



April 13, 2022

LINN SNELL, CHAIR
TAMA COUNTY SOLID WASTE COMMISSION
BOX 33
ELBERON, IA 52225

RE: Tama County Sanitary Landfill
Permit No. 86-SDP-01-72P
Revised Permit

Dear Mr. Snell:

Enclosed is the renewed permit for the Tama County Sanitary Landfill. The permit and the approved plans must be kept at the sanitary disposal project in accordance with subparagraph 113.11(1)"a". Please review the permit with your operators, as they must become familiar with it.

Note that the permit contains special provisions that may require a response or action by you which, if not properly complied with, may prompt enforcement action by the DNR.

For any questions, please contact me at (515) 587-7638 or geoffrey.spain@dnr.iowa.gov.

Sincerely,

Geoffrey Spain

Digitally signed by Geoffrey Spain
Date: 2022.04.13 09:34:10 -05'00'

Geoffrey Spain
Environmental Engineer
Land Quality Bureau

Enclosure

cc: Doug Luzbetak, P.E.
HLW Engineering Group
204 West Broad Street
P.O Box 314
Story City, IA 50248

DNR Field Office #5, Des Moines

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

- I. Permit Number:** 86-SDP-01-72P
- II. Permitted Agency:** Tama County Solid Waste Disposal Commission
- III. Project Location:** NW ¼, SW ¼, and portion of NE ¼, SW ¼, Section 2, T83N, R15W of Tama County, Iowa (62 acres).
- IV. Responsible Official**
Name: Dave Sherwood, Landfill Administrator
Address: Tama County Solid Waste Disposal Commission
P.O Box 31
Toledo, Iowa 52342
Phone: 641-484-5061
FAX: 641-484-5061
- V. Licensed Design Engineer**
Name: Douglas J. Luzbetak, P.E.
Address: HLW Engineering Group
204 West Broad Street
P.O. Box 314
Story City, Iowa 50248
Phone: 515-733-4144
FAX: 515-733-4146
Iowa License Number: 12654
- VI. Date Permit Issued:** April 13, 2022
Date Permit Revised
- VII. Permit Expiration Date:** April 13, 2027
- VIII. Issued by:** Geoffrey Spain Digitally signed by Geoffrey Spain
Date: 2022.04.13 09:23:23 -05'00'
- 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 East Central Iowa Council of Governments Comprehensive Plan. The Comprehensive Plan as approved by the DNR on July 6, 2016; any approved amendments to the plan; and the latest plan update, are hereby incorporated as permit plan documents.

The permitted service area includes: all cities and the unincorporated area in Tama 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 Development and Operations Plan, included in Appendix 1 of Section E of the Permit Renewal Documents, dated December 10, 2021, as submitted by HLW Engineering Group, and the following:
 - a. Waste disposal is limited to Phase 1, Phase 2, and Phase 3 of the horizontal expansion. The site vertical height shall not exceed a maximum waste elevation of 1008 ft in Phase 1 and 1008 ft in Phase 2. Any further expansion beyond Phase 1 and Phase 2 shall require prior DNR approval.
 - b. 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 Toledo publicly owned treatment works (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 piezometers 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).

- c. 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.
 - d. The review comments, dated November 30, 2004 from the Department's Conservation and Recreation Division relative to the comprehensive listing of plant and animal species, in accordance with 567 IAC 101.13(1)"j"(4)1 for the development and soil borrow areas included in the review, is incorporated as part of the permit documents.
 - e. The review comments, dated December 14, 2004 from the State Historical Society relative to the determination of the presence of and assessment of the impact on any archaeological, historical, or architecturally significant properties for the development and soil borrow areas included in the review, in accordance with 567 IAC 101.13(1)"j"(4)2, is incorporated as part of the permit documents.
 - f. 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 develop the site in accordance with the Site Exploration and Characterization Report, including a Revised Phase 4 Boundary, Revised Phase 1-4 Closure Contours, and Phase 5-7 Expansion, dated December 18, 2019, as submitted by HLW Engineering Group, and approved on March 16, 2020; the hereby approved FEMA Flood Mapping, dated January 24, 2017, as submitted by HLW Engineering Group, and the following:
- a. Prior to construction of any additional MSWLF units, the permit holder shall submit updated plans and specifications prepared in accordance with rule 113.7.
 - b. 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.

- c. The Construction Certification Report for cell Phase 1, dated August 21, 2007, as prepared by Midwest Environmental Consulting and approved on November 16, 2007, is incorporated into the permit documents.
- d. The Construction Certification Report – Phase 2, dated October 25, 2010; and the Professional Engineer certification of the Construction Certification Report – Phase 2, dated November 5, 2010; both as submitted by Midwest Environmental Consulting and approved on November 10, 2010, is incorporated into the permit documents.
- e. The Construction Certification Report – Groundwater manhole; dated August 24, 2012; as submitted by Midwest Environmental Consulting and approved on September 11, 2012; is incorporated into the permit documents.
- f. The Construction Certification – Connection of SW-101 to Leachate Storage System, dated August 25, 2016, as submitted by HLW Engineering Group, is hereby approved and incorporated into the permit documents.
- g. The permit holder is authorized to replace the existing tire chip drainage layer in cell Phase 1 with clean 2-inch or 6-inch tire chips, in accordance with a letter dated October 11, 2007 and submitted by Midwest Environmental Consulting. The existing tire chip layer requires replacement because it has become intermingled with overlying uncompacted soils placed as a protective layer and the tire chip/soil combination is not expected to have a permeability of at least 1×10^{-3} cm/sec. Due to the contamination of the drainage layer caused by the overlying protective soil layer, the permit holder is prohibited from placing protective soil layers above the drainage layers of any future cells without prior DNR approval.
- h. The Iowa Professional Engineer Certification of Alternative Landfill Liner System contained in the 2006 Liner Performance Study, as included in Appendix 5 of the Permit Renewal Application, dated June 6, 2006, as submitted by Midwest Environmental Consulting and approved on November 16, 2007, satisfies the requirements of subparagraph 113.7(5)“a”2. The approved alternative liner system for this facility is applicable to Phase 1 of the approved horizontal expansion, including the north and east slopes of the liner where it abuts the unlined original landfill. This liner consists of a four (4) foot compacted soil liner with a coefficient of permeability of 1×10^{-7} cm/sec or less underlain by a six (6) inch granular groundwater drainage layer. Note that a 0.25” thick drainage net is required as part of the cap.
- i. The Revised Phase 4 Boundary documentation, and Revised Phase 1-4 Closure Contours, dated December 18, 2019, as submitted by HLW Engineering Group, is approved and included in the permit documents.
- j. The Plans and Specifications for the Phase 5-7 Expansion, dated December 18, 2019, as submitted by HLW Engineering Group, are approved and included in the permit documents.

- k. The permit holder is authorized to construct Phase 3 in accordance with the hereby approved Phase 3 plans and specifications, dated February 13, 2017; the addendum No. 1(Leachate Head Monitoring Point), received via email March 8, 2017; and the Phase 3 Expansion settlement calculations, received via email March 10, 2017; all as submitted by HLW Engineering Group.
 - l. The Quality Control and Assurance Report for the Phase 3 Expansion, dated October 2, 2017, as submitted by HLW Engineering Group, is approved and included in the permit documents. The Phase 3 Expansion can now accept waste.
4. Hydrologic monitoring at the site shall be conducted in accordance with the Hydrologic Monitoring System Plan (HMSP), included in Section F of the permit renewal documents, dated December 10, 2021, as submitted by HLW Engineering Group; and the following:
- a. The HMSP shall include upgradient groundwater monitoring points MW-20, MW-26, MW-33, and MW-37; downgradient groundwater monitoring points MW-3A, MW-8B, MW-10, MW-27, MW-34, MW-35, MW-36, and PZ-11; and groundwater underdrain/diversion line monitoring point SW-3.
 - b. Groundwater monitoring points not used for water quality analyses may be retained as water level measuring points.
 - c. 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 Well Documentation Forms for MW-3A, MW-27, MW-33, MW-34, MW-35 and MW-36; included as Appendix 3 of the Spring 2011 Water-Quality Report; dated July 1, 2011; as submitted by Midwest Environmental Consulting and approved March 15, 2012; is incorporated into the permit documents.

The HMSP Modification – Addition of Upgradient Monitoring Points, dated February 12, 2014, as submitted by HLW Engineering Group and approved August 18, 2014, is incorporated into the permit documents.

- d. 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 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 utilized in lieu of TSS, assuming a 1:1 (TSS:turbidity) ratio between TSS and turbidity.

- e. 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 may consider higher TSS/turbidity levels as representative of site groundwater conditions.
 - f. 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.
 - g. The permit holder shall semiannually measure groundwater elevations within 1/100 of a foot in each well and immediately prior to purging, each time groundwater is sampled.
 - h. The permit holder shall collect semiannual groundwater elevation measurements from GPZ-101, GPZ-103, and GPZ-106 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.
 - i. An Annual Water Quality Report (AWQR) summarizing the effects the facility is having on groundwater quality shall be submitted to the DNR's Solid Waste Section by January 31 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 AWQR Format.
5. The permit holder is authorized to recirculate leachate in the Phase 2 and Phase 3 cells in accordance with the request for Leachate Recirculation, dated April 15, 2013; the Leachate Recirculation System Quality Control and Assurance (QC&A) Report, dated April 14, 2014; and the Leachate Recirculation QC&A supplemental information, dated May 9, 2014; all as submitted by HLW Engineering Group; 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. Leachate application from a tank wagon shall be over areas with a minimum setback of 2:1 (horizontal:vertical) from the boundary between Phase 1 and Phase 2. Such areas shall be designated in advance by placing stakes along the setback line.
 - c. 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".

- d. The leachate recirculation system shall be equipped with an anti-siphon device to prevent the un-controlled discharge of the lagoon.
 - e. Leachate shall not be applied on user vehicle access areas.
 - f. 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.
 - g. Leachate recirculation shall be conducted only during hours of operation and when an operator is on duty.
 - h. Leachate shall be applied in a manner such that ponding or runoff will not occur.
 - i. 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.
 - j. Leachate recirculation (by buried trenches or spray application) shall not be conducted when head levels in the Phase 2 cell exceed 8 inches.
 - k. 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).
 - l. 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 *Gas Monitoring System Plan*, included in Section F of the permit renewal documents, dated December 10, 2021, as submitted by HLW Engineering Group, 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. Based on a completed and certified site risk assessment meeting the requirements outlined in Iowa Code section 455B.305(6), the permit holder was conditionally exempted under the

DNR letter dated September 26, 1995 from providing and implementing a leachate control plan for disposal areas that received wastes prior to July 1, 1992.

Continued exemption is subject to control of leachate at the site and compliance with the groundwater sampling and analysis requirements pursuant to subrule 113.10(4). In the event that these conditions are violated, the permit holder shall be required to comply with the environmental corrective action requirements pursuant to rule 113.10(455B).

8. The permit holder is authorized to collect grass clippings, leaves and garden wastes for the purposes of land application reuse as mulch, soil conditioner or for other beneficial reuses.
 - a. Non-composted yard waste shall not be stored for more than two (2) weeks before land application.
 - b. All non-biodegradable bags and containers shall be removed prior to land application.
 - c. The wastes may be used as mulch or soil conditioner for off-site purposes and on landfill areas with intermediate and final cover and on soil borrow areas.
 - d. Yard waste shall be land applied at a rate not to exceed 2 tons per year per acre.
 - e. Mulch or soil conditioner applied to existing vegetated landfill areas shall be applied at a rate such that established vegetation is not adversely impacted by its use.
9. The permit holder is authorized to use a geotextile by the trade name Woven Polyolefin Fabric™ (L257), manufactured by FABRENE®, 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.
10. The permit holder is authorized to use a homogeneous blended mixture of soil and crushed glass as an alternative cover material, subject to the following:
- a. The ratio of crushed glass to soil shall not exceed 1% crushed glass by volume. Quantities exceeding 1-week usage shall be disposed in the workspace area. Only crushed glass placed at a ratio of 300:1 (300 tons of waste to 1 ton of approved crushed glass) will be considered alternative daily cover. Any crushed glass used in excess of that ratio shall be reported as waste.
 - b. The crushed glass/soil may be used in lieu of the 6-inch daily cover requirement. Crushed glass/soil shall not be used as a substitute for intermediate or final soil cover.
 - c. The waste must be compacted, before the crushed glass/soil is applied, to provide an even surface to minimize ponding, prevent pockets, and to maximize uniform surface drainage.
 - d. Crushed glass/soil 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, odors, insects, and rodents.
 - e. The soil ratio shall be increased, if necessary, to optimize cover performance relative to the criteria stated in items "c" and "d" above.
 - f. The permit holder shall scarify the crushed glass/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.

- g. If the crushed glass/soil is found by the DNR not to be performing satisfactorily, its use shall be discontinued and the remaining materials shall be disposed in the working face.
11. The permit holder is authorized to accept and temporarily store a maximum of 1500 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.
12. 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.
13. The permit holder is authorized to accept and temporarily store lead acid batteries for recycling purposes. Lead acid batteries must be stored in a designated area which will curtail movement of acids and provide proper ventilation of gases from the batteries. The maximum length of time for storage is twelve (12) months.
14. The permit holder is authorized to accept ground tree and brush debris from the August 10, 2020 derecho. The permit holder authorized to use a ground tree and brush debris and soil combination as an alternative cover material, subject to the following:
- a. The ratio of wood to soil shall not exceed 50% wood by volume. Only wood placed at a ratio of 6:1 (6 tons of waste to 1 ton of approved wood) will be considered alternative daily cover. Any material used in excess of that ratio shall be reported as waste.
 - b. The wood/soil combination may be used in lieu of the 6-inch daily cover requirement. Wood/soil combination shall not be used as a substitute for intermediate or final soil cover.
 - c. The waste must be compacted, before the wood/soil combination is applied, to provide an even surface to minimize ponding, prevent pockets, and to maximize uniform surface drainage
 - d. The wood/soil combination 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, and rodents.
 - e. The soil ratio shall be increased, if necessary, to optimize cover performance relative to the criteria stated in items "c" and "d" above.

- a. The permit holder shall scarify the wood/soil combination 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.
 - b. The use of wood/soil combination for daily cover usage by any other generator than the one approved above shall be subject to specifications approval by the DNR.
 - c. If the wood/soil combination is found by the DNR not to be performing satisfactorily, its use shall be discontinued and the remaining materials shall be disposed in the working face.
15. The permit holder shall close the landfill site in accordance with the hereby approved Closure and Postclosure Plan included as Section I of the SDP Permit Renewal, dated December 13, 2016, as submitted by HLW Engineering Group; and the following:
- a. As noted in the Closure and Postclosure Plan, the permit holder shall submit to the DNR for review and approval a detailed Quality Control and Assurance (QC&A) Plan prior to commencement of any closure activities
 - b. The Landfill Closure Compliance Report, dated December 29, 2008, and supplemental information entitled Landfill Closure Report Comments, dated November 2, 2011, both as submitted by Midwest Environmental Consulting and approved on November 17, 2011, are incorporated as part of the permit documents.
 - c. The unlined fill area is closed in accordance with the documentation noted in Special Provision 14b. Final cover on this area consists of a 2 foot thick infiltration layer compacted to a minimum permeability of 1×10^{-7} cm/s overlain by an uncompacted 2 foot thick erosion layer.
 - d. 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.
 - e. The review comments, dated August 8, 2006 from the Tama Soil & Water Conservation District relative to compliance with wind and soil loss limit regulations, in accordance with 567 IAC 113.26(1)"j" for all development areas, is incorporated as part of the permit documents.

XI. Permit Renewal and Revision History (OPTIONAL)

[illegible]