ATLANTIC COAST CONSULTING, INC.

7 East Congress Street
Suite 801
Savannah, GA 31401
(912) 236-3471

www.atlcc.net

May 9, 2018

Mr. Chad Hall
Georgia Department of Natural Resources
Environmental Protection Division (EPD)
Solid Waste Management Program
4244 International Parkway, Suite 104
Atlanta, Georgia 30354

RE: R&B Landfill
Permit No. 006-009D (MSWL)
Annual Coal Combustion Residual (CCR) Management Plan and Dust Control Report

Dear Mr. Hall:

On behalf of Waste Management of Metro Atlanta, Atlantic Coast Consulting, Inc. (ACC) is submitting the enclosed annual update to the facility's CCR management and fugitive dust control plan. The current CCR management plan is authorized under a permit issued by Georgia EPD on May 18, 2017. As stated in the approval letter issued by EPD, this facility is allowed to accept CCR for a period of one (1) year or until May 17, 2018. The approval letter further states that the facility must submit an updated CCR Management Plan to EPD no later than March 1, 2018 if it plans to continue receiving CCR material. However, EPD decided to delay the plan submission deadline until it could conduct visits to sites accepting CCR material and determine the appropriate requirements for the CCR Management Plan updates. The deadline for submitting the annual reports was delayed on two occasions. These delays are documented in an email from you to Shawn Carroll of Waste Management on February 16, 2018 and from Rima Naji to myself on May 8, 2018. A copy of the emails are provided in the appendices of the attached Annual CCR Management Plan and Dust Control Report.

If you have any questions or need further information please call me at (912) 236-3471.

Sincerely,

ATLANTIC COAST CONSULTING, INC.

Marc Liverman, P.E.
Project Engineer

cc: Shawn Carroll, John Workman, Tim Bassett (WM)
Chris Klamke (ACC)

WASTE MANAGEMENT, INC.

610 BENNET ROAD | HOMER, GEORGIA 30547

R&B LANDFILL
COAL COMBUSTION RESIDUALS (CCR) MANAGEMENT PLAN ANNUAL UPDATE

PERMIT #: 006-009D (MSWL)

ANNUAL CCR MANAGEMENT PLAN AND DUST CONTROL REPORT

ATLANTIC COAST CONSULTING, INC.

MAY 2018

Table of Contents

This CCR management and fugitive dust report was prepared in accordance with OCGA Solid Waste Management Rule 391-3-4-.07(5) and the Annual Coal Combustion Residuals (CCR) Management Plan and Dust Control Report Guidance Document dated May 2018.

SUMMARY:

The R&B Landfill is composed of three distinct disposal areas identified as the East, Central, and West Disposal Units. The East Disposal Unit was closed and capped in 2006. The Central Disposal Unit is separated from the East Disposal Unit by Frank Bennett Road while the West Disposal Unit is separated from the Central Unit by Carlan Creek and is the current area of active waste placement. The current Design and Operation (D&O) plan was approved by EPD on January 23, 2017 with the current CCR Management Plan being established through a minor modification approved by Georgia's Environmental Protection Division (EPD) on May 18, 2017.

FACILITY LOCATION AND DESCRIPTION:

The R&B Landfill is located at 610 Bennett Road, Homer, Georgia. The landfill sits on a 970.59 acre tract of land located in Banks County in a rural area approximately 3.5 miles northeast of the center of Homer, Georgia. The landfill entrance is located approximately four miles southeast of Interstate 85.

CCR MANAGEMENT ACTIVITIES:

CCR and Non-CCR Waste Volumes:

R&B currently receives only CCR materials for disposal in the active Central and West Disposal Units. It is currently permitted to receive CCR at an estimated rate 1,000,000 tons per year with an estimated daily maximum of 3,500 tons. These limits are defined in Section 1 of the current Operational Narrative shown on Sheet 44 of the Design and Operation (D&O) Plans. The facility's capacity for placement of CCR material in the West and Central Units was established by verifying that the facility's design is able to withstand the additional loads presented by the higher density CCR material. The basis of the design verification provided in the May 18, 2017 CCR Management Minor Modification was an overall waste mass density of 115 lb/CF (3,105 lb/CY). This density takes into account the elevated waste mass density experienced by the containment systems when subjected to the CCR waste placement.

The CCR material received at this facility between May 18, 2017 and December 31, 2017 had a recorded weight of 722,978 tons. The total tonnage received at this facility for the entire year (January 1, 2017 through December 31, 2017) was recorded to be 1,233,289 tons with a maximum daily rate of 6,700 tons. While the total annual and maximum daily tonnages for 2017 is above the estimated limits shown in the Operational Narrative of the current D&O plan, the facility is designed to withstand a waste mass consisting entirely of CCR material. Therefore, no adjustments are needed to the plan or design components related to stability, leachate collection or base grade settlement.

CCR Source:

The only CCR material received at the facility was sourced from Duke Energy as required by Part 14 of the CCR Disposal Procedures on Sheet 46 of the D&O Plan. It should be noted that the CCR interned at the landfill is from the same source whose material was used as the basis of design for the original CCR Management Permit. Additionally, its 'as received' physical condition (i.e. moisture and grain size) has remained generally consistent throughout the disposal process and no new CCR waste streams were accepted by the facility during this reporting period. Additionally, the facility does not utilize CCR material as a solidification agent for liquid wastes.

CCR Characterization and Compatibility:

Parts 14 and 15 of the CCR Disposal Procedures on Sheet 46 of the D&O Plan requires all CCR waste streams entering the facility be tested for characterization and compatibility using the Toxicity Characteristic Leaching Procedure (TCLP) 8 RCRA Metals by SW-846 Method 1311 and a Paint Filter Test by SW-845 Method 9095.

As noted above, the material source and general physical characteristics have remained consistent since the CCR Management permit's initial issue date and the customer has not notified the facility of any significant process changes. Therefore, additional testing to verify characterization and compatibility have not been required. The original laboratory results upon which the CCR Management is based are repeated in Appendix A for reference. Please note that this laboratory analysis, although specific for Superior Landfill, represents typical analytical data found in CCR material across all of Waste Management facilities in Georgia.

CCR Placement, Compaction and Cover:

The facility is permitted to operate two independent working faces. A second working face is required to be located at least 100 feet from the primary working face and is intended to support smaller vehicles and operational requirements. The combined area of the individual working faces operated during this period did not exceed 40,000 square feet. The maximum area of the working face and their management were conducted in accordance with Section 2 of the Operational Narrative on Sheet 44. Daily cover for the working faces were applied, at a minimum, at the end of each work day in accordance with Section 3 of the Odor Management Plan and CCR Disposal Procedures on Sheet 46.

CCR material was 'block' or mono filled in the Central and West Disposal Units. As required, in the CCR Disposal Procedures on Sheet 46 of the D&O Plan, a test pad area was established to determine placement and compaction requirements necessary to obtain a minimum compaction of 90% standard proctor. Due to the consistent physical nature of the CCR material and sourcing, the original test pad results have been used to guide placement and compaction efforts to date. The results of the tests are contained in Appendix A and demonstrate compliance with the compaction requirements.

No leachate outbreaks were observed during this reporting period and all cells receiving CCR material had its leachate collection gravel covered with a minimum of 12-inches of protective cover soil as required by the CCR disposal procedures on Sheet 46 of the D&O Plan. Additionally, none of the previously placed CCR material was harvested for beneficial re-use.

Record Keeping:

Records of all waste transported to the site along with daily logs and operational records are retained at the facility's site office building. All record keeping is in accordance with the Georgia Rules for Solid Waste Management 391-3-4-.07(3)(u)..

Fugitive Dust Control:

The operators at the facility spread and compacted CCR material as it was received. If the CCR material was not spread during operating hours on the day it was received, the operator would use the on-site water truck to maintain the CCR's moisture levels. This procedure was determined to be an efficient and effective method to avoid fugitive dust generation.

The interior and perimeter roads were moisture conditioned using a water truck, as required, between rain fall events to avoid fugitive dust generated from vehicular traffic.

The facility did not receive any complaints related to dust between May 18, 2017 and December 31, 2017 and has remained compliant with requirements established by Air Quality Rule 391-3-1-.02(2)(n)1.

Leachate Collection and Removal System:

The facility's leachate collection, removal and storage system is in good working order with no known issues related to the disposal of CCR wastes.

Stormwater Management System:

The working face(s) were managed to ensure that surface water contacting CCR waste was not discharged into the stormwater management system. This was accomplished by placing and compacting material away from the side slopes, using soil diversion berms near side slopes and by sloping the working face into the waste mass.

The facility did experience one incident of CCR material entering the stormwater management system. This was the result of a heavy rain event that caused a down drain's connecting joint to fail along the waste mass's side slope. The concentrated high velocity runoff emanating from the broken pipe caused a washout that compromised the LF's cover material and carried CCR material downstream into the stormwater surface components (i.e. perimeter ditches and sediment pond). The CCR material deposited in the perimeter ditches and sediment pond was removed and reincorporated into the waste mass at the active working face. Additionally, the broken down drain was repaired and the grades in the washout area were re-established with compacted cover material. These corrective actions have been successful in preventing

further transport of CCR material into the stormwater management system during rain events. To prevent future reoccurrence of these types of washouts, the existing down drains are regularly inspected to ensure joint integrity.

Environmental Monitoring:

The environmental monitoring program for the facility was modified during development of the CCR Management Plan to include appropriate Appendix III/IV analytical parameters in accordance with United States Environmental Protection Agency recommendations and Georgia Environmental Protection Division Regulations. The monitoring network (consisting of groundwater wells, surface water, underdrain, and leachate monitoring points) and extended parameter list, based on data collected to date, remains suitable for detection of CCR related constituents. Current data does not suggest confirmed impacts at these monitoring points as a result of handling CCR material. The facility will continue implementing the CCR monitoring program and documenting results to EPD in semi-annual monitoring reports.

Emergencies:

The facility did not experience any events or circumstances that represented an operational or environmental emergency during this reporting period.

Documentation of Notification to Local Governments:

The operation of CCR disposal activities during this reporting period have been in compliance with the currently approved CCR management plans and design parameters. Therefore, no plan modifications or local government notifications are required at this time

CONCLUSION:

The current CCR Management routines required by the facility's Design and Operation Plan has proven to be effective in governing the proper handling and placement of CCR material as required by OCGA's Solid Waste Management Rule 391-3-4-.07(5) and the Guidance Document for Coal Combustion Residuals (CCR) Management Plans dated December 22, 2016.