

December 13, 2024

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

2024 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 13, 2024, BreAnne Kahnk, PE, of TRC Environmental Corporation (TRC) performed an on-site inspection of Dairyland Power Cooperative's (DPC) coal combustion residual landfill with Leif Tolokken 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 N.
KAHNK
E-46825
MIDDLETON,
WI
12-13-24
ENGINEERING

BreAnne Kahnk, P.E. Senior Engineer

Attachments: Landfill Inspection Checklist

Photographic Log

cc: Todd Martin – TRC Brian Kalvelage – DPC



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PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
	Ву:	Date:	By:	Date:	
Dairyland Power Cooperative	B. Kahnk	11/26/2024	T. Martin	12/9/2024	563618.0000
Phase IV, Alma Off-site Disposal Facility					

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 and confirmed to be located within the electronic operating system at the facility.

- Fugitive Dust Control Plan (12/30/2022)
- Dust Control Report (12/2023)
- Post-Closure Plan (01/2024)
- Closure Plan (07/2024)
- Run-on and Run-off Control System Plan (07/2024)
- Annual Landfill Inspection Report (12/14/2023)
- Location Restrictions (1/30/2023)
- Weekly inspections performed by qualified personnel (11/15/2023 through 11/8/2024)
- Dust Inspections performed from 11/2023 through 10/31/2024
- WDNR CCR Annual Report (2/1/2024)
- WDNR Plan Modification (1/30/2023)
- WDNR Plan Modification Addendum 1 (1/2024)
- CCR Groundwater Monitoring Report (1/2024)

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. State approval and completeness letters received following January 2023 were located within the electronic operating record (October 2024 completeness letter, October 2024 Waste Acceptance Approval).



	SHEET	2	OF	5	

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Several of the most recent operational documents were not located within the electronic operating system; however, were included on the public facing CCR website. These included the July 2024 Run-on and Run-off Control System Plan, July 2024 Closure Plan, and Addendum 2 of the WDNR Plan Modification. Following the site visit DPC put these files along with the Groundwater Monitoring Program (10/2017) and Location Restrictions (5/2018) into the operating system location and confirmed their placement with TRC via video call.

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, culverts and downslope flumes).

Changes to the unit since the previous report:

Since the inspection in 2023, there has been continued placement of CCR into Cells 2B, 3A, and 3B. Repairs to the existing temporary geosynthetic cover on the northern side of the landfill were completed due to material damage from wind uplift. In addition, geosynthetic materials within the southern portion of the landfill have been removed to allow for bottom ash placement. No additional temporary geosynthetic cover has been placed at the landfill.

Approximate volume of CCR in the unit at the time of the inspection: Approximately 1,324,000 cubic yards of CCR had been placed in the Phase IV landfill based on topographic surveys performed by Exeter Design on October 29, 2024 and November 8, 2024.

Visual Inspection:

A site visit and visual inspection were performed by BreAnne Kahnk (TRC Environmental Corporation) on November 13, 2024

Time arrived on site: 10:35 a.m.
Time departed from site: 12:14 p.m.
DPC Personnel Present: Leif Tolokken
Weather Conditions: cloudy, 40s, calm

Summary of Items Visually Inspected: <u>Electronic operating record, weekly inspection forms, sedimentation basin, perimeter berms and access road, perimeter run-on controls including</u>



	SHEET	3	OF	5	

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

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Phase IV, Alma Off-site Disposal Facility					

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 was not occurring during site visit.

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 vehicles cor	ıtinue to stay on	access road to					
minimize impacts to the toe of final cover slope.							
Perimeter Berm:							
Vegetation Condition: Dense vegetation, native prairie	forbs and grass	es					
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 g	good condition,	sufficient clearance for					
containing runoff within the cell.							
Comments: Exposed geomembrane not showing signs	of deterioration	or damage. Care					
Should continue to be taken during ash placement so the	nat ash does no	t 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. Minor ponding was observed in perimeter drainage ditch along with several large branches.



SHEET	4	OF	5

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

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59 150 AP (0.01) S	By: B. Kahnk	Date: 11/26/2024	By: T. Martin	Date: 12/9/2024	563618.0000

Comments: Continue to keep drainage ditches clear. Remove branch debris from drainage ditches. Continue to monitor ditches for woody vegetation and clear the vegetation when observed. Continue to inspect for ponding within the drainage ditches, regrade if significant ponding is observed. No other concerns at this time.

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 sparce vegetation were observed on the final cover over Cell 1. TRM was observed under the sparse vegetation in these areas.

Comments: Overseed areas with sparce 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. Wood debris observed in perimeter ditches which should be removed as soon as possible. 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 other than bottom ash placement occurs in an area that was formerly covered with

temporary plastic rain cover on the southern portion of Phase 3

Access Road Conditions:

Durable paved, well groomed. Site should confirm that all vehicles stay entirely on access roads to avoid disturbances along the toe of the final cover slope. Tracking of ash was not observed at the egress from Phase IV. No tracking was observed on the remainder of access road.

Comments: Continue to sweep landfill egress as needed, especially following rain events.



	SHEET	5	OF	5
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Landfill Operations:		
Temporary Storm Water Controls: <u>Diversions and grading to prevent runoff, slopes maintained</u>		
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: Operational face is well maintained.		
Access roads: Good condition.		
Fugitive Dust Observed: Yes: No: _X Comments: Dust was not observed while on site even with wind gusts. No placement was occurring during visit.		
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, protected by bollards, name tags in place.		
Tank: Controls are accessible and appear operational		
Loadout Area: Accessible and operational. Truck staging at loadout area at the end of 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: None observed.		
Future Action:		
Continue monitoring and maintenance of stormwater controls.		
Continue implementation of dust control practices.		
Remove woody debris from perimeter drainage ditches.		
Continue to monitor vegetation for signs of displacement or disturbance.		
Overseed localized areas with sparce vegetative cover. Continue to sweep landfill egrees as peeded, especially following rain event.		
 Continue to sweep landfill egress as needed, especially following rain event 		



Client Name:

Dairyland Power Cooperative

Site Location: Phase IV Landfill Project No.:

563618.0000

Photo No.

Date

11/13/2024

Description:

1

Asphalt paved site entrance road looking south towards the entrance to the facility and Highway 35.

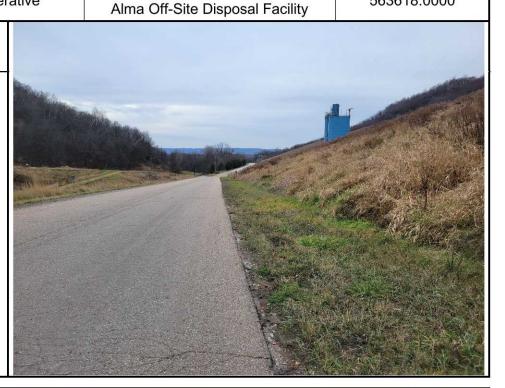


Photo No.

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Date 11/13/2024

2

Description:

Sedimentation Basin 1 outlet. Vegetation established at the base. Gravel placed surrounding base of outlet pipe. No distressed vegetation or sloughing observed on the sideslopes. No standing water observed.





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Site Location:

Phase IV Landfill
Alma Off-Site Disposal Facility

Project No.:

563618.0000

Photo No. Date 3 11/13/2024

Description:

Perimeter road is well maintained and provides access to the east and north sides of the landfill. Leachate headwell protected by bollards. In background of photo, vegetation established on Area 1 and Area 2 final cover.



Photo No.	Date
4	11/13/2024

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.





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Project No.:

563618.0000

Photo No.

Date

5

11/13/2024

Description

Perimeter drainage ditch with rock check dam.



Photo No.	Date
6	11/13/2024

Description:

Box culvert to accommodate storm water conveyance around perimeter of site. Grouted riprap protects sideslopes at transition. Woody debris observed in portions of drainage ditches. No obstructions observed at the culvert or at conveyance structures.





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Phase IV Landfill
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Project No.:

563618.0000

Photo No.

Date

7

11/13/2024

Description:

Active filling area of the landfill (Cell 3A and 3B). Phase delineation berm in the foreground. No evidence of unstable conditions.



Photo No.

Date

8

11/13/2024

Description:

Grouted riprap in perimeter ditch displays no signs of undermining. Vegetative growth not impacting performance. Dense vegetation is established around ditch and ditch is clear of obstructions.





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Phase IV Landfill
Alma Off-Site Disposal Facility

Project No.:

563618.0000

Photo No.

Date

11/13/2024

Description:

Asphalt paved access road at entrance filling area. No tracking of CCR material was observed beyond the permitted limits of waste.



Photo No.

10 11/13/2024

Date

Description:

Wheel shakers installed at egress of Phase IV Landfill to minimize tracking of CCR material outside the permitted limits of waste.





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Dairyland Power Cooperative

Site Location: Phase IV Landfill

Alma Off-Site Disposal Facility

Project No.:

563618.0000

 Photo No.
 Date

 11
 11/13/2024

Description:

Leachate tank surface features; clear, accessible, and in good working order. Observed leachate flowing into the tank.

