CORPORATE EHS SERVICES

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Via E-Mail and Overnight Courier

February 4, 2011

Mr. Stephen Hoffman
US Environmental Protection Agency
Two Potomac Yard
2733 S. Crystal Drive
5th Floor, N-237
Arlington, VA 22202-2733

Re: Response to EPA letter regarding Dam Safety Assessment Report
Gibson Generating Station, Gibson County, Indiana

Dear Mr. Hoffman:

Duke Energy Indiana (DEI) received the letter from Suzanne Rudzinski Director for the Office of RCRA of the United States Environmental Protection Agency (EPA) dated January 7, 2011 and the final report from GEI Consultants (GEI) titled "Specific Site Assessment for Coal Combustion Waste Impoundments at Duke Energy Indiana Gibson Generating Station." The site assessment was conducted on the North Ash Pond; North Settling Basin; East Ash Ponds #1, #2, and #3; and the East Settling Basin by EPA's engineering contractors on April 26 and 27, 2010.

DEI supports the EPA's objective to ensure the safe operation and maintenance of coal combustion residue impoundments and is committed to meeting all state and federal requirements. Based on ongoing monitoring, maintenance and inspections, DEI is confident that the CCR impoundments have the structural integrity necessary to protect the public and the environment. The GEI report on the Gibson Generating Station supports this conclusion and found that acceptable performance is expected in accordance with the applicable safety regulatory criteria.

Today's submittal is in response to above referenced letter from EPA dated January 7, 2011. As outlined in EPA's letter the contractor made several recommendations addressing minor

deficiencies and secondary studies/investigations. The DEI response to each of these recommendations can be found in the attachment. If you have any questions regarding these responses, comments, or need additional information please contact Richard Meiers at 317-838-1955.

Sincerely,
Duke Energy Indiana

Tom J. Guthrie
Vice President Regulated Fossil Station
Gibson Generating Station

Attachment – DEI Responses to EPA Recommendations

Attachment – DEI responses to EPA Recommendations

11.1 Corrective Measures and Analyses for the Structures

1. Several large diameter trees (2-foot or greater) and vegetation were observed at the downstream toe of the North Ash Pond dam. These trees appear to be part of the preexisting wetlands that is adjacent to the North Ash Pond dam. Because the trees are well-established with considerable root systems and are part of the wetland, removal of the trees and root ball may cause further damage to the downstream slope of the dike and, is not recommended at this time. Duke Energy should continue to monitor the downstream slope for noticeable signs of seepage or transportation of embankment materials and obtain guidance from their engineers as to options and strategy for dealing with the trees. If cutting the trees is not possible due to the wetland status, one approach to address the concern of the trees would be to increase the structural stability of the dam (i.e. widening the dam in the upstream direction).
Currently, DEI is in the process of widening this dike. This is one of the last original sections of the dike that remains; all others have been increased in width to accommodate other structures. This work is expected to be completed in 2010.

DEI Response

DEI has completed the work increasing the width of the dike on the upstream side. DEI will not disturb the trees on the downstream side of the dikes. This recommendation is considered complete.

2. Several small diameter trees and vegetation were observed on the upstream and downstream slopes of the inner dikes at the East CCW impoundments. The trees on the inner dikes should be removed within the next year. If these trees are not removed, they could potentially initiate seepage paths or affect the stability of the slope. All vegetation on the inner dikes should be maintained to a level that does not obstruct visual dam safety inspections of the dam embankment.

DEI Response

DEI has removed a majority of the trees on the inner dikes, and any remaining trees on the inner dikes will be removed as soon as practical but no later than October 1, 2011.

3. Several small trees were observed near the downstream slope of the East CCW impoundments south and east dikes. A minimum of about 25 feet of clear spacing should be provided at the downstream toe. The trees within this area should be removed within the next year.

DEI Response

DEI has removed a majority of the trees near the downstream slopes of the East Ash Pond and will remove any remaining trees within 25 feet of the toe as weather permits access. This will be completed as recommended in 2011.

4. Isolated areas on the downstream slope of the East Settling Basin south dike were observed to have minor transverse ruts forming. The ruts are likely due to the wheeled tractor mowing the

grass during wet or saturated soil conditions. Preventative measure should be taken not to mow the embankment when wet or modify and vary the mowing operations so as not to create ruts perpendicular to the embankment slope.

DEI Response

DEI has instructed personnel cutting grass on slopes to modify mowing operations to reduce rutting from the tractor's tires when cutting grass. Current modifications to cutting operations have reduced the presence of ruts. This recommendation is considered complete.

5. A small excavated drain or sump pit was observed near the downstream toe of the west dike of the East Ash Pond #2 (Photo 30). The excavated pit could potentially initiate a seepage path through the west dike if the area is not repaired. It is recommended that the excavation be backfilled with compacted clay.

DEI Response

DEI will fill the depression with compacted clay and reestablish vegetation as soon as practical but no later than September 1, 2011.

6. A liquefaction susceptibility analysis should be conducted for the embankments. Based on the results of this analysis, additional corrective measures may be required.

DEI Response

DEI will conduct a liquefaction susceptibility analysis and will take the appropriate measures required after consultation with the engineering firm conducting the analysis. The liquefaction analysis will be completed as soon as practical but no later than December 31, 2011.

7. Currently the six CCW impoundments have adequate freeboard and storage capacity to safely store the 6-hour 100-year inflow design flood. However, the storage capacity and water level of the ash pond units can vary depending on operations. Due to this variability, it is recommended that Duke Energy maintain the six CCW impoundments at a level that ensures sufficient storage capacity within the units to accept the inflow design storm volume without overtopping the dam.

DEI Response

DEI will review all operations to date and will adjust parameters, if required, to ensure sufficient storage capacity to accept the inflow volume without overtopping the dikes. This review will be completed as soon as practical but no later than December 31, 2011.

11.2 Corrective Measures Required for Instrumentation and Monitoring Procedures

Daily water levels are measured at the North and East Settling Basins but not at the North and East Ash Ponds. No piezometers or settlement monuments are installed at the ash pond or settling basin dams. It is recommended that a more thorough instrumentation and monitoring program be developed and implemented that would include, at a minimum, piezometers and settlement monuments installed along the perimeter dikes of any impoundments that will

continue to receive wet coal combustion waste. Additionally it is recommended that an additional alarm for the water level control system for the North and East Settling Basins be co-located with central plant operations.

DEI Response

DEI will have the existing control equipment for the North Ash Pond evaluated by an independent engineering firm to determine if additional piezometers or settlement monuments need to be installed for monitoring purposes. They will also evaluate the existing high water alarm system and make recommendations if needed to increase its effectiveness. This review will be completed as soon as practical but no later than December 31, 2011. Upon completion of the review and after consultation with the engineering firm on any recommendations, DEI will take appropriate measures to revise the system.

The East Ash Pond system is in the process of closing and least the three cells are in the process of being dewatered or are dewatered and not holding any significant amounts of water. The remaining cell will be removed from service shortly following the conversion of the all units to dry ash handling in 2013. No additional equipment will be added to monitor the East Ash Pond System.

11.3 Corrective Measures Required for Maintenance and Surveillance Procedures

Currently, the six CCW impoundments are visually inspected monthly by Duke Energy staff, and inspected by a third-party engineer biennially in conjunction with the formal inspection of the Cooling Pond Dam. It is recommended that Duke Energy develop and document formal inspections of the ash ponds and settling basins, at a minimum annually by plant staff and quinquennially by a third party. It is also recommended that a brief daily check inspection be conducted by DEI personnel and that a written record is maintained for the monthly inspections being conducted by DEI.

Duke Energy has developed a formal ash pond dike inspection program. DEI will perform internal and third party inspections as required by this program. Written records of the inspections will be created and maintained. This recommendation is considered complete.

11.4 Corrective Measures Required for the Methods of Operation of the Project Works

None.

DEI Response

DEI agrees that there are no corrective measures needed for Methods of Operations.