



Consulting  
Engineers and  
Scientists

December 19, 2023  
Project 2103691

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

**Re: 2023 Landfill Inspection Report  
Weston Disposal Site No. 3  
Wisconsin Public Service Corporation  
Town of Knowlton, Marathon County, Wisconsin**

Dear Mr. Kovatch:

GEI Consultants, Inc. (GEI) is pleased to provide this landfill inspection report for the Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 (WDS3). The inspection was completed to comply with *40 CFR 257 Subpart D – Standards for the Disposal of Coal Combustion Residuals (CCR) 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 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

The landfill, located in the E 1/2 of the NW 1/4 and W 1/2 of the NE 1/4, Section 23, Township 26 North, Range 7 East, Town of Knowlton, Marathon County, Wisconsin, is permitted by the Wisconsin Department of Natural Resources (WDNR) under License No. 3067. Figure 1 - Site Location Figure, shows the location of the landfill relative to the Weston Power Plant. The landfill was permitted by the WDNR on December 11, 2014, with the issuance of a Conditional Plan of Operation Approval. The facility is licensed and approved as a 57.6-acre, 4,075,500 cubic yard (cy) landfill. Cells 1 and 2 have a constructed area of 15.1 acres and an operational capacity of 667,900 cy. Both cells were constructed in 2015 in addition to the installation of a leachate force main, storage tank, and load-out system. The construction of Cells 1 and 2 was approved by the WDNR on April 22, 2016. WPSC placed Cell 2 into service on June 27, 2016 and Cell 1 into service on August 16, 2021. WPSC has filled the cells episodically since being placed into service and has constructed permanent final cover over approximately 3.5 acres of the Cell 2 exterior slopes after reaching final waste grades.

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 30, 2023. Copies of the site location figure, inspection form, and landfill inspection photo log are appended to this letter-report and constitute the entirety of the report.

## Site Inspection

The landfill site inspection was performed by John M. Trast, P.E, D.GE on October 30, 2023. The inspection included observation of Cells 1 and 2, observation and inspection of the Cell 2 partial final cover and perimeter slopes, and storm water management features for the site. Photographs taken during the site inspection are attached to this report. The following are the observed conditions as of the date of the annual inspection:

- (i) Cell 1 was placed into service on August 26, 2021, with the placement of the frost protection layer. Cell 1 received approximately 16,300 cy of CCR in early 2023. As of December 19, 2023, approximately 107,500 cy of CCR have been disposed of in Cell 1. CCR placement consists of the 4-foot frost protection layer on the floor of the cell and the north and east perimeter slopes.
- (ii) Cell 2 was placed into service on June 27, 2016. As of December 19, 2023, approximately 389,000 cy of CCR have been disposed of in Cell 2. CCR placement consists of the 4-foot frost protection layer on the floor of the cell and CCR placed to final waste grades on the east slope. Permanent final cover has been constructed over approximately 3.5 acres of the perimeter slopes of Cell 2 in 2016 and 2020; the remainder of the cell has CCR placed in accordance with the waste filling and storm water management plans.
- (iii) The perimeter slopes of Cells 1 and 2, and the final cover slopes of Cell 2 appear to be in excellent condition with no signs of instability, structural weakness, significant erosion, woody vegetation, or animal burrows. The fugitive dust control plan is effective as there was no evidence of fugitive dust around the perimeter of the landfill and no observed dust from site operations. A few areas on the Cell 2 final cover were observed to lack proper vegetation and will be reseeded next growing season.

## Conclusion

On October 30, 2023, a GEI licensed professional engineer completed an annual inspection of the

WPSC Weston Disposal Site No. 3 in compliance with § 257.84(b) *Annual inspections by a qualified professional engineer.* Cell 2 of the landfill is operational and did not receive any CCR during 2023. Cell 1 is operational and received approximately 16,300 cy of CCR during 2023. An additional 15,000 cy of CCR is expected to be hauled and placed into Cell 1 in late December 2023. The perimeter slopes of Cell 2 appear to be in good condition with no significant erosion, no woody vegetation, no animal burrows, and no areas of instability or structural weakness. At the time of the inspection, the permanent final cover constructed is in good condition, with some noticeable areas of thin vegetation. WEC will be notified of these areas and will be reseeded during the growing season in 2024.

The inspection was completed by John M. Trast, P.E. I am a licensed professional engineer in the State of Wisconsin in accordance with the requirements of Chapter A-E 4, Wisconsin Administrative Code; that this document has been prepared in accordance with the Rules of Professional Conduct in Chapter A-E 8, Wisconsin Administrative 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 Chapters NR 500 to 538, Wisconsin Administrative Code and 40 CFR 257.

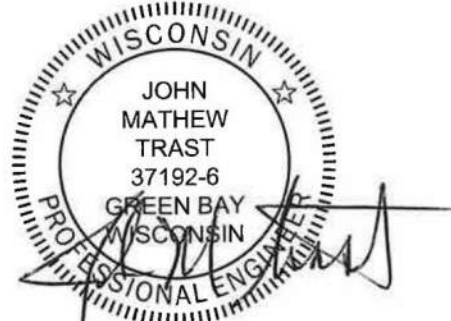
If you have any questions regarding this report, please contact John Trast at 920-455-8299.

Sincerely,

GEI CONSULTANTS, INC.



Andrew J. Schwoerer, P.G.  
Project Professional



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

Attachments:

- Figure 1 – Site Location Figure
- WDS3 Ash Landfill CCR Compliance – Annual Inspection Form
- Weston Disposal Site No. 3 Landfill CCR Inspection – Photo Log

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WISCONSIN PUBLIC SERVICE  
TOWN OF KNOWLTON, WISCONSIN



WESTON DISPOSAL SITE NO. 3  
SITE LOCATION FIGURE

Project 2103691

December 19, 2023

Fig. 1

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**WDS3 ASH LANDFILL CCR COMPLIANCE - ANNUAL INSPECTION**

INSPECTOR: John M. Trast, P.E., D.GE

INSPECTION DATE/TIME: 10/30/2023, 1:00 P.M.

**WEATHER:**

Temperature: 45° F  
 Conditions: Sunny  
 Wind: Moderate  
 Wind Direction: W  
 Precipitation: None      Approx. 4" rainfall a week prior to inspection.

**LEACHATE COLLECTION SYSTEM:****Load-out Facility:**

High level alarms: Yes  
 Low level alarms: No  
 Leak alarms: No  
 Tank Level : 16.0 ft  
 Tank Volume: 69600 gallons  
 Pump: Available  
 Pad Condition: Good

**Sump:**

Cell 1 Pump #1 Available 27.4 in Primary LCS Sump  
 Cell 1 Pump #2 Available 22.0 in Primary LCS Sump  
 Control Panel: Available  
 Cell 2 Pump #1 Available 32.5 in Primary LCS Sump  
 Cell 2 Pump #2 Available 20.0 in Primary LCS Sump  
 Control Panel: Available

Comments: Leachate volume in the tank is being managed by certified operators to generally keep the volume less than 30,000 gallons (operating capacity is 104,800 gallons). Leachate levels in the sumps are being maintained in compliance with the operating license requirements (no alarms) of less than 1-foot of head on the liner. Tank volume was higher at the time of inspection due to a large rainfall the previous week.

**STABILITY/EROSION OF FINAL COVERS & WASTE SLOPES:**Final Covers: Waste Slopes: 

Comments : The Cell 2 final cover slopes appear stable with no observed instability, no significant erosion, no woody vegetation, or no animal burrows. A few areas of poor t vegetation were observed on the Cell 2 cover, as seen in the inspection photo log. WEC will be notified of these areas and will be reseeded next spring. In general, the cover 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 Vegetated:   
 Airbourne Dust Visible: No  
 Sign of Recent Dust Deposition: No

**Stormwater Management**

Exterior Ditches:   
 Interior Ditches:   
 Catch Basin:   
 Culverts:

Comments: Cell 2 partial closures occurred in 2016 Southeast corner and 2020 East slope of the landfill. The remain uncovered area over Cell 2 was covered in 2022. In 2021 WEC opened Cell 1 of the landfill and placed the 4 feet frost protection layer. Leachate from Cells 1 and 2 is hauled from the on-site leachate collection tank to the Weston Power Plan for disposal.

**Note: Check mark indicates that the features are acceptable.**

# Weston Disposal Site No. 3 Landfill CCR Inspection – Photo Log

Date: 10/30/2023

Project No.: 2103691

Client: Wisconsin Public Service Corporation



<i>Photo No. 1 – Active filling area on Cell 2, looking north.</i>	<u>2</u>
<i>Photo No. 2 – Cell 2/3 intercell berm and leachate collection ditch along west side of Cell 2.</i>	<u>2</u>
<i>Photo No. 3 – Cell 2 west slope.</i>	<u>3</u>
<i>Photo No. 4 – Cell 2 south and east slope and stormwater diversion berm.</i>	<u>3</u>
<i>Photo No. 5 – Stormwater Basin 2 east of Cell 2.</i>	<u>4</u>
<i>Photo No. 6 – Stormwater Basin 2.</i>	<u>4</u>
<i>Photo No. 7 – Active filling area in Cell 1, looking east.</i>	<u>5</u>
<i>Photo No. 8 – Looking northeast to the Cell 1 active filling area and the east slope prepared for final cover.</i>	<u>5</u>
<i>Photo No. 9 – Looking west at the Cell 1 north perimeter slope and leachate collection ditch.</i>	<u>6</u>
<i>Photo No. 10 – Looking northeast to the Cell 1 active filling area and east slope.</i>	<u>6</u>
<i>Photo No. 11 – Looking south at the Cell 2 east stormwater control ditch.</i>	<u>7</u>
<i>Photo No. 12 – Leachate collection tank and loadout facility.</i>	<u>7</u>
<i>Photo No. 13 – Stormwater diversion berm inlet on the southeast corner of Cell 2.</i>	<u>8</u>
<i>Photo No. 14 – Cell 2 gradient control outlet pipe.</i>	<u>8</u>
<i>Photo No. 15 – Cell 1 gradient control outlet pipe.</i>	<u>9</u>
<i>Photo No. 16 – Cell 1 gradient control outlet pipe.</i>	<u>9</u>

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Photo No. 1 – Active filling area on Cell 2, looking north.



Photo No. 2 – Cell 2/3 intercell berm and leachate collection ditch along west side of Cell 2.

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Photo No. 3 – Cell 2 west slope.



Photo No. 4 – Cell 2 south and east slope and stormwater diversion berm.



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Photo No. 5 – Stormwater Basin 2 east of Cell 2.



Photo No. 6 – Stormwater Basin 2.

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Photo No. 7 – Active filling area in Cell 1, looking east.



Photo No. 8 – Looking northeast to the Cell 1 active filling area and the east slope prepared for final cover.

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Photo No. 9 – Looking west at the Cell 1 north perimeter slope and leachate collection ditch.



Photo No. 10 – Looking northeast to the Cell 1 active filling area and east slope.

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Photo No. 11 – Looking south at the Cell 2 east stormwater control ditch.



Photo No. 12 – Leachate collection tank and loadout facility.

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Photo No. 13 – Stormwater diversion berm inlet on the southeast corner of Cell 2.



Photo No. 14 – Cell 2 gradient control outlet pipe.

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Photo No. 15 – Cell 1 gradient control outlet pipe.



Photo No. 16 – Cell 1 gradient control outlet pipe.