

**Land Protection Branch**

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Sep 22, 2022

Aaron D. Mitchell  
Director of Environmental Affairs  
Georgia Power Company  
241 Ralph McGill Blvd. NE  
Atlanta, Georgia 30308

RE: Draft Site Limitations for Georgia Power  
Proposed Plant Arkwright CCR Landfill  
Macon, Bibb County, Georgia  
Submittal ID: 534245

Dear Mr. Mitchell:

The Solid Waste Management Program of the Environmental Protection Division (EPD) has completed its review of the following:

- *Response to Georgia Environmental Protection Division Comments, Georgia Power Co. Plant Arkwright, CCR Landfill Site Acceptability Study (SAR)* submitted by Georgia Power, dated November 28, 2021, April 14, 2022, July 22, 2022, and August 8, 2022.
- *Southern Company Services/Georgia Power Company, Former Plant Arkwright New CCR Landfill Site Acceptability Report, Final Report for Proposed Landfill, Putnam County, Georgia*, prepared by Jacobs Engineering Group, Inc., dated March 2022.

These documents can be accessed on the EPD web page at:

- <https://epd.georgia.gov/public-announcements-0/land-protection-branch-public-announcements>
- <https://epd.georgia.gov/ccr-draft-site-limitations>

Based on the data submitted, EPD has drafted “Site Limitations” which would form the basis for design of the proposed landfill in a manner that complies with *Georgia’s Rules for Solid Waste Management*. A copy of these is attached.

Comments on the proposed facility's site suitability report and the draft "Site Limitations" are welcome. However, if EPD is to consider such comments prior to determining if a Site Suitability Notice is warranted for this facility, they must be received prior to October 19, 2022. Please note that issuance of a Site Suitability Notice by EPD does not constitute a permitting decision for the proposed facility and comments regarding siting issues may be considered up to the time a final permitting decision is made.

Please feel free to contact Beverly Tipton at 470-524-5790 if you have any questions.

Sincerely,



Charles J. Mueller, Chief  
Land Protection Branch

Enclosure

cc: Jim Guentert, Beverly Tipton, Miranda Anderson - GA EPD  
Brian Love, Keith Stevens, William Cook – GA EPD  
EPD West Central District, Macon  
David Gibbons, Georgia Power

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1. The area considered for acceptability includes only the area delineated by the line “New CCR Landfill Permit Boundary” on Jacobs Engineering Group (Jacobs) Figure 4, *Proposed CCR Landfill* dated April 2022.
2. Waste shall not be placed outside of the area delineated by the line “New CCR Landfill Limit of Waste” on Jacobs’s Figure 4, *Proposed CCR Landfill* dated April 2022.
3. All existing coal combustion residual (CCR) waste shall be removed from the area identified as “Existing Extent of CCR (AP3 landfill)” on Jacobs’s Figure 10, *Seasonal High Potentiometric Surface Map February 2019*, dated April 2022.
4. A composite liner and leachate collection system, as required by 40 CFR 257.70, shall be constructed under all areas proposed for CCR disposal. In the Phase 1 and Phase 2 landfill areas, the bottom of the liner system shall be constructed a minimum of five feet above the groundwater elevation contours shown on Jacobs’s Figure 10, *Seasonal High Potentiometric Surface Map February 2019*, dated April 2022.

Alternatively, in the Phase 2 landfill area, the bottom of the liner system can be constructed a minimum of five feet above a surface created by adding 20 feet, 15 feet, and 10 feet to the 320-foot, 330-foot and 340-foot elevation contours, respectively, identified as “estimated potentiometric contour” on Jacobs’s Figure 11, *AP3 Landfill Post-Closure Potentiometric Surface Map*, dated April 2022. The landfill base grade is contingent on constructing a stream channel with a location and elevation consistent with the draft design presented in Jacobs’s, *Phase 2 Landfill Base Grades, Stream Separation Study*, Sheet 1 of 2, dated August 2022 and Jacobs’s, *Phase 2 Landfill Sections, Stream Separation Study*, Sheet 2 of 2, dated August 2022. After reaching the approved base grade and prior to receiving waste in each cell of the Phase 2 landfill, a demonstration shall be provided for EPD approval that shows a minimum five feet of separation between the water table and the bottom of the liner system.

EPD will consider proposed revisions to the waste-water table separation limitation if additional groundwater elevation data is submitted.

5. A minimum 500-foot buffer shall be maintained between the waste disposal boundary and any residences and/or water supply wells.
6. A minimum 200-foot undisturbed buffer shall be maintained between the waste disposal boundary and the permitted property boundaries. Existing waste in the buffer associated with the pre-existing disposal unit may remain, however no additional CCR waste shall be placed within the 200-foot buffer. The 200-foot buffer may be disturbed if approved by the EPD.

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7. A minimum 50-foot undisturbed buffer shall be maintained between the waste disposal boundaries and all wetlands, except as permitted by the United States Army Corps of Engineers (USACE) and allowed by EPD. A statement certifying that wetlands will not be impacted as a result of construction activities at the site shall be submitted. This statement shall be signed and stamped by the professional engineer responsible for the Design and Operational (D&O) Plan for the subject site. Wetland areas shall be delineated on the D&O Plan.
8. A minimum 25-foot undisturbed buffer shall be maintained between the waste disposal area and any onsite springs, intermittent or perennial streams or surface water bodies, except as allowed by EPD.
9. If non-rippable rock (bedrock) is encountered at an elevation above the approved base of the liner system, or if non-rippable rock is removed during excavation, at least five (5) feet of clean, compacted, rubble-free fill shall be placed above the non-rippable rock. Alternatively, an engineered layer (soil or a combination of soils and geosynthetics) shall be placed and compacted between the non-rippable rock and the liner system. The engineered layer shall include:
  - i. One (1) foot of soil with a hydraulic conductivity equal or lower than  $1 \times 10^{-5}$  cm/sec constructed over one (1) foot of structural fill, or
  - ii. If a geosynthetic is used, the geosynthetic will have a hydraulic conductivity equivalent to or less than one (1) of  $1 \times 10^{-5}$  cm/sec soil and will be placed on a minimum of two (2) feet of structural fill.

Installation of an alternative engineered layer over rock shall be documented and certified by a Professional Engineer or Professional Geologist registered in the State of Georgia and shall be included in the CQA report for the cell being constructed.

10. All erosion control measures and/or diversion ditches shall conform to the latest edition of the *Manual for Erosion and Sediment Control in Georgia* and be protective of the Ocmulgee River and Beaverdam Creek and their perennial and intermittent tributaries.
11. The facility shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in a washout of solid waste or material to pose a hazard to human health and the environment.
12. Groundwater and surface water monitoring systems shall be installed at the site. Sampling parameters, sampling schedules, monitoring well construction and spacing shall adhere to the guidelines established in the EPD's *Rules of Solid Waste Management, Chapter 391-3-4-.10*. The system design and monitoring requirements shall be detailed in a groundwater and surface water monitoring plan that are prepared in accordance with applicable parts of the Georgia Manual for Groundwater Monitoring and current USEPA Region IV guidance and are approvable by EPD.

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13. 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. Additionally, all soil borings, monitoring wells and piezometers located within the proposed waste footprint shall be abandoned by overdrilling 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 shall be filled with hydrated bentonite. The abandonment of all borings/piezometers/monitoring/drinking water wells shall be supervised by a professional geologist (PG) or professional engineer (PE) registered to practice in the State of Georgia. A report documenting the abandonment shall be submitted to EPD prior to cell construction. This documentation shall be signed and stamped by the responsible professional geologist or engineer registered to practice in the State of Georgia.