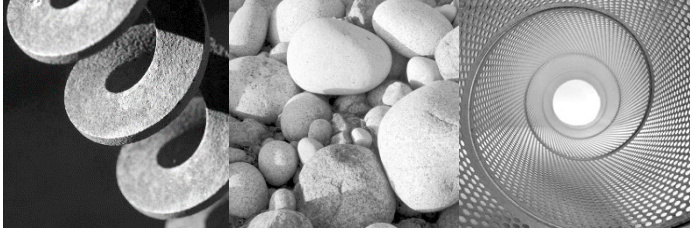


GEI Consultants

Consulting
Engineers and
Scientists

# 2015 Annual
# Landfill Inspection Report

## for the

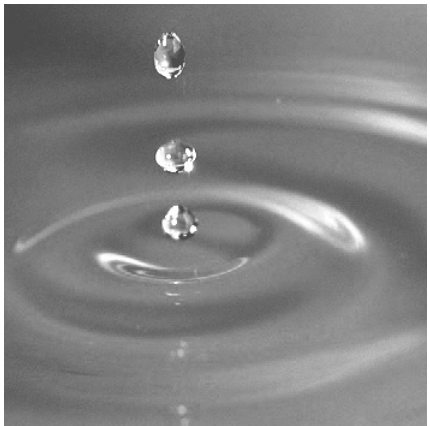
## Cope Station Class III Landfill

## in

## Cope, SC

## County of Orangeburg

## January 15, 2016



## Certification

The inspection and report was completed by Currie Mixon of GEI, a licensed Professional Engineer in the State of South Carolina. This document has been prepared in accordance with Chapter 49 of the South Carolina Code of Regulations, and to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements of 40 CFR 257 and Chapter 61of the South Carolina Code of Regulation, Solid Waste Policy and Management Act of 1991, as amended.


Arthur Currie Mixon, P.E.
Senior Engineer

## Annual Inspection Report

The Annual Inspection Report is performed to comply with *40 CFR 257 Subpart D – Standards for the Disposal of Coal Combustion Residuals (CCR) in Landfills and Surface Impoundments* and specifically with *§ 257.84(b) Annual inspections by a qualified professional engineer.*

> ***§ 257.84 Inspection Requirements for CCR Landfills***
> (b) *Annual inspections by a qualified professional engineer.*
> (1) Existing and new CCR landfills and any lateral expansion of a CCR landfill must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include:
> (i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., the results of inspections by a qualified person and results of previous annual inspections); and
> (ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit.
> (2) *Inspection report.* The qualified professional engineer must prepare a report following each inspection that addresses the following:
> (i) Any changes in geometry of the structure since the previous annual inspection;
> (ii) The approximate volume of CCR contained in the unit at the time of the inspection;
> (iii) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit; and
> (iv) Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.

GEI Consultants, Inc. (GEI) was retained to perform the tasks for compliance with *§ 257.84(b) Annual inspections by a qualified professional engineer*.

## Background

The landfill is located approximately 3,400 feet northwest of the Cope Generating Station in Orangeburg County. The Cope Generating Station is approximately 13 miles southwest the City of Orangeburg, SC. The Class III landfill is permitted by the South Carolina Department of Health and Environmental Control (SC DHEC) under Permit No. 383320-1601. Figure 1 – Site Location Figure, shows the location of the landfill relative to the power plant. The date of the aerial imagery is March 2015 prior to the closure of the former landfill to the south and before filling operations began in the new landfill.

## Site Inspection

The CCR unit inspection was performed on December 15, 2015 by Mr. Currie Mixon of GEI. The inspection included a walk-through with landfill operation personnel and Mr. Rocky Archer to discuss the operation of the facility and the leachate removal system, observation of the existing site conditions including the access road and entrance, the intermediate waste slopes, and the storm and contact water control measures.

Prior to the inspection, Mr. Mixon was provided a copy of the weekly inspection reports extending from October 22nd through December 3rd. Based on review of the weekly inspection reports and discussions with the operation personnel, the landfill operations are running smoothly. The Cope Generating Plant was in an extended outage at that time, so recent CCR placement in the landfill had been limited.

*Changes in Geometry*

(i) Any changes in geometry of the structure since the previous annual inspection

This December 2015 inspection is the first annual inspection, so there are no previous conditions documented with which to compare the current geometry.

*Approximate Volume of CCR Material*

(ii) The approximate volume of CCR contained in the unit at the time of the inspection

SCANA completed a topographic survey for the landfill in March 2015 and an airspace analysis in June 2015. At the time of the inspection, the Cope Station Type III landfill contains approximately 111,400 cubic yards of CCR.

*Structural Integrity*

(iii) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit.

The landfill did not yet contain enough placed material to have perimeter slopes. No structural weaknesses were visible in or immediately surrounding the CCR unit.

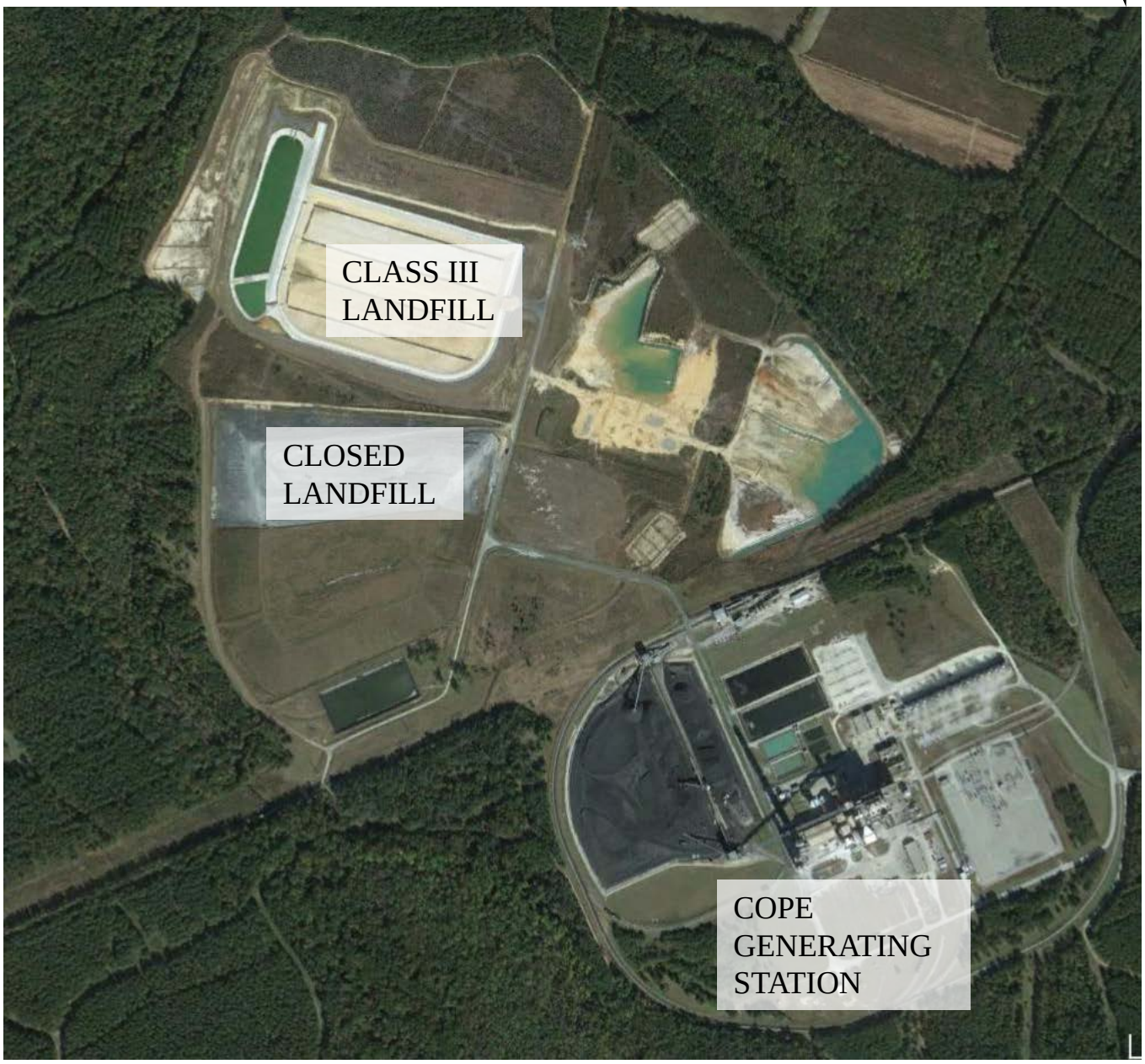
*Other Changes*

(iv) Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.

This inspection was the first annual inspection of this CCR unit, as required by § 257.84 of 40 CFR 257. There is no previous inspection with which to compare the December 2015 conditions, but no issues regarding stability or operation of the CCR unit were identified in this first inspection.

**Summary/Conclusion**

A. Currie Mixon, a qualified professional engineer, inspected the Cope Station Class III landfill on December 15, 2015. This inspection was the first annual inspection of this CCR unit, as required by § 257.84 of 40 CFR 257. At the time of the inspection, the landfill contained approximately 111,400 cubic yards of placed CCR material and showed no signs of distress or malfunction. Mr. Mixon observed no other existing conditions that are disrupting or could reasonably cause disruptions to the CCR unit's safe operations.




SOURCE: Map created Google Earth Pro

0 1000 2000

SCALE, FEET

| | | |
|---|---|---|
| Cope Station Class III Landfill<br>Cope Generating Station<br>Cope, South Carolina | GEI Consultants | **Site Vicinity Map** |
| SCANA<br>Cayce, South Carolina | PROJECT 1516120 | January 2016 Figure 1 |

•\SCANA\1. Cope Station\Fig 1 Cope Site Vicinity Map.PPT