Professional Engineer's Certification

The East Bottom Ash Pond retrofit at Indiana Michigan Power Company Rockport Plant is a new CCR surface impoundment that will utilize an alternative composite liner system. 40 CFR § 257.72(a) requires that new CCR surface impoundments with alternative composite liners must be designed, constructed, operated, and maintained to meet the requirements of § 257.70(c)(1) through (3). Prior to construction of the CCR surface impoundment, § 257.72(c) requires that the owner or operator obtain certification from a qualified professional engineer that the design of the alternative composite liner complies with the requirements of this section.

The alternative composite liner system for the East Bottom Ash Pond retrofit design consists of two components: an upper component consisting of a 40-mil LLDPE geomembrane liner (GM), and a lower component consisting of a Geosynthetic Clay Liner (GCL) with a hydraulic conductivity of no more than 1.0×10^{-9} cm/s and a thickness of at least 0.25 inches or an approved equivalent. A non-woven geotextile (10 oz/sy) is also included underneath the GCL as a venting layer.

In accordance with § 257.70(c)(1) and (2), the liquid flow rate through the lower component of the alternative composite liner is no greater than the liquid flow rate through two feet of compacted soil with a hydraulic conductivity of 1×10^{-7} cm/sec. The hydraulic conductivity for the two feet of compacted soil used in the comparison is no greater than 1×10^{-7} cm/sec. The hydraulic conductivity of the proposed GCL alternative to the two feet of compacted soil is determined using recognized and generally accepted methods.

In accordance with § 257.70(c)(3), the alternative composite liner meets the requirements specified in § 257.70(b)(1) through (4).

I certify that the design of the alternative composite liner for the East Bottom Ash Pond retrofit design at Indiana Michigan Power Company Rockport Plant complies with the requirements of § 257.70(b), (c) and 257.72 (a), (c).

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