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File No. 40373-345

Dayton Power & Light Company
P.O. Box 468
Aberdeen, Ohio 45101

Attention: Mr. Craig Spangler
Commodities Manager

Subject: Initial Hazard Potential Classification Assessment
Pond 3A
J.M. Stuart Electric Generating Station
Aberdeen, Ohio

Mr. Spangler:

This letter presents the results of our Initial Hazard Potential Classification Assessment for Pond 3A located at Dayton Power & Light Company (DP&L) J.M. Stuart Electric Generating Station in Aberdeen, Ohio. This work was completed in accordance with the US Environmental Protection Agency's (EPA's) Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities, 40 CFR Part 257, specifically §257.73(a)(2).

Description of Pond 3A

Pond 3A is a Coal Combustion Residuals (CCR) surface impoundment located immediately to the east of the J.M. Stuart Station power plant and coal storage area. The pond was designed by Bowser-Mourner in 1976 and construction completed in 1978. A portion of the pond was constructed on top of Pond 3 which was closed and capped prior to construction of Pond 3A.

Pond 3A is surrounded by above-grade earthen embankments with clay core on the south, east and west sides. Crest width is approximately 12 ft. The north side of the pond is incised and bounded by a 45-ft wide access road beyond which is the upward sloping topography of Landfill 11. The pond has a maximum embankment height of approximately 26 ft and area of 52.7 acres. Storage volume is approximately 1,257 acre-ft¹ to the crest. The pond is located 200 to 300 ft from the banks of the Ohio River.

The impoundment receives sluiced fly ash from the J.M. Stuart plant via five HDPE pipes which are moved as the pond fills with ash. The impoundment's concrete decant structure is located in the northeast corner of the impoundment. The level in the pond is controlled by removable stop logs installed in the structure. Water entering the decant structure flows into a 30-inch diameter reinforced

¹ Ohio Department of Natural Resources, "Dam Safety Inspection Report – J.M. Stuart Station Ash Pond 3A," dated June 27, 2013.

concrete pipe (RCP) which penetrates the east embankment and discharges to a channel that conveys the flow to Pond 6.

Pond 3A is periodically drained for removal of accumulated ash. During this time, sluiced fly ash is directed to one of two other ponds that are also periodically rotated. Accumulated fly ash in Pond 3A is excavated and placed in an on-site landfill.

Hazard Potential Classification Assessment

GENERAL

The Hazard Potential Classification of a CCR surface impoundment is based on the potential for loss of human life, economic losses, environmental damage, and/or disruption to lifelines caused by failure or mis-operation of the surface impoundment.

EPA's Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities, 40 CFR Part 257 requires the owner or operator of a CCR surface impoundment to determine which of the following three hazard potential classifications characterizes their CCR unit:

- High Hazard Potential Classification – A diked surface impoundment where failure or mis-operation will probably cause loss of human life.
- Significant Hazard Potential Classification – 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.
- Low Hazard Potential Classification – A diked surface impoundment where failure or mis-operation results in no probable loss of life, and low economic and/or environmental losses. Losses are principally limited to the surface impoundment's owner's property.

HAZARD POTENTIAL CLASSIFICATION

Based on observations during our 18 March 2016 site visit and our review of available information, Pond 3A is judged to have a **Significant** Hazard Potential Classification in accordance with 40 CFR Part 257. The **Significant** Hazard Potential Classification is due primarily to no probable loss of life in the event of a failure, but with potential adverse impacts to the environment (Ohio River) as well as potential damage to Ponds 6 and 7 located immediately to the east of Pond 3A.

Professional Engineer Certification

§257.73(a)(2)(ii): The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the initial hazard potential classification and each subsequent periodic classification specified in paragraph (a)(2)(i) of this section was conducted in accordance with the requirements of this section.

I certify that this initial hazard potential classification for Pond 3A surface impoundment at J.M. Stuart Electric Generating Station was conducted in accordance with §257.73(a)(2) of the CCR Rule.

Signed: 
Consulting Engineer

Print Name: Steven F. Putrich
Ohio License No.: 67329
Title: Vice President
Company: Haley & Aldrich, Inc.

Professional Engineer's Seal and date:

