

**REPORT OF INDUSTRIAL STORMWATER
COMPLIANCE EVALUATION INSPECTION**

AT

LP Gill Inc Landfill

1402 Highway 20,

Jackson, NE 68743

Facility Registry Service ID: 110043793767

National Pollutant Discharge Elimination System Permit: NER920000 | ISW-202201040

November 6-7, 2024

**by U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 7: Enforcement and Compliance Assurance Division**

INTRODUCTION

At the request of the Water Branch of the Enforcement and Compliance Assurance Division in Region 7 I inspected LP Gill Inc Landfill in Jackson, Nebraska, for a compliance evaluation of applicable industrial stormwater regulations. Section 308(a) of the Federal Water Pollution Control Act authorizes the inspection. I conducted this inspection following the procedures described here and following applicable Environmental Protection Agency Region 7 standard operating procedures. This narrative report presents the findings of my inspection.

PARTICIPANTS

LP Gill Inc Landfill:

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INSPECTION PROCEDURES

I, Caitlin Dix, the EPA Region 7 lead inspector, arrived at LP Gill Inc Landfill at 1402 Highway 20 in Jackson, Nebraska about 9:00 a.m. on November 6, 2024, for an unannounced inspection. I presented my inspector credentials to Justin Franks, the district manager. I told Mr. Franks that this was an inspection by the EPA Region 7 to evaluate compliance with the National Pollutant Discharge Elimination System industrial stormwater permit as authorized by Clean Water Act

Section 308 and implementing regulations. This report is based on information collected by me, the EPA Region 7 inspector, including digital images, physical evidence, measurements, statements made by facility representatives, and documents shown or sent to the EPA Region 7 inspector by facility representatives during or after the on-site inspection. Information gathered before and after the inspection from a review of the EPA, state, and public records may be included in this report.

Before the inspection, I reviewed facility background information including the:

- EPA's Enforcement and Compliance History Online.
- Nebraska Department of Environment and Energy permitted facilities search and map portal.
- Relevant maps and aerial images like The National Map by the U.S. Geological Survey.
- Waterbody report using How's My Waterway by the U.S. Environmental Protection Agency.

During the opening conference I met with Justin Franks, district manager, Wade Backstrom, waste byproduct and sustainability manager and Health Edwardson, operations manager, in a conference area in their office. All three of these facility representatives answered my questions about site operations and were with me during the walkthrough of the facility.

I described the Confidential Business Information Notice for Information Collected During the Inspection and the Small Business Resource Information Sheet during the opening conference. I emailed both forms to Justin Franks. Mr. Franks signed the confidential business information notice saying no confidential business information was collected during the inspection. I filed this signed notice in the Water Branch shared file system.

During the visual inspection I documented my findings and observations by taking pictures and taking notes using Smart Tools, a digital tool for field inspectors. I included digital images taken during the inspection in attachment 1.

I summarized areas of concern I saw during the visual inspection with Mr. Franks, Mr. Backstrom, and Mr. Edwardson during the closing conference on November 7. I issued a Notice of Preliminary Findings to the facility during the closing conference of the onsite inspection. I included this notice in the inspection report as attachment 2. The facility sent a response to the Notice of Preliminary Findings and I included this response in the report as attachment 3.

During the inspection I asked the facility to send documents to the EPA, including their:

- Stormwater pollution prevention plan.
- Records the facility must keep under permit part 5.4 like records of employee training, inspection reports, and corrective action documentation.

The facility uses paper for most of their stormwater pollution prevention plan records. I reviewed paper versions of documents like the stormwater pollution prevention plan and inspection records during the onsite inspection. The facility scanned their records so they could send them to the EPA in response to my request for copies of their records. Mr. Franks

uploaded the records to the EPA's file transfer portal on November 6 and 7. I filed the records the facility sent me in the Water Branch file sharing software and included these records in this report as attachments 4-12.

FACILITY DESCRIPTION

Facility Location

The facility is about 386 acres in Jackson, Nebraska. Agricultural land surrounds most of the facility. Using the USDA Web Soil Survey the soils expected at this site are well drained with a moderate infiltration rate when thoroughly wet. The wind erodibility index shows this site may expect to lose between 48 and 86 tons per acre per year to wind erosion. Erosion factor K is one factor in soil loss equations to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. Erosion factor K shows the susceptibility of a soil to sheet and rill erosion by water. Values of K range from 0.02 to 0.69 and other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. For this site, the web soil survey shows about 43% of the soils with a K Factor rating of 0.37 and about 57% of the site rated 0.43. This site has moderately fragile, well-drained soils.

The facility is in the Elk Creek Outlet subwatershed in the Elk Creek watershed using the National Watershed Boundary dataset. The hydrologic unit code for Elk Creek Outlet subwatershed is 101701011504. The U.S. Geological Survey hydrologic unit system shows the Elk Creek watershed is in the Lewis and Clark Lake subbasin of the Missouri Big Sioux subregion in the Missouri River region. The Outlet Elk Creek subwatershed is 28,355 acres and the facility at 386 acres is over 1% of the subwatershed.

The receiving water is Elk Creek, assessment unit identifier NE-MT2-10200. The EPA's How's My Waterway shows the 2022 assessment information includes aesthetics and aquatic life and the waterbody report did not identify impairment for these uses. From where the stream receives industrial stormwater from LP Gill Landfill, Elk Creek then flows 3.34 miles to Elk Creek assessment unit identifier NE-MT2-10100. This downstream section of Elk Creek is 303(d) listed as impaired for primary contact recreation due to *Escherichia Coli* (E. coli) in the 2022 waterbody report; there is no existing plans for restoration.

Elk Creek flows another 4.5 miles to the Missouri River. The confluence of Elk Creek with the Missouri River is in a section of the Missouri River assessed under unit identifier SD-MI-R-LEWIS_AND_CLARK_01. The 2024 report shows the waterbody condition is good for assessment information for commerce and industry waters, domestic water supply waters, fish and wildlife propagation, recreation, and stock watering waters, immersion recreation waters, irrigation waters, limited contact recreation waters, and warmwater permanent fish life propagation waters. Assessment unit identifier SD-MI-R-LEWIS_AND_CLARK_01 alternates between and briefly overlaps with assessment unit identifier NE-MT2-10000 which is 303(d) listed as impaired for public drinking water supply due to arsenic and sulfate. The 2022 waterbody report shows assessment information for aesthetics, agricultural water supply,

aquatic life, primary contact recreation, and public drinking water supply. There are not any existing plans for restoration.

The average precipitation for the area is about 29 inches per year according to the National Centers for Environmental Information U.S. Climate Normals Quick Access. This facility can expect storm events of around 2.4 inches in 24 hours every year and 4.15 inches in 24 hours every 10 years according to the NOAA Atlas 14 precipitation frequency estimates. The size and duration of expected storm events should be considered when selecting, designing, installing, and implementing proper controls to reduce pollutants in discharges associated with industrial activities at this facility.

The U.S. Fish and Wildlife Service shows the receiving section of the Missouri River as habitat range for federally designated endangered species Pallid Sturgeon. The Nebraska Game and Parks Commission threatened and endangered species 2024 feature layer shows the receiving section of the Missouri River as estimated range of state-designated species, such as endangered Pallid Sturgeon, Sturgeon Chub and threatened Lake Sturgeon. Under the permit, waters which provide a unique habitat for federally designated endangered or threatened species are State Resource Waters 'Class A' surface waters. The permit says the existing quality of these Class A surface waters must be maintained and protected.

Facility Operations

LP Gill Inc Landfill is a solid waste landfill. They provide non-hazardous solid waste collection, recycling, and landfill disposal services to commercial, industrial, municipal, and residential customers. Industrial operations include landfilling wastes received from local haulers and transfer stations, maintenance of equipment and vehicles, waste transportation, leachate collection, and land disturbance.

Regulatory History

Federal regulations at 40 CFR 122.26(a)(1)(ii) require stormwater discharges associated with specific categories of industrial activity to be covered under National Pollutant Discharge Elimination System permits unless otherwise excluded. Under 40 CFR 122.26(b)(14)(v) landfills that receive any industrial waste—waste received from any of the facilities describe under subsection 40 CFR 122.26(b)(14), including those that are subject to regulation under subtitle D of RCRA—are engaging in industrial activity applicable to the National Pollutant Discharge Elimination System. The EPA authorized the State of Nebraska to issue National Pollutant Discharge Elimination System permits for all facilities outside tribal lands in Nebraska.

The Nebraska Department of Environment and Energy received a Notice of Intent form on September 26, 2022, for L.P. Gill Inc Landfill at 1402 Highway 20, Jackson, Nebraska. I included the Notice of Intent in this report as attachment 13. As of September 27, 2022, L.P. Gill Inc Landfill may discharge stormwater under the terms and conditions of the NPDES Industrial Storm Water General Permit NER920000. The facility's authorization number is ISW-202201040 and I included the authorization letter and permit in this report as attachment 14. Permit part

1.2 says any noncompliance with any of the requirements of this permit constitutes a violation of this permit, and thus is a violation of the Clean Water Act.

Under this Nebraska Department of Environment and Energy general permit this facility is in sector L. This sector has added requirements under permit part 8.L including added: limitations on coverage, definitions, technology-based effluent limits, SWPPP requirements, inspection requirements, post-authorization document requirements, sector-specific benchmarks, and effluent limitations.

I used the Nebraska map portal at deqmaps.nebraska.gov to review the NPDES permits and compliance history for this facility. The available documents included the 2022 Notice of Intent and the Authorization described in the earlier paragraph and applications and site maps from 2012 and 2016. I did not see any records of inspection by the Nebraska Department of Environment and Energy to evaluate the facility's compliance with the industrial stormwater permit. Based on available information I reviewed, the Environmental Protection Agency has not previously inspected this facility to evaluate compliance under the National Pollutant Discharge Elimination System.

FINDINGS AND OBSERVATIONS

I noted the following observations during the visual inspection and record review.

I accessed weather measurements recorded at the Sioux City Airport using the integrated surface database hosted by the National Centers for Environmental Information. This weather station reports 0.16 inches of rain on November 5 the day before the inspection. Recent rain events also include 0.16 inches of rain on November 4, 0.03 inches of rain on November 3 and 0.49 inches of rain on November 1. This weather station is about 13 miles from facility and these rain measurements may not accurately represent the amount of rain received at this facility. The U.S. Drought Monitor shows the broad scale conditions for the area as experiencing severe drought on November 5.

I saw that the facility keeps a rain gauge outside the front office and records measured rain events on daily logs. The facility showed me these logs during the onsite inspection, but the facility did not scan and send all their daily logs to the EPA. I asked the facility to send an example of the daily logs and operations reports. The facility sent examples from September 2024. I included these daily log examples in the report as attachment 6 and these logs show where the facility records precipitation and weather observations. Mr. Edwardson said they may have received about 0.5 to 0.75 inches over the last few days and maybe 0.2 inches the day before the inspection.

LP Gill Landfill is a solid waste landfill that receives wastes from local haulers and transfer stations. They provide non-hazardous waste collection, recycling, and landfill services to commercial, industrial, municipal, and residential customers.

Stormwater runoff from LP Gill Landfill is stormwater directly related to manufacturing, processing, and raw materials storage areas at an industrial plant as described in 40 CFR 122.26(b)(14)(v). I saw industrial activities at this site as described under 40 CFR 122.26(b)(14) such as:

- Industrial plant yard.
- Immediate access roads used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility.
- Material handling sites, including storage, loading and unloading, transportation or conveyance of raw material, intermediate product, final product, byproduct or waste product.
- Refuse sites.
- Sites used for the application or disposal of process wastewaters defined at part 401 of this chapter.
- Sites used for the storage and maintenance of material handling equipment.
- Sites used for residual treatment, storage, or disposal.
- Shipping and receiving areas.
- Manufacturing buildings.
- Storage areas for raw materials, and intermediate and finished products.
- Areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater.

I saw only a portion of the industrial activities and materials during my site inspection. I saw most industrial activities, like the open face of the active landfill cell with exposed waste and active heavy equipment, from a distance following the safety guidance from the facility. The facility said these areas are all lined and that contaminated stormwater and landfill wastewater drains to the leachate collection system. I relied on the statements and reports made by the site representatives for areas that were not readily accessible due to safety.

The facility has six permitted discharge points that drain to Elk Creek.

The facility's stormwater pollution prevention plan shows six permitted discharge points. I used the EPA's stormwater discharge mapping tool and the results showed the catchments in the facilities footprint drain to Elk Creek. Mr. Backstrom said Outfall 2 is the first and sometimes only discharge point during storm events. Outfall 2 is at the outlet of a culvert on the east side of the access road to the facility south of Highway 20. Image 1 and 2 show Outfall 2. Discharges from Outfall 2 flow to a culvert that drains under Highway 20 to Elk Creek. Images 1 and 22 show the culvert that drains under Highway 20.

Mr. Backstrom said that other permitted discharge points may discharge during storm events, but most have not discharged during the storm events while he has worked at the facility, which he said was about three years. Mr. Backstrom said some permitted discharge points have

never discharged during his time at this facility, like outfalls 4 and 6. Mr. Edwardson who has worked at this facility for about 14 years also said he had never stormwater exit the facility at outfalls 4 and 6. The facility has installed infiltration basins immediately before the discharge points of outfalls 1, 3, 4, 5, and 6. There is an infiltration basin upstream of Outfall 2. I saw stormwater in the infiltration basins before outfalls 1 and 4 and in the infiltration basin in the drainage area for Outfall 2. I did not see any stormwater in the infiltration basins at Outfall 6. I did not see outfalls 3 and 5 or the associated infiltration basins.

Mr. Backstrom said Outfall 1 is the next permitted discharge point to have an actual discharge during a storm event after Outfall 2. The pipe at the permitted discharge point Outfall 1 is a straight pipe that drains from the infiltration basin through the basin embankment as shown in images 3-4. The facility has two infiltration ponds upstream of Outfall 1 as part of a treatment train. Images 3 and 4 show the last basin in this treatment train. I did not see any discharges and the water level was several feet below the invert of the outlet pipe. The basin embankment is not vegetated from the water surface to a bankfull height that would be a height near the bottom of the pipe, as shown in image 3. This water line on the embankment shows that basin has been full enough to reach the discharge pipe and for long enough to suppress vegetation on the embankment. Image 9 shows the upslope basin. Images 7-8 and 10-12 show conveyance to these basins.

Image 14 is looking towards Outfall 4 and the associated infiltration basin. Mr. Backstrom said this is the first year that he has seen pooling water in this infiltration basin. Mr. Backstrom said this pooling water may show that they need to remove silt from the basin floor.

Image 13 is looking towards Outfall 6 and the associated infiltration basin. This image shows the recently inspected and closed construction and demolition landfill. Mr. Backstrom said he has not seen water discharge at this outfall but he has seen water in the basin. Mr. Edwardson said he dug out the basin about eight years ago.

I did not see the infiltration basins or discharge points at Outfall 3 and Outfall 5 because these sites were more to difficult access. Facility representative said there were no relevant industrial activities in the drainage area and muddy conditions restricted vehicle access. I viewed aerial images and I did not see any relevant activity or disturbance. Mr. Franks said these areas were mostly fields and wooded areas that are not currently active. Mr. Backstrom says he inspects these permitted discharge points during routine inspections and monitoring, nonetheless. Mr. Backstrom said he has not seen water in the infiltration basin serving Outfall 3.

The facility said that these other infiltration basins at the discharge points are the same design as Outfall 2 with a straight drainage pipe through the downslope side of the embankment.

The facility must use control measures to meet technology-based effluent limits under permit part 2.

The facility must select, design, install, and implement control measures to minimize pollutant discharges that address the selection and design considerations in part 2.1.1., meet the non-

numeric effluent limits in part 2.1.2, meet limits contained in applicable effluent limitation guidelines in part 2.1.3, and meet the water quality-based effluent limitations in part 2.2.

The facility must comply with non-numeric technology based effluent limits under 2.1.2. The facility must minimize exposure under part 2.1.2.1. of the permit by either locating industrial materials and activities inside or protecting them with storm-resistant coverings. I saw that the facility had minimized exposure of stormwater to some industrial activities like the facility maintains equipment inside a storm-resistant building. I saw the facility enclosed the wash bay used to clean equipment before maintenance in a storm-resistant shelter and drains collect the washwater. Mr. Backstrom said the washwater drains through a double-walled pipe to the leachate collection system. I saw that the unloading area for wastes received from the community is in a storm-resistant shelter and that staff cleaned this area using dry methods to prevent or reduce the discharge of pollutants.

Some industrial activities and materials are not covered to minimize exposure to stormwater and the facility uses other controls to minimize exposure, like grading, berms, or curbing to prevent runoff contaminated flows and divert run-on away from these areas. I saw grading and berms to prevent runoff of contaminated flows and divert run-on away from industrial materials and activities, like in image 15 berms direct stormwater runoff around active landfill operations.

Mr. Backstrom described how the facility stores and maintains heavy equipment over lined landfill areas so that leaks and spills are contained and contaminated flows collected by the leachate collection system. I did not see evidence of leaks and spills around the maintenance buildings, wash bay, community drop-off area, or any other areas I observed.

The facility must keep clean all exposed areas that are potential sources of pollutants under part 2.1.2.2 Good Housekeeping.

I saw sweeping used in some areas of the facility, like the community drop-off building. I saw materials, like vehicle fluids, stored in appropriate containers. Mr. Franks said they have two staff dedicated to picking up trash. I saw some waste, garbage, and floatable debris in exposed areas, like in images 10-11.

The facility must maintain all control measures they use to achieve the effluent limits required by this permit in effective operating condition under permit section 2.1.2.3 Maintenance. Under sector L the facility has additional preventative maintenance requirements for the leachate collection and treatment system.

The permit requires the facility to regularly inspect, test, maintain and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in stormwater discharged to the receiving waters. I saw daily and weekly operations logs and inspection reports that show this facility routinely inspects their equipment and control measures. Image 5 shows a recently maintained infiltration basin that was excavated to remove silt. I saw the embankments were not vegetated or provided with temporary stabilization. Mr. Backstrom said the embankments will naturally vegetate.

As part of the landfill's preventive maintenance program, the facility must maintain all elements of leachate collection and treatment systems to prevent commingling of leachate with stormwater. Image 6 shows the leachate pond. Leachate either evaporates or the facility contracts a hauler to take the leachate to a wastewater treatment facility. The facility recently upgraded their evaporator equipment. Mr. Franks said the evaporators often cannot operate in the winter due to freezing conditions and they often complete any evaporator maintenance over the winter. The facility usually pumps leachate for hauling in the spring since freeboard decreases over the winter when the evaporator is not running. Mr. Edwardson said the facility did not have a set threshold of freeboard for when they need to pump and haul leachate out of the pond. Mr. Edwardson says he checks the levels of the leachate pond daily and the daily logs I reviewed in the office showed records of estimated freeboard.

As part of the landfill's preventive maintenance program, the facility must maintain the integrity and effectiveness of any intermediate or final cover—including repairing the cover as necessary—to minimize the effects of settlement, sinking, and erosion. The closed landfill cell I saw had final cover greater than 70% and I saw the facility uses berms to manage runoff and reduce erosion, like in photo 13. Mr. Franks said that they contract any application of fertilizers, pesticides, and herbicides as part of the maintenance program.

I saw that the haybales, shown in images 19, in the swale upstream of Outfall 2 were deteriorated and needed maintenance. I saw pieces of deteriorated haybales in the channel downstream of Outfall 2, like in image 23.

The facility must minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective responses to such spills if or when they occur to minimize pollutant discharges under permit part 2.1.2.4.

I did not see evidence of leaks, spills, or other releases. I saw containers that were plainly labeled. The facility has a spill prevention, control, and countermeasure plan. I included this plan as attachment 5.

The facility must minimize erosion by stabilizing exposed soils and placing flow velocity dissipation devices at discharge locations to minimize channel and streambank erosion in the immediate vicinity of discharge points under permit part 2.1.2.5. The facility must also use structural and non-structural control measures to minimize the discharge of sediment under permit part 2.1.2.5. Sector L has added requirements under permit part 8.L.5.2 Erosion and Sedimentation Control to provide temporary stabilization for the following: materials stockpiled for daily, intermediate, and final cover; inactive areas of the landfill or open dump; landfills or open dump areas that have gotten final covers but where vegetation has yet to establish itself; and land application sites where waste application has been completed but final vegetation has not yet been established.

I saw large areas of exposed soils around the active landfill operations, like in image 15. I saw exposed soils in recently graded infiltration basins and swales, like in images 5 and 7-9. Mr. Franks said they graded these areas about three weeks before and that weather permitting

they expected to finish in the next month. I did not see temporary stabilization for these recently graded areas. I saw erosion in a swale draining to Outfall 2, shown in image 19-20. I saw deposited sediments in swales shown in images 10-12 and 19-20. I saw sediment deposits at Outfall 2, shown in images 1 and 2. Sediment in the outlet pipe of Outfall 2 shows the facility needs more control measures to minimize the discharge of sediment. I saw sediments of the same color and consistency in the channel downstream of Outfall 2, like in images 22-25 and 33.

I saw evidence that velocity dissipation has not been effectively used as shown by erosion in the conveyance shown in images 19 and 20 upstream of Outfall 2. I saw stormwater velocity concerns like erosion downstream of Outfall 2, like in images 22 and 31. Although the landfill is not the only contributing land area to the conveyance downstream of Outfall 2, they are the majority of the catchment and runoff for this channel.

The facility must divert, reuse, contain, or otherwise reduce stormwater runoff to minimize pollutants in their discharges under permit part 2.1.2.6 Management of Stormwater.

I saw the facility diverts stormwater using berms and grassed swales. Mr. Backstrom said interior landfill roads are cut be higher on the outfall side so runoff drains to interior ditch on landfill side. I saw that the facility uses a leachate collection pond and infiltration basins to contain stormwater runoff to minimize pollutants in their discharges.

The facility must train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit under part 2.1.2.9 Employee Training.

The facility sent records of routine training and safety meetings with topics including spill prevention, control, and countermeasures. I included these records in this report as attachment 10. I did not see records of training on the stormwater pollution prevention plan and the site-specific controls used to achieve the effluent limits. The facility representatives I spoke with were knowledgeable about the specific control measures to achieve the effluent limits, and monitoring, inspection, planning, reporting, and documentation requirements. Mr. Backstrom is the primary inspector and sampler for the stormwater pollution prevention plan. Based on my conversations with Mr. Backstrom about inspections and sampling, Mr. Backstrom is knowledgeable about the implementing activities necessary to meet permit conditions. I did not observe Mr. Backstrom sample but how he described his sampling plan and procedures sounded appropriate to guidance.

The facility must complete routine facility inspections, quarterly visual assessments of stormwater discharges and comprehensive site inspections under permit section 4. Sector L has added inspection requirements under permit part 8.L.7.

The facility must inspect the facility routinely and at least once each calendar quarter under permit part 4.1. The facility may need to inspect more often based on the types of equipment, processes, and control measures, or areas of the facility with significant activities and materials exposed to stormwater. At least once each calendar year, the facility must conduct a routine facility inspection during a period when stormwater is discharging off-site or to an on-site

stormwater retention structure. The added inspection requirements include: inspections of active sites at least once every 7 days and focus on: areas of landfills that have not yet been finally stabilized; active land application areas, areas used for storage of material and wastes that are exposed to precipitation, stabilization, and structural control measures; leachate collection and treatment systems; and locations where equipment and waste trucks enter and exit the site. The facility must make sure that sediment and erosion control measures are operating properly. For stabilized sites and areas where land application has been completed the facility must inspect at least once every month. The facility must inspect inactive sites at least quarterly. The facility sent weekly and monthly inspection records and I included these inspection records in this report as attachments 7 and 8. The facility sent weekly inspection reports for the period between October 2022 and November 2024. The facility sent monthly inspection reports for the period between December 2020 and October 2024. I did not review these records for completeness but based on my cursory review these records looked comprehensive.

The facility must complete quarterly visual assessments of stormwater discharges under permit part 4.2.

The facility sent records of visual assessments of industrial stormwater discharges. I included the visual assessment records as attachment 11.

The visual monitoring reports in 2021 show brown, muddy water described as chocolate milk with settled solids and suspended solids. Some of the 2021 reports show foam and notes that there is a need for a lot of improvement. Several of these reports say, “no corrective action.” Permit part 4.2.1 says that whenever the visual assessment shows evidence of stormwater pollution, the facility must initiate corrective action procedures. These assessment reports from 2021 are before the current permit coverage and requirements. I did not review the earlier permit requirements but in general for anything but colorless and odorless stormwater the facility should investigate the area and pollutant sources contributing to the contamination of the site’s runoff and the facility should clean up all sources of potential contamination, make changes to the structural control measures and update the stormwater pollution prevention plan, as necessary.

I did not see records of visual assessments in quarter one, quarter two, and quarter three of 2022. The observations of brown, murky water with settled solids and suspended solids continue in quarter four of 2022 with no corrective action. Permit part 4.2.1 says that whenever the visual assessment shows evidence of stormwater pollution, the facility must initiate corrective action procedures.

2023 visual assessment reports show brown discharges with foggy clarity, settled solids and suspended solids. The reports show no corrective action. Permit part 4.2.1 says that whenever the visual assessment shows evidence of stormwater pollution, the facility must initiate corrective action procedures.

The 2024 reports show no visual assessments of stormwater discharges and the reports say there were either no qualifying events or visual assessments could not be completed in the first thirty minutes of discharge. In 2024 the facility reports “no ability to take sample within 30

minutes of initial discharge.” The facility may still make visual assessments of the stormwater discharges and then report that the assessment was not during the first 30 minutes. Visual assessments outside of the first 30 minute of discharge may still provide useful information to help the facility evaluate their controls compared to no samples and no visual assessment at all. As an example, the 2021 visual assessments were not all collected in the first 30 minutes of discharge and the 2021 reports show there was brown, murky stormwater discharge at Outfall 2. Even though these assessments were not in the first 30 minutes of discharge they show visual evidence of pollution and provide feedback on the performance of the selection and implementation of pollution controls. The visual assessments reports from 2024 are not clear when the facility says “no discharge observed” if there was no actual discharge to observe or if the facility did not observe or monitor the discharge.

Outfall 2 is sometimes the only permitted discharge point in the visual assessment reports. The 2021, 2022, and most of the 2023 records do not report whether the facility observed the other outfalls and there is no supporting documentation to show the other outfalls were not discharging. Starting in quarter four of 2023 the facility begins using a new form that includes all outfalls and begins reporting “no discharge observed”. Similarly, the facility begins attaching rain records when they report no discharge observed. The visual assessments reports from 2024 and quarter three in 2023 are not clear when the facility says “no discharge observed” if there was no actual discharge to observe or if the facility did not observe or monitor the discharge.

The 2021 quarter two visual assessment report and statements made by the facility during the inspection identify the roads and agricultural fields as the potential source of pollution they saw during visual assessments. The facility’s visual assessment results show disturbed or unpaved areas lack adequate structural control measures. Similar visual assessment results across multiple monitoring events show that the sources are likely from ongoing activity that lacks adequate structural control measures.

The facility must complete annual comprehensive site inspections under permit part 4.3. The facility sent records of annual comprehensive site compliance inspections for 2022, 2023, and 2024. Mr. Backstrom completed and certified all of these annual comprehensive site inspection reports. The report sections mostly say “No Action Required” under each section with some additional notes and documentation for some sections. I included these reports as attachment 9. These annual comprehensive site inspection reports do not identify required corrective actions, such as corrective actions after visual assessments showed pollution, or identify missing records, like missing records of visual assessments in quarter one, quarter two, and quarter three of 2022.

The facility has a Stormwater Pollution Prevention Plan as required under permit part 5.

I saw the facility sent a stormwater pollution prevention plan dated September 2022 with their application to the Nebraska Department of Environment and Energy. I asked the facility to send me their current stormwater pollution prevention plan. The facility sent a stormwater pollution prevention plan dated September 2022 with no additional revisions reported. The facility also

sent the cross-referenced spill prevention, control, and countermeasures plan dated December 2022. I included these plans as attachments 4 and 5.

I saw a stormwater pollution prevention plan that had the basic elements required by the permit like: a stormwater pollution prevention team, site description, summary of potential pollutant sources, description of control measures, schedules and procedures, documentation to support eligibility, and certification signatures.

Sector L has additional SWPPP requirements under permit part 8.L.6. The drainage area site map must show where any of the following may be exposed to precipitation or surface runoff: active and closed landfill cells or trenches, active and closed land application areas, locations where open dumping is occurring or has occurred, locations of any known leachate springs or other areas where uncontrolled leachate may commingle with runoff, and leachate collection and handling systems. The site map in the stormwater pollution prevention plan did not show which landfill cells are active or closed and did not show all the leachate collection and handling system. The site map did show the leachate pond but did not show other leachate system elements like conveyance. The summary of potential pollutant sources must include the following sources and activities that have potential pollutants associated with them: fertilizer, herbicide, and pesticide application; earth and soil moving; waste hauling and loading or unloading; outdoor storage of significant materials, including daily, interim, and final cover material stockpiles as well as temporary waste storage areas; exposure of active and inactive landfill and land application areas; uncontrolled leachate flows; and failure or leaks from leachate collection and treatment systems. The potential pollutant sources in section 3.4 did not include all the required elements like uncontrolled leachate flows and failure or leaks from the leachate collection system.

The stormwater pollution prevention plan says the facility shreds tires to use as daily cover. All of the landfill representatives told me that the tire shredding had stopped. This is an industrial activity that no longer happens at this site. The SWPPP may be updated to show that this is not a current operation.

As mentioned above I did not see all required elements in the stormwater pollution prevention plan. I did not complete a comprehensive review of the plan and the facility should consider evaluating their plan to make sure that it includes all required elements.

The facility must monitor discharge points where stormwater exits the facility or property under permit part 6.

The monitoring requirements under permit part 6 apply to each outfall authorized by the permit. This permit includes five types of required analytical monitoring and more than one may apply to the discharge at this facility:

- Sector L2 has indicator monitoring under permit part 6.2.1. and operators must monitor stormwater discharge for pH, total suspended solids, and chemical oxygen demand. Sector L2 includes all landfill, land application sites and open dumps, except municipal solid waste landfill areas closed in accordance with 40 CFR 258.60.

- This facility must complete benchmark monitoring of any industrial stormwater discharges under permit part 6.2.2. This permit requires subsector specific benchmarks under 8.L.9 and all sector L facilities must monitor for total suspended solids and the benchmark threshold is 100 mg/L.
- This facility is in an industrial category subject to effluent limitation guidelines following 40 CFR Part 445 for runoff from waste landfills. These effluents limits are in part 8.L.10 of the permit. The facility shows effluent limitation monitoring parameters in their stormwater pollution prevention plan as: ammonia, alpha terpineol, benzoic acid, biochemical oxygen demand, p-Cresol, phenol, total suspended solids, total zinc and pH.
- This facility discharges to a section of receiving stream that is not 303(d) listed as impaired. I do not believe the requirement under permit part 6.2.4 to monitor any industrial stormwater discharges to impaired waters applies to this facility.
- The facility does not have added monitoring required by Nebraska Department of Environment and Energy under permit part 6.2.5. I did not see any records of the Nebraska Department of Environment and Energy notifying this facility of additional discharge monitoring requirements.

This facility sent records of sample analysis and I reviewed these reports. Some of the reports include different parameter and outfalls. For this report I show the results for total suspended solids since that is the benchmark parameter in the current permit. I copied the results from the analysis reports into the table below:

Table 1.

Date sample collected	Outfall	Parameter	Result (mg/L)	Benchmark Value (mg/L)
4/8/2021	002	Total Suspended Solids	9100	100
4/8/2021	005	Total Suspended Solids	86	100
9/30/2021	002	Total Suspended Solids	1910	100
10/13/2021	002	Total Suspended Solids	132	100
10/28/2021	002	Total Suspended Solids	70	100
5/5/2022	002	Total Suspended Solids	690	100
8/15/2022	002	Total Suspended Solids	169	100
12/13/2022	002	Total Suspended Solids	498	100
3/15/2023	002	Total Suspended Solids	27	100
5/12/2023	002	Total Suspended Solids	298	100
9/22/2023	002	Total Suspended Solids	31	100

Based on a cursory review of the reports the sample analysis conforms to 40 CFR 136. I did not fully review to see if the facility collected the samples in the first 30 minutes of discharge. The

results show several exceedances of the benchmark value of 100 mg/L for total suspended solids.

Based on my review the facility has not completed all required benchmark, indicator, and effluent limit monitoring. Such as, the facility did not complete four quarters of monitoring after exceedances triggered the Level 1 response, see section below for more information. The facility did not show that they have completed indicator monitoring quarterly for the entirety of the permit coverage. The facility did not show that they have completed effluent limitation guidelines annually for the entirety of the permit coverage. I included the facility's monitoring reports in this report as attachment 12.

The permit requires corrective actions after triggering events under permit part 3.

The permit requires corrective action under certain conditions, like:

- An unauthorized releases or discharge occurs.
- A discharge violates effluent limits.
- The facility becomes aware that control measures are not stringent enough for the discharge to meet applicable water quality standards or the non-numeric effluent limits in the permit.
- An inspection or evaluation of the facility by a NDEE official, EPA official, or local entity, finds that modifications to the control measures are necessary.
- When routine facility inspections, quarterly visual assessments, or comprehensive site inspections find that control measures are not being properly operated and maintained.
- Whenever a visual assessment shows evidence of stormwater pollution.

On November 15, Eric Watermeier, staff professional for SCS Engineers sent a response to the Notice of Preliminary Findings and a corrective action report completed by the Mr. Franks on November 7. The report shows the EPA's Notice of Preliminary Findings triggered corrective action. The report says, "The Notice of Preliminary Findings documented sedimentation buildup around Outfall 02 and the drainage channel downstream of Outfall 02. To address the sedimentation and erosion control, the facility installed multiple rows of silt fencing in the drainage channel upstream of Outfall 02, cleaned the Outfall 02 basin inlet and discharge pipe of built-up sediment, and removed sedimentation build up in the drainage channel downstream of Outfall 02. The drainage channel downstream of Outfall 02 was backfilled with clean aggregate after the sedimentation was removed." The facility sent images showing conditions before and after their corrective actions. This response and corrective action report is included in this report as attachment 3.

While I was reviewing records in the NDEE portal I saw the facility also sent NDEE a corrective action report for benchmark or effluent limitations monitoring. Mr. Franks reports that on November 7 they discovered average benchmark value exceedance and that, "On December 28, 2022 a benchmark exceedance TSS was identified at 498mg/L placing Outfall 002 into AIM Level 1. Stormwater monitoring continued in 2023 - obtaining samples in March, May, and September. The sampling events had a TSS result of 27 mg/L, 298 mg/L, and 31 mg/L, respectively." The report shows corrective actions completed on October 31, 2023, included,

“Upon discovery of the Benchmark Exceedance additional erosion controls (straw bales, etc.) were placed in the drainage channel leading to Outfall 002. The stormwater drainage channels were repaired and the stormwater retention pond was dredged and cleaned to increase capacity.”

The permit requires additional implementation measures if an annual average exceeds an applicable benchmark threshold. The facility then must follow the corresponding additional-implementation-measure-level responses and deadlines described in parts 3.2.3, 3.2.4, and 3.2.5, unless the facility qualifies for an exception under part 3.2.6. Single sample results exceeded the benchmark threshold by more than four times on April 8, 2021, September 30, 2021, and May 5, 2022, but the earlier permit conditions would apply to these monitoring events. The average of the last four sample results exceeded the benchmark threshold on August 15, 2022, December 13, 2022, March 15, 2023, May 12, 2023, and September 22, 2023. Some of these averages are not an average of the last four quarters in one year since each year did not have results for all four quarters. To calculate the averages, I added the current sample result plus the last three sample results divided by four. Every average I calculated exceeded the benchmark threshold of 100 mg/L for total suspended solids and these results should trigger an escalating additional implementation measure response. The facility did not send the EPA any records showing additional implementation level responses under permit part 3. Based on the sample results I reviewed, the facility may have needed to escalate to Level 2 response when continued quarterly benchmark monitoring results show the four-quarterly annual average for total suspended solids exceeds the benchmark threshold. The facility should not return to baseline status until continued quarterly benchmark monitoring results indicate that an AIM triggering event has not occurred after four quarters of monitoring. The facility did not complete four quarters of monitoring after exceedances triggered the Level 1 response.

SUMMARY

I saw areas of concerns that I think the facility should evaluate:

1. I saw some waste, garbage and floatable debris in exposed areas.
2. Based on statements made by the facility and a review of the records sent to the EPA, the facility has no established threshold for pumping the leachate pond based on needed freeboard for expected storm events. As part of the maintenance plan to prevent stormwater pollution, the facility should have a known threshold for when pumping is needed, and that threshold should consider the size and duration of expected storm events.
3. I saw that added erosion and sediment control was needed:
 - a. I saw deteriorated controls that needed repair.
 - b. I saw sediment deposits in stormwater conveyance.
 - c. I did not see temporary stabilization for areas graded about three weeks earlier.
 - d. I saw evidence that more velocity dissipation is needed.
4. Based on statements made by the facility and a review of the records sent to the EPA, the stormwater ponds do not have technical design based on expected runoff in the catchment.

5. I did not see records of training on the stormwater pollution prevention plan and the site-specific controls used to achieve the effluent limits.
6. I did not see records of visual assessments in quarter one, quarter two, and quarter three of 2022.
7. Visual assessment reports in 2021, 2022, and 2023 show evidence of stormwater pollution without corrective action.
8. The facility did not complete visual monitoring of an actual discharge in 2024.
9. The annual comprehensive site inspection reports do not show required corrective actions, such as corrective actions after visual assessments showed pollution, or identify missing records, like missing records of visual assessments in quarter one, quarter two, and quarter three of 2022.
10. I did not see all required elements in the stormwater pollution prevention plan, like all the added SWPPP requirements for sector L under permit part 8.L.6.
11. Based on my review, the facility has not completed all required benchmark, indicator, and effluent limit monitoring.
12. The facility has not completed all required corrective actions including an escalating additional implementation measure response after benchmark exceedances.

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Caitlin Dix
Physical Scientist, Water Branch
Enforcement and Compliance Assurance
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Nicole Moran
Acting Water Branch Supervisor
Enforcement and Compliance Assurance
Division

ATTACHMENTS:

1. Digital Image Log (41 pages)
2. Notice of Preliminary Findings (2 pages)
3. Response and corrective action reports (9 pages)
4. Stormwater Pollution Prevention Plan (269 pages)
5. Spill Prevention, Control and Countermeasure Plan (65 pages)
6. Example of daily operations logs (16 pages)
7. Weekly inspection records (210 pages)
8. Monthly inspection records (305 pages)
9. Annual inspection records (15 pages)
10. Employee training record (5 pages)
11. Visual assessment of stormwater discharges (38 pages)
12. Sample analysis reports (128 pages)
13. Notice of Intent (283 pages)
14. Notice of authorization and permit (173 pages)