

Consulting
Engineers and
Scientists

December 19, 2020

GEI Project No. 2004112

Mr. Eric Kovatch, P.G.
WEC Energy Group – Business Services, LLC
333 W. Everett Street, A231
Milwaukee, Wisconsin 53203

**Re: Landfill Inspection Report
Pleasant Prairie Power Plant Ash Landfill
Pleasant Prairie, Wisconsin**

Dear Mr. Kovatch:

GEI Consultants, Inc. (GEI) is pleased to provide this landfill inspection report for the Pleasant Prairie Power Plant (PPPP) Ash Landfill. The inspection was completed to comply with *40 CFR 257 Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments* and specifically with *§ 257.84(b) Annual inspections by a qualified professional engineer*.

§ 257.84 Inspection Requirements for CCR Landfills

(b) Annual inspections by a qualified professional engineer.

(1) Existing and new CCR landfills and any lateral expansion of a CCR landfill must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include:

- (i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., the results of inspections by a qualified person and results of previous annual inspections); and
- (ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit.

(2) *Inspection report.* The qualified professional engineer must prepare a report following each inspection that addresses the following:

- (i) Any changes in geometry of the structure since the previous annual inspection;
- (ii) The approximate volume of CCR contained in the unit at the time of the inspection;
- (iii) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit; and
- (iv) Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.

Background

We Energies owns and operates a solid waste disposal facility adjacent to PPPP in Section 9, Township 1 North, Range 22 East, in the village of Pleasant Prairie, Kenosha County, Wisconsin. The landfill property is bounded on the north by State Highway 50 (75th Street), on the south by Bain Station Road, and on the east and west by active rail lines. The We Energies PPPP Ash Landfill is regulated as an industrial waste landfill by the Wisconsin Department of Natural Resources (WDNR) under the provisions of Chapter 289 Wisconsin State Statutes, and all applicable requirements of Chapters NR 500 of the Wisconsin Administrative Code. The design, construction, operation, closure, and post-closure care requirements are specified in the WDNR conditionally approved Plan of Operations, License No. 2786, FID# 230056310.

The PPPP consists of one cell that went into operation during the 4th Quarter of 2014. Under normal conditions and circumstances, nearly 100 percent of CCR generated at the PPPP was beneficially utilized. Disposal activities at the landfill are generally limited to CCR system cleanings during PPPP outages and other special events. PPPP ceased commercial operation in early 2018. Final cover was installed over the eastern 2.6 acres of Cell 1 in 2018. The middle 3.2 acres of final cover was installed in 2020 and the final western 1.1 acres of the landfill is active.

GEI was retained to perform an annual inspection of the landfill in compliance with § 257.84(b) *Annual inspections by a qualified professional engineer*. The inspection was performed on October 19, 2020. Copies of the site location figure, landfill inspection forms, existing site conditions drawing, and inspection photo log are appended to this letter-report and constitute the entirety of the report.

Site Inspections

Review of the weekly inspections by a qualified person was conducted as part of the annual site inspection. There were no significant issues identified during the weekly inspections and action items were addressed in a timely manner. The weekly inspections are included in the operating record. This inspection also included a review of the previous annual inspection report contained in the operating record.

The annual site inspection included an inspection of the perimeter berms, the waste surfaces and slopes, final covers, interior and exterior storm water controls, the leachate collection sump controls, the leachate storage and load-out controls, the leachate load-out pad, the site access road and the cell entrance.

There were no signs or evidence of any distress or malfunction of the CCR unit, or any conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit. The perimeter berms and waste slopes did not show any evidence of structural weakness or instability. The leachate sump and load-out facilities were operational and there was plenty of available space for leachate storage in the sump and storage tanks. The interior and exterior storm water controls were free of obstruction and provided plenty of capacity for storm water storage and conveyance. The access road, load-out pad and cell entrance were clean and free of obstructions. The fugitive dust control plan appears to be effective as there was no evidence of fugitive dust around the perimeter of the landfill.

At the time of the annual inspection, the We Energies PPPP Ash Landfill contains approximately 108,740 cubic yards of CCR.

Closing

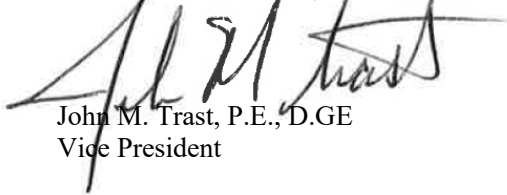
The annual inspection of the We Energies PPPP Ash Landfill was completed in compliance with § 257.84(b) *Annual inspections by a qualified professional engineer*. Overall, the landfill is in very good condition. The final cover system is currently being installed over the middle 3.2 acres further reducing the potential for fugitive dust generation, contact water run-off, and storm water run-on. The leachate system is functioning as designed and the landfill operators are keeping up with leachate hauling. Based on my observations and discussions with the landfill personnel the landfill is constructed and being operated in accordance with WDNR License No. 2786, FID# 230056310.

The inspection was completed by John, M. Trast, P.E. I hereby certify that I am a licensed professional engineer in the State of Wisconsin in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in 40 CFR 257.84.

If you have any questions regarding this landfill inspection, please contact me at 920-455-8299.

Sincerely,

GEI CONSULTANTS, INC.



John M. Trast, P.E., D.GE
Vice President

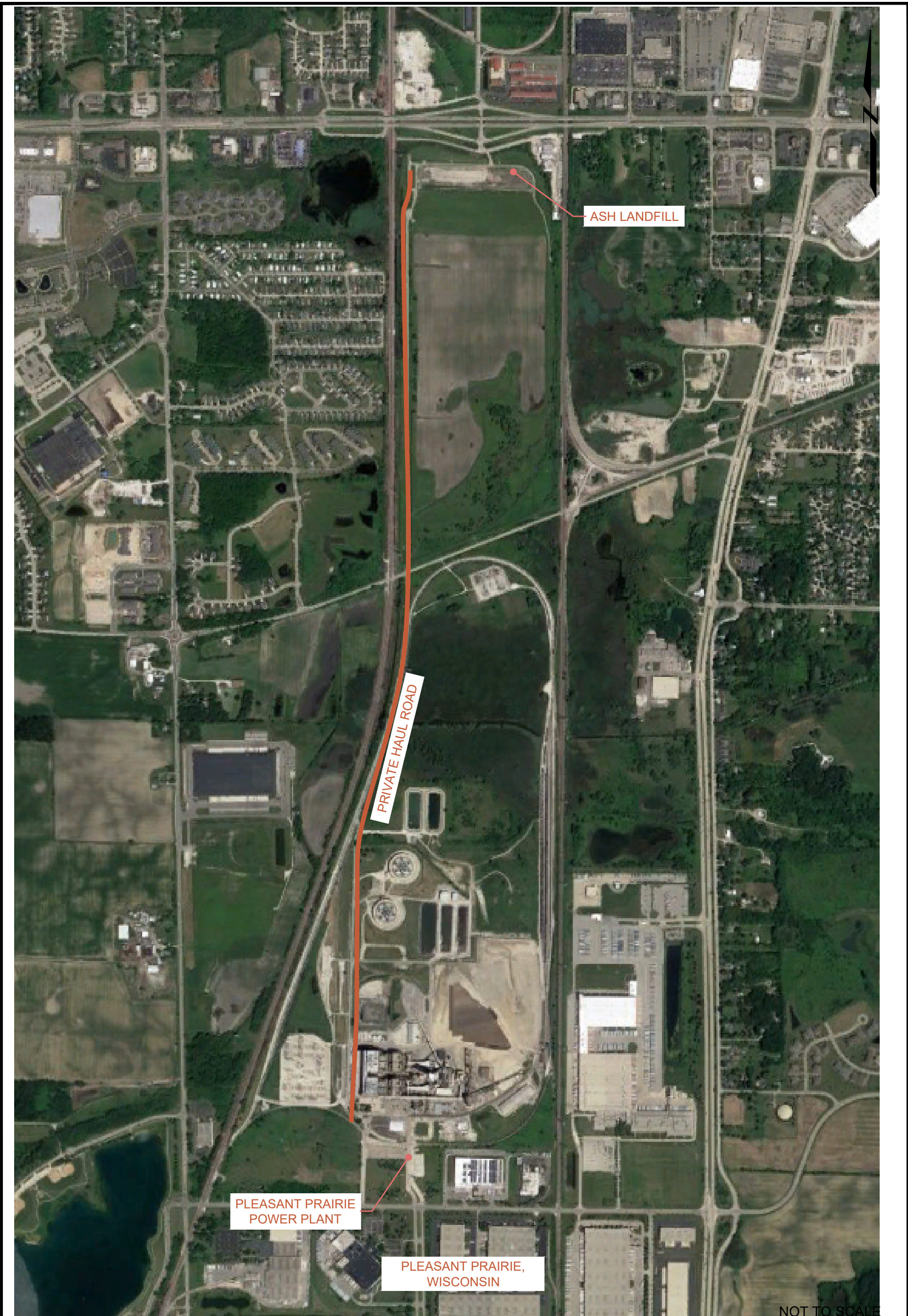


Attachments:

- Figure 1 - Site Location
- Landfill Inspection Photo Log
- Landfill Inspection Form 10/19/2020

WSR:jxt

K:\WEC Energy Group\1610534_We Energies PPPP LF Engineering Assistance\In_Progress\Annual CCR Inspection PPPP\Part_1_R1610534_We_PPPP LF3_ Inspection 2020_RPT draft.docx



Landfill Inspection Report
 Pleasant Prairie Power Plant
 Pleasant Prairie, Wisconsin

WEC Business Services, LLC
 Milwaukee, Wisconsin



PLEASANT PRAIRIE POWER
 PLANT ASH LANDFILL
 SITE LOCATION FIGURE

Project 1610534

November 2020

Fig. 1

PLEASANT PRAIRIE ASH LANDFILL - ANNUAL INSPECTION & CONDITION SUMMARY

INSPECTOR: John Trast
INSPECTION DATE/TIME: 10/19/2020

WEATHER:

Temperature: 44° F
 Conditions: Partly cloudy
 Wind: Moderate
 Wind Direction: NE
 Precipitation: None

LEACHATE COLLECTION SYSTEM:

Load-out Facility:

High level alarms: No
 Low level alarms: No
 Leak alarms: No
 Level Sensor 1: 2.2 ft
 Ultrasonic Level Volume: 12905 gallons
 Pump: Available
 Pad Condition: Good

Sump:

Pump #1: Available
 Pump #2: Available
 Control Panel: Available
 Level: P1=18" / P2=15"
 Note: 50" sump level equates to 12" of head on base liner

Comments: Leachate collection system is in good working condition. Leachate levels are being maintained in compliance with the operating license requirements.

STABILITY/EROSION OF FINAL COVERS & WASTE SLOPES:

Final Covers:
 Waste Slopes:

Comments : The eastern 2.6 acres were closed in late 2018 and final cover slopes there appear stable with no observed instability, no significant erosion, no woody vegetation, no animal burrows, or concerns regarding the final cover slopes. Edgerton is working on the final cover construction in the middle 3.2 acres. The active portion of the cell includes the western 1.1 acres. Everything appeared to be in good condition with no observed instability or significant erosion.

Note: Check mark indicates slope appears stable and no significant erosion.

LANDFILL OPERATIONS:

Fugitive Dust Control:

Tracking Pads :
 Cattle Guards :
 Access Road Clean:
 Landfill Surfaces Groomed:
 Airbourne Dust Visible: No
 Sign of Recent Dust Deposition: No

Stormwater Management

Exterior Ditches:
 Interior Ditches:


Comments: The fugitive dust control plan appears to be effective as there was no evidence of fugitive dust around the perimeter of the landfill

Note: Check mark indicates that the features are acceptable.

PHOTOGRAPHIC LOG





PHOTOGRAPH NO: 1	DATE: 10/19/2020	GEI PROJECT NO: 1610534	CLIENT: WEC BUSINESS SERVICES
DIRECTION: East		SITE LOCATION: PLEASANT PRAIRIE POWER PLANT ASH LANDFILL	
<p>DESCRIPTION:</p> <p>North slope of PPPP Landfill Cell 1 from border of active and closed portion of Cell 1. The soil barrier layer and anchor trench of final closure is shown here.</p>			

PHOTOGRAPH NO: 2	DATE: 10/19/2020	GEI PROJECT NO: 1610534	CLIENT: WEC BUSINESS SERVICES
DIRECTION: East		SITE LOCATION: PLEASANT PRAIRIE POWER PLANT ASH LANDFILL	
<p>DESCRIPTION:</p> <p>South slope of PPPP Landfill Cell 1 from west of cell.</p>			


PHOTOGRAPHIC LOG




PHOTOGRAPH NO: 3	DATE: 10/19/2020	GEI PROJECT NO: 1610534	CLIENT: WEC BUSINESS SERVICES
DIRECTION: Northeast		SITE LOCATION: PLEASANT PRAIRIE POWER PLANT ASH LANDFILL	
<p>DESCRIPTION:</p> <p>Western active portion of PPPP Landfill Cell 1 from southwest corner of cell.</p>			

PHOTOGRAPH NO: 4	DATE: 10/19/2020	GEI PROJECT NO: 1610534	CLIENT: WEC BUSINESS SERVICES
DIRECTION: West		SITE LOCATION: PLEASANT PRAIRIE POWER PLANT ASH LANDFILL	
<p>DESCRIPTION:</p> <p>South slope of PPPP Landfill Cell 1 from approximately halfway east-west of cell.</p>			


PHOTOGRAPHIC LOG

PHOTOGRAPH NO: 5	DATE: 10/19/2020	GEI PROJECT NO: 1610534	CLIENT: WEC BUSINESS SERVICES
DIRECTION: West		SITE LOCATION: PLEASANT PRAIRIE POWER PLANT ASH LANDFILL	
<p>DESCRIPTION:</p> <p>South slope of PPPP Landfill Cell 1 from east of cell. The eastern third of the cell was closed and vegetated in Q4 2018 and Q1 2019.</p>			

PHOTOGRAPH NO: 6	DATE: 10/19/2020	GEI PROJECT NO: 1610534	CLIENT: WEC BUSINESS SERVICES
DIRECTION: West		SITE LOCATION: PLEASANT PRAIRIE POWER PLANT ASH LANDFILL	
<p>DESCRIPTION:</p> <p>North slope of PPPP Ash Landfill Cell 1 from east of cell.</p>			

PHOTOGRAPHIC LOG



PHOTOGRAPH NO: 7	DATE: 10/19/2020	GEI PROJECT NO: 1610534	CLIENT: WEC BUSINESS SERVICES
DIRECTION: North		SITE LOCATION: PLEASANT PRAIRIE POWER PLANT ASH LANDFILL	
DESCRIPTION: East slope of PPPP Ash Landfill Cell 1			

PHOTOGRAPH NO: 8	DATE: 10/19/2020	GEI PROJECT NO: 1610534	CLIENT: WEC BUSINESS SERVICES
DIRECTION: South		SITE LOCATION: PLEASANT PRAIRIE POWER PLANT ASH LANDFILL	
DESCRIPTION: Leachate vault and concrete loadout pad.	