

May 31, 2024

Brad Davison, Environmental Specialist
IDNR – Land Quality Bureau
6200 Park Avenue, Suite 200
Des Moines, IA 50321



**RE: ANNUAL INSPECTION REPORT – 2024
CEDAR COUNTY SANITARY LANDFILL
IDNR PERMIT NO. 16-SDP-01-76C**

Dear Mr. Davison,

The 2024 annual inspection of the Cedar County Landfill was conducted on May 29, 2024. Weather conditions were clear with light winds and temperatures in the 60's. The results of the inspection were discussed with Gary Crock, Director, Cedar County Solid Waste Commission, prior to submittal of this report.

Although the landfill stopped accepting waste earlier, a closure permit was issued June 14, 1993 and originally expired on June 14, 2023 (the date has since been extended to June 14, 2025 – see Permit Amendment #20 (Doc #108891)). The site has received the following amendments to the permit to date:

- Unnumbered Permit Amendment, October 26, 1994, required quarterly monitoring and annual reporting of methane gas.
- Permit Amendment #1, June 14, 1993, approved and authorized implementation of the Groundwater Quality Assessment Plan Supplement (GWQAP).
- Permit Amendment #2, June 8, 1998, approved modifications to the Hydrologic Monitoring System Plan (HMSP) by reducing the frequency of measurement of the monitoring well levels.
- Permit Amendment #3, September 10, 1998, incorporated changes to the HMSP to reflect results of the GWQAP.
- Permit Amendment #4, January 22, 1999, approved additional modifications to the HMSP.
- Permit Amendment #5, October 26, 2001, deleted the requirement for financial assurance due to landfill closure occurring prior to the financial assurance requirements becoming effective.
- Permit Amendment #6, January 30, 2002, approved the Emergency Response and Remedial Action Plan (ERRAP).
- Permit Amendment #7, December 23, 2003, eliminated some of the monitoring wells from the additional sampling requirements.
- Permit Amendment #8, December 21, 2004, added the drain tile discharge to the sampling requirements.
- Permit Amendment #9, March 14, 2012, modified the sampling requirements.

- Permit Amendment #10, October 3, 2012, provided for abandonment of the tile discharge.
- Permit Amendment #11, January 25, 2013, modified the HMSP requirements.
- An Unnumbered Permit Amendment, May 22, 2013, provided for the elimination of the requirement for a Semiannual Water Quality Report and revised the special provisions for Annual Water Quality Reports.
- Unnumbered Permit Amendment, July 10, 2014, required the sampling of monitoring wells for total suspended solids.
- Permit Amendment #12, March 18, 2015, revised the groundwater and explosive gas monitoring programs and approved abandonment of MW-12.
- Permit Amendment #13, August 25, 2015, revised various portions of the HMSP and detailed monitoring for the fall 2015 monitoring event.
- Permit Amendment #14, January 29, 2016, revised the monitoring schedule for spring and fall of 2016.
- Permit Amendment #15, December 20, 2016, detailed the site monitoring requirements through January 1, 2018.
- Permit Amendment #16, March 16, 2018, modified the HMSP and Explosive Gas Monitoring Plan.
- Permit Amendment #17, December 10, 2018, modified the HMSP and Explosive Gas Monitoring Plan. The cover letter also requested an agreement to access MW-19 from the current property owner.
- Permit Amendment #18, February 21, 2022, reduced the monitoring and inspection frequency to annually. It also dropped two wells from the HMSP. **Note** that Permit Amendment #18 did not address the frequency of site inspections, but a follow-up email with Matt Graesch, IDNR, dated February 21, 2022, authorized that the annual site inspection be conducted in the spring.
- Permit Amendment #19, January 20, 2023, extended the “post-closure permit” by one year. The new permit expiration date is June 14, 2024.
- Permit Amendment #20, November 7, 2023, approved the Construction Certification Report for repair of the leachate seep dated October 24, 2023.
- Permit Amendment #21, January 23, 2024, extended the “post-closure permit” by one year. The new permit expiration date is June 14, 2025.

PERMIT PROVISION STATUS

General Provisions

1. Financial assurance documents are not required as detailed in Permit Amendment #5.
2. The site was staked and surveyed upon completion of the closure activities. Inspections are being conducted and reports submitted as required.
3. An ERRAP was submitted and approved in Permit Amendment #6.

Special Provisions

1. The post-closure permit expiration date was extended to June 14, 2025 in Permit Amendment #21 (Doc #108891).
2. Closure occurred in general accordance with the approved Closure and Post-Closure Plan.
3. No waste is being accepted at the site. No recycling or composting is occurring on the landfill area. All such activities are being conducted at the Cedar County Transfer Station.
4. The 2024 groundwater monitoring and explosive gas monitoring was conducted on May 29, 2024 in accordance with the IDNR Comment Letter date May 9, 2024 (Doc #110021).
5. The site stopped accepting waste in March 1989 and final cover was installed in 1992 with a closure permit issued June 1993. The required inspections are being conducted. Staff checks the site regularly and corrects any problems noted.
6. During the fall of 2019, the Commission hired a contractor to repair erosion and drainage problems reported during previous inspections. Repairs were completed on the diversion and drainage systems and erosion and settlement areas. The erosion repairs appear to have worked well to date as no erosion was noted on the cap.
7. A leachate seep observed in approximately the same area on the south slope (as previously reported in the 2021 and 2022 reports) was repaired in the fall of 2023, as discussed later in this report.
8. The majority of the landfill had excellent vegetative growth with the exception of the few areas where sparse vegetation/bare ground was noted. The approximate locations of these areas are shown on the attached figure.

The entire site is mowed regularly. Regular mowing improves site aesthetics and aids in the establishment of desirable vegetation by controlling weeds and tree growth on the cap. Mowing also makes potential problem areas, such as leachate seeps and erosion rills, easier to observe. No trees were noted on the cap.
9. The final cover is being maintained as needed.
9. Financial assurance is not required as provided for in Permit Amendment #5. An ERRAP was submitted and approved in Permit Amendment # 6.
10. Methane gas monitoring is conducted semi-annually in the vadose zone of those monitoring wells listed in IDNR Comment Letter date May 9, 2024 (Doc #110021). The gas monitoring includes the static water level measurements in the listed monitoring wells to determine if the well screens are submerged. The Annual Explosive Gas report is submitted each calendar year with the Annual Water Quality Report.
11. Gates were closed and locked.

12. This facility is conditionally exempt from providing and implementing a leachate control system plan.

Annual Water Quality Report

The 2023 Annual Water Quality Report (AWQR) was submitted to IDNR on November 30, 2023 (Doc #108349). IDNR comments on the 2023 AWQR were received on January 23, 2024 (Doc # 108891) and on May 9, 2024 (Doc #110021). No immediate responses are currently required.

Status of MW-19

As noted in past correspondence, MW-19 does not appear to be located on property owned by the Commission. Note that this well is not included in the HMSP. Rather than provide permanent access to the well through ownership or an easement, the Commission proposes to abandon the well, with the neighboring landowner's concurrence, during the Environmental Covenant process when other monitoring wells on site will also be abandoned. It does not seem prudent to acquire permanent access to MW-19 when it will likely be abandoned within the next two years.

Leachate Seep

The persistent leachate seep (see discussion under Special Provision #7 above) was repaired in the Fall of 2023 by removing soil from the seep area, placing a geotextile fabric on the base of the area where soil was removed, and backfilling the area with clean rock. A Construction Certification Report was submitted to IDNR on October 24, 2023 (Doc #108030) and was approved by IDNR in Permit Amendment #20.

The entire repair area and the downgradient edge of the repair was observed on May 29, 2024. The repair appears to be effective. The edge appeared to be wet with a minor amount of clear water standing in the rock itself near the edge. The soil immediately adjacent to the downgradient edge of the repair was slightly moist but was not discolored. Additionally, the number of deer tracks observed along the edge appeared minimal.

Landfill Gas Monitoring

The first semi-annual gas monitoring event in 2024 (May 29, 2024) resulted in the detection of gas in MW-16 (17% LEL) and MW-18 (43% LEL).

The Cedar County Landfill Commission is currently evaluating the potential installation of gas vents or gas vent trenches at the site.

Other Topics

IDNR Field Office (FO) #6 conducted an inspection of the landfill on November 16, 2021. The report listed the following items needing attention:

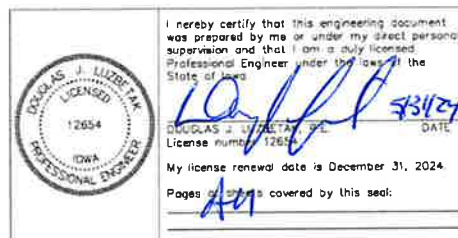
- “Multiple areas where it appeared leachate was seeping from the cover were observed on the south slope of the landfill” No seepage was observed during this inspection.
- “top of a tire was visible through the landfill cover” As documented in this report, vegetation is in excellent condition over the majority of the landfill cap. No waste was observed on the surface of the landfill during this inspection.

The environmental covenant process to reduce postclosure requirements/end the postclosure care period was previously discussed with Mr. Crock. A request to start the Environmental Covenant process will be submitted separately, most likely after 2024 sampling results are reviewed and a decision is made on potential gas venting in order to address the IDNR comments in the May 9, 2024 IDNR Letter (Doc #110021).

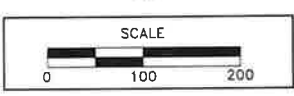
This report is based on observations made at the site at the time of the inspection and the information sources referenced in the report. This report does not reflect typical variations experienced at the site throughout the year or variations in conditions that may be observed at the site at other times.

Summary of Recommendations

- Continue to observe the area of the leachate seep repair.
- Evaluate the installation of gas vents or gas venting trenches at the site.
- Reseed the areas with sparse vegetation/bare ground shown on the attached figure.
- Delay arranging for permanent access to MW-19 until the Environmental Covenant process is started.
- Continue to monitor vegetation and erosion on site and repair as necessary.



cc: Gary Crock, Director, Cedar County Solid Waste Commission (electronic copy)



AERIAL DATED 9/01/2023



-  NEW VEGETATION
-  BARE AREA - DRY

FIGURE: 1

REVISION	NO.	DATE
DRAWN	JGH	5/31/24
PROJECT NO. 6053-23A		DATE 5/31/24

2024 SPRING INSPECTION

CEDAR COUNTY SANITARY LANDFILL
CEDAR COUNTY, IOWA

HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146

