

**PERIODIC STRUCTURAL STABILITY ASSESSMENT
PLANT GORGAS GYPSUM POND
ALABAMA POWER COMPANY**

EPA's "Disposal of Coal Combustion Residuals from Electric Utilities Final Rule (40 C.F.R. Part 257 and Part 261) and the State of Alabama's ADEM Admin. Code Chapter 335-13-15 require the owner or operator of an existing CCR surface impoundment to conduct periodic structural stability assessments. Per §257.73(d) and ADEM Admin. Code r. 335-13-15-.04(4)(d) the owner or operator must document whether the design, construction, operation and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. In addition, §257.73(f)(3) and ADEM Admin. Code r. 335-13-15-.04(4)(f)3. require a subsequent assessment be performed within 5 years of the previous assessment.

The CCR surface impoundment located at Alabama Power Company's Plant Gorgas also referred to as the Plant Gorgas Gypsum Pond is located on Plant Gorgas property near Parrish, Walker County, Alabama. The impoundment is currently in the process of closure by removal of gypsum for beneficial use purposes. To accommodate closure, the impoundment has been substantially dewatered. Process flows are no longer being directed to the impoundment, and the only water present is limited amounts of ponded water that exist following rain events.

The CCR surface impoundment is formed by an engineered cross-valley embankment. The foundations and abutments generally consist of a combination of stiff natural soils and mine reclamation fill material, both of which have been assessed to be stable.

Slope protection against surface erosion consists of a 60-mil HDPE liner on the inboard slopes and riprap on the exterior slopes. Wave action is not an issue with the Gorgas Gypsum Pond considering the configuration and operation of the facility. Furthermore, the pond is not operated in such a manner as to be subjected to rapid drawdown conditions, and the presence of the HDPE liner protects embankment slopes against rapid drawdown instability and erosion.

The cross-valley embankments have been properly constructed using mechanical stabilization, compacted to a density sufficient to withstand the range of loading conditions.

The primary spillway structures consist of HDPE riser structures that serve to decant water from the sluiced gypsum. There are no other spillways or discharge structures serving the Plant Gorgas Gypsum Pond. The spillways are designed, constructed operated and maintained to adequately manage flow during and following the peak discharge from the 1000-yr storm.

The CCR unit has HDPE piping leading from the riser structures that that penetrates the embankment. There is no evidence of deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the structure.

The downstream slopes of the embankment are not subject to inundation from adjacent water bodies.

I hereby certify that the structural stability assessment was conducted in accordance with 40 C.F.R. §257.73(d) and ADEM Admin. Code r. 335-13-15-.04(4)(d).


James C. Pegues, Jr.
Licensed State of Alabama, PE No. 16516
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