

**SEISMIC IMPACT ZONES
CCR SURFACE IMPOUNDMENT: A.B. BROWN STATION
CCR UNIT: ASH POND**

AECOM (“Consultant”) has been retained by Vectren to prepare the following assessment of whether the above-referenced existing coal combustion residuals (“CCR”) surface impoundment meets the location restriction for seismic impact zones requirements set out in 40 C.F.R. § 257.63(a). Presented below are the project background, summary of findings, limitations, and certification.

1.0 BACKGROUND

Pursuant to 40 C.F.R. § 257.63(a), new CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located in seismic impact zones unless the owner or operator demonstrates that all structural components including liners, leachate collection and removal systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site.

Pursuant to 40 C.F.R. § 257.63(b) and (c)(1), for an existing surface impoundment, the owner or operator must obtain a certification from a qualified professional engineer stating that the owner or operator has demonstrated that the CCR unit meets the requirements for seismic impact zones no later than October 17, 2018.

In support of Consultant’s assessment, Consultant completed a desktop evaluation of the location of the CCR unit and determined that sufficient information is available to document the required seismic impact zones demonstration.

2.0 ASSESSMENT

Based upon a review of U.S. Geological Survey (USGS) seismic hazard map tool, existing structural design analysis, and 2016 CCR Safety Factor demonstrations, Consultant concludes as follows:

CCR Unit	Seismic Impact Zones
Ash Pond	<i>Meets the requirements of 40 C.F.R. § 257.63(a)</i>

3.0 LIMITATIONS

The signature of Consultant’s authorized representative on this document represents that to the best of Consultant’s knowledge, information, and belief in the exercise of its professional judgment, it is Consultant’s professional opinion that the aforementioned information is accurate as of the date of such signature. Any opinion or decisions by Consultant are made on the basis of Consultant’s experience, qualifications, and professional judgment and are not to be construed as warranties or guaranties. In addition, opinions relating to environmental, geologic, and geotechnical conditions or other estimates are based on available data, and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

4.0 CERTIFICATION

I, Jay Mokotoff, being a Registered Professional Engineer, in accordance with the Indiana Professional Engineer’s Registration, do hereby certify to the best of my knowledge, information, and belief, that the CCR unit that is the subject of this report dated October 16, 2018 meets the location restriction for seismic impact zones requirements pursuant to 40 C.F.R. § 257.63(a), and that this report is true and correct and has been prepared in accordance with generally accepted good engineering practices.

SIGNATURE Jay D. Mokotoff



DATE 10/16/18