the unincorporated area in Osceola County; The City of Akron in Plymouth County; and all cities and the unincorporated area in Sioux County.

In accordance with subrule 101.13(2), the permit holder shall submit an updated Comprehensive Solid Waste Management Plan compliant with the DNR's schedule.

2. The permit holder shall develop and operate the site in accordance with the 2023 Application for Landfill Permit Renewal, dated January 3, 2023, as submitted by Evora Consulting and approved on February 28, 2023; and the following:

- a. Waste disposal is limited to Cells 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22. The site vertical height shall not exceed a maximum waste elevation of 1512 feet in the vicinity of N1420 and E1030.

Cells 23 and 24 are approved for construction. Any further expansion beyond these cells shall require prior DNR approval.

- b. The 2014 Revised Master Plan, dated December 18, 2014 (Document No. 82143) and supplemental information Revisions in Response to Draft Consent Order, dated February 6, 2015 (Document No. 82436), as approved on March 31, 2015, is incorporated as part of the permit documents.
- c. The Master Plan - Development of Future Cells (Document No. 79719 - which is comprised of Document No. 78440 with inserts and replacement pages from Document No. 79395 and supplemental information from Document No. 79478), as submitted by Barker Lemar and approved on March 14, 2014, is incorporated as part of the permit documents.
- d. The first lift of municipal solid waste placed in a newly constructed unit or portion of a unit shall be placed in accordance with paragraph 113.8(2)"b" in such a manner to minimize damage to the leachate collection system and liner.

- e. In accordance with the variance approval, dated June 28, 2018, the permit holder is authorized to directly incorporate nonhazardous petroleum contaminated soils (PCS) into the landfill active area without pre-treatment, as required by IAC 567-109.11(2)d through IAC 567-109.11(2)l.
- f. The permit holder shall collect leachate from the leachate control system and properly dispose of the leachate either by treatment in an on-site facility, discharge with an NPDES permit; or by discharge to the City of Ashton publicly owned treatment works (POTW) or the City of Cherkee POTW, the City of Sioux City POTW and the City of Orange City POTW. If the discharge is to a POTW with a pretreatment program approved by the DNR, the discharge must comply with the terms and conditions of a local permit issued for the discharge by the POTW. If the discharge is to a POTW without an approved pretreatment program a completed treatment agreement form shall be submitted to the DNR's Wastewater Section. Copies of the local permit or treatment agreement shall be provided to the DNR's Solid Waste Section and the local Field office. The treatment agreement must be on DNR Form 31 (542-3221) and must comply with the requirements of subrule 64.3(5).

In addition, the permit holder shall monthly measure leachate head levels and elevations at all piezometer(C-2, C-5, C-7, LP-1, LP-2, LP-3, LP-4, LP-5, LP-6, LP-7, LP-8, LP-9, LP-10, LP-11, LP-12, LP-13, LP-14, and LP-15 (lift station)) and record the volume of leachate collected and transported to the treatment works. Records of leachate contaminants testing required by the treatment works and any NPDES permit for on-site treated leachate discharges shall be maintained.

The permit holder shall annually submit a Leachate Control System Performance Evaluation (LCSPE) Report pursuant to subparagraph 113.7(5)"b"(14) as a supplement to the facility Annual Water Quality Report, as defined in subrule 113.10(10).

- g. The following shall be recorded by the permit holder and reported in the LCSPER for each leachate thickness measurement that equals or exceeds 12 inches:
 - 1) Date of original and any verification measurement.
 - 2) If 12 inch or greater leachate column is verified, specific actions taken by the certified operator to lower leachate thickness, or an explanation why specific actions were not necessary.
 - 3) Date and results of follow-up measurement.
 - 4) Repeat steps 2 and 3 as necessary until a compliant measurement is collected.
- h. The permit holder shall follow the approved Emergency Response and Remedial Action Plan (ERRAP) procedures during all emergencies pursuant to subrule 113.8(5). An updated ERRAP shall be submitted at the time of each permit renewal application. An updated ERRAP shall be included with any request for permit modification to incorporate a facility expansion or significant changes in facility operation that require modification of the currently approved ERRAP.

3. The permit holder is authorized to maintain the liner and leachate collection system in accordance with the 2023 Application for Landfill Permit Renewal, dated January 3, 2023, as submitted by Evora Consulting and approved on February 28, 2023 ; and the following:
 - a. The permit holder shall notify the DNR and have the site inspected when the construction of a new Municipal Solid Waste Landfill Unit (MSWLF) unit or significant components thereof has been completed, in accordance with subrule 113.4(6). Prior to the inspection, the Quality Control & Assurance officer shall submit a final report to the DNR that verifies compliance with the requirements of rule 113.7 and the approved plans and specifications. No waste disposal shall commence in any newly constructed unit or portion thereof until it has been inspected and approved by the DNR.
 - b. The Construction Certification Report for the construction of the north 200 feet of cell bases for cells 15 and 16, dated March 7, 2000, as submitted by Five States Engineering Co., and approved on May 9, 2000, is incorporated as part of the permit documents.
 - c. The Construction Certification Report for the construction of the center 200 feet of cell bases for cells 15 and 16, dated February 2, 2001, as submitted by Five States Engineering Co. is incorporated as part of the permit documents.
 - d. The Construction Certification Report for the construction of the south 200 feet of cell bases for cells 15 and 16, dated November 2, 2001, as submitted by Five States Engineering Co. is incorporated as part of the permit documents.
 - e. The Construction Certification Reports for the construction of the north 200 feet of the east 300 feet of cell bases for cells 17 and 18, dated February 12 and February 26, 2004, all as submitted by Five States Engineering Co. and approved on March 4, 2020 are incorporated as part of the permit documents.
 - f. The Construction Certification Report for the construction of the center 200 feet of cell bases for cells 17 and 18, dated October 2004, as submitted by Five States Engineering Co. is incorporated as part of the permit documents.
 - g. The Construction Certification Report for the construction of the south 100 feet of cell bases for cells 17 and 18, dated October 21, 2006, as submitted by Five States Engineering Co. is incorporated as part of the permit documents.
 - h. The Construction Certification Report for the construction of a portion of cell bases for cells 19 and 20 and abutting liner on cells 13 and 14, dated February 13, 2012, and Final Submittals, Use of Cell Schedule, dated March 1, 2012, all as submitted by Five States Engineering Co.; and the Construction Certification Report for the construction of the leachate storage lagoon dated May 27, 2012, all as submitted by Five States Engineering Co., and approved on June 8, 2012, are incorporated as part of the permit documents
 - i. The Final Construction Report, dated September 4, 2012, for the discharge pump, dual wall pipe and lagoon discharge pump, as approved on September 12, 2012, is incorporated as part of the permit documents.

- The permit holder is authorized to operate the discharge pump and dual wall piping from the existing wet well to the newly constructed lagoon and the lagoon discharge pump.
- j. The Construction Observation Report for Cells 19 and 20 Expansion, dated August 7, 2013, as prepared by Barker Lemar and approved on August 8, 2013, is incorporated as part of the permit documents.
 - k. The Leachate Head Measurement Device Construction Documentation, dated November 9, 2016, as submitted by Barker Lemar and approved on December 20, 2016, is incorporated as part of the permit documents.
 - l. The Construction Observation Report- Cell 21 and Closure Areas, dated December 19, 2017, as prepared for the Northwest Iowa Area Sanitary Landfill, as submitted by Barker Lemar and approved on January 22, 2018, is incorporated as part of the permit documents.
 - m. The Landfill Gas Venting Well Installation, dated September 20, 2018, as submitted by Barker Lemar and approved on January 23, 2019, is incorporated as part of the permit documents.
 - n. The Supplemental Documentation for Cell 21 and Closure Areas-Revised Report, dated November 20, 2018, as submitted by Barker Lemar and approved on January 23, 2019, is incorporated as part of the permit documents.
 - o. *The Construction Observation Report – Leachate Lagoon Expansion, dated November 18, 2020 as submitted by Evora Consulting and approved on January 25, 2021, is incorporated as part of the permit documents.*
 - p. The Cell 22 Construction Observation Report, dated July 18, 2022, as submitted by Evora Consulting, is hereby approved and incorporated as part of the permit documents.
4. Hydrologic monitoring at the site shall be conducted in accordance with the Hydrologic Monitoring System Plan (HMSP) as included in the 2013 Master Plan, dated October 2013, and the 2014 Revised Master Plan, dated December 2014 all as submitted by Barker Lemar; and the following:
- a. The HMSP shall include upgradient groundwater monitoring points UG-90 and UG-201; and downgradient groundwater monitoring points TDG-301, TDG 305, TDG-401, TDG-405, DG-901, DG-905, DG-1001, DG-1005, DG-1101, DG-1105, DG-1201, DG-1205, DG-1301, DG-1305, DG-1401R and DGP- 1500. The groundwater underdrain outlets GU-9, GU-10, GU-11, GU-12, GU-13, GU-14 and GU-15 shall also be included in the detection sampling program of the HMSP.
 - b. Plume delineation monitoring points MW-15, MW-16, MW-17, MW-18, Original North Monitoring Well (ORG-MW), and MWP-7, utilized in accordance with numbered subparagraph 113.10(6)g(1)1 to delineate existing groundwater contaminant plumes,

must be sampled at a semiannual sampling frequency for those constituents where a statistically significant exceedance of a Groundwater Protection Standard was determined at the corresponding point-of-compliance well(s), and Total Suspended Solids (TSS).

The corrective action monitoring program shall consist of the following: Groundwater monitoring point DG-1301 for the sampling and analysis of trichloroethene.

The Corrective Action Groundwater Monitoring Program, dated September 8, 2017, as submitted by Barker Lemar and approved April 3, 2018, is approved and incorporated as part of the permit documents.

The Selection of Remedy, dated August 10, 2017, as submitted by Barker Lemar and approved on April 3, 2018, is approved and incorporated as part of the permit documents.

The Minutes of the June 14, 2017 Assessment of Corrective Measures Public Meeting, dated June 20, 2017, as submitted by Barker Lemar and approved on April 3, 2018, is approved and incorporated as part of the permit documents.

The Assessment of Corrective Measures Report, dated March 28, 2017, as submitted by Barker Lemar and approved on April 20, 2017, is incorporated as part of the permit documents.

- c. Groundwater monitoring points DG-1401 and piezometers P-1, P-5, P-7, P-10, P-12, P-14, P-16, P-18, P-19, P-20, P-21, P-22, P-23, and P-24 may be retained as water level measuring points.
- d. The HMSP shall also include surface water monitoring point SW-101.
- e. DNR construction documentation form 542-1277 and boring logs for all monitoring wells and piezometers shall be submitted within 30 days of installation. DNR construction documentation form 542-1323 shall be submitted within 30 days of establishing surface water monitoring points.

The Landfill Gas Venting Well Installation documentation for gas venting wells PV-1 through PV-9, dated September 20, 2018, as submitted by Barker Lemar Engineering Consultants and approved on April 3, 2018, is approved and incorporated as part of the permit documents.

The Monitoring Well Report, dated May 4, 2017, as submitted by Barker Lemar, and approved on May 10, 2017, for installation of monitoring wells MW-17 and MW-18, is incorporated as part of the permit documents.

The Monitoring Point Installation for monitoring wells DGP-1500, MW-15, and MW-16; subsurface gas monitoring well GM-205, and replacement leachate monitoring point

C-13R, dated August 28, 2013, prepared by Barker Lemar, and approved on September 6, 2013, is incorporated as part of the permit documents.

Well construction documentation for monitoring wells TDG-305, 405, 805 and DG-901, 905, 1001, 1005, 1105, 1205, 1305, and 1401R, in Construction Report dated February 20, 2009, as submitted by Five States Engineering, Co. and approved September 5, 2012, is approved and incorporated as part of the permit documents.

The well abandonment report for an un-named well that was constructed in 1936, dated November 7, 2000 is incorporated into the permit documents.

The well abandonment documentation forms for monitoring wells TDG-405, and leachate monitoring point C-13R, both dated June 22, 2017 and received on July 11, 2017, are incorporated as part of the permit documents.

The *Well Abandonment Documentation* for monitoring well TDG-401, dated April 28, 2022, as attached to the May 10, 2022 correspondence, and submitted by Evora Consulting, and approved on July 14, 2022, is incorporated as part of the permit documents.

- f. The permit holder shall conduct background and routine semiannual groundwater sampling and analysis; as well as perform statistical tests for the approved monitoring points for Appendix I parameters and total suspended solids (TSS) in accordance with rule 113.10(455B). Groundwater samples shall **not** be field-filtered prior to laboratory analysis and total suspended solids shall be analyzed using Method 1376585, with a reporting limit goal of ≤ 2 mg/l). Turbidity measurement may be approved by the DNR in lieu of TSS, provided a correlation between the two is established.
- g. The permit holder shall include in each AWQR an evaluation of TSS/turbidity data and other pertinent sampling and analytical results, to determine if representative samples of groundwater have been collected. If samples are not representative, the permit holder may be required to utilize low flow or no-purge sampling methods, consider new well construction with an optimized filter pack design, and/or additional well development. If sample quality does not improve with improved well construction, well development, and/or sampling methods, the DNR will consider higher TSS/turbidity levels as representative of site groundwater conditions.
- h. The frequency for full Appendix II analysis at monitoring points that are in assessment monitoring and have had at least two (2) rounds of analysis using the entire Appendix II list may be decreased to once every (5) five years. If monitoring points exit assessment monitoring and later return to assessment monitoring an additional two (2) rounds of analysis using the entire Appendix II list is required.
- i. The permit holder shall measure groundwater elevations within 1/100 of a foot in each well and immediately prior to purging, each time groundwater is sampled.

- j. The permit holder shall collect semiannual groundwater elevation measurements from TGU-19 and any other temporary underdrain piezometers for Phases 1, 2, and 3 in order to measure the separation of the base of the MSWLF unit from the groundwater table as required in paragraph 113.6(2)"i". This data shall be included in the facilities' AWQR.
 - k. An AWQR summarizing the effects the facility is having on groundwater quality shall be submitted to the DNR's Solid Waste Section by January 31st each year. This report shall be prepared in accordance with subrule 113.10(10) by a qualified groundwater scientist pursuant to paragraph 113.10(1)"d" and by using the DNR Annual Water Quality Report Format.
5. The permit holder is authorized to recirculate leachate in accordance with Request for Permit Amendment for Spray Application as Leachate Recirculation, dated December 3, 2015, and supplemental information in email dated December 23, 2015, both prepared by Barker Lemar and approved on January 12, 2016; and the following:
- a. Leachate application is restricted to only those MSWLF units with a composite liner constructed in accordance with paragraph 113.7(5)"a".
 - b. The leachate recirculation system shall not contaminate waters of the state, contribute to erosion, damage cover material, harm vegetation, or spray persons at the MSWLF facility, pursuant to paragraph 113.8(2)"h".
 - c. Leachate shall not be applied on user vehicle access areas.
 - d. Leachate shall not be applied to vegetated areas or frozen waste cover. A means of frost protection must be provided for all leachate control elements.
 - e. Leachate shall be applied evenly on the working area.
 - f. Leachate recirculation shall be conducted only during hours of operation and when an operator is on duty.
 - g. Leachate shall be applied in a manner such that ponding or runoff will not occur.
 - h. Leachate recirculation shall be controlled such that not more than one foot of leachate head will be allowed to accumulate above the MSWLF unit liner.
 - i. Records shall be maintained as to the time and quantities of leachate application and be submitted with the facility Annual Leachate Control System Performance Evaluation Report (LCSPER).
 - j. Leachate recirculation shall be immediately terminated if it causes ponding, runoff, excessive odor, vector control problems, vapor drift, ice formation, or operational problems. The DNR's local Field office shall be immediately notified if any of the above events occur.

6. The permit holder shall conduct subsurface gas monitoring in accordance with the Landfill Gas Monitoring Plan, as included in Appendix 8, of the 2017 Permit Renewal, dated June 2, 2017, as submitted by Barker Lemar; and the following:
 - a. The permit holder shall quarterly monitor and annually report site methane concentrations in accordance with rule 113.9(455B). Specific actions, as defined in the rules, shall be taken in the event of methane gas level limit exceedances.
 - b. The permit holder shall annually submit a report by January 31 summarizing the methane gas monitoring results and any action taken resulting from gas levels exceeding the specified limits during the previous 12 months as a supplement to the facility Annual Water Quality Report, as defined in subrule 113.10(10).
7. The permit holder is authorized to temporarily store a maximum of 40 tons/year of mixed colored glass for alternative daily cover use. The maximum percentage of mixed glass in the daily cover blend shall not exceed 10% by volume. The mixed glass/soil blend shall be stockpiled in an area close to the working face that will not interfere with disposal operations, as directed by the landfill supervisor. Glass shall not be utilized in intermediate or final cover.
8. The permit holder is authorized to accept and temporarily store a maximum of 2000 waste tire equivalents for the purpose of reclamation processing or disposal. Tire storage and processing shall be conducted at approved plan locations. The tires shall be removed at least once every 120 days and transported to the appropriate reclaimer/processor, or disposed of at the site. All operations shall be in accordance with subrule 109.10(3), IAC 567 Chapter 117 and the current local fire code.
9. The permit holder is authorized to temporarily store white goods and scrap metal in an area designated by the operator. No discarded appliance may be stored for more than 270 days without being demanufactured. No scrap metal or discarded appliance may be stored for more than a total of twelve (12) months, including demanufacturing processing, prior to being recycled/salvaged. The operator and salvaging contractor shall comply with applicable provisions of IAC 567 Chapter 118 and the General Provisions of this permit. No scavenging shall be allowed.
10. The permit holder is authorized to collect and temporarily store plastic farm pesticide containers for recycling. The storage area shall be located at a readily accessible area to the facility. The following conditions and procedures shall apply:
 - a. Pesticide containers containing any product or free liquids shall not be accepted for recycling or disposal.
 - b. The storage area shall be used only for recyclable plastic farm pesticide containers that have been properly rinsed and drained. Contact the Iowa Department of Agriculture

and Land Stewardship (IDALS) Pesticide Bureau at (515) 281-8591 for container rinsing and recycling information.

- c. The storage area shall be either fenced or provided with a recycle bin to keep the containers segregated from other wastes and to prevent them from leaving the storage area during windy conditions.
 - d. The storage area base shall be graded to divert surface water run-on. An all weather access to the area shall be provided.
 - e. The base of the storage area that does not utilize a recycle bin should be provided with either an impervious surfacing, or rock or anchored plastic membrane surfacing over a compacted soil base to keep the containers free of dirt to maximize material recovery and minimize damage to recycle grinding equipment.
 - f. All stored containers shall be removed from the temporary storage area for recycling purposes annually. Contact the Ag Container Recycling Council (website: <https://www.acrecycle.org/home>) for the current contractor.
 - g. The storage area shall be monitored frequently by the operator to confirm proper usage and to visually check for the presence of any product or rinsate releases to the environment or storage area.
 - h. Any containers found in the storage area with free product or product rinsate liquids shall be promptly removed from the storage area and either returned to the disposer or properly rinsed, drained and the liquids discharged to the on-site leachate storage system or land applied on the landfill site at the allowable labeled application rate for the product. Care should be taken to apply the product liquids to the appropriate area.
 - i. If any apparent releases to the storage area are observed by the operator or DNR personnel, the operator shall promptly report the event to the IDALS Pesticide Bureau by telephone at (515) 281-8591 with a follow-up written report of the event to IDALS. Report copies shall be provided to the DNR's Main and local Field office. IDALS representatives will conduct a site visit, sample the appropriate areas, complete the necessary contaminant(s) testing and notify the DNR of any recommended actions to be taken. The DNR will inform the permit holder of required actions to remedy the release.
11. The permit holder is authorized to use an alternative daily cover by the trade names of Concover, Finn Waste Cover, Posi-Shell, *Spray Cover*, and Topcoat as a substitute for the six-inch daily soil cover requirement. Use of these materials is subject to the following:
- a. This product shall not be used as a substitute for intermediate or final soil cover.
 - b. All landfill operations personnel shall be trained by the alternative cover material manufacturer, or by an operator that has been trained by the manufacturer. The

operator shall ensure that the product slurry is prepared according to the manufacturer's nominal slurry mix specifications.

- c. The waste shall be compacted, before this product is applied, to provide an even surface to minimize ponding, prevent pockets, and to maximize uniform surface drainage.
 - d. This product shall be applied to the active waste face at the end of each day of operations and more frequently if necessary to control fire or fire hazards, blowing litter, scavenging, odors, insects, rodents, birds and other vectors. This product shall be cross applied when necessary to provide effective cover.
 - e. If this product does not set within **one hour** of application, the workface shall be covered with six inches of compacted soil or a fresh application of this product. The term set means form a cohesive barrier layer that adheres to the waste and resists washing off by precipitation. This product shall not be exposed for more than **five (5) days**. After five days, any area exposed with this product shall be either covered with a new lift of waste, a fresh application of this product, or six inches of compacted soil.
 - f. The operator shall inspect each application of this product for thorough coverage and cover integrity. If operational problems arise from the use of this product or its method of application, the use of this product shall be suspended until proper corrections are made by the operator, with six inches of compacted daily cover being utilized during this interim period.
 - g. If, at any time, the DNR or permit holder deems this product to be ineffective or otherwise unsatisfactory, the permit holder shall immediately revert to soil or another previously approved alternative daily cover. The permit holder shall immediately notify the DNR's Main and local Field office through both written and verbal notification of this action. This notification is not necessary if use of this product ceases only on a temporary basis, such as during adverse operational or weather conditions.
 - h. Nothing in this provision shall be construed to authorize any waiver from the requirements of any other applicable state solid waste laws or regulations, or any deviations from permit provisions.
 - i. This provision shall not be interpreted to release the permit holder from responsibility under the Groundwater Protection Act for remedying conditions resulting from any release of contaminants to the environment.
12. The permit holder is authorized to use geotextiles by the trade names Airspace Saver (Fabrene), Belton Industries Style 1104 and 2159, Fabrisoil, Tarparmor by Southwest Sales Company, Typar (Exxon Chemical Company), Woven Polyolefin Fabric (L257) (Fabrene), and 315-ST Woven Geotextile (Brawler Industrial Fabrics), as an alternative cover material for the active MSWLF unit, subject to the following:

- a. The use and installation of this product shall be in conformance with the manufacturer's recommendations.
 - b. This product shall only be used as a daily alternative cover material and shall not be utilized as a replacement for soil cover if application performance in terms of litter, vector, odor, and precipitation entry control is not provided.
 - c. This product shall be applied so as not to promote water ponding, or drainage run-on from adjacent upper and side MSWLF unit areas beneath the installed geotextile.
 - d. This product shall be weighted at the close of each working day to prevent displacement by wind through the use of soil or tires.
 - e. This product shall not be exposed for longer than **seven (7)** consecutive days. For any waste covered with this product beyond the stipulated time frame, the product shall be removed and the underlying waste shall be immediately covered with soil in accordance with the applicable IAC rules
 - f. This product shall not be used if it becomes damaged or worn, or if the intended performance is breached. In such instances, this product shall be disposed of as a part of the waste fill.
 - g. The operator shall inspect each application of this product for thorough coverage and cover integrity. If operational problems arise from the use of this product or its method of application, the use of this product shall be suspended until proper corrections are made by the operator, with six inches of compacted daily cover being utilized during this interim period.
 - h. If, at any time, the DNR or permit holder deems this product to be ineffective or otherwise unsatisfactory, the permit holder shall immediately revert to soil or another previously approved alternative daily cover. The permit holder shall immediately notify the DNR's Main and local Field office through both written and verbal notification of this action. This notification is not necessary if use of this product ceases only on a temporary basis, such as during adverse operational or weather conditions.
13. The permit holder is authorized to accept, temporarily store, process, reuse or dispose of roofing shingles in accordance with the following conditions:
- a. All temporary storage, grinding and disposal operations shall be conducted within the permitted facility boundaries in the area designated for such activities. Shingle loads which are determined to be Asbestos Containing Material (ACM) shall be managed and disposed of in accordance with 567-Chapter 109 and DNR Air Quality Bureau. Sampling and testing for ACM shall be in accordance with DNR Air Quality Bureau.
 - b. Alternative daily cover reuse of ground shingles is authorized on the condition that only shingles with asbestos content of 1% or less shall be reused as an admixture for

alternative cover material. The shingles shall be ground to an average size of 3 inches or less and the ground material shall be blended on a 50% by volume basis with soil and be used only for daily cover operations. Only shingles placed at a ratio of 6:1 (6 tons of waste to 1 ton of approved shingles) will be considered alternative daily cover. Any material used in excess of that ratio shall be reported as waste.

- c. The permit holder shall scarify the shingles/soil cover material over the working face area on which it is applied prior to each day's use of that area as a working face.
14. The permit holder shall close the landfill site in accordance with the Closure Plan as included the Master Plan for Future Cell Development, dated October 2013, and the Revised Master Plan, dated December 2014, all as submitted by Barker Lemar; and the following:
- a. Effective control of leachate in unlined units shall be evaluated on a case-by-case basis to determine how to achieve the lowest possible leachate head; and by complying with the environmental monitoring and corrective action requirements for groundwater and surface water.
 - b. The Supplemental Documentation for Cell 21 and Closure Areas-Revised Report, dated November 20, 2018, as submitted by Barker Lemar and approved on January 23, 2019, is incorporated as part of the permit documents.
 - c. The Construction Observation Report: Area C Final Cover and Stormwater Improvements, dated October 27, 2022, as submitted by Evora Consulting, is approved December 12, 2022.

XI. Permit Renewal and Revision History

[illegible]