

Buckeye Power Company and AEP Generation Resources
Cardinal Bottom Ash Complex Dam (# 0105-004)
Hazard Potential Classification Assessment

AEP has performed an evaluation to classify the above CCR Surface Impoundment in accordance with FEMA's Hazard Potential Classification System for Dams. These guidelines evaluate the consequences of a potential failure not the likelihood of a failure. Guidelines that were developed and utilized are included below.

Hazard Potential Classification Systems (from FEMA 333, April 2004)

1. Low Hazard Potential

Dams assigned the low hazard potential classification are those where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

2. Significant Hazard Potential

Dams assigned the significant hazard potential classification are those dams 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 can impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas but could be located in areas with population and significant infrastructure.

3. High Hazard Potential

Dams assigned the high hazard potential classification are those where failure or mis-operation will probably cause loss of human life.

The Cardinal Bottom Ash Complex Dam is situated along the Ohio River. The impact of the failure or mis-operation of the dam will result in no probable loss of human life but is likely to cause economic loss and/or environmental damage. The Bottom Ash Complex Dam is classified by Ohio DNR as Class II dams. The US EPA CCR Impoundment Assessment Report identified the Ash Pond Complex Dam as a Significant Hazard Potential Dam.

Based on the FEMA Hazard Potential Classification Systems for Dams and on the above discussion, The Cardinal Bottom Ash Complex Dam is classified as a **Significant Hazard Potential Dam**.

Professional Engineer's Certification:

I certify that this Hazard Potential Classification Assessment is in accordance with the requirements of section 40 CFR 257.73 (a)(2)(i).

Gary F. Zych, P.E.

Gary F. Zych
7/29/2016

