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**SANTEE COOPER
CROSS GENERATING STATION**

Existing Bottom Ash Pond Liner Certification

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WorleyParsons

2675 Morgantown Rd.

Reading, PA 19607

USA

Telephone: +1 610 855 2000

Facsimile: +1 610 855 2001

www.worleyparsons.com

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**CROSS GENERATING STATION
EXISTING BOTTOM ASH POND LINER CERTIFICATION**

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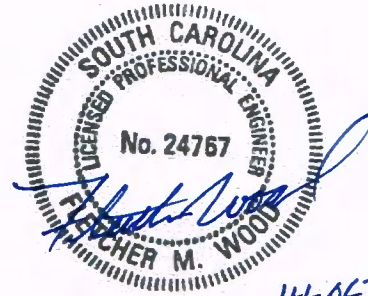
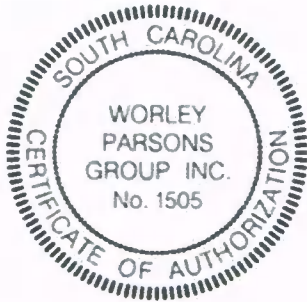
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1. INTRODUCTION

The United States Environmental Protection Agency (EPA) promulgated new regulations regarding Coal Combustion Residuals (CCRs). These regulations (40 CFR Part 257) were published in the Federal Register on April 17, 2015. One of the requirements (§257.71) of the new regulations is to document whether or not existing surface impoundments were constructed with a liner system, or if the existing surface impoundment is considered to be an existing unlined CCR surface impoundment. This documentation must be placed in the facility's operating record no later than October 17, 2016, as required by §257.71(a)(1).

This report documents that the existing Bottom Ash Pond at Cross Generating Station in Pineville, South Carolina is considered to be an existing unlined CCR surface impoundment.



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2. DISCUSSION

§257.71(a)(1) lists three definitions for existing CCR surface impoundment liners:

- (i) A liner consisting of a minimum of two feet of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec;*
- (ii) A composite liner that meets the requirements of §257.70 (b); or*
- (iii) An alternative composite liner that meets the requirements of §257.70 (c).*

§257.71(a)(3) states: *An existing CCR surface impoundment is considered to be an existing unlined CCR surface impoundment if either:*

- (i) The owner or operator of the CCR unit determines that the CCR unit is not constructed with a liner that meets the requirements of paragraphs (a)(1)(i), (ii), or (iii) of this section; or*
- (ii) The owner or operator of the CCR unit fails to document whether the CCR unit was constructed with a liner that meets the requirements of paragraphs (a)(1)(i), (ii), or (iii) of this section.*

The existing Bottom Ash Pond was constructed with a geosynthetic clay liner (GCL). Although the natural underlying soils are relatively low permeability, the existing GCL liner system does not include at least two feet of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. Additionally, the existing GCL liner system does not include a geomembrane component, and therefore does not meet the definition of either a composite liner or an alternate composite liner, both of which require two components, with the upper component consisting of a minimum 30-mil geomembrane.

The existing Bottom Ash Pond at Cross Generating Station therefore is considered to be an existing unlined CCR surface impoundment. As such, the Bottom Ash Pond is subject to the requirements of §257.101(a).



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3. CONCLUSIONS

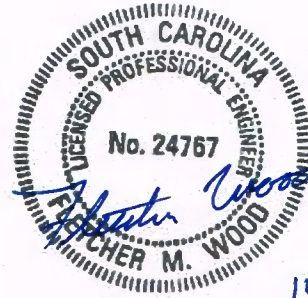
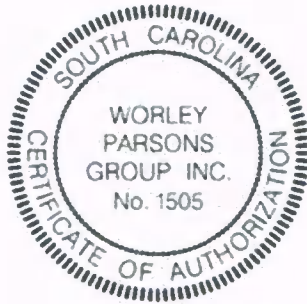
Based on the requirements of Title 40 CFR §257.71, the existing Bottom Ash Pond at Cross Generating Station is considered to be an existing unlined CCR surface impoundment.



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4. CERTIFICATION

I, the undersigned Professional Engineer registered in good standing in the State of South Carolina, do hereby certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I certify, for the above-referenced CCR impoundment, that the liner design criteria for existing CCR surface impoundments was assessed in accordance with the requirements of Title 40 CFR §257.71, and that the documentation stating that the Bottom Ash Pond at Cross Generating Station is an existing unlined impoundment is accurate.



14-OCT-2016

Fletcher Wood
Printed Name of Professional Engineer


Signature of Professional Engineer

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