



**Richard E. Dunn, Director**

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**EPD Director's Office**

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Atlanta, Georgia 30334  
404-656-4713

Apr 19, 2023

Jennifer McNelly  
Vice President - Environmental Affairs  
Georgia Power  
241 Ralph McGill Blvd. NE  
Atlanta, Georgia 30308

**SUBJECT: Georgia Power Company - Plant Bowen CCR Landfill**  
**Permit No: 008-018D(CCR)**  
**Modified Site Limitation 10**  
**Submittal ID: 713867**

Dear Ms. McNelly:

The Solid Waste Management Program of the Environmental Protection Division (EPD) has reviewed a January 12, 2023, technical memorandum prepared by Stantec Consulting Services regarding the Plant Bowen Coal Combustion Residual (CCR) landfill.

Based on the additional information and discussion in the Stantec technical memorandum, EPD has modified the piezometer and monitoring well abandonment procedures described in current Site Limitation 10. The modified abandonment procedures are equally or more protective of the bedrock aquifer.

Attached are the site limitations for the landfill including the modified Site Limitation 10.

Sincerely,

A handwritten signature in dark ink, appearing to read "R. Dunn".

Richard E. Dunn, Director  
Environmental Protection Division

Attachment

cc: Jim Guentert, Beverly Tipton – GA EPD  
Keith Stevens, William Cook – GA EPD  
EPD Mountain District, Cartersville  
David Gibbons, Georgia Power

File: Georgia Power – Plant Bowen, CCR Landfill, Permit

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1. Engineering measures must be included in the design and operational (D&O) plan for this site, as presented in Section II of "Addendum 1" referenced below.
2. The area considered for suitability includes only that area labeled "Surveyed Site Boundary", as shown on Southern Company Services, Inc.'s Plate 2-1: Plant Bowen Composite Geologic Map, Revision 2, dated March 7, 2004.
3. Waste placement shall be limited to the "Favorable Areas", and no waste shall be placed within the "Unfavorable Areas", as delineated on "Plate 2-1".
4. Only two borings were performed in the northern "Favorable Area" (Site B) that were located significantly north of the blue-dashed lineament shown on "Plate 2-1". As such, no waste shall be placed north of an imaginary straight line drawn from boring BLFR20 through BLFR53 to the edge of the "Surveyed Site Boundary", as shown on "Plate 2-1". Modification of this limitation may be considered once additional information from the area is obtained.
5. A minimum 500-foot undisturbed buffer shall be maintained between the waste disposal area and any residential structures and/or water supply wells.
6. A minimum 200-foot undisturbed buffer shall be maintained between the waste disposal area and the "Surveyed Site Boundary" shown on Plate 2-1.
7. The spring shown along the northeastern edge of the proposed site (Plate 2-1), as well as any other on-site or adjacent springs or seeps, shall be incorporated into the facility's groundwater monitoring plan. Protective measures shall be incorporated into the facility's D&O plan such that landfill activities will not adversely affect any on-site springs or seeps.
8. Topographic elevations of 670 feet and lower, as shown on "Plate 2-1", shall remain undisturbed in areas adjacent to the Etowah River.
9. Bottom of waste elevations shall be kept a minimum of 5 feet above seasonal high groundwater elevations. Since seasonal high groundwater elevations have not been specifically determined for the subject site, the bottom of waste elevations shall be kept a minimum of 15 feet above the water level elevations shown for the date of December 18, 2002 on PELA, Inc.'s "Table 3-1; Ground Water Levels and Top of Unweathered Bedrock", dated January 6, 2004, provided as part of "Addendum 1" referenced below.
10. All soil borings, monitoring wells and piezometers that have been completed/installed at this site, shall be plugged and abandoned in accordance with the Water Well Standards Act. To abandon monitoring wells and piezometers installed in bedrock within the proposed waste footprint, a cement/bentonite grout shall be tremied into the well casing and screen section from the bottom of the screen to the top of the rock. The well casing above the top of rock shall be over-drilled using

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either hollow stem augers, rotary bits, or a reaming device, such that the casing, grout, and seal are removed down to the top of rock. A non-shrinking cement/bentonite grout shall be tremied into the over-drilled borehole from the bottom of the over-drilled section to within 10 feet of the base of the landfill. The remaining borehole below the base of the landfill shall be filled with hydrated bentonite. Drill cuttings may be placed above the base of the landfill if excavation of the area will occur within 90 days.

Monitoring wells and piezometers installed in the residuum within the proposed waste footprint shall be abandoned by over-drilling to the bottom of screen and filling with a non-shrinking cement/bentonite grout mixture via tremie pipe from the bottom to within 10 feet of the base of the landfill. The remaining borehole below the base of the landfill shall be filled with hydrated bentonite. Drill cuttings may be placed above the base of the landfill if excavation of the area will occur within 90 days.

Borings, monitoring wells, and piezometers located outside the proposed waste footprint shall be abandoned by filling with a cement/bentonite or bentonite grout via tremie pipe.

The abandonment of all on-site wells shall be supervised by a professional geologist (PG) or professional engineer (PE) registered to practice in the State of Georgia. The supervising PG/PE shall submit a report of the abandonment to EPD and certify that the borings/wells were abandoned in accordance with the Water Wells Standards Act. The certification shall include a stamp and signature of the supervising PG/PE.

11. Groundwater and surface water monitoring systems, conforming to EPD's Rules of Solid Waste Management, shall be installed at the site. The applicant must be aware that, due to the unpredictable nature of the karstic subsurface, a more comprehensive groundwater monitoring system will be necessary to adequately monitor the site. Well nests, consisting of shallow and deep (rock) wells, will be necessary. The well nests shall be installed along obvious and inferred lineaments on-site in addition to any other areas of potential leachate migration.
12. As the site is located within a seismic impact zone, all design engineering drawings included in the D&O plan shall stipulate that all structures are engineered to withstand a maximum horizontal acceleration of 0.22g.
13. All erosion control measures and/or diversion ditches shall conform to the Erosion and Sediment Control Act (as amended through 2003) and be protective of the Etowah River and any associated wetlands and perennial or intermittent tributaries.

*Reference: Southern Company Services, Inc.'s "Georgia Power Company, Plant Bowen, Proposed Coal Combustion By-Product Monofil, Addendum I, Site Acceptability Report, Hydrogeological Assessment and Demonstration of Engineering Measures", dated July 2004*