GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Land Protection Branch
4244 International Parkway
Suite 104
Atlanta, Georgia 30354
404-362-2537

April 3, 2020

Aaron D. Mitchell
Georgia Power
241 Ralph McGill Blvd. NE
BIN 10221
Atlanta, Georgia 30308

RE: Draft Site Limitations for Georgia Power
Proposed Plant Branch CCR Landfill
Milledgeville, Putnam County, Georgia
APL 1579

Dear Mr. Mitchell:

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

- *Plant Branch, Site Acceptability Report for Proposed Landfill, Putnam County, Georgia,* prepared by Geosyntec Consultants (IES), dated July 2019.

- *Response to Comments, Site Acceptability Report for Proposed CCR Landfill,* submitted by Georgia Power, dated January 2020.

These documents can be accessed on the EPD web page at https://epd.georgia.gov/public-announcements-0/land-protection-branch-public-announcements

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. Written comments may be emailed to EPD.Comments@dnr.ga.gov or sent via regular mail addressed to the Solid Waste Management Program, 4244 International Parkway, Suite 104, Atlanta, Georgia 30354. If you choose to email your comments, please be sure to include the words "Draft Site Limitations for Plant Branch Landfill" in the subject line to help ensure that the comments are forwarded to the correct staff. For EPD to consider comments prior to determining if a Site Suitability Notice is warranted for this facility, they must be received prior to June 2, 2020. 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 John Sayer at 404-362-2559 if you have any questions.

Sincerely,

Charles J. Mueller, Chief
Land Protection Branch

Enclosure

cc: Jim Guentert, Keith Stevens, John Sayer, William Cook, Susan Wood GA EPD
Billy Webster, Chairman - Putnam County Board of Commissioners

File: Georgia Power – Plant Branch CCR Landfill [APL 1579], Permit

Draft Site Limitations
Georgia Power- Plant Branch
Proposed CCR Landfill
April 3, 2020

1. The area considered for acceptability includes only the area delineated by the line labelled "CCR Permit Boundary" on Geosyntec Consultants (Geosyntec) Figure 1 - 2, *Site Boring Location and Topographic map of Site,* revision 2, dated June 2019 and edited 6.07.19.

2. Waste shall not be placed outside of the area delineated by the line labelled "Limit of Waste" on Geosyntec's Figure 1 - 2, *Site Boring Location and Topographic map of Site,* revision 2, dated June 2019 and edited 6.07.19.

3. A liner and leachate collection system shall be constructed under all areas proposed for coal combustion residual (CCR) disposal. The bottom of the liner system shall be constructed a minimum of ten feet above the groundwater elevation contours shown on Geosyntec's, Figure 2-7, *Potentiometric Surface Map – 31 January 2019,* dated November 2019 and edited 11.15.19. Landfill cells constructed within the area of Ash Pond D, after removal of CCR material, shall be designed with: (a) the bottom of the liner system a minimum of ten feet above the original ground surface along a zone a minimum of 100 feet on each side of the axis of the northeast-southwest oriented topographic depression/groundwater discharge feature and (b) no lower than 5-feet above the original ground surface in all other areas beneath Ash Pond D. The approximate original ground surface is shown by the elevation contours in the area defined by the overlap of the Ash Pond D boundary and the proposed limit of waste in Geosyntec's, Figure 3-1, *Estimated Seasonal High Potentiometric Surface After Removal of CCR,* dated November 2019 and edited 11.15.19. EPD will consider proposed revisions to the waste – water table separation limitation, if additional groundwater elevation data is submitted.

   A perforated conveyance pipe and stone backfill or equivalent conveyance system shall be placed in the topographic depression and potential groundwater discharge feature depicted by the original ground surface elevation contours beneath Ash Pond D. The underdrain system shall be installed above this feature to prevent groundwater from rising to within five feet of the bottom of the waste. Following construction, and prior to the placing of waste in this area, a demonstration shall be provided that shows a minimum five feet of separation between the water table and the bottom of the liner system.

4. A minimum 200-foot undisturbed buffer shall be maintained between the waste disposal boundary and the permitted property boundaries. The 200-foot buffer may be disturbed if approved by the EPD.

5. A minimum 500-foot buffer shall be maintained between the waste disposal boundary and any adjacent residences and/or water supply wells.

6. 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 1×10^{-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) foot of soil of 1×10^{-5} cm/sec 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 registered in the State of Georgia and shall be included in the CQA report for the cell being constructed.

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 waters of the state, except as allowed by EPD.

9. This site is in a seismic impact zone as defined in the Rules for Solid Waste Management [Chapter 391-3-4-.10(3)(a)]. The design engineer must certify that all containment structures are designed to resist the maximum horizontal ground acceleration for the site. Therefore, the registered professional engineer preparing the design and operational plan must stamp and sign each engineering drawing with the accompanying notation:

    I have reviewed the information presented in this drawing, and in my professional opinion, all containment structures are designed to resist a maximum horizontal ground acceleration of 0.1235g.

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 Lake Sinclair and its 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. 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 specific procedure for plugging and abandoning the active water supply well located within the proposed landfill footprint shall be consistent with the Water Well Standards Act and described in the Environmental Monitoring Plan section of D&O Plan for EPD review and approval. As part of the abandonment procedure, EPD shall require that steel well casing be removed to at least a depth 10 feet below the base of the landfill. 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.

13. 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. The outfall of all underdrain systems and conveyance pipes shall be incorporated into the facility's groundwater monitoring system.