Coal Combustion Residual
Completion of Retrofit Certification

West Emergency Holding Pond
Laramie River Station

Prepared for
Basin Electric Power Cooperative

Prepared by
Barr Engineering Co.

November 2025

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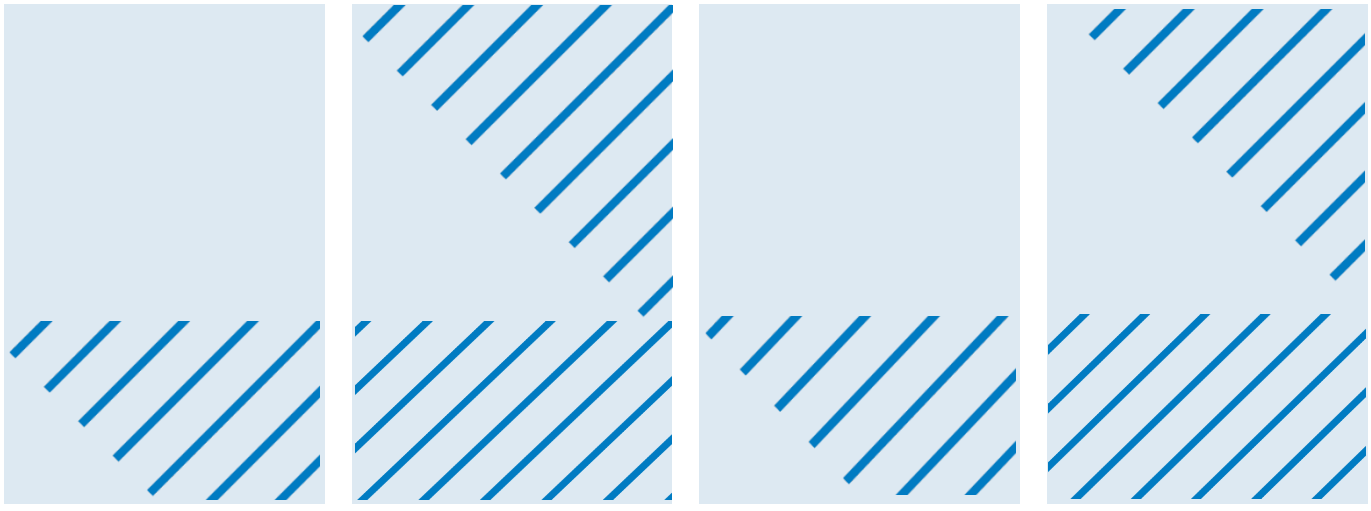
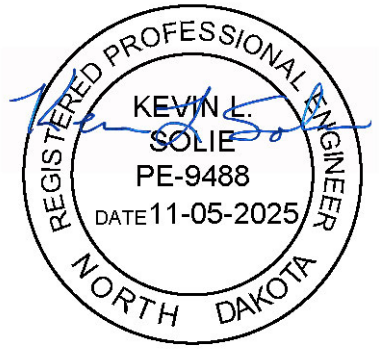


Certification

I hereby certify that I, or my agent, have examined the facility plans, specifications, and construction records, and, being familiar with the provisions of 40 CFR Part 257 Subpart D and Wyoming Department of Environmental Quality, Division of Solid and Hazardous Waste Management, Chapter 18 rules, attest that the completion of retrofit activities for the West Emergency Holding Pond are in accordance with the retrofit plan prepared pursuant to 40 CFR § 257.102(k)(2), dated September 13, 2024 and the requirements set forth in 40 CFR § 257.102.



Kevin L. Solie
Wyoming PE: 15120

November 5, 2025
Date

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1 Background and Purpose

Laramie River Station (LRS) is a coal-fired power plant consisting of three units. The power plant, owned by Missouri Basin Power Pool (MBPP) and operated by Basin Electric Power Cooperative (Basin Electric or BEPC), is located northeast of Wheatland in Platte County, Wyoming. Coal Combustion Residuals (CCRs) generated at LRS include bottom ash, flue gas desulfurization (FGD) materials and fly ash. CCR management is subject to Federal Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments per 40 Code of Federal Regulations (CFR) Part 257 Subpart D. The current LRS West Emergency Holding Pond (WEHP) retrofit project is regulated by the Wyoming Department of Environmental Quality (WYDEQ) under permit 2025-0025 and the Wyoming State Engineer's Office under Permit No. 8120R.

40 CFR § 257.102(k)(4) requires preparation of a written certification prepared by a Qualified Professional Engineer (QPE) upon completion of construction verifying that retrofit activities have been completed in accordance with the retrofit plan specified in 40 CFR § 257.102(k)(2). The certification should describe specific measures that were taken to retrofit the CCR surface impoundment, including CCR removal procedures, and provide the estimated volume of CCR removed from the impoundment and the surface area affected by the retrofit. The purpose of this document is to provide the required completion of retrofit certification for the WEHP.

2 Retrofit Plan Overview

Basin Electric conducted retrofit activities of the WEHP during the 2024 and 2025 construction seasons. At the onset of retrofit, the WEHP contained an estimated 550,000 cubic yards (CY) of solid waste and approximately 17 million gallons (Mgal) of standing (free) water. The impounded waste consisted of spent lime from the LRS water treatment plant and smaller amounts of flue gas desulfurization (FGD) material from LRS air pollution control equipment. Free liquids were transferred to existing CCR-Rule compliant surface impoundments at LRS. CCRs were dewatered, excavated, and placed in the onsite CCR landfill as were the liner materials and minor amounts of contaminated soils that were generated during retrofit.

2.1 Retrofit Narrative

The WEHP retrofit activities were conducted in accordance with § 257.102(k) and recognized and generally accepted good engineering practices. WEHP was dewatered and all CCR, riprap, existing membrane liner system were removed. Free liquids and liquids released from waste during dewatering efforts were pumped to existing CCR Rule-compliant surface impoundments; solids removed from the WEHP were hauled to and disposed of in the existing LRS CCR landfill. During removal, site staff regularly communicated with the QPE on progress. The exposed subgrade was visually inspected on March 27, 2025, by the QPE and Basin Electric staff. The onsite inspection confirmed that CCRs, liner materials, and contaminated soils had been removed.

As detailed in the QPE-certified WEHP Retrofit Plan, an alternative composite liner system was designed and constructed in accordance with § 257.72. The liner system consists of a geocomposite clay liner (GCL) overlain by a synthetic liner. High density polyethylene (HDPE) was used for the synthetic component, with 60-mil HDPE used on the WEHP bottom and 80-mil used on the WEHP side slopes. Construction Quality Assurance/Quality Control (QA/QC) methodologies consistent with industry standards and Wyoming Department of Environmental Quality (WDEQ) guidelines were utilized to ensure that the WEHP liner was constructed to meet the requirements set forth in the CCR Rule. The WEHP bottom liner design also included a 12- to 24-inch-thick layer of bottom ash and a perforated piping drainage system placed above the synthetic liner system to facilitate future dewatering efforts.

The retrofit was completed in general accordance with the initial plans, except for the elimination of a through-berm transfer trench between the WEHP and the existing East Emergency Holding Pond (EEHP). The updated plan, communicated to the permitting agencies, simplified construction and allowed for a continuous berm between the WEHP and EEHP. As-built drawings will reflect this update.

2.2 CCR Removal

As per the WEHP Retrofit Plan, CCR and CCR contaminated soils and sediments were removed using conventional construction equipment such as front-end loaders, dozers, tracked excavators, and off-road haul trucks. Free liquids were removed as the excavation of CCRs progressed and were pumped into existing CCR-Rule compliant surface impoundments at the site. The existing geomembrane liner system was then removed and disposed of in the LRS CCR landfill. Since a geomembrane liner system was in place below the WEHP, CCR contaminated soils or sediments were generally not present below the previously installed liner system.

2.3 CCR Volumes

Approximately 593,930 CY of CCR, liner material, and CCR contaminated soils were removed from the WEHP.

2.4 CCR Unit Area

The CCR Unit footprint as noted in the Retrofit Plan is approximately 30.1 acres.

2.5 Retrofit Schedule

Retrofit activities for the WEHP occurred as planned during the 2024 and 2025 construction seasons. CCR removal was completed in March 2025. Liner installation began in June 2025 and was completed in late October 2025. Onsite Barr staff monitored construction and QA/QC activities throughout liner installation. Basin Electric staff and the QPE conducted a final onsite inspection of the WEHP on October 30, 2025. The final inspection verified retrofit activities were complete and the WEHP was ready to be placed into service.

3 Conclusion

The retrofit of the WEHP was completed in accordance with the written retrofit plan and recognized and generally accepted good engineering practices. The retrofit was substantially completed in October 2025. This document provides written certification verifying that retrofit activities have been completed in accordance with the retrofit requirements specified in 40 CFR § 257.102(k)(2).

4 Recordkeeping and Reporting

Basin Electric will maintain a copy of the completion of retrofit certification in the facility's operating record in accordance with 40 CFR § 257.105 (Recordkeeping Requirements) and the certification will be made publicly available on the Basin Electric CCR web site in compliance with 40 CFR § 257.107 (Publicly Accessible Internet Site Requirements). Notification will be sent to the WYDEQ State Director in compliance with 40 CFR § 257.106 (Notification Requirements) and other agencies as required.