



Sludge Sedimentation Basins New Liner Design Certification

Clover Power Station
Clover, Virginia

March 2017

Prepared For
Virginia Electric and Power Company

A handwritten signature in blue ink, appearing to read "R. Nilsson", written over a horizontal line.

R. Kent Nilsson, P.E.
Senior Engineer

A handwritten signature in blue ink, appearing to read "Nakia W. Addison", written over a horizontal line.

Nakia W. Addison
Project Manager

TRC Environmental Corporation | Virginia Electric and Power Company
Sludge Sedimentation Basins New Liner Design Certification
Clover Power Station, Clover, Virginia
Final

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Section 1

Regulatory Requirement

Pursuant to 40 CFR 257.102(k), the Clover Power Station is retrofitting its sludge sedimentation basins by installing a new composite liner system. Design criteria outlined in the CCR rule (40 CFR 257.72) require that any new or retrofitted CCR surface impoundment be constructed with a composite liner system consisting of a 60-mil high density polyethylene (HDPE) geomembrane overlying, and in direct contact with, at least a two-foot layer of compacted soil. The compacted soil layer shall demonstrate a hydraulic conductivity of no more than 1×10^{-7} cm/sec.

Section 2

Liner Design

TRC has developed a liner design consisting of, from top to bottom, a 60-mil-HDPE geomembrane and 24-inches of compacted clay with a maximum hydraulic conductivity of 1×10^{-7} cm/s. This design is in accordance with the new liner requirements as outlined in 40 CFR 257.72.

Section 3 Certification

I, the undersigned Virginia Professional Engineer, hereby certify that I am familiar with the technical requirements of 40 CFR 257.72. I also certify that it is my professional opinion that, to the best of my knowledge, information, and belief, that the liner design presented in the construction documents is in accordance with current good and accepted engineering practice(s) and standard(s) appropriate to the nature of the project and the technical requirements of 40 CFR 257.72.

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 of the retrofit activities.

R. Kent Nilsson

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Printed Name of Professional Engineer

Commonwealth of Virginia License Number



March 7, 2017

Signature of Professional Engineer

Date

