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**Initial Hazard Potential Classification Assessment  
EPA Final CCR Rule  
Ash Pond  
Kincaid Power Station  
Christian County, Illinois**

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**1.0 PURPOSE**

This report documents Stantec's certification of the initial hazard potential classification assessment for the Kincaid Power Station Ash Pond.

40 CFR 257.73(a)(2) requires the owner or operator of an existing CCR surface impoundment to conduct an initial hazard potential classification assessment and document the hazard potential classification, and the basis for the classification, of the CCR unit as either a high hazard potential CCR surface impoundment, a significant hazard potential CCR surface impoundment, or a low hazard potential CCR surface impoundment.

**2.0 FINDINGS**

A breach analysis was performed to evaluate potential hazards associated with a failure of the Ash Pond's perimeter containment dike. Breach locations were selected based on nearby downstream areas that could be potentially impacted. Breach failures for the "sunny day" scenario were modeled at two locations on the east embankment. Breach failure for the "PMP" scenario was modeled at one location near the lowest crest elevation on the Ash Pond embankment.

Analyses indicate that a potential breach of the Ash Pond results in farm land to the east of the Ash Pond as potentially being impacted. The results also indicated depths less than two feet and velocities approximately five feet per second. Velocities exceeding five feet per second were isolated to the breach location. The analysis indicated that discharge from the "Sunny Day" breach locations would flow into Sangchris Lake. The analyses did not result in any structures being impacted. Therefore, failure or mis-operation of the Ash Pond would likely result in no probable loss of human life. However, a potential breach event would likely result in the off-site release of CCR material onto adjacent farm land and/or into Sangchris Lake, resulting in environmental damage.

40 CFR 257.53 defines a "significant hazard potential CCR surface impoundment" as a diked surface impoundment where failure or mis-operation results in no probable loss of human life, but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns.



Based on the results of the analysis summarized above, the Ash Pond was assigned a Significant hazard potential classification per 40 CFR 257.53.

### 3.0 QUALIFIED PROFESSIONAL ENGINEER CERTIFICATION

I, Matthew Hoy, being a Professional Engineer in good standing in the State of Illinois, do hereby certify, to the best of my knowledge, information, and belief that;

1. the information contained in this report and the underlying data in the operating record was prepared in accordance with the accepted practice of engineering and is accurate as of the date of my signature below; and
2. the initial hazard potential classification assessment for the Kincaid Power Station Ash Pond was conducted in accordance with the requirements specified in 40 CFR 257.73.

SIGNATURE

DATE 10/12/2016

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Design with community in mind