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Westar Energy, Inc.
818 South Kansas Avenue
Topeka, Kansas 66612

Attention: Mr. Jared Morrison
Manager, Water and Waste Programs

Subject: Initial Hazard Potential Classification Assessment
Area 1 Pond CCR Surface Impoundment
Tecumseh Energy Center
Tecumseh, Kansas

Mr. Morrison:

This document presents the results of our Initial Hazard Potential Classification Assessment for the Westar Energy, Inc. (Westar) Area 1 Pond coal combustion residuals (CCR) surface impoundment located at the Tecumseh Energy Center (TEC) in Tecumseh, Kansas.

Haley & Aldrich, Inc. (Haley & Aldrich) was contracted by Westar to perform this Initial Hazard Potential Classification Assessment for the Area 1 Pond impoundment. 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).

1.1 DESCRIPTION OF AREA 1 POND

The Area 1 Pond CCR surface impoundment is located west of the TEC plant along the western boundary of the facility. During the original construction, the east end of the Area 1 Pond was incised into the sloping topography while above-grade berms were constructed around the north, south and west sides of the impoundment. Currently, the berm crest is at an approximate El. 885, resulting in a total berm height of 39 ft for the north berm, 25 to 35 ft for the west berm, and 10 to 20 ft for the south berm.

Areas to the west and south of the impoundment are generally mixed use consisting of residential, commercial and agricultural areas. The TEC power plant exists immediately to the east of the Area 1 Pond, while the area immediately southeast of the impoundment is primarily residential.

The south berm of the Area 1 Pond impoundment is located immediately adjacent to (i.e., upstream of) SE 2nd Street. A number of residences are located on and near SE 2nd Street in the general vicinity of the

impoundment. The north berm of the Area 1 Pond impoundment is located along the banks of Tecumseh Creek. The creek flows to the Kansas River which is located approximately 700 ft downstream of the Area 1 Pond CCR Surface Impoundment.

The Area 1 Pond impoundment has a total surface area of approximately 2 acres, comprised of the north and south cells, each of which has a surface area of approximately 1 acre. The design total capacity of the impoundment is approximately 20 acre-ft as estimated from the most recent topographic survey.

1.2 HAZARD POTENTIAL CLASSIFICATION ASSESSMENT

1.2.1 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, §257.73(a)(2) 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.

1.2.2 Hazard Potential Classification

Based on observations during our site visit and our review of available information, the Area 1 Pond CCR surface impoundment is judged to have a **Significant** Hazard Potential Classification in accordance with §257.73(a)(2). The **Significant** Hazard Potential Classification is due primarily to the proximity of the impoundment's south berm to SE 2nd Street, and the north berm to Tecumseh Creek and the Kansas River.

1.3 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 the Area 1 Pond CCR surface impoundment at the Westar Tecumseh Energy Center was conducted in accordance with §257.73(a)(2) of the CCR Rule.

Signed: 
Certifying Engineer

Print Name: Steven F. Putrich
Kansas License No.: PE24363
Title: Vice President
Company: Haley & Aldrich, Inc.

Professional Engineer's Seal:

