

POST-CLOSURE PLAN FOR INACTIVE CCR LANDFILL

FORMER PLANT ARKWRIGHT – AP3 LANDFILL AND MONOFILL
MACON-BIBB COUNTY, GEORGIA
FOR



Georgia Power

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JACOBS

Table of Contents

1.	POST-CLOSURE USE OF THE PROPERTY	1
2.	WATER MONITORING.....	1
3.	LOCATION RESTRICTIONS.....	1
4.	AIR CRITERIA	2
5.	RUN-ON AND RUN-OFF MANAGEMENT.....	2
6.	ROUTINE INSPECTION OF VEGETATION / FINAL COVER / DRAINAGE SYSTEM.....	2
7.	EROSION AND SEDIMENTATION CONTROL MAINTENANCE	2
8.	LIMITED ACCESS	3
9.	POST-CLOSURE SUPERVISION.....	3
10.	SITE EQUIPMENT	3
11.	REMOVAL OF CCR	3
12.	LEACHATE OUTBREAKS	3
13.	POST-CLOSURE CARE COST	3
14.	NOTIFICATION OF MONITORING STANDARDS EXCEEDED	3
15.	NOTIFICATION AND CERTIFICATION.....	4

Appendix A. Vegetative Plan

Table 1 – Seeding Requirements

Table 2 – Fertilizer Requirements

1. POST-CLOSURE USE OF THE PROPERTY

Georgia's Solid Waste Management Rule 391-3-4-.10 requires that an Inactive CCR Landfill application include an explanation of how the post-closure care requirements in 40 CFR 257.104 will be met. This document provides that explanation.

The Georgia Environmental Protection Division (EPD) issued a Closure Certificate for AP3 Landfill and Monofill in 2010. The Engineering Report provided in this permit application includes an evaluation of the previously constructed final cover systems. The CCR unit will be maintained throughout the post-closure care period in accordance with this updated Post-Closure Plan, which has been included as part of the CCR unit permit application per Georgia Rule 391-3-4-.10.

The owner shall conduct post-closure care for AP3 Landfill and Monofill, which shall consist of the following:

- a) Maintaining the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;
- b) Maintaining the groundwater monitoring system and monitoring the groundwater in accordance with the requirements of 391-3-4-.10(6); This includes maintaining the well pads and vegetated areas around the monitoring wells and making repairs as necessary to correct the effects of erosion or other events; and
- c) Maintaining the lift station, wet well, storage tanks, and other components of the collection system south of AP3 Landfill.

There is no planned use of this property during the post-closure care period at this time. Prior to any future use, EPD approval is required.

2. WATER MONITORING

Water monitoring, which includes groundwater and surface water, shall continue throughout the post-closure care period as described in the Groundwater Monitoring Plan for AP3 Landfill and Monofill dated November 2018. Following each semi-annual sampling event, results will be provided to EPD for review. The groundwater monitoring wells shall be maintained throughout the post-closure care period. An analysis of the groundwater monitoring data shall be submitted to the EPD Solid Waste Management Program at the end of the post-closure care period. If at the end of the post-closure care the owner operator of the CCR unit is operating under assessment monitoring, the owner or operator must continue to conduct post-closure care until the owner or operator returns to detection monitoring.

3. LOCATION RESTRICTIONS

In accordance with Georgia Solid Waste Rule 391-3-4-.10(9), an Inactive CCR Landfill permit application must include the location restriction demonstration requirements in 40 CFR 257.64 regarding unstable areas. The AP3 Landfill and Monofill areas were previously included in EPD's siting assessment for Solid Waste Handling Permit 011-025D(LI). In preparation of this CCR unit's solid waste handling application, the property has been reevaluated for the presence of unstable areas by

a professional engineer. No unstable areas have been identified. A certification by a Georgia-registered professional engineer is included in the Engineering Report.

4. AIR CRITERIA

Since the facility is closed, future exposure of CCR waste is not expected unless required for the repair of the final cover systems during the post-closure care period. Vegetative covers will be reestablished as soon as practicable during repair or maintenance of the final cover systems.

Regarding general fugitive dust requirements, vehicles will utilize gravel covered roads within the permit boundary. Speed limits will be enforced to reduce the potential for fugitive dust, and water suppression and/or calcium chloride will be used as needed to control fugitive dust on the roads. Additionally, access to the areas will be restricted to only authorized vehicles and personnel.

5. RUN-ON AND RUN-OFF MANAGEMENT

Stormwater run-on and run-off for the CCR unit is managed via a system of grass-lined ditches and corrugated metal culverts which collect and safely discharge the stormwater into an existing jurisdictional stream. The drainage system is located outside of the CCR waste limits. Stormwater from offsite, undisturbed areas, and the disposal areas is managed by the systems shown in the Closure Plan drawings. These structures were evaluated for run-on and run-off flows during the peak discharge of a 24-hour, 100-year storm. The results and supporting calculations are included in the Engineering Report.

In preparation of this report, site visits were conducted to observe the existing drainage systems. The observations did not reveal areas of substantial erosion or overtopping of ditches, and there was no evidence that prior storm events have exceeded the capacity of the existing ditches or resulted in velocities that have caused significant erosion.

6. ROUTINE INSPECTION OF VEGETATION / FINAL COVER / DRAINAGE SYSTEM

Throughout the post-closure care period, the site shall be inspected on an annual basis to ensure that all CCR in the facility remains properly covered with the approved final closure system. Any repair work on the soil cover, geocomposite drain, or geosynthetic clay liner shall meet or exceed the original construction requirements. Any areas noted to have less than the required cover from the effects of erosion, vehicular traffic, etc., shall be repaired. All areas lacking proper vegetation shall be grassed and maintained according to the Vegetation Plan in Appendix A. Routine inspection shall also verify that the components of the collection system south of the AP3 Landfill are in proper operating condition and good repair.

7. EROSION AND SEDIMENTATION CONTROL MAINTENANCE

Throughout the post-closure care period all ditches, diversion berms, culverts, rip-rap, and other drainage structures shall be inspected and properly maintained. Erosion control structures shall be maintained to prevent damage to the final cover.

8. LIMITED ACCESS

Access to the site shall be controlled by fencing, gates, buffers, etc. Access shall be limited to Georgia Power personnel and their agents for conducting maintenance activities, inspections, sampling events, or other company related business activities.

9. POST-CLOSURE SUPERVISION

Post-closure care of the site shall be under the supervision of a qualified professional. The contact person for post-closure care of the facility is provided below:

Facility Contact: General Manager, Georgia Power Environmental Affairs

Address: 241 Ralph McGill Blvd, N.E., Atlanta, GA 30308

Telephone Number: (404) 506-6505

10. SITE EQUIPMENT

The owner shall make adequate equipment available to ensure that post-closure care requirements are executed correctly and efficiently.

11. REMOVAL OF CCR

If the owner of this facility wishes to remove CCR, the owner shall request and receive written approval from EPD prior to conducting any such activity.

12. LEACHATE OUTBREAKS

All leachate outbreaks shall be covered with a minimum of 12 inches of compacted soil and grassed in accordance with the Vegetative Plan included in Appendix A. The final cover in the area of the leachate outbreak shall be inspected and any damaged portions shall be repaired.

13. POST-CLOSURE CARE COST

In compliance with applicable securities laws and regulations, Georgia Power will provide specific cost estimates for post-closure care during the permit application review process as estimates are developed and finalized. It is anticipated these estimates will be available to EPD in the first half of 2019. Georgia Power will provide a demonstration of financial assurance upon approval of closure and post-closure care cost estimates by EPD.

14. NOTIFICATION OF MONITORING STANDARDS EXCEEDED

The owner shall be responsible for conducting all monitoring activities. If at any time the monitoring results indicate exceedance of established standards or indicate a threat to human health or the environment, the owner shall notify EPD and comply with all requirements of Georgia Rule 391-3-4-.10(6).

15. NOTIFICATION AND CERTIFICATION

No later than 60 days following the completion of the post-closure care period, the owner of the CCR unit will prepare a notification verifying that post-closure care has been completed. The notification must include the certification by a qualified professional engineer verifying that post-closure care has been completed in accordance with the Solid Waste Management Rules and the CCR Unit Solid Waste Handling Permit. The owner will provide the certification to the Director of EPD. The release of the CCR unit from post-closure care must be approved by EPD.

Appendix A. **Vegetative Plan**

Table 1 – Seeding Requirements

Table 2 – Fertilizer Requirements

TABLE 1. SEEDING REQUIREMENTS

Seeds - Permanent	lbs/Acre	Depth of Cover	Date of Planting
Bermuda Grass-Hulled	10	¼" – ½"	3/15 – 5/31
Bermuda Grass – Unhulled	10	¼" – ½"	10/1 – 2/28
Bahia, Pensacola	30	¼" – ½"	3/1 – 6/15
Seeds - Temporary	lbs/Acre	Depth of Cover	Date of Planting
Annual Ryegrass	40	¼" – ½"	8/15 – 3/31
Pearl Millet	50	¼" – ½"	4/1 – 8/31
Weeping Lovegrass	4	¼" – ½"	3/1 – 6/1

Notes:

1. All seeding rates are pure live seed rates.
2. All seeding shall be mulched with clean dry hay at the rate of 2.5 tons per acre. Mulch shall be anchored by pressing the mulch into the soil immediately after the mulch is spread using a packer disk or disk harrow or equivalent piece of equipment.
3. Temporary seeding should also complement permanent seeding to produce a suitable cover while the permanent grasses germinate.
4. Annual ryegrass will not be used with perennial species due to its nature of out-competing perennial species.
5. Disturbed slopes greater than 3%, including soil stockpiles, are to be mulched upon reaching final grade.
6. D.O.T. or County Extension seed type, seed rates, fertilizer requirements, etc. may also be used in lieu of the table above.

TABLE 2. FERTILIZER REQUIREMENTS

Type of Species	Year	Analysis or Equivalent N-P-K	Rate	N Top Dressing Rate
Cool Season Grasses	First	6-12-12	1500 lbs./ac.	10-100 lbs.ac.(1)(2)
	Second	6-12-12	1000 lbs./ac.	-
	Maintenance	10-10-10	400 lbs./ac.	30
Cool Season Grasses and Legumes	First	6-12-12	1500 lbs./ac.	0-50 lbs./ac/(1)
	Second	0-10-10	1000 lbs./ac.	-
	Maintenance	0-10-10	400 lbs./ac.	-
Ground Covers	First	10-10-10	1300 lbs./ac.(3)	-
	Second	10-10-10	1300 lbs./ac.(3)	-
	Maintenance	10-10-10	1100 lbs./ac.	-
Pine Seedlings	First	20-10-5	One 21-gram pellet/seeding placed in closed hole	-
Shrub Lespedeza	First	0-10-10	700 lbs./ac.	-
	Maintenance	0-10-10	700 lbs./ac.(4)	-
Temporary Cover Crops Seeded Alone	First	10-10-10	500 lbs./ac.	30 lbs./ac.(5)
Warm Season grasses	First	6-12-12	1500 lbs./ac.	50-100 lbs./ac.(2)(6)
	Second	6-12-12	800 lbs./ac	50-100 lbs./ac.(2)
	Maintenance	10-10-10	400 lbs./ac.	30 lbs./ac.
Warm Season Grasses and Legumes	First	6-12-12	1500 lbs./ac.	50 lbs./ac.(6)
	Second	0-10-10	1000 lbs./ac	-
	Maintenance	0-10-10	400 lbs./ac.	-

Notes:

1. Apply in spring following seeding.
2. Apply in split applications when high rates are used.
3. Apply in 3 split applications.
4. Apply when plants are pruned.
5. Apply to grass species only.
6. Apply when plants grow to height of 2"-4".