F. B. Culley History of Construction 40 CFR § 257.73 (c)

(i.) Owner Name: <u>Southern Indiana Gas and Electric Company dba Vectren Power Supply</u>
Owner Address: <u>One Vectren Square, PO Box 209, Evansville, IN 47708</u>
CCR Unit Name: <u>F. B. Culley Station East Ash Pond</u>
Identification Number: <u>not applicable</u>

(ii.) Location: <u>Yankeetown Quadrangle, Warrick County, Indiana;</u>
Portions of Section 16 and 17, Township 7S, Range 8W

(iii.) Purpose of CCR Unit:

The F. B. Culley Ash Pond receives bottom ash and the associated sluice water from both of the facility's generating units. In addition, the east ash pond receives outlet water from FGD waste water treatment system, the oil separation tank, east side yard sump, air heater wash, boiler seal troughs, floor drains, greensand water treatment filters regenerant and backwash, softener regenerant streams and RO rejects, and rejects from the FGD system. The unit 2 fly ash lines and other waters associated with the Unit 2 boiler are routed to the east ash pond, although fly ash is only sluiced to the east ash pond during mechanical problems with the dry fly ash system, which has only occurred for a few hours during the most recent years.

- (iv.) Watershed size and name: <u>The drainage area for the East Pond is 25.87 acres. The pond is located within the Ohio River watershed. (2016 Inflow Design Plan)</u>
- (v.) Foundation Properties:

 <u>The foundation soils consist of medium stiff to very stiff clay and loose to medium sandy soils.</u> (2016 Structural Stability Assessment).
- (vi.) CCR Unit Construction:

The original construction drawing did not specify compaction requirements. Based on field investigations it was determined the embankment consists of medium to very stiff material which would suggest mechanically compacted material. (2016 Structural Stability Assessment) In 1992, the east portion of the embankment was modified to allow for the construction of the FGD scrubber and associated foundations.

(vii.) Construction Drawings:
 <u>Drawings of the original dam construction and modifications are listed below.</u>
 FBC East Ash Pond Design, 1971 FBC East Ash Pond Modification, 1992

- (viii.) Instrumentation: No instrumentation is present.
- (ix.) Area Capacity Curve: A capacity curve does not appear on original construction drawings and has not otherwise been developed. The East Ash Pond Design, 1971 drawing estimates a storage volume of 625,000 cu yd.

- (x.) Spillway Description:
 - The East Ash pond does not have a spillway and installation of a spillway is not needed to manage a 1000 year 24-hour storm event per calculations as listed in the Inflow Design Plan found on the F. B. Culley CCR webpage.
- (xi.) Surveillance, Maintenance and Repair:

The dam is inspected weekly as required by the CCR regulation 40 CFR § 257.83(a)(i). Deficiencies are either identified as requiring additional observation or entered into a Work Order request to trigger repairs. Water surface elevation is remotely monitored through a level indicator which is set to alarm in the Control Room if the water level is above 386.8 ft elevation. Normal operating elevation is at or below 386.5 ft and the embankment crest elevation varies from 392.6 to 396.4 ft. The plant routinely monitors weather forecasts to prepare the pond for predicted high precipitation events. Video cameras or other surveillance technologies are not present.

(xii.) Record of Structural Instability:

Extensive information on the stability of the dam and foundation can be found in the 2016 Structural Stability Assessment and 2016 Safety Factor Assessment documents posted on the F. B. Culley CCR webpage. There is no record or knowledge of embankment instability.

NOTE: Information in the History of Construction is based on information that was reasonably and readily available. The CCR rule does not require owners of existing surface impoundments to generate new information or provide anecdotal or speculative information regarding the design or construction history. (Final Rule Preamble, page 21380)



