North Sludge Sedimentation Basin Liner Construction Certification

Clover Power Station
Clover, Virginia

August 2018

Prepared For
Virginia Electric and Power Company

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Section 1
Regulatory Requirement

Pursuant to 40 CFR 257.102(k), the Clover Power Station[1] 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. The rule allows for an alternate composite liner system provided it performs no less effectively than the prescribed liner system.

[1] The Clover Power Station and associated CCR units are jointly and equally owned by Dominion Virginia Power and Old Dominion Electric Cooperative (ODEC).

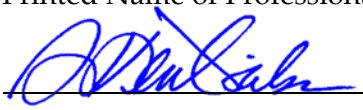
Section 2
Liner Design

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 $1x10^{-7}$ 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 composite liner design was construction in conformancewith the construction documents and 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	026477
Printed Name of Professional Engineer	Commonwealth of Virginia License Number
	August 6, 2018
Signature of Professional Engineer	Date