

## **9. POST-CLOSURE PLAN**

# POST-CLOSURE PLAN

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HUFFAKER ROAD LANDFILL

PLANT HAMMOND  
FLOYD COUNTY, GEORGIA

FOR



Georgia  
Power

NOVEMBER 2018



Stantec Consulting Services Inc.  
1110 Market Street, Suite 214A, Chattanooga, TN 37402  
Phone (423) 800-5350, Fax (423) 800-5351

## TABLE OF CONTENTS

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1.	INTRODUCTION.....	1
2.	WRITTEN POST-CLOSURE PLAN .....	1
3.	RESPONSIBLE SUPERVISOR .....	1
4.	POST-CLOSURE USE OF THE PROPERTY .....	1
5.	ROUTINE INSPECTION OF VEGETATIVE / FINAL COVER / DRAINAGE SYSTEM .....	2
6.	SILTATION AND EROSION CONTROL.....	2
7.	VEGETATIVE PLAN.....	2
8.	GROUNDWATER MONITORING .....	2
9.	NOTIFICATION OF GROUNDWATER MONITORING STANDARDS EXCEEDED.....	2
10.	LEACHATE COLLECTION AND REMOVAL SYSTEM .....	2
11.	LIMITED ACCESS.....	3
12.	SITE EQUIPMENT.....	3
13.	POST-CLOSURE MONITORING .....	3
14.	POST-CLOSURE CARE COST AND FINANCIAL ASSURANCE.....	3
15.	AMENDMENT TO THE POST-CLOSURE PLAN .....	3
16.	NOTIFICATION AND CERTIFICATION .....	3
	<b>APPENDIX.....</b>	<b>4</b>
	A.    POST-CLOSURE COST ESTIMATE	

## 1. INTRODUCTION

The Georgia Environmental Protection Division (EPD) adopted a new Solid Waste Regulation entitled “Rule 391-3-4-.10 Coal Combustion Residuals” (State CCR Rule). This rule, effective November 22, 2016, applies to owners and operators of new and existing coal combustion residuals (CCR) disposal facilities that dispose or otherwise engage in solid waste management of CCR generated from the combustion of coal at electric utilities and independent power producers. The State CCR Rule incorporates by reference the provisions contained in the United States Environmental Protection Agency (USEPA) Title 40 of the Code of Federal Regulations (CFR) §257 (40 CFR §257) (Federal CCR Rule). Per State CCR Rule 391-3-4.10(2)(a), which incorporates the definitions of the different CCR units under the Federal CCR Rule (40 CFR § 257.53), Huffaker Road Landfill Parcels A, B, and E meet the definition of an existing CCR landfill and Parcels C and D meet the definition of a lateral expansion. The Post-Closure Plan requirements for each of these classifications under the State CCR Rule are provided in State CCR Rule 391-3-4-.10(9)(c)3.(iv) and State CCR Rule 391-3-4-.10(9)(c)1.(viii), respectively.

Based on State CCR Rule 391-3-4-.10(7)(a), GPC will conduct post-closure care for the CCR unit for 30 years which will consist of at least:

- (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 State CCR Rule 391-3-4.10(6).

## 2. WRITTEN POST-CLOSURE PLAN

The Initial Written Post-Closure Plan for the Huffaker Road Landfill was posted to the GPC website under Environmental Compliance on October 17, 2016.

## 3. RESPONSIBLE SUPERVISOR

The contact person for post-closure care at Huffaker Road Landfill is:

General Manager  
Georgia Power Environmental Affairs  
241 Ralph McGill Blvd NE  
Atlanta, Georgia 30308  
404-506-6505

## 4. POST-CLOSURE USE OF THE PROPERTY

GPC will comply with the condition of the solid waste handling permit. Currently there is no planned use for Huffaker Road Landfill after closure. Any future use of the property after closure will not disturb the integrity of the final cover or any other component of the containment system or groundwater monitoring system. Prior to any future use, GPC will request approval from EPD for such use.



## **5. ROUTINE INSPECTION OF VEGETATIVE / FINAL COVER / DRAINAGE SYSTEM**

Following closure, the site will be inspected on a quarterly basis for the required post-closure care period to identify any maintenance or repairs of the final cover system. Maintenance and repairs will be provided on the final cover system so that the integrity and effectiveness of the final cover system will be maintained. Maintenance activities will include, but not be limited to, any needed repairs to the final cover system to correct any damages related to settlement, subsidence, erosion, or other events, and will be performed to prevent run-off from eroding or otherwise damaging the final cover. Maintenance tasks could include, but not limited to, repair of erosion features, repairs to any synthetic cover system components and re-establishment of vegetation, where applicable. Maintenance will be performed on a semi-annual schedule, or more frequently if needed.

## **6. SILTATION AND EROSION CONTROL**

Throughout the post-closure care period, all permanent ditches, pipes, culverts, silt fences, sediment basins, and other permanent drainage structures will be inspected and maintained. Erosion control structures will be maintained to prevent damage to the final cover. Maintenance activities will include cleaning out erosion control structures on an as-needed basis.

## **7. VEGETATIVE PLAN**

All areas lacking proper vegetation during the post-closure care period will be grassed and maintained according to specifications in the Closure Plan located in Part A of this Permit Application. If fertilizers are needed, the fertilizer plan included in the Closure Plan will be followed.

## **8. GROUNDWATER MONITORING**

Groundwater monitoring will continue throughout the post-closure care period as described in the Groundwater Monitoring Plan included in Part A of this Permit Application.

## **9. NOTIFICATION OF GROUNDWATER MONITORING STANDARDS EXCEEDED**

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

## **10. LEACHATE COLLECTION AND REMOVAL SYSTEM**

The leachate collection and removal system, including storage and pumping systems, will be maintained for a minimum of 30 years or until leachate is no longer generated. Leachate collected during the post-closure care period will be properly treated in a wastewater treatment facility prior to discharge. The pumps and associated piping, leachate pond and tanks will be maintained in operable condition while needed.



## **11. LIMITED ACCESS**

Access to the site will be controlled by fencing, gates, buffers, etc. Access will be limited to those time periods when the site is undergoing maintenance activities or inspections.

## **12. SITE EQUIPMENT**

GPC will make adequate equipment available to ensure that post-closure care requirements are executed correctly and efficiently. Rental equipment will be utilized in the event that equipment dedicated to the unit should break down during post-closure care procedures.

## **13. POST-CLOSURE MONITORING**

GPC will be responsible for the closure-in-place monitoring through the post-closure care period.

## **14. POST-CLOSURE CARE COST AND FINANCIAL ASSURANCE**

The estimated annual cost for post-closure care of this site is \$360,925. This figure will be updated on an annual basis and submitted to EPD. A closure cost estimate is included in Appendix A.

Post-closure cost estimates were developed at a level of detail, and from the perspective that, sufficient funding could be set aside in a financial assurance mechanism for a third party (other than GPC) to complete post-closure care.

The financial assurance estimate in this application for post-closure care was developed by the professional engineers preparing this application. This estimate represents the anticipated financial assurance requirements for the application as submitted.

It is understood that through the review process by the EPD and based on any comments or questions by the EPD, this application may be revised. These revisions could be reason for the financial assurance estimates in this application to change.

GPC understands there may be changes in the financial assurance estimates, and therefore is prepared to make any necessary changes in the financial assurance instruments that result from any changes in the application.

## **15. AMENDMENT TO THE POST-CLOSURE PLAN**

This Post-Closure Plan will be amended within the timeframes established in State CCR Rule 391-3-4-.10(7)(g) if there is a change in operation that would substantially affect the Post-Closure Plan in effect or if there are unanticipated events that necessitate a revision of this plan.

## **16. NOTIFICATION AND CERTIFICATION**

GPC will obtain written certification from a professional engineer registered in Georgia that the Post-Closure Plan or any amendment meets the requirements of State CCR Rule 391-3-4-.10(7)(g).

No later than 60 days following the completion of the post-closure care period, GPC must 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 this plan. GPC has completed the notification when it has been placed in the facility's operating record as required by State CCR Rule 391-3-4.10(8) and provided to EPD. The release of the CCR unit of post-closure care must be approved by EPD.



## APPENDIX

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## **A. POST-CLOSURE COST ESTIMATE**

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**HUFFAKER ROAD LANDFILL POST-CLOSURE CARE COST ESTIMATE**

**ANNUAL POST-CLOSURE ACTIVITIES**

ITEM	QUANTITY	UNIT	UNIT PRICE	ESTIMATED COST	NOTES
FINAL COVER MAINTENANCE					
REPLACEMENT OF PROTECTIVE SOIL LAYER	5230	CY	\$10.75	\$56,222.50	
REPLACEMENT OF TOPSOIL	1750	CY	\$9.79	\$17,132.50	
FINAL COVER REVEGETATION	2.1	AC	\$4,220.00	\$8,862.00	
EROSION CONTROL-SILT FENCE	1590	LF	\$4.37	\$6,948.30	
ANNUAL INSPECTION	1	LS	\$4,000.00	\$4,000.00	Satisfies Federal CCR Rule 257.84
QUARTERLY INSPECTIONS	3	EACH	\$2,000.00	\$6,000.00	Annual Inspection would replace one quarterly inspection
GROUNDWATER MONITORING	2	LS	\$86,100.00	\$172,200.00	Includes sampling 6 proposed wells at Parcels C and D
MOWING	144	AC	\$140.00	\$20,160.00	
LEACHATE REMOVAL	79	LOAD	\$500.00	\$39,500.00	Assume a 5,000 gallon vacuum truck
LEACHATE PUMP MAINTENANCE	1	EACH	\$5,000.00	\$5,000.00	
SEDIMENT BASIN CLEAN-OUT	3	EACH	\$5,600.00	\$16,800.00	
CONSTRUCTION MANAGER	1	LS	\$8,100.00	\$8,100.00	

<b>ANNUAL POST-CLOSURE ACTIVITIES COST ESTIMATE</b>	<b>\$360,925</b>
<b>ASSUMED ANNUAL INFLATION RATE</b>	3.00%
<b>30-YEAR POST-CLOSURE ACTIVITIES COST ESTIMATE (F/A, 3%, 30-YEARS)</b>	<b>\$16,295,111</b>