

2015 Annual Inspection

Lewis & Clark Station Temporary CCR Storage Pad

Prepared for Montana-Dakota Utilities Company

January 2016

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Certifications

I hereby certify that I have examined the facility and, being familiar with the provisions of 40 CFR 257 Subp. D, attest that this Annual Inspection report has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR §257.84.



John E. Hunt
Barr Engineering Co.
MT Registration Number 12775PE

Dated this 12th day of January, 2016

1.0 Introduction

Montana-Dakota Utilities Co. (MDU) operates the Lewis & Clark Station (Lewis & Clark), in Sidney, Montana. MDU operates one coal-fired boiler at Lewis & Clark, resulting in production of coal combustion residuals (CCR). CCR management is subject to Federal Standards for Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments per 40 CFR 257 Subpart D (CCR Rule). MDU excavates CCR from two scrubber ponds as plant operating conditions dictate. The excavated CCR is stockpiled on a temporary CCR storage pad (CCR Unit) located adjacent to the scrubber ponds until it can be transported to the permanent ash disposal facility. As operations permit, the stockpiled CCR is loaded from the CCR Unit into trucks positioned on one of the two dedicated and managed load out pads, and then transported offsite for disposal at an abandoned coal mine.

The temporary CCR storage pad is required to meet the CCR Rule for landfills, and is therefore subject to annual inspections by a qualified professional engineer (QPE). This report documents the first annual inspection performed by John Hunt, P.E. on November 20, 2015, as required by the CCR Rule. Other annual inspection duties, including a review of the available information regarding the status and condition of the CCR Unit and storage capacity evaluations, were performed prior and following the onsite inspection.

2.0 Review of Existing Information

A review of existing information was performed to confirm that the design, construction, operation and maintenance of the CCR Unit is consistent with recognized and generally accepted good engineering standards. No deficiencies were found and the existing information reviewed is described in following subsections.

2.1 Results of Weekly Inspections

MDU commenced weekly inspections of the CCR Unit by a qualified person on October 24, 2015, in accordance with the October 19, 2015 effective date of the CCR Rule. Weekly inspection reports from October 24, 2015 through December 17, 2015 were reviewed as part of this annual inspection.

2.2 Results of Previous Annual Inspections

This report is the first annual inspection report required by the CCR Rule; the results of previous annual inspections are therefore not available. A review and summary of pertinent information contained in previous inspection reports will be included in future reports.

3.0 Structural Integrity and Operational Review

An on-site inspection was performed on November 20, 2015 to visually identify signs of distress or malfunction of the CCR Unit. The results of the inspection are included in the following subsections.

3.1 Visual Inspection of CCR Unit

Inspection of the CCR Unit consisted of on-foot inspection of perimeter embankments, the active storage pad, and the two dedicated load-out areas. Visual inspection items and results are summarized in the following table:

Table 3-1 Summary of Visual Inspection

| Item | Visual Inspection Description | Visibly Observed (Yes/No) | Notes |
|------|---|------------------------------|---|
| 1 | Proper placement of waste | Yes | No waste placement issues observed at time of inspection. |
| 2 | Adequate slope stability and erosion control | Yes | No significant erosion identified at time of inspection. |
| 3 | Run-on and Run-off controls properly functioning | Yes | Surface water controls appeared adequate at time of inspection. |
| 4 | Surface water percolation minimized | Yes | No surface water ponding observed at time of inspection. |
| 5 | Water quality monitoring systems maintained and operating | Yes | Existing monitoring wells were accessible and appeared to be in good condition. |
| 6 | Dust adequately controlled | Yes | No dust issues present at time of inspection. |
| 7 | Geometry of temporary CCR storage pad is unchanged from previous inspection | NA | 2015 inspection is first inspection conducted under the CCR Rule. Future annual inspections will compare geometry to 2015 baseline. |
| 8 | Animal burrows absent or of no significance | Yes | No burrows identified at time of inspection. |
| 9 | Adequate vegetation density and vegetation maintenance | NA | Berms have rock cover in lieu of vegetation. |
| 10 | Debris controlled or absent | Yes | No debris present at time of inspection. |

3.2 Other Changes

No other changes to the CCR Unit design, maintenance, or operations were observed as part of the annual inspection that could affect the stability or operation of the CCR Unit.

4.0 Volume of CCR Contained

Based upon field measurements taken as part of the November 20, 2015 annual inspection, the estimated volume of CCR contained in the CCR Unit at the time of the inspection is approximately 600 cubic yards.