

PERIODIC SAFETY FACTOR ASSESSMENT REVISION 1
391-3-4-.10(4) and 40 C.F.R. PART 257.73
PLANT YATES ASH POND 2 (AP-2)
GEORGIA POWER COMPANY

The Federal CCR Rule, and, for Existing Surface Impoundments where applicable, the Georgia CCR Rule (391-3-4-.10) require the owner or operator of a CCR surface impoundment to conduct initial and periodic safety factor assessments. See 40 C.F.R. § 257.73(e); Ga. Comp. R. & Regs. r. 391.3-4-.10(4)(b)¹. The owner or operator must conduct an assessment of the CCR unit and document that the minimum safety factors outlined in § 257.73(e)(1)(i) through (iv) for the critical embankment section are achieved. In addition, the Rules require a subsequent assessment be performed within 5 years of the previous assessment. See 40 C.F.R. § 257.73(f)(3); Ga. Comp. R. & Regs. r. 391.3-4-.10(4)(b)¹.

The CCR surface impoundment known as Plant Yates AP-2 is located on Plant Yates property, northwest of Newnan, Georgia. A Notification of Intent to Initiate Closure was placed in the Operating Record on 04/17/2019. AP-2 is currently undergoing closure-by-removal, and a portion of AP-2 will be repurposed for use as a service water pond. As a part of the closure operations and future development for the new service water pond, a new cross-valley dam has been constructed, basically bisecting the original footprint of AP-2. All CCR has been removed from the west portion of the original footprint, and CCR removal is ongoing in the east portion.

The critical section for the new AP-2 dam has been determined to be at the midpoint of the cross-valley embankment. The analyses used to determine the minimum safety factor for the critical section resulted in the following minimum safety factors:

Loading Condition	Minimum Calculated Safety Factor	Minimum Required Safety Factor
Long-term Maximum Storage Pool (Static)	2.1	1.5
Maximum Surcharge Pool (Static)	2.1	1.4
Seismic	1.8	1.0

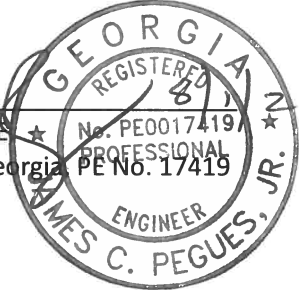
^[1] In a typographical error, 391.3-4.10(4)(b) references the “structural integrity criteria in 40 CFR 247.73,” when the reference to such criteria should be 40 CFR 257.73.

The embankment of AP-2 is constructed of compacted clayey and silty sands founded on partially weathered to relatively unweathered rock that are not susceptible to liquefaction. Therefore, a minimum liquefaction safety factor determination was not required.

This assessment is supported by appropriate engineering calculations, and the plots from the critical section analyses are attached.

I hereby certify that the safety factor assessment was conducted in accordance with 40 C.F.R. Part 257.73 (e)(1).

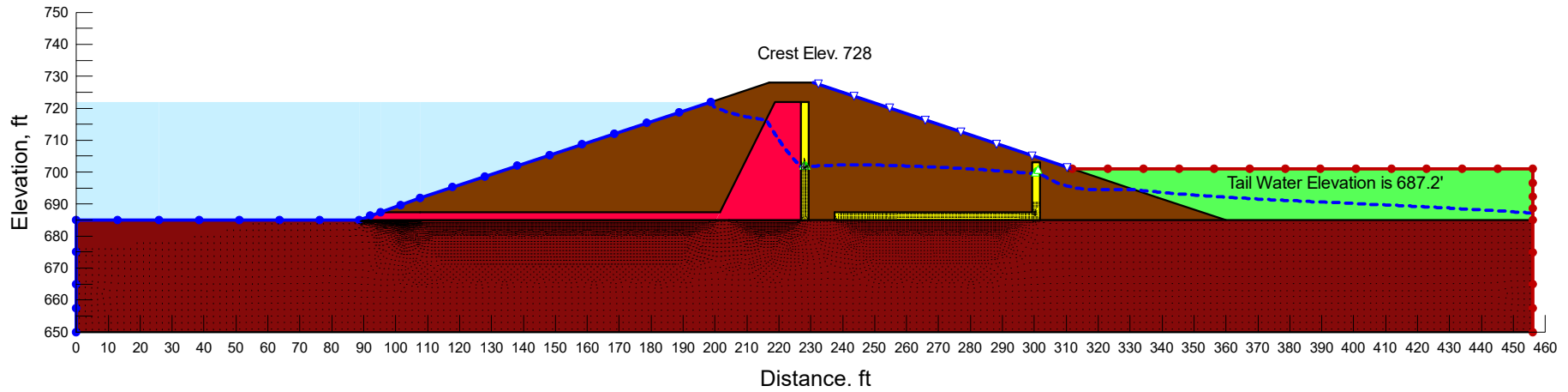
James C. Pegues, P.E. ★
Licensed State of Georgia PE No. 17419



The seal is circular with the text "GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. PEGUES, JR." around the perimeter. In the center, it says "No. PE0017419". There are handwritten numbers "81" and "2" on the seal.

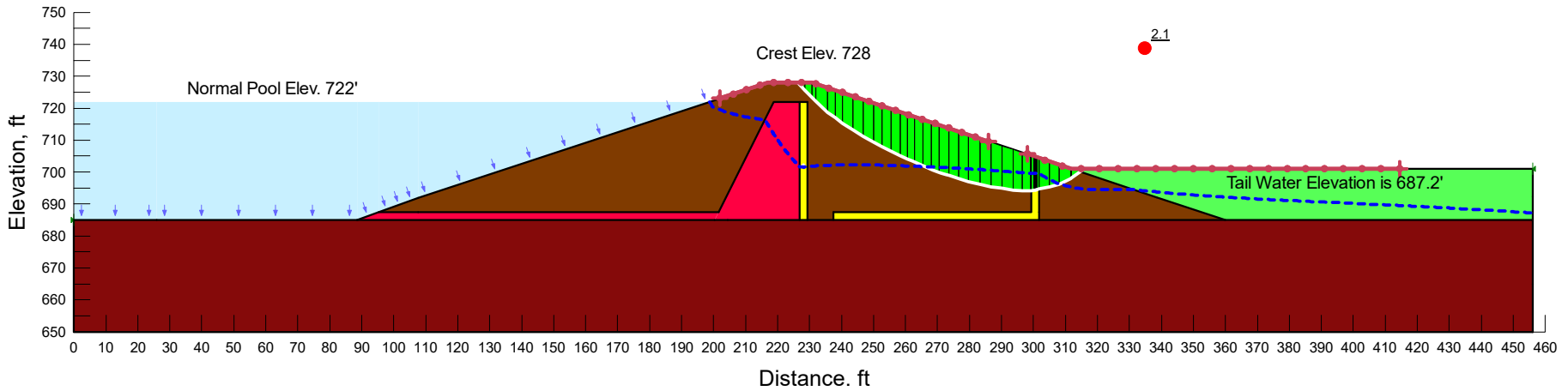
Section 5+60

Color	Name	Sat Kx (ft/sec)
Red	CORE-EFF	3.2e-08
Yellow	DRAIN	0.0003
Green	FLOOD PLAIN FILL-EFF	3.2e-06
Dark Red	FND ROCK	0.00034
Brown	SHELL-EFF	3.2e-06



Section 5+60

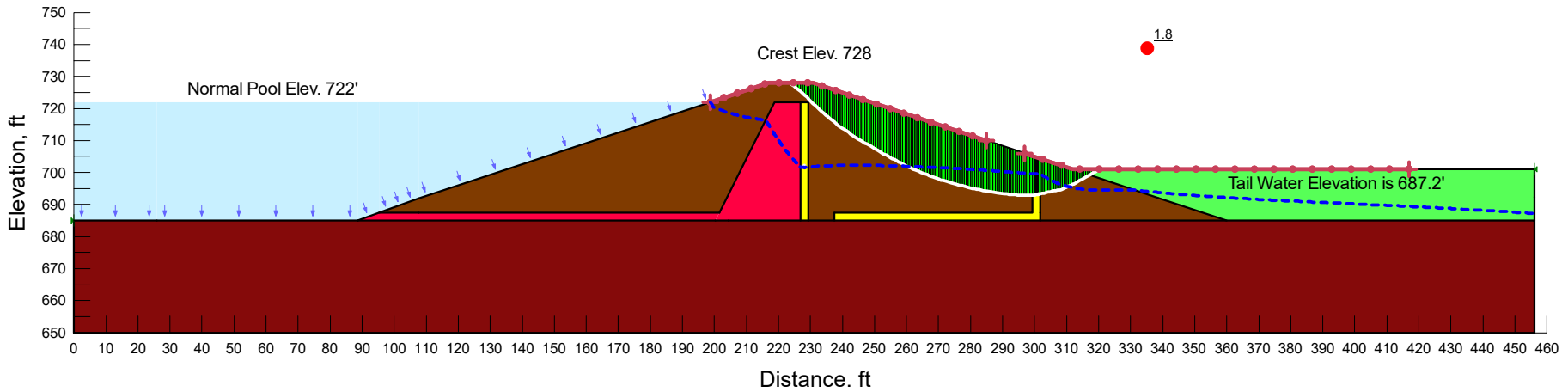
Color	Name	Unit Weight (pcf)	Cohesion' (psf)	Phi' (°)
Red	CORE-EFF	115	0	30
Yellow	DRAIN	100	0	35
Green	FLOOD PLAIN FILL-EFF	110	0	28
Dark Red	FND ROCK	130	0	38
Brown	SHELL-EFF	120	0	33



Loading Condition: Steady State Seepage with Normal Pool Condition (Effective Strength Parameters)

Section 5+60

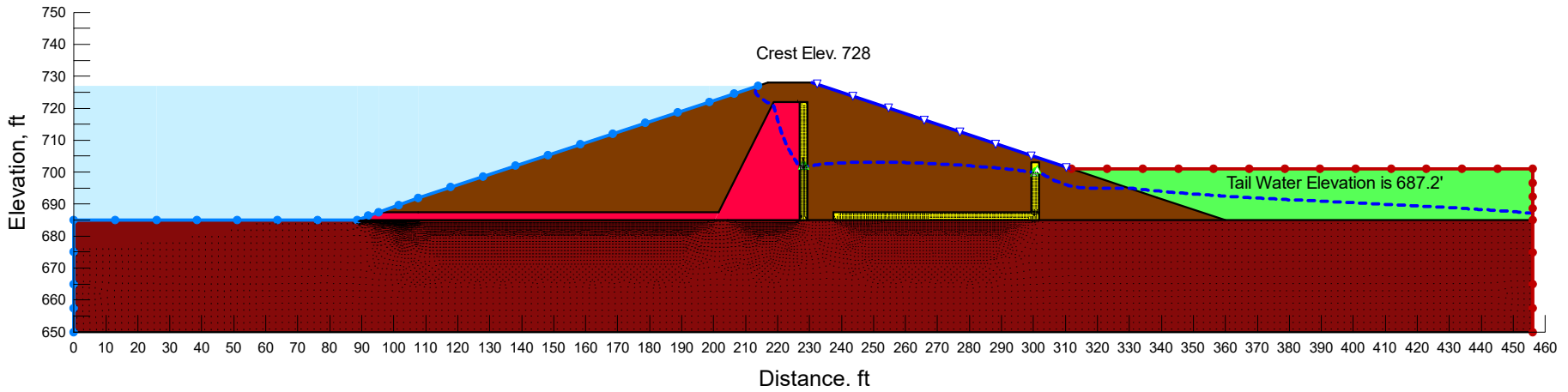
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Dark Red	FND ROCK	130	0	38
Brown	SHELL-EFF	120	0	33



Loading Condition: Steady State Seepage with Normal Pool Condition (Effective Strength Parameters)
 Earthquake Loading, Seismic Coefficient = 0.087

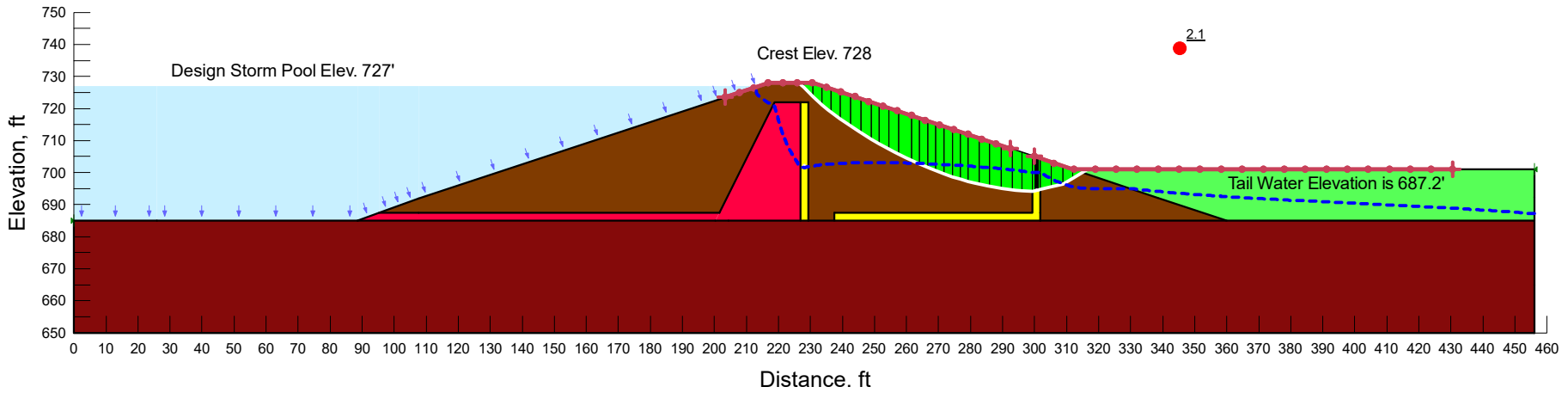
Section 5+60

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Loading Condition: Steady State Seepage with Design Storm Pool Condition (Effective Strength Parameters)