



1055 corporate square drive
st. louis, missouri 63132
phone: 314.993.4132
fax: 314.993.4177
www.reitzjens.com

November 9, 2023

Mr. Mikel C. Carlson, R.G.
GREDELL Engineering Resources, Inc.
1505 East High Street
Jefferson City, Missouri 65101

RE: Report of Periodic Safety Factor Assessment of Fly Ash Pond
Sikeston Board of Municipal Utilities (BMU) – Sikeston Power Station

Dear Mikel:

This report presents Reitz & Jens' (R&J) findings for the Periodic Safety Factor Assessment for the Fly Ash Pond at the Sikeston BMU Power Station in accordance with 40 CFR 257.73(e) of the current CCR Rule. This study was done in accordance with our Engineering Service Agreement with GREDELL Engineering Resources (GER) dated August 28, 2023. Our assessment consisted of a review of the inspection reports produced by the Sikeston BMU Power Station and a visit to the site to view the existing conditions.

R&J performed a Safety Factor Assessment for the Fly Ash Pond for GER and the Sikeston BMU, the results of which were presented in our report dated March 12, 2018. We judged at that time that the design and construction of the Fly Ash Pond met or exceeded the minimum factor of safety criteria of 40 CFR 257.73(e)(1)(i) through (iv).

GER assembled and emailed to R&J the weekly and monthly inspection reports by Sikeston BMU Power Station dated from January 7, 2018 through October 1, 2023. This included 268 weekly inspection reports. GER also emailed to R&J GER's annual inspections and any testing. The purpose of R&J's review was to determine whether there have been any significant changes to, or incidents at, the Fly Ash Pond which could impact the safety factor assessment which was done in 2018. These reports were reviewed by an experienced Geotechnical Engineer. We did not find any reported observations, incidents or data which might significantly impact our findings of the Safety Factor Assessment performed in 2018.

I (the undersigned) visited the site on October 13, 2023. I spoke briefly with Tom Gredell. I then drove around the perimeter. I observed the condition of the exterior slopes of the perimeter berms. There was no visible evidence of a slope failure or settlement or seepage. The grass on the exterior slopes was generally well-established and had been mowed. The surface of the fly ash was generally dry and partially overgrown around the perimeter. Two items were noticed.

A portion of the shallow drainage ditch that had been dug along the north-south railroad track to the east of the Fly Ash Pond has collapsed (see attached photo). This portion is between the two turnouts that connect the railroad loop to the entrance track. The berm did not appear to be distorted by a slope failure or settlement. It appears that the ditch was filled by sloughing of the side of the ditch.

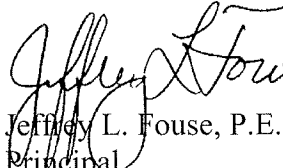
The critical failure surfaces of the slope stability analyses which we calculated previously did not extend beyond the toe of the east berm as far as the ditch. Therefore, we judged that the drainage ditch does not impact our findings of the Safety Factor Assessment performed in 2018. We recommend that a drain pipe be installed if the drainage ditch is re-dug to prevent sloughing.

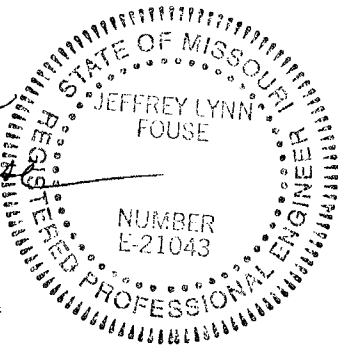
A drainage ditch has been excavated along the top of the east berm in the Fly Ash Pond (see attached photo). The ditch appears to be 4 or 5 feet deep; we did not measure it. The excavation revealed that approximately the upper 5 feet of fly ash has been solidified, forming hard laminated planes. We judge that the excavation of the drainage ditch does not impact our findings of the Safety Factor Assessment of the east berm if the ditch is well-drained. If the ditch is not well-drained, then seepage of the standing water in the ditch may increase seepage into the upper portion of the berm which could possibly decrease the stability of the slope. The fly ash excavated from the ditch is piled along the west side of the ditch inside the Fly Ash Pond. This does not have a significant impact on the stability of the east berm.

Based upon the inspection reports furnished to R&J and my observations of the existing conditions of the Fly Ash Pond, I judge that the findings from the R&J Safety Factor Assessment performed in 2018 have not been significantly changed. The design and construction of the Fly Ash Pond meets or exceeds the minimum factor of safety criteria of 40 CFR 257.73(e)(1)(i) through (iv). It was not necessary for R&J to re-run the stability analyses.

Please contact me if you have any questions or comments regarding our assessment and conclusions.

Sincerely,
REITZ & JENS, Inc.


Jeffrey L. Fouse, P.E.
Principal
jfouse@reitzjens.com
Cell: 314-852-1110



Attached: Photo of Sloughing Along Drainage Ditch, East Berm of Fly Ash Pond
Photo of Excavation of Drainage Ditch Along Top of East Berm in Fly Ash



Photo of Sloughing Along Drainage Ditch, East Berm of Fly Ash Pond. Note that berm slope and road appear unchanged. (10/13/2023)



Photo of Excavation of Drainage Ditch Along East Berm of Fly Ash Pond. Note solidified fly ash in upper 5 feet. (10/13/2023)