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Wisconsin Power and Light Company
Rock River Generating Station
CCR Surface Impoundment Annual Inspection Report
154.018.028.006
Report issued: December 3, 2025

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Executive Summary

This annual inspection report for the legacy Coal Combustion Residual (CCR) Final WPDES Settling Pond surface impoundment at the former Rock River Generating Station (ROR) has been prepared in accordance with the requirements of the United States Environmental Protection Agency rules for Hazardous and Solid Waste Management System – Disposal of CCR from Electric Utilities (40 CFR Parts 257 and 261, also known as CCR Rule).

The former ROR ended coal combustion in 2000 and converted to the use of natural gas. The facility terminated generation of electricity in 2012 and was demolished in 2016. The surface impoundment has remained inactive since 2000. In 2025, activities were initiated to remove the CCR within the surface impoundment.

This annual inspection report has been prepared to assess the condition of the legacy CCR surface impoundment. Primarily, the annual inspection is focused on the structural stability of the CCR surface impoundment and to ensure that the operation and maintenance of the CCR surface impoundment is in accordance with recognized and generally accepted good engineering standards.

After conducting the annual inspection, as well as review of available information provided by Wisconsin Power and Light Company pertaining to the status and condition of the legacy CCR surface impoundment, and discussions with facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the CCR surface impoundment, we conclude that the dense vegetation covering downstream slope of the impoundment constitutes an operating deficiency and disruptive condition that must be resolved to facilitate effective future inspections. Although the rule requires a resolution for the deficiency, any structural concern with the embankment would not result in the release of CCR because all CCR was removed from the unit in 2025.

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1. INTRODUCTION

This annual inspection report has been prepared in accordance with the requirements of §257.83(b) of the United States Environmental Protection Agency (USEPA) published rules for Hazardous and Solid Waste Management System – Disposal of Coal Combustion Residual (CCR), herein referenced as the CCR Rule.

1.1 CCR Rule Applicability

The CCR Rule requires annual inspections by a qualified professional engineer (PE) for CCR surface impoundments with a height of 5-feet or more and a storage volume of 20 acre-feet or more or the CCR surface impoundment has a height of 20 feet or more (40 CFR §§ 257.73(b), 257.73(d), and 257.83(b)).

1.2 Annual Inspection Applicability

The Wisconsin Power and Light Company (WPL), former Rock River Generating Station (ROR) in Beloit, Wisconsin has one legacy CCR surface impoundment that meets the requirements of Section 1.1 identified as the Final WPDES Settling Pond.

The former ROR ended coal combustion in 2000 and converted to the use of natural gas. The facility terminated generation of electricity in 2012 and was demolished in 2016. The surface impoundment has remained inactive since 2000. The Final WPDES Settling Pond has not received CCR since 2000. The estimated volume of CCR in the surface impoundment was 2,000 cubic yards per the December 2012 Settling Basin Abandonment Plan and Landfill Closure Plan Modification. In 2025, activities were initiated to remove the CCR within the surface impoundment.

The annual inspection of the CCR surface impoundments at ROR was completed by a qualified PE on November 4th, 2025. The annual inspection was completed to ensure that the design, construction, operation, and maintenance of the CCR surface impoundments at ROR are consistent with recognized and generally accepted good engineering standards.

The annual inspection of the CCR surface impoundment at ROR included a review of available information regarding the status and condition of the CCR surface impoundment. The information reviewed included all relevant files available in the operating record at the time of the annual inspection, as well as the Alliant Energy CCR Rule Compliance Data and Information website entries for ROR (ccr.alliantenergy.com).

The annual inspection included a visual inspection of the CCR surface impoundment to identify signs of distress or malfunction of the CCR surface impoundments and appurtenant structures. Additionally, the visual inspection included hydraulic structures underlying the base of the CCR surface impoundment or passing through the dikes of the CCR surface impoundment for structural integrity and continued safe and reliable operation.

2. ANNUAL INSPECTION REPORTING CRITERIA

The following sub-sections address the annual inspection reporting criteria per §257.83(b)(2) of the CCR Rule for the legacy CCR surface impoundment located at ROR.

2.1 ROR Final WPDES Settling Pond

2.1.1 Changes in Geometry (§257.83(b)(2)(i))

After conducting the annual inspection, as well as review of available information provided by ROR pertaining to the status and condition of the existing CCR surface impoundment, and discussions with ROR facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, there have been no changes in the geometry since the previous annual inspection. Although not a change to the geometry, the outfall weir box structure was removed in 2025, and the former discharge pipe was filled with concrete. Stone was placed as fill material at the location of the former weir box structure to meet the existing side slopes of the embankment.

2.1.2 Existing Instrumentation (§257.83(b)(2)(ii))

There is no known instrumentation that supports the operation of the Final WPDES Settling Pond. The outfall weir box structure was removed in 2025, and the former 25-inch corrugated metal discharge pipe was filled with concrete and left in place. Stone was placed as fill material at the location of the former weir box structure to meet the existing side slopes of the embankment. This pipe was inspected, and no deficiencies were observed.

2.1.3 Depth and Elevation of Impounded CCR and Water (§257.83(b)(2)(iii))

The approximate minimum, maximum, and present depths and elevations of the impounded CCR and water in the Final WPDES Settling Pond since the previous annual inspection were

determined using information that was collected during the annual inspection, as well as from historical information that was previously provided from WPL.

- At the time of the annual inspection, water was not observed to be present within the Final WPDES Settling Pond. Therefore, the minimum and present depth and elevation of water within the CCR surface impoundment was unable to be recorded. The maximum water elevation is unknown as there is no water elevation monitoring equipment associated with the impoundment, although from facility discussions, the embankment has largely remained dry and is likely hydraulically connected to the Rock River.
- The lowest point of the embankment crest bordering the Rock River is 753.2 feet, while the average impoundment bottom is approximately 745.2 feet, which is a total height of 8 feet.
- In October of 2025, the CCR removal construction activities had been completed. CCR has been removed from within the Final WPDES Settling Pond.

2.1.4 Storage Capacity of Impounding Structure (§257.83(b)(2)(iv))

The storage capacity (i.e. water volume) of the CCR surface impoundment was zero because no water was observed at the time of the annual inspection.

2.1.5 Volume of Impounded CCR and Water (§257.83(b)(2)(v))

The volume of impounded CCR and water (i.e. total volume, not including freeboard) within the Final WPDES Settling Pond includes no water and no CCR at the time of the annual inspection. The CCR has been removed. The impoundment operates as an infiltration basin, only contains stormwater runoff, and is hydraulically connected to the Rock River.

2.1.6 Structural Weaknesses and Disruptive Conditions (§257.83(b)(2)(vi))

After review of available information provided by ROR pertaining to the status and condition of the existing CCR surface impoundment, discussions with facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, as well as conducting the on-site visual inspection of the existing CCR surface impoundment, there is one potential structural weakness and one current disruptive condition, which is caused by the vegetation coverage on downstream slope of the impoundment. The vegetation consists of tall dense vegetation and mature trees which limited the ability to conduct the annual inspection on the downstream slope of the impoundment. The upstream slope of the impoundment, along with the bottom of the impoundment, had been stripped of vegetation during the CCR removal construction activities. There were no structural weakness or disruptive conditions identified along the upstream slope of the embankment. Although the rule requires a resolution for the deficiency, any structural concern with the embankment would not result in the release of CCR because all CCR was removed from the unit in 2025.

2.1.7 Other Changes Affecting Stability or Operation of Impounding Structure (§257.83(b)(2)(vii))

After review of available information provided by ROR pertaining to the status and condition of the CCR surface impoundment, as well as discussions with ROR facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, there have been no recent changes that have affected the stability or operation of the Final WPDES Settling Pond since the previous annual inspection.

3. CERTIFICATION

To meet the requirements of 40 CFR §§ 257.83(b), I, Mark W. Loerop hereby certify that I am a licensed professional engineer in the State of Wisconsin; 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 §§ 257.83(b).

By: _____

Name: MARK LOEROP

Date: DEC. 3, 2025