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Revision 0

Initial Hazard Potential Classification Assessment
EPA Final CCR Rule
GMF Pond
Duck Creek Power Station
Fulton County, Illinois

1.0 PURPOSE

This report documents Stantec's certification of the initial hazard potential classification assessment for the Duck Creek Power Station GMF 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 visual analysis was performed to evaluate potential hazards associated with a failure of the GMF Pond perimeter containment dike. Failure scenarios were considered along the perimeter dike. Breach scenarios were evaluated for potential downstream impacts to structures, infrastructure, frequently occupied facilities/areas, and waterways. Potential for impacts was evaluated by determining probable breach flow paths using available elevation data and imagery of the impoundment along with the nearby area.

The analysis indicates that a breach of the north, east, and south embankments have potential to impact structures on the Duck Creek Power Station property prior to flowing into the Duck Creek Cooling Pond. A breach of the west embankment would likely impact North Bethel Cemetery Road and the railroad to/from the power station prior to flowing into the Duck Creek Cooling Pond. North Bethel Cemetery Road is intermittently used and the at-risk populations are considered transient. In accordance with Federal guidelines, loss of life is not considered probable for scenarios where persons are only temporarily in the potential inundation area. It was concluded that a breach failure of the GMF Pond containment dike will not result in probable loss of human life. However, it is anticipated that a breach failure of the containment dike will release stored CCR materials into downstream areas and waterways causing 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 GMF 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 Duck Creek Power Station GMF Pond was conducted in accordance with the requirements specified in 40 CFR 257.73.

SIGNATURE

DATE

10/12/2016

ADDRESS:

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