

Buckeye Power Company and AEP Generation Resources
Cardinal Fly Ash Reservoir II Dam (ODNR # 0205-010)
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 Fly Ash Reservoir II Dam is situated upstream of Brilliant Township, Cardinal Plant and Ohio River. The impact of the failure or mis-operation of the dam will probably result in loss of human life in addition to cause economic loss, damage to state roads and environmental damage. The Fly Ash Reservoir II Dam is classified by Ohio DNR as Class I dam. The US EPA CCR Impoundment Assessment Report identified the Fly Ash Reservoir II Dam as a High Hazard Potential.

Based on the FEMA Hazard Potential Classification Systems for Dams and on the above discussion, The Cardinal Fly Ash Reservoir II Dam is classified as a **High 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.

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7/29/2016

