August 6, 2024

Submitted Electronically to epdcomments@dnr.ga.gov

Georgia Department of Natural Resources
Environmental Protection Division
Land Protection Branch
4244 International Parkway
Atlanta Tradeport – Suite 104
Atlanta, Georgia 30354

Re: Sierra Club Comments on Draft CCR Permit to Georgia Power Plant Wansley Existing CCR Surface Impoundment AP-1

The Sierra Club hereby submits the following comments concerning the Environmental Protection Division's ("EPD") draft coal combustion residuals ("CCR") permit for the Georgia Power Plant Wansley Existing CCR Surface Impoundment AP-1 (the "Draft Permit").

Wansley AP-1 is a 343-acre unlined impoundment built in a stream that is hydraulically connected to groundwater containing approximately 16,000,000 cubic yards of CCRs. According to a report by Earthjustice and the Environmental Integrity Project, cobalt levels are ten to twenty times higher at Plant Wansley than the EPA Regional Screening Level. Other dangerous pollutants found at unsafe levels include boron, lithium, radium, and Sulfate.[1] As we pointed out in an expert report submitted to the Georgia Public Service Commission, approximately seventy-five feet of CCRs would remain submerged in groundwater if a closure-in-place method was completed.[2] In fact, Georgia Power originally planned to close-in-place Wansley AP-1, pursuant to their 2019 draft closure plan.[3] However, in a surprising turn of events, during their 2022 Integrated Resource Plan docket, Georgia Power proposed to close Wansley AP-1 by removal (also known as excavation). Subsequently, in Q1 of 2024, Georgia Power submitted a revised Closure Plan switching from closure-in-place to closure by removal.[4] We applaud this change because, if done correctly, it is

[1] *See* "Georgia at a Crossroads" available at: https://environmentalintegrity.org/wp-content/uploads/2018/12/Georgia-coal-ash-report.pdf.
[2] *See* Direct Testimony of Rachel Wilson, Exhibit RW-4, Georgia Power Company 2019 Base Rate Case, Docket No. 42516, available at: https://psc.ga.gov/search/facts-document/?documentId=178649 ("Quarles Report").
[3] EPD Closure Plan available at https://www.georgiapower.com/content/dam/georgia-power/pdfs/company-pdfs/plant-wansley/WAN%20AP-1_Closure%20Plan_Rev1.pdf.
[4] Closure Plan at 1, Rev 0 May 2024.

the safest and most effective way to close a coal ash impoundment, resolving on-going groundwater contamination and protecting the public and its drinking water supply. For the reasons discussed below, we encourage EPD to require Georgia Power to close *all* of its surface impoundments by excavation.

1. **A cap-in-place closure plan will violate State and Federal Performance Standards for closure of CCR Units because it will fail to eliminate or minimize the release of CCR waste into the groundwater.**

State and Federal performance standards require the following when closing a CCR unit:

- Control, minimize or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere.
- Preclude the probability of future impoundment of water, sediment, or slurry.
- Include measures that provide for major slope stability to prevent the sloughing or movement of the final cover system during the closure and post-closure care period.
- Minimize the need for further maintenance of the CCR unit; and
- Be completed in the shortest amount of time consistent with recognized and generally accepted good engineering practices.[5]

The EPA has agreed that a closure-in-place plan will not prevent the continued leaching of CCR constituents into the groundwater when an ash impoundment is unlined and the CCRs remain saturated within the uppermost aquifer. While the completed cover will hypothetically reduce vertical infiltration of water into the unit, it will not prevent the lateral inflow of groundwater where the CCRs remain saturated. Third, the leachate within the unit will continue to remain trapped beneath the completed cover.[6] The United State Court of Appeals for the D.C. Circuit recently confirmed the prohibition of the closure-in-place method for an unlined ash impoundment if the CCR is in contact with groundwater.[7] "Limiting the contact between coal ash and groundwater after closure is critical to minimizing releases of contaminants into the environment and will help ensure communities near these facilities have access to safe water for drinking and recreation."[8]

More specifically, Georgia Power completed numeric, predictive models for Plants Scherer and Wansley, and those models determined that CCRs will remain submerged in groundwater even after closure-in-place is completed.

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[5] 40 C.F.R. §§ 257.102(d)(1)(i) - (v); Ga. Comp. R. & Regs. 391-3-4-.10(7)(b).
[6] 87 Fed Reg. 72989 (Nov. 28, 2022), EPA-HQ-OLEM-2021-0590-0100_content.pdf, available at: https://www.regulations.gov/document/EPA-HQ-OLEM-2021-0590-0100.
[7] *Electric Energy, Inc. v. EPA,* 106 F.4th 31, 40-41, D.C. Cir. (June 28, 2024).
[8] EPA, "EPA Takes Final Action to Protect Groundwater from Coal Ash Contamination at Ohio Facility," November 18, 2022, available at: https://www.epa.gov/newsreleases/epa-takes-final-action-protect-groundwater-coal-ash-contamination-ohio-facility.

- **Plant Scherer –** groundwater elevations after closure of AP-1 will range from 440 to 490 feet above mean seal level. When those elevations are compared to the prefilling ground topography that ranged from 410 to 450 feet in the same area, the data indicates that approximately 30 to 40 feet of CCRs will remain submerged in the former stream valley after closure is complete.[9]

- **Plant Wansley** – a diagram included in the Closure Plan illustrates that at least 75 feet of CCRs will remain submerged in the former stream valley post-closure. In fact, the elevation of groundwater within the CCRs is the same as the water elevation that will remain standing in the adjacent pond.[10]

The closure-in-place plan at Plants Scherer is not compliant with the CCR Rule or the Georgia CCR Rule because saturated CCR wastes will remain submerged and impounded below ground after closure. EPD should require Georgia Power to switch Plant Scherer, and all ash impoundments that will have CCRs submerged in groundwater, to closure by removal, consistent with what is occurring at Plant Wansley.

2. **Closure-in-place at an unlined CCR impoundments is detrimental to the public health.**

CCRs are riddled with heavy metals such as aluminum, arsenic, boron, cobalt, manganese, selenium, strontium and sulfur, to name a few, and are often also found in leachate and groundwater at leaking unlined impoundments. "CCR constituents can leach from the solid waste when it comes into contact with water, such as sluice water, groundwater, precipitation, or contact stormwater run-off. The risks to the water environment originate when those constituents are leached from the solid CCRs and are then transported away from the disposal area in groundwater and surface water. Constituent risks vary by each constituent—with risks to humans, fish, and aquatic life being common."[11]

"Human health exposures from CCRs are generally associated with water exposure pathways such as dermal contact, ingestion, and inhalation. Humans can also consume fish and mammals that have bio-accumulated the contaminants through the food chain when such animals are exposed to CCR contaminants. Fish and aquatic life can be affected when groundwater discharges into receiving streams and CCR constituents are present in the water and in sediments at the bottom. Fish and aquatic life are vulnerable to sediment contamination because CCR constituents can accumulate in solid form (e.g. fly ash that has been released) or when dissolved phase constituents (e.g. boron, arsenic) adheres to sediment where organisms live."[12]

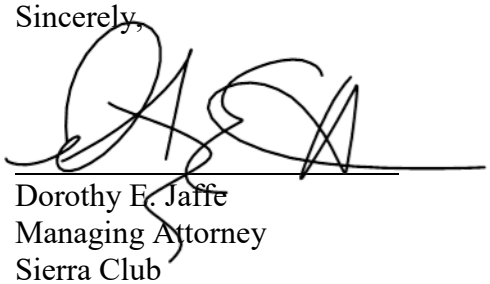
[9] Scherer 2018 Part B Application, Hydrogeologic Characterization Report at 18, 32. Quarles Report at 34.
[10] Wansley 2018 Part A Application, Drawing 12 of 33 at 186. *See also* Quarles Report at 34.
[11] *See* Quarles Report at Section 1.0; *see also* Direct Testimony of Mark Quarles, P.G. Georgia Power 2022 Integrated Resource Plan, Docket Nos. 44160 & 44161, May 4.
[12] Quarles report, Section 1.0.

Communities in and around unlined ash impoundments like those at Plants Scherer, Yates and McDonough deserve to have the toxic coal ash threat eliminated by removing all of the coal ash, as is being done at Plant Wansley.[13] There is no reason to treat them differently.

Conclusion

We applaud Georgia Power and EPD for changing the closure method of Wansley AP-1 from closure-in-place to closure by removal. This is more protective of public health and, if done properly, will eliminate the leaching of coal ash into groundwater, thereby protecting drinking water supplies. Ash ponds at Plant Scherer (16 million tons CCR), Plant Yates (8 million tons CCR), and Plant McDonough (7 million tons CCR) will continue to have CCRs saturated in groundwater after they are closed-in-place, in violation of state and federal CCR laws, if their draft closure plans are not changed. Therefore, we strongly encourage EPD to require Georgia Power to close *all* of its CCR impoundments by excavation.

Sincerely,



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[13] EPD has also approved final closure by removal permits at Georgia Power's Hammond AP-1 and Hammond AP-2.