

December 14, 2023

Mr. Leif Tolokken
Manager, Water and Waste Programs
Dairyland Power Cooperative
3200 East Avenue South
La Crosse, WI 54601

Subject: Alma Off-Site Disposal Facility – Phase IV Landfill
2023 Annual Inspection by a Professional Engineer

Dear Mr. Tolokken:

This letter presents the results of the inspection of the Alma Off-Site Disposal Facility – Phase IV Landfill located in the town of Belvidere, Buffalo County, Wisconsin. Prior to the inspection TRC reviewed the permitting documents, the weekly inspection forms, the operational plans, and the documents posted on the publicly accessible website.

On November 16, 2023, BreAnne Kahnk, PE, of TRC Environmental Corporation (TRC) along with Todd Martin of TRC performed an on-site inspection of Dairyland Power Cooperative's (DPC) coal combustion residual landfill with Leif Tolokken and Brian Kalvelage of DPC. Attached to this letter are the inspection report and a photographic log to document the observed conditions.

Based on the documents reviewed and the site inspection, the landfill is designed, constructed, operated, and maintained consistent with good engineering practices. The site was being operated in a safe manner and there were no indications of structural weakness at the time of the inspection.

Sincerely,

TRC



BreAnne Kahnk, P.E.
Senior Engineer

Attachments: Landfill Inspection Checklist
Photographic Log

cc: Todd Martin – TRC
Brian Kalvelage – DPC



999 Fourier Drive, Suite 101 (53717) Madison, WI 608.826.3600

PROJECT/PROPOSAL NAME Dairyland Power Cooperative Phase IV, Alma Off-site Disposal Facility	PREPARED		CHECKED		PROJECT/PROPOSAL NO. 525154.0000
	By: B. Kahnk	Date: 12/01/2023	By: T. Martin	Date: 12/8/2023	

Landfill Annual Inspection Report

Purpose:

This inspection checklist has been developed to meet the requirements for inspections by a qualified professional engineer for a coal combustion residual (CCR) landfill. This checklist exceeds the requirements for 40 Code of Federal Regulations 257.84(b) and s. NR 506.20(2). This inspection of the Alma Off-Site Disposal Facility Phase IV Landfill was performed by TRC Environmental Corporation on behalf of Dairyland Power Cooperative (DPC).

The goal of the inspection is to ensure that the design, construction, operation, and maintenance is consistent with recognized good engineering practices. In addition, the inspection looked for conditions of structural weakness or conditions that may affect the safe operation of the CCR unit.

The following were performed for the inspection of the CCR unit.

Review of Available Information:

The following documents were reviewed in preparation of the site visit.

- Fugitive Dust Control Plan (12/30/2022)
- Groundwater Monitoring Program (10/2017)
- Dust Control Report (12/2022)
- Post-Closure Plan (01/2023)
- Closure Plan (01/2023)
- Run-on and Run-off Control System Plan (10/2021)
- Annual Landfill Inspection Report (12/14/2022)
- Location Restrictions (5/2018)
- Weekly inspections performed by qualified personnel (11/8/2022 through 11/6/2023)
- WDNR CCR Annual Report (2/3/2023)
- WDNR Plan Modification (1/30/2023)

Comments on the Operating Record:

Electronic system that is well organized and accessible from the office at the landfill. Able to access weekly inspections, reports, and records of government notifications.



INSPECTION REPORT

SHEET 2 OF 5

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Summary of the Site Conditions (based on document review):

DPC operates a CCR landfill (Alma Off-Site Disposal Facility Phase IV Landfill) located in the NE 1/4 of the NE 1/4 of Section 19 and portions of Sections 18 and 20, T21N, R12W, Town of Belvidere, Buffalo County, Wisconsin. The location of the Phase IV landfill is in a valley.

The Phase IV landfill is permitted through the State of Wisconsin (License #4126). To date, the liner system for Cells 1, 2A, 2B, 3A and 3B have been constructed. Final cover has been installed over a portion of Cells 1, 2A, and 2B. There is an interim geosynthetic cover over a portion of the CCR in Cells 2B, 3A and 3B. Cell 3B, the most recently constructed cell of the Phase IV landfill, was constructed during May through August 2015. The landfill construction includes a composite liner system, composite cover system, leachate collection system, leachate storage tank, and storm water controls (diversion berms, sedimentation basin, ditching, and downslope flumes).

Changes to the unit since the previous report:

Since the inspection in 2022, there has been continued placement of CCR into Cells 2B, 3A, and 3B. No additional temporary geosynthetic cover has been placed at the landfill. Small containment curb was installed near leachate loadout station.

Approximate volume of CCR in the unit at the time of the inspection: Approximately 1,322,200 cubic yards of CCR have been placed in the Phase IV landfill based on the November 13, 2023 topographic survey.

Visual Inspection:

A site visit and visual inspection were performed by BreAnne Kahnk and Todd Martin (TRC Environmental Corporation) on November 16, 2023

Time arrived on site: 10:30 a.m.

Time departed from site: 12:10 p.m.

DPC Personnel Present: Leif Tolokken & Brian Kalvelage

Weather Conditions: sunny, partly cloudy, 60s, windy

Summary of Items Visually Inspected: Electronic operating record, weekly inspection forms, sedimentation basin, perimeter berms and access road, perimeter run-on controls including stormwater channels, outlets, culverts; final cover areas including diversion berms and vegetation; working area conditions; surface condition at the leachate collection tank and leachate transfer manholes; and flow into leachate tank.

Site Operations during Inspection: CCR placement occurred during the site visit.



INSPECTION REPORT

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Appearance of structural conditions:

Final Cover Conditions (Cell 1, 2A, and 2B areas):

Vegetation Condition: In general, the cover system had a dense, well-established stand of native prairie vegetation present. Small localized areas of sparse vegetation were observed on the final cover over Cell 1. In these areas TRM material was observed underneath the vegetation.

Evidence of Erosion: Yes: None: X
 Evidence of slumping, sloughing, or slope distress: Yes: None: X
 Evidence of seepage: Yes: None: X

Comments: Well maintained. Ensure that all vehicles continue to stay on access road to minimize impacts to the toe of final cover slope.

Perimeter Berm:

Vegetation Condition: Dense vegetation, native prairie.

Evidence of Erosion: Yes: None: X
 Cracking along crest: Access Road along crest Yes: None: X
 Evidence of slumping, sloughing, or slope distress: Yes: None: X
 Evidence of seepage: Yes: None: X

Phase Delineation Berms: Exposed geomembrane in good condition, sufficient clearance for containing runoff within the cell.

Comments: Exposed geomembrane not showing signs of deterioration or damage. Care should be taken during ash placement so that ash does not pile up along the delineation berm and freeboard for any liquids is maintained.

Stormwater Controls:

Run-on Controls: Diversion berms and grading provide adequate drainage away from open areas.

Perimeter Drainage Ditches: Erosion prevented by vegetation, areas around inlets are clear and protected by stone. Minor amount of woody vegetation observed in perimeter drainage ditches.

Comments: Continue to keep drainage ditches clear. Continue to monitor ditches for woody vegetation and clear the vegetation when observed. No other concerns at this time.



INSPECTION REPORT

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Run-off Controls: Final Cover

Diversion Berms: Good condition. Well-maintained with good vegetative cover, no erosion observed, and clear of obstructions. Small localized areas with sparse vegetation were observed on the final cover over Cell 1. TRM was observed under the sparse vegetation in these areas.

Comments: Overseed areas with sparse vegetation. Continue to monitor to ensure adequate vegetation growth.

Downslope Flumes: Well-maintained; outlets were cleared of vegetation and good rock protection present. Drains down to perimeter ditches were clear.

Ditching: No erosion observed, clear, good slope. No standing water observed.

Comments: Stormwater controls are well-maintained at the site. Good drainage and conveyance to the sedimentation basin, no obstructions observed. Check dams along perimeter ditching in good condition. Good stand of vegetation in diversion berms and perimeter ditching. Continue to monitor ditches for woody vegetation and clear the vegetation when observed. No other concerns at this time.

Sedimentation Basin No. 1:

Outlets Operational: Yes, clear, no debris and not deformed; stone filter visible at base

Culverts Operational: Yes, clear, inlet and outlet protection for culverts

Comments: Basin was dry, no standing water. Continue to monitor vegetation.

Operating Conditions:

Changes in Operation since the previous annual inspection: No significant changes in site operations.

Access Road Conditions:

Durable paved, well groomed. New material was recently placed on portions of the perimeter access road. Site should confirm that all vehicles stay entirely on access roads to avoid disturbances along the toe of the final cover slope. Very minor tracking of ash was observed at the egress from Phase IV. No tracking was observed on the remainder of access road.

Comments: Sweep landfill egress as needed, especially following rain events.

Landfill Operations:

Temporary Storm Water Controls: Diversions and grading to prevent runoff, slopes maintained to provide sufficient freeboard to maintain containment. Continue to monitor waste placement to ensure sufficient freeboard is maintained along the delineation berm.

Working Face Conditions: Waste placement occurring; operational face is well maintained.

Working face was dry.

Access roads: Good condition.



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Fugitive Dust Observed: Yes: X No:

Comments: Winds gusts were strong and windborne dust was observed during site visit. TRC discussed with DPC that the exposed faces of the landfill needed to be wetted to mitigate dusting during this windy day, with anomalously high wind gusts. Water truck at site was not functioning at the time and repairs to the truck were underway. DPC noted that an offsite water truck was being mobilized to the site to address the dusting.

Leachate Management: No leachate ponding observed within cell. Vertical sand drains/chimneys inside Cell 2B had been constructed to connect leachate collection system to the surface. Leachate was observed flowing into tank.

Ash Tracked Out on Access Road? Yes: None: X

Leachate Collection System: Well maintained at surface.

Pipe Cleanouts: Accessible, recently jetted, protected by bollards, name tags in place.

Tank: Controls are accessible and appear operational

Loadout Area: Accessible and operational. Leachate loadout activities were occurring during the site visit.

Comments: Appears to be a well-maintained system used for daily site operations.

Conditions that may potentially impact safety: None observed.

Observed Deficiencies and Proposed Corrective Actions: Dusting was observed during the site visit. A working water truck needs to be available on site or be able to be brought to the site during dry and windy conditions. DPC brought in another water truck following the site visit to manage the dusting.

Future Action:

- Continue monitoring and maintenance of stormwater controls.
- Continued implementation of dust control practices.
- Continue to monitor vegetation for signs of displacement or disturbance.
- Overseed localized areas with sparse vegetative cover.
- Continue to sweep landfill egress as needed, especially following rain event

Photographic Log

Client Name: Dairyland Power Cooperative	Site Location: Phase IV Landfill Alma Off-Site Disposal Facility	Project No.: 525154.0000
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Photo No.	Date	Description
1	11/16/2023	<p>Description: Asphalt paved site entrance road looking towards the entrance to the facility.</p> 

Photo No.	Date	Description
2	11/16/2023	<p>Description: Sedimentation Basin 1 outlet. Vegetation established at the base. Gravel placed surrounding base of outlet pipe. No distressed vegetation or sloughing observed in the sideslopes. No standing water observed.</p> 



Photographic Log

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Photo No. 3	Date 11/16/2023	
Description: Perimeter road is well maintained and provides access around the landfill. Leachate headwell protected by bollards. In background of photo, vegetation established on Area 1 and Area 2 final cover.		

Photo No. 4	Date 11/16/2023	
Description: CCR filling area showing Cell 3 delineation berm. Sufficient space and berm height provided to control runoff within the landfill. In the foreground of the photo, the temporary white geosynthetic cover is visible with ballast materials to protect from wind uplift.		

Photographic Log

Client Name: Dairyland Power Cooperative		Site Location: Phase IV Landfill Alma Off-Site Disposal Facility	Project No.: 525154.0000
Photo No. 5	Date 11/16/2023		
Description Perimeter drainage ditch with rock check dam.			
Photo No. 6	Date 11/16/2023		
Description: Box culvert to improve storm water conveyance around perimeter of site. Grouted riprap protects sideslopes at transition. No obstructions observed in the perimeter ditch or at conveyance structures.			

Photographic Log

Client Name: Dairyland Power Cooperative		Site Location: Phase IV Landfill Alma Off-Site Disposal Facility	Project No.: 525154.0000
Photo No. 7	Date 11/16/2023		
Description: Active filling area of the landfill (Cell 3A and 3B). Phase delineation berm in the foreground. No evidence of unstable conditions.			
Photo No. 8	Date 11/16/2023		
Description: Riprap ditch protection in perimeter ditch. Vegetative growth not impacting performance. Dense vegetation is established around ditch and ditch is clear of obstructions.			

Photographic Log

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Photo No. 9	Date 11/16/2023	
Description: Asphalt paved access road at entrance filling area. Minor tracking, primarily from recently installed access road base at egress from Phase IV.		

Photo No. 10	Date 11/16/2023	
Description: Wheel shakers installed at egress of Phase IV Landfill to minimize tracking.		

Photographic Log

Client Name: Dairyland Power Cooperative		Site Location: Phase IV Landfill Alma Off-Site Disposal Facility	Project No.: 525154.0000
Photo No. 11	Date 11/16/2023		
Description: Leachate tank surface features; clear, accessible, and in good working order. Observed leachate flowing into the tank.			