

Coal Combustion Residual Surface Impoundment Liner Documentation

**Basin Electric Power Cooperative
Leland Olds Station**

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Purpose

The purpose of this document is to demonstrate compliance with 40 CFR § 257.71 for Ash Pond 2 and Pond 3 at Leland Olds Station (LOS). LOS is a lignite coal-fired power plant consisting of two units that generate about 669 megawatts (MW) combined. The power plant, owned and operated by Basin Electric Power Cooperative, is located approximately four miles southeast of Stanton in Mercer County, North Dakota.

The owner or operator of an existing Coal Combustion Residual (CCR) surface impoundment is required to document whether or not such unit was constructed using one of the three prescriptive designs described in 40 CFR § 257.71. The three prescriptive designs are: 1) a minimum of two feet of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec; 2) a composite liner meeting the requirements of 40 CFR § 257.70(b); or 3) an alternative composite liner that meets the requirements of 40 CFR § 257.70(c).

Inactive Status

A temporary bottom ash handling system consisting of above-ground concrete weirs, bottom ash collection and dewatering areas was placed into operation ending the transport of CCRs to the surface impoundments prior to effective date of the CCR Rule (October 19, 2015). Accordingly, the LOS surface impoundments are considered “inactive” under the federal regulations. A “Notification of Intent to Initiate Closure of CCR Surface Impoundment” for Ash Pond 2 and Pond 3 was completed on December 15, 2015, in accordance with §257.100. On April 18, 2016 the U.S. Environment Protection Agency (EPA) filed a motion to remand and vacate the provisions of the CCR Rule exempting inactive surface impoundments from the CCR Rule requirements. The DC Circuit Court of Appeals issued an order approving the motion on June 14, 2016. Since the exemption for inactive surface impoundments was no longer effective, EPA issued the “Extension Rule” on August 5, 2016. The Extension Rule became effective on October 4, 2016 providing a timeline for inactive units to comply with CCR Rule requirements.

Liner Design Documentation

The LOS CCR surface impoundments (Ash Pond 2 and Pond 3) were designed and constructed using engineering practices current at the time of construction, during the mid-1960s and mid-1970s. Onsite materials, consisting of silty clay soils and slightly organic silts, were excavated

and used to construct the perimeter embankments for Ash Pond 2 and Pond 3. The bottoms of Ash Pond 2 and Pond 3 consist of the same silty clay and slightly organic silty clay soils used for embankment construction. Accordingly, Ash Pond 2 and Pond 3 were not constructed using liner system designs referenced in 40 CFR § 257.71.

Recordkeeping and Reporting

A copy of this document will be placed into the facility's operating record in accordance with 40 CFR § 257.105 (Recordkeeping Requirements) and will be posted to Basin Electric Power Cooperative's CCR Web site in accordance with 40 CFR § 257.107 (Publicly accessible internet site requirements). Notification will be sent to the relevant State Director in accordance with 40 CFR § 257.106 (Notification Requirements).

Certification Statement

In accordance with the requirements of 40 CFR § 257.71(b) as specified in the *Standards for the Disposal of Coal Combustion Residuals in Landfills and Impoundments*, I certify the documentation regarding LOS CCR surface impoundment liner design is accurate.



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