January 20, 2022

BRIAN WARD
PAGE COUNTY SANITARY LANDFILL ASSOCIATION
2032 N AVENUE
CLARINDA, IA 51632

RE: Page County Sanitary Landfill
73-SDP-01-75P
Permit Revision

Dear Mr. Ward:

Enclosed is the revised permit for the Page County Sanitary Landfill. The 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)"a". Please review the permit with your operators, as they must become familiar with it.

The revised permit approves the Conceptual Development Plan, dated December 17, 2021.

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 this department.

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

Sincerely,

Geoffrey Spain Digitally signed by Geoffrey Spain
Date: 2022.01.20 13:55:29 -06'00'

Geoffrey Spain
Environmental Engineer
Land Quality Bureau

Enclosure

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

Iowa DNR Field Office #4, Atlantic

IOWA DEPARTMENT OF NATURAL RESOURCES
SANITARY DISPOSAL PROJECT PERMIT

I. **Permit Number:** 73-SDP-01-75P

II. **Permitted Agency:** Page County Sanitary Landfill Association

III. **Project Location:** The S ½ of the NW ¼ , Section 28, T69N, R37W, Page County, Iowa

IV. **Responsible Official**

Name:	Brian Ward
Address:	Page County Sanitary Landfill Association 2032 N Avenue Clarinda, IA 51632
Phone:	712-542-4215
FAX:	712-542-5858

V. **Licensed Design Engineer**

Name:	Doug Luzbetak, P.E.
Address:	HLW Engineering Group P.O. Box 314 204 W. Broad Street Story City, IA 50248
Phone:	515-733-4144
FAX:	515-733-4146
Iowa License Number:	12654

VI. **Date Permit Issued:** May 10, 2017

VII. **Permit Expiration Date:** May 10, 2022

VIII. **Issued by:** Geoffrey Spain Digitally signed by Geoffrey Spain Date: 2022.01.20 13:42:57 -06'00'

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 comply with the gas control provisions of IAC 567 Chapters 20 through 31, including paragraph 23.1(2)"rrr" for the New Source Performance Standards and paragraph 23.1(5)"a" for the Emission Guidelines.

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 Page County Planning Area Comprehensive Plan. The Comprehensive Plan as approved by the DNR on April 4, 2014; 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 of Page 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 Page County Sanitary Landfill Development and Operations Plan (DOP), included in the permit renewal application dated October 11, 2016, as submitted by Turkle-Clark Environmental Consulting, L.C., and approved on February 20, 2017, and the following:

   a. Waste disposal is limited to Phase 1, Phase 2, Phase 3, Phase 4, and Phase 5 per the site map included in the permit renewal application, dated October 11, 2016, as submitted by Turkle-Clark Environmental Consulting, L.C.. The site vertical height shall not exceed a maximum waste elevation of 1250 ft. per the Closure Plans, dated January 19, 2012, as submitted by HLW Engineering Group, and approved on August 21, 2012. Any further expansion beyond this/these Phases 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 Shenandoah, City of Coin, or the City of Clarinda 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. The monitoring of the leachate piezometers in the unlined areas shall continue to be conducted on a semi-annual basis. 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 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 construct the liner and leachate collection system in accordance with the Development and Operations Plan (DOP), dated October 11, 2016, as submitted by Turkle Clark Environmental Consulting, L.C., and approved on May 10, 2017; and the following:

    a. The Construction Certification Report #5 for the Phase 4 and 5 Expansion, dated August 22, 2017, as submitted by HLW Engineering Group, and approved on September 26, 2017, is incorporated into the permit documents.

    b. The Construction Certification Report #6 for the Phase 4 and 5 Expansion, dated November 1, 2017, as submitted by HLW Engineering Group, and approved on November 15, 2017, is incorporated into the permit documents.

    c. The Conceptual Development Plans and Specifications, dated December 17, 2021, as submitted by HLW Engineering Group, are approved and included in the permit documents.

4. Hydrologic monitoring at the site shall be conducted in accordance with the Hydrologic Monitoring System Plan (HMSP) dated October 11, 2016, as submitted by Turkle-Clark Environmental Consulting, L.C. and hereby approved; and the following:

    a. The HMSP shall include groundwater monitoring points MW-1, MW-17 (upgradient), MW-3, MW-7, MW-10, MW-11, MW-13, MW-14, MW-16, MW-18, MW-19, MW-20, GWD-1 (downgradient).

b. Groundwater monitoring points MW-4, MW-9, DH-3, and P-3 may be retained as water level measuring points.

d. 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.

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 approved by the DNR in lieu of TSS, provided a correlation between the two is established.

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 will 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 monitoring points MW-1, MW-17, MW-3, MW-7, MW-10, MW-11, MW-13, MW-14, MW-16, MW-18, MW-19, and MW-20 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".

j. In accordance with the July 10, 2014 Unnumbered Permit Amendment-TSS and Field Turbidity, dated December 12, 2017, as submitted by HLW, the permit holder is authorized utilize the correlation established between total suspended solids (TSS) and field turbidity as demonstrated in the December 12, 2017 correspondence. For future sampling events, a measurement of field turbidity and a 3:1 ratio (3 mg/l TSS:1 NTU turbidity) shall be used to estimate the TSS in the samples. Note that the DNR may require periodic resampling of TSS during future sampling events to verify the continued applicability of the 3:1 ratio.

5. The permit holder is authorized to recirculate leachate in accordance with the Request to Recirculate Leachate dated April 7, 2014, as submitted by Turkle-Clark Environmental Consulting, L.C., and approved on July 22, 2014; 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).

      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, dated July 23, 2008 and October 22, 2009, as submitted by Fox Engineering, and approved on December 14, 2009, 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 operate a satellite temporary storage center for the collection of eligible household hazardous material (HHM) and hazardous wastes from conditionally exempt small quantity generators (CESQG) from the approved service area and in accordance with the hereby approved operations plan, dated October 11, 2016, as submitted by Turkle-Clark Environmental Consulting, L.C.. All eligible wastes collected at this facility shall be temporarily stored in 55-gallon drums or totes to be kept inside the approved building. Periodically, the wastes will be transported to the host site at the Council Bluffs HHM RCC facility under permit #73-SDP-01-75P-HHM for lab packing and transport to a permitted hazardous waste disposal facility. Hazardous material shall not be stored for longer than 180 days.

8. The permit holder is authorized to collect, process, grind, or chip trees, limbs, brush, and clean wood wastes free of coatings and preservatives, for the purposes of reuse as bedding material, mulch, soil conditioner, compost bulking material; or for other beneficial reuses, in accordance with the following:

    a. Trees, limbs, brush, and clean wood wastes shall not be stored for a period exceeding twelve (12) months before processing.

    b. Ground or chipped materials shall not be allowed to accumulate such that the stockpiles are not completely reused within twelve (12) months of initial stockpiling.

    c. The processed materials 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. 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 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.

10. The permit holder is authorized to use a geotextile by the trade name *TDS-30 by TarpARMOR*, 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.

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 collect and temporarily store rigid recyclable wastes (e.g., metal cans, glass bottles and plastic bottles) and fiber recyclable wastes (e.g., magazines, catalogs, books, envelopes and paper) in segregated recycling boxes located near the landfill entrance. The following conditions and procedures shall apply:

    a. The recyclables shall not be stored for a period exceeding six (6) months.

    b. The recycle boxes shall be fitted with lids to prevent precipitation entry and to control litter.

    c. Separate boxes should be provided to segregate metals and plastics to facilitate recycling recovery.

    d. Recycling boxes shall be labeled to facilitate public use.

    e. Records shall be maintained to document amounts of waste recycled for quarterly Solid Waste Fee reporting and the dates that each box content is removed from the site for recycling to confirm storage time limitations.

    f. Recycling activities shall be monitored to insure that no other disposable wastes are stored in recycle boxes.

g. Farm chemical containers shall not be stored in recycling boxes. Separate authorization for this purpose shall be secured by permit amendment.

15. The permit holder shall close the landfill site in accordance with the Updated Closure Plan included in the permit renewal application, dated October 11, 2016, as submitted by Turkle-Clark Environmental Consulting, L.C., and hereby approved; and the following:

a. The Construction Certification Report for the 2009 and 2010 Closure Areas, dated January 11, 2011, as submitted by HLW Engineering Group and approved on February 28, 2011, is incorporated as part of the permit documents.

b. Phase 2 of the expansion area shall have a composite liner constructed by 2013 which will serve as the cap over the underlying unlined waste area.

c. The unlined area underlying Phases 3 and 4 of the expansion area will not be considered closed until such time that the composite liner has been construction over these areas. Provision V.A(10) of the consent order requires all unlined areas that receive additional waste to be capped with a composite cap, which may be accomplished through the construction of a composite liner system over it.

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. 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.

Date	**Comment**
9/26/2017	Approving Certification #5 for the installation of drainage layer.
11/15/2017	Approving Certification #6 for the FML Repair and Additional Drainage Layer
12/27/2017	Approving TSS and Field Turbidity
1/20/22	Approving the Conceptual Development Plan