
COAL COMBUSTION RESIDUAL (CCR) IMPOUNDMENT ANNUAL INSPECTION REPORT

Facility Name: Muskogee Generating Station

Facility Location: 5501 Three Forks Road, Fort Gibson, OK 74434

Inspection Date: December 6, 2017

Inspected by:

Suraj Balan, P.E.

Lead Civil Engineer, Power Supply Services

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1. OVERVIEW

Muskogee Power Plant (MK) is located on the east bank of the Arkansas River in Fort Gibson, Oklahoma. The plant contains one 16.5-acre surface impoundment, the Emergency Ash Basin, which is estimated to contain approximately 82,000 cubic yards (CY) of Combustion Coal Residual (CCR) material. According to recent bathymetric survey information, CCR material is generally confined to the northwest portion of the pond.

The existing impoundment contains a 6-inch soil and bentonite liner (42% bentonite mixed with on-site soil) overlain with 6 inches of cement stabilized aggregate on both the side slopes and pond bottom. In addition to this liner system, the pond bottom contains 12 inches of untreated crushed stone overlain with a 6-inch crushed stone treated base (hydrated lime stabilized).

A visual inspection was conducted on 12/6/2017 to identify signs of distress or malfunction of the Emergency Ash Basin. The annual inspection was conducted by Suraj Balan a qualified Professional Engineer. No changes are noted to the geometry of the structure since the previous inspection that was performed on 11/16/2016. The inspection confirmed that the general overall geometry of the Emergency Ash Basin was consistent with the construction design and there were no evident signs of distress or malfunction of the Emergency Ash Basin.

2. OBSERVATIONS

The following observations were made during the 12/6/2017 inspection.

- The basin has not received CCR material since October 14, 2015, which is when the discharge piping to the pond was disconnected from the plant.
- The Emergency Ash Basin did not have any impounded surface water and was dry at the time of the inspection. Slope stability concerns were not evident for the dry inactive Emergency Ash Basin.
- The cover vegetation was generally less than six inches tall and appeared to be maintained.
- Some relatively small erosion rills were observed on the interior portions of the east and north embankments.

3. **RECOMMENDATIONS**

There were no appearance of actual or potential structural weakness for the dry inactive Emergency Ash Basin slopes. NO conditions were observed at the time of the inspection to indicate weakness or instability along the slopes that could be a potential hazard.

Maintenance Recommendations:

- Remove any excess vegetation (that is taller than 2 feet) and maintain grass cover along slopes. Remove any excess vegetation from within the Emergency Ash Basin area and adjacent surface drainage channels.
- Continue to repair erosion control features, reestablish vegetation, and periodically inspect to confirm that the erosion control features are effective.
- Continue to monitor surface water drainage features and repair as needed.

4. **PROFESSIONAL ENGINEER CERTIFICATION**

By means of this certification, I attest that I am familiar with the requirements and provisions of Title 40 Code of Federal Regulations (CFR), Part 257, Criteria for Classification of Solid Waste Disposal Facilities and Practices, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments.

Suraj Balan, P.E.

Printed Name of Registered Professional Engineer

12/6/2017

Signature of Registered Professional Engineer Date

Registration Number: 24882 State: Oklahoma

OK Certificate of Authorization Number: 159

