



Coal Combustion Residual Impoundment Inspection – Unit 2 Slurry Pond Winyah Generating Station Georgetown, SC

An inspection was performed on the Winyah Generating Station (WGS) coal combustion residual (CCR) Unit 2 Slurry Pond on June 20, 2017, to assess the stability and functionality of the structure. The inspection was conducted by qualified Santee Cooper professional engineering staff. Below is a summary of the assessment team’s findings and recommendations. It should be noted that the Unit 2 Slurry Pond is currently undergoing closure, and all CCR has been removed from the pond.

The purpose of this report is to fulfill the requirements of Section 257.83(b) of the Federal Register regarding the safety and inspection of CCR surface impoundments. Section 257.83(b) states that “If the existing or new CCR surface impoundment or any lateral expansion of the CCR surface impoundment is subject to the periodic structural stability assessment requirements under Section 257.73(d) or 257.74(d), the CCR unit must additionally be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards.”

The inspection must, at a minimum, include:

- i. A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., CCR unit design and construction information required by Section 257.73(c)(1) and 257.74(c)(1), previous periodic structural stability assessments required under Section 257.73(d) and 257.74(d), the results of inspections by a qualified person, and results of previous annual inspections
- ii. A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures
- iii. A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation

The inspection report must also be written by a qualified professional engineer and must address the following (required information on the CCR impoundments at WGS included in bold below the Federal Register excerpt):

- i. Any changes in geometry of the impounding structure since the previous annual inspection
 - **The geometry of the Unit 2 Slurry Pond is continuously changing due to current construction.**
- ii. The location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection
 - **No staff gauges are located in the pond.**
- iii. The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection
 - **The pond is clean of CCR and holds no water.**
- iv. The storage capacity of the impounding structure at the time of inspection
 - **No storage**
- v. The approximate volume of the impounding water and CCR at the time of inspection
 - **No storage**

All CCR has been removed from the Unit 2 Slurry Pond and the pond does not hold any water. Currently, a submersible pump is in place to remove storm water runoff as it drains into the structure. The storm water is discharged through a 4" flexible HDPE line to the station's wastewater treatment system.

Field Observations:

- Due to ongoing construction, there are areas of minor surface erosion on the upstream slope. No signs of shear failure were observed.
- Several ruts on the crest due to heavy equipment being used during construction.
- Minor eroded/depression areas were observed on the downstream slope.
- Several areas had over grown vegetation on the downstream slope.
- Permanent drains to the intake canal were being installed at the time of our inspection to replace the pump system currently used. The contractor and station personnel should confirm these areas are fully stabilized upon completion of the work. The site will be inspected again by a Santee Cooper dam safety engineer when the other Winyah ponds are inspected in July 2017.

In summary, the Unit 2 Slurry Pond at WGS was found to be in generally satisfactory condition. There are no recommendations for maintenance or repairs on the Unit 2 Slurry Pond due to the ongoing closure of the pond. No recognized existing or potential management unit safety deficiencies were identified within the parameters of design and operation.