



Sludge Sedimentation Basins Existing Liner Design Evaluation

Clover Power Station
Clover, Virginia

October 2016

*Prepared For
Virginia Electric and Power Company*

A blue ink signature of R. Kent Nilsson, written in a cursive style, positioned above a horizontal line.

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Senior Engineer

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Project Manager

*TRC Environmental Corporation | Virginia Electric and Power Company
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Final*

\\NTAPA-GRNVILLE\GVL-VOL5\ - \WPGVL\PJT2\232002\0001\R2320020001-009 EXISTING LINER DESIGN.DOCX

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Existing Liner Conditions

Virginia Electric and Power Company manages flue gas desulfurization (FGD) sludge generated at the Clover Power Station in two sludge sedimentation basins. The basins are considered CCR surface impoundments as defined in the Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments (federal CCR rule). TRC has reviewed design drawings for the construction of the basins to evaluate whether the constructed liner system meets the requirements for existing lined impoundments as required in Title 40 Code of Federal Regulations (CFR) 257.71.

The existing basins were constructed with a 30 mil thick Polyvinyl Chloride (PVC) geomembrane liner. The geomembrane liner is protected by a one-foot thick sand layer, and roller compacted concrete on the floor and riprap on the sideslopes. TRC is unable to verify that the existing liner meets the requirements of 40 CFR 257.71. Therefore the basins are considered unlined existing surface impoundments and are subject to the requirements of 40 CFR 257.101(a).

Certification

I, the undersigned Virginia Professional Engineer, hereby certify that I am familiar with the technical requirements of 40 CFR 257.71. I also certify that it is my professional opinion that, to the best of my knowledge, information, and belief, that this evaluation is accurate and that the existing liner design presented in the design and as-built documents does not meet the technical requirements of 40 CFR 257.71.

For the purpose of this document, “certify” and “certification” shall be interpreted and construed to be a “statement of professional opinion”. The certification is understood and intended to be an expression of my professional opinion as a Virginia Licensed Professional Engineer, based upon knowledge, information, and belief. The statement(s) of professional opinion are not and shall not be interpreted or construed to be a guarantee or a warranty.

R. Kent Nilsson

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Printed Name of Professional Engineer

Commonwealth of Virginia License Number



October 3, 2016

Signature of Professional Engineer

Date

