

December 17, 2020

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
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 11, 2020, Jonathan Hotstream, P.E., P.G. of TRC Environmental Corporation performed an on-site inspection of Dairyland Power Cooperative's (DPC) coal combustion residual landfill with Leif Tolokken and Don Look 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



Digitally signed by Jonathan
Hotstream
Location: TRC - Madison, WI
Contact Info: 608-852-7044
Date: 2020.12.17 09:40:29-06'00'

Jonathan Hotstream, P.E., P.G.
Senior Engineer

Attachments: Landfill Inspection Checklist
Photographic Log

cc: Todd Martin – TRC



708 Heartland Trail, Suite 3000 (53717) Madison, WI 608.826.3600 FAX: 608.826.3941

PROJECT/PROPOSAL NAME Dairyland Power Cooperative Phase IV Alma Off-site Disposal Facility	PREPARED		CHECKED		PROJECT/PROPOSAL NO. 370477.0000
	By: J. Hotstream	Date: 11.11.2020	By: TWM	Date: 12.03.2020	

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). 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.

- Health and Safety Plan
- Fugitive Dust Control Plan (12/17/2018)
- Groundwater Monitoring Program (10/2017)
- Dust Control Report (12/17/2019)
- Post-Closure Plan (10/2016)
- Closure Plan (10/2016)
- Run-on and Run-off Control System Plan (10/2016)
- Annual Landfill Inspection Report (12/18/2019)
- Location Restrictions (5/2018)
- Weekly inspections performed by qualified personnel (11/5/2019 through 11/11/2020)

Comments on the Operating Record:

Electronic system that is well organized and accessible from the office at the landfill.

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 including 3 phases of non-contiguous closed landfills. This inspection addresses the Phase IV landfill, because the Phase 1, II, and III landfills were closed prior to the promulgation of the federal CCR rule (40 Code of Federal Regulations 257.50 through 107).



INSPECTION REPORT

SHEET 2 OF 4

708 Heartland Trail, Suite 3000 (53717) Madison, WI 608.826.3600 FAX: 608.826.3941

PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
	By:	Date:	By:	Date:	
Dairyland Power Cooperative Phase IV Alma Off-site Disposal Facility	J. Hotstream	11.11.2020	TWM	12.03.2020	370477.0000

The Phase IV landfill is permitted through the state of Wisconsin (License #4126). To date, the liner system Cells 1, 2A, 2B, 3A and 3B have been constructed with final cover installed over a portion of Cells 1, 2A, and 2B. There is an interim geosynthetic cover over a portion of the CCR disposed in Cell 3A. Cell 3B 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 2019, there has been continued placement of CCR into Cells 2B, 3A, and 3B.

Approximate volume of CCR in the unit at the time of the inspection: Approximately 1,205,400 cubic yards of CCR have been placed in the Phase IV landfill based on the November 12, 2020, topographic survey.

Visual Inspection:

A site visit and visual inspection were performed by Jonathan Hotstream (TRC Environmental Corporation) on November 11, 2020

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

Time departed from site: 12:45 p.m.

DPC Personnel Present: Leif Tolokken & Don Loock

Weather Conditions: Sunny, 30s, low wind

Summary of Items Visually Inspected: Electronic operating record, weekly inspection forms, sedimentation basin, perimeter/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, flow into leachate tank; and leachate depth display.

Site Operations during Inspection: No CCR placement, water trucks at shop hauling leachate was observed during the site visit.

Appearance of structural conditions:

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

Vegetation Condition: Dense, good stand of native prairie vegetation present.

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.



INSPECTION REPORT

SHEET 3 OF 4

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PROJECT/PROPOSAL NAME Dairyland Power Cooperative Phase IV Alma Off-site Disposal Facility	PREPARED		CHECKED		PROJECT/PROPOSAL NO. 370477.0000
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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 cover in good condition, sufficient clearance for containing runoff within the cell.

Comments: Exposed geomembrane not showing signs of deterioration.

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.

Comments: Continue to keep drainage ditches clear. No 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.

Downslope Flumes: Well-maintained; outlets were cleared of vegetation and good rock protection present. Drains down to perimeter ditches clear. Observed water discharging from final cover drain, indicating cover drainage system is functioning.

Ditching: No erosion observed, clear, good slope, and 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.



Sedimentation Basin No. 1:

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



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

Comments: Shallow accumulation of frozen water at base due to recent precipitation. Outlet appears to be functioning properly.

Photographic Log

Client Name: Dairyland Power Cooperative		Site Location: Phase IV Landfill, Alma Off-Site Disposal Facility	Project No.: 370477.0000
Photo No. 1	Date 11/11/2020		
Description: Asphalt paved site entrance road looking towards the Phase IV landfill.			
Photo No. 2	Date 11/11/2020		
Description: Sedimentation Basin 1 outlet. Vegetation established in the base. Gravel placed surrounding base of outlet pipe. No distressed vegetation observed in the sideslopes.			

Photographic Log

Client Name: Dairyland Power Cooperative		Site Location: Phase IV Landfill, Alma Off-Site Disposal Facility	Project No.: 370477.0000
Photo No. 3	Date 11/11/2020		
Description: Vegetation established on Area 1 and Area 2 Final Cover. Perimeter road is well maintained and provides access around the landfill.			
Photo No. 4	Date 11/11/2020		
Description: CCR filling area showing the Cell 3 delineation berm. There is sufficient space and berm height provided to control runoff within the landfill.			

Photographic Log

Client Name: Dairyland Power Cooperative	Site Location: Phase IV Landfill, Alma Off-Site Disposal Facility	Project No.: 370477.0000
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Photo No. 5	Date 11/11/2020	
Description Perimeter drainage ditch with rock check dam. Rock check dams recently restored.		

Photo No. 6	Date 11/11/2020	
Description: Box culvert to convey storm water 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.: 370477.0000
Photo No. 7	Date 11/11/2020		
Description: Active filling area of landfill (Cell 3A and 3B). Phase delineation berm in the foreground. No evidence of unstable conditions. No fugitive dust observed.			
Photo No. 8	Date 11/11/2020		
Description: Riprap ditch protection in perimeter ditch. Minor vegetative growth not impacting performance. Dense vegetation is established around ditch and ditch is clear of obstructions.			

Photographic Log

Client Name: Dairyland Power Cooperative		Site Location: Phase IV Landfill, Alma Off-Site Disposal Facility	Project No.: 370477.0000
Photo No. 9	Date 11/11/2020		
Description: Asphalt paved access road at entrance to filling area. No material observed tracked out of Phase IV.			