PERIODIC RUN-ON AND RUN-OFF CONTROL PLAN

391-3-4-.10(5) and 40 C.F.R. § 257.81

PLANT SCHERER COAL COMBUSTION RESIDUALS (CCR) LANDFILL

GEORGIA POWER COMPANY

The Federal CCR Rule, and, for Existing CCR Landfills where applicable, the Georgia CCR Rule (391-3-4-.10) require the owner or operator of an existing or new CCR landfill or any lateral expansion of a CCR landfill to prepare a run-on and run-off control system plan to document how these control systems have been designed and constructed to meet the applicable requirements of this section of the Rule. *See* 40 C.F.R. § 257.81; Ga. Comp. R. & Regs. r. 391-3-4-.10(5)(a). In addition, the Rules require periodic run-on and run-off control system plans every five years. *See* 40 C.F.R. § 257.81(c)(4); Ga. Comp. R. & Regs. r. 391-3-4-.10(5)(a). The previous Periodic Run-on and Run-off Control System Plan was placed in the Operating Record on October 15, 2021.

The CCR landfill known as the Plant Scherer Coal Combustion Residuals (CCR) Landfill is located at Georgia Power Company's Plant Scherer, approximately 8 miles northeast of Forsyth, Georgia and is divided into Cells 1, 2, 3 and a PAC Ash Cell. Cell 1 was designed with South and North Sedimentation Ponds, a Return Water Pond (Clear Pool), a Return Water Pumping Facility, an Emergency Gypsum Slurry Pond, and a Gypsum Slurry Booster Pump Station. Cell 1 is active and was constructed with a composite liner system. All ponds and the Gypsum Slurry Booster Pump Station were constructed along with Cell 1. Cell 2 is a future cell and is permitted with composite liners similar to Cell 1. Cell 3 is currently being constructed with a composite liner system and includes a Non-Leachate Stormwater Pond. Cell 3 constitutes a lateral expansion of the landfill and therefore this plan is being amended to include Cell 3 prior to receiving CCR as required by 40 C.F.R. § 257.81(c)(3)(ii). The PAC Ash Cell is active and was constructed with a composite liner system. The PAC Ash Cell also consists of a Sedimentation Pond, a Clear Pool, and a Return Water Pumping Facility which were constructed along with the PAC Ash Cell. Future Cell 2 will be designed and constructed in the same manner as Cell 1. Prior to future Cell 2 being constructed and accepting CCR, the Run-on and Run-off control plan will be amended to include Cell 2 as required by 40 C.F.R. § 257.81(c)(3)(ii).

The stormwater flows have been calculated using the Natural Resources Conservation Service (NRCS) method (also known as the Soil Conservation Service (SCS) method) using the 24 hour, 25-year storm event. The stormwater detention system has been designed in accordance with the Georgia Stormwater Management Manual requirements as well as other local, city, and government codes. The post developed stormwater discharge was designed to be less than the pre-developed stormwater discharge in accordance with the requirements of the State of Georgia.

Runoff curve number data was determined using Table 2-2A from Urban Hydrology for Small Watersheds (TR-55). Appendix A and B from TR-55 were used to determine the rainfall distribution methodology. Precipitation values were determined from the National Oceanic and Atmospheric Administration's (NOAA's) Precipitation Frequency Data Server (Atlas-14).

For Cell 1 and the PAC Ash Cell, NRCS information on the soil characteristics and hydrologic groups present at the site was used to determine curve numbers. The curve number used is based on the Hydrologic Soil Group (HSG) and type of runoff potential. For the coal combustion by-products (gypsum and PAC ash), the HSG is assumed to be Group C soils with moderately high runoff potential when thoroughly wet. For HSG C, the curve number for bare soil (similar to the gypsum and PAC ash cells) is assumed to be 91. For areas outside of the CCR Landfill cells, HSG B is assumed and for the ponded areas the curve number is 100. For the impervious gravel areas around the ponds, the curve number is assumed to be 85. This information was placed into Hydraflow Hydrographs 2019 and used to generate appropriate precipitation curves, runoff curve numbers, and storm basin runoff values.

For Cell 3, a curve number of 98 is assumed for the landfill and perimeter ditch areas. This curve number is a conservative assumption based on the potential for a synthetic closure system. This information was placed into Hydraflow Hydrographs 2022 and used to generate appropriate precipitation curves, runoff curve numbers, and storm basin runoff values.

The CCR Landfill was designed and constructed with perimeter berms and drainage ditches surrounding the active cells that prevent stormwater run-on from surrounding areas during the peak discharge of a 24-hr, 25-yr storm from flowing onto the active portion of the landfill. Cell 1, Cell 3 and the PAC Ash Cell are designed to handle the quantity of rainfall from a 24-hr, 25-year storm event. Stormwater run-off from Cell 1 is routed through the South Sedimentation Pond, North Sedimentation Pond and Clear Pool which are designed to handle the run-off from a 24-hr, 25-yr storm and the normal leachate generation. Stormwater run-off from the PAC Ash Cell is routed through its Sedimentation Pond and Clear Pool which are designed to handle the run-off from a 24-hr, 25-yr storm and normal leachate generation from the PAC Ash Cell and Cell 3.

Stormwater from Cell 3 is routed through the Non-Leachate Stormwater Pond which is designed to handle the run-off from a 24-hr, 25-yr storm.

Run-on and Run-off control plan calculations for Cell 1 and the PAC Ash Cell were previously prepared by Southern Company Services, dated October 2021. Since that time, no changes have been made to the Cell 1 or PAC Ash Cell stormwater run-on and run-off control system. Therefore, no changes have been made to the October 2021 calculations, summaries of which are attached.

The Run-on and Run-off Control Plan for Cell 3 is supported by appropriate engineering calculations included in Attachment 5 of the Engineering Report – Cell 3 Design Calculations, last revised December 2024 and submitted with the Georgia Environmental Protection Division CCR Landfill Permit Application. A summary of these calculations is attached.

The facility is operated subject to and in accordance with § 257.3-3 of EPA's regulations.

I hereby certify that the run-on and run-off control system plan meets the requirements of 40 C.F.R. § 257.81.



10/12/26

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Run-on and Run-off Control System Plan for Landfills: Calculation Summary

for

Plant Scherer Coal Combustion Residuals (CCR) Landfill Cell 3

Prepared by:

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Originator:		10/12/2026
	Avery N. Rogers, P.E.	Date
Reviewer:		10/12/2026
	R. Brant Lane, P.E.	Date
Approval:		10/12/2026
	R. Brant Lane, P.E.	Date

1. Purpose of Calculation

The purpose of this calculation is to demonstrate that the Cell 3 Non-Leachate Stormwater Pond can sufficiently handle run-on/run-off during a minimum 25-yr, 24-hr storm event per federal stormwater requirements Title 40 CFR Part 257.81 and the Georgia Environmental Protection Division's (EPD) Georgia CCR Rule 391-3-4-.10.

2. Summary of Conclusions

Based on our analysis, the Cell 3 Non-Leachate Stormwater Pond is adequate to collect and control the volume of water resulting from a 25-yr, 24-hr storm, as required.

STORM DURATION (yr-24 hr.)	Normal Pool Elev. (FT)	PEAK INFLOW (CFS)	PEAK OUTFLOW (CFS)	PEAK ELEV. (FT)	Freeboard Spillway Crest (FT)	Freeboard Top of Pond (FT)
25 yr	405.00	332.51	3.39	411.42	4.58	6.58

3. Project Narrative

The CCR landfill known as the Plant Scherer Coal Combustion Residuals (CCR) Landfill is located on Plant Scherer property approximately 8 miles northeast of Forsyth, Georgia. The landfill consists of two existing constructed cells (Cell 1, and PAC Ash). Cell 3 is currently under construction and included in these calculations to meet the run-on/run-off control plan requirements prior to receiving waste as required by 40 C.F.R. § 257.81(c)(3)(ii). These calculations are for Cell 3 and the associated non-leachate stormwater pond.

Cell 3 of the Plant Scherer CCR Landfill was designed with perimeter berms and drainage ditches around the cells that prevent stormwater run-on during the peak discharge of a 25-yr, 24-hr storm event from flowing onto the active portion of the landfill. The perimeter berms and drainage ditches also route the stormwater run-off from the landfill to the non-leachate stormwater pond designed to handle the run-off from a 25-yr, 24-hr storm.

Stormwater runoff from Cell 3 is collected in a series of side slope drainage benches along the outer slope of the landfill which conveys the stormwater by gravity to downchute flumes. These downchute flumes convey the stormwater to the perimeter drainage ditches which route the stormwater by gravity to the non-leachate stormwater pond. The non-leachate stormwater pond

includes an outlet structure consisting of a 48" riser pipe with a 36" carrier pipe. The pond is slowly dewatered through three (3) 8" surface skimmers. Calculations indicate that the non-leachate stormwater pond is properly designed and constructed to handle the stormwater run-off from Cell 3 for a 25-yr, 24-hr storm event. This plan is supported by appropriate engineering calculations included in Attachment 5 of the Engineering Report – Cell 3 Design Calculations (Stormwater System Design Report) submitted with the Georgia Environmental Protection Division CCR Landfill permit.

4. Methodology

Storm water flows used for the development of the run-on and run-off control plan were calculated using the Natural Resources Conservation Service (NRCS) method (also known as the Soil Conservation Service (SCS) method) for a 25-yr, 24-hr storm event. The stormwater detention system has been designed in accordance with the Georgia Soil and Water Conservation Commission requirements and Technical Release 55 (TR55) as well as other local, city, and government codes.

The determination of the design run-off flows consisted of delineating the contributing drainage areas, and determining the times of concentration data based on the Lag Method[1], and using the final cover contributing drainage area maximum flow lengths and slopes. A curve number of 98 was conservatively assumed for potential closure with a synthetic cap system. The relevant hydrographs were developed (based on the SCS TR55 Method[2]) for each drainage area using the Hydraflow Hydrographs Extension for AutoCAD Civil 3D 2022 program and used to generate appropriate precipitation curves, runoff curve numbers and storm basin runoff values.

5. References and Assumptions

See Attachment 5 of the Engineering Report – Cell 3 Design Calculations (Stormwater System Design Report) submitted with the Georgia Environmental Protection Division CCR Landfill permit for the comprehensive stormwater management calculations for Cell 3.

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[1] United States Department of Agriculture Natural Resources Conservation Service, Part 630 Hydrology National Engineering Handbook Chapter 15 Time of Concentration, (210–VI–NEH, May 2010)

[2] 210-VI -TR-55 Reference Manual. 2nd Edition. USDA Soil Conservation Service. June 1986.