Comments Duke Gibson Draft Report:

EPA:

Page 9 – Explain whether or not these dams are regulated by the state and if DNR uses the same hazard potential categories as the USACE/EPA checklist.

State: None

Company:

See letter dated August 4, 2010

CORPORATE EHS SERVICES

**Duke Energy Corporation**
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**Via E-Mail and Overnight Courier**

August 4, 2010

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

Re: Draft Dam Safety Assessment Report
Gibson Generating Station
1097 North 950 West
Owensville, Indiana 47665

Dear Mr. Hoffman:

Duke Energy Indiana, Inc. (DEI) received and has reviewed the draft report for Gibson Generating Station that resulted from the site assessment of the North Ash Pond; North Settling Basin; East Ash Ponds #1, #2, and #3; and the East Settling Basin conducted by the United States Environmental Protection Agency (EPA) and its engineering contractors on April 26-27, 2010. Duke Energy supports the EPA's objective of ensuring ash basin dam safety and remains committed to the safe operation and maintenance of coal ash basins.

The impoundment facilities at Gibson are currently under the regulatory authority of the Indiana Department of Natural Resources. Duke Energy plans to continue internal inspections on a monthly basis.

Duke Energy remains committed to meeting all state and federal requirements and managing its coal combustion byproducts impoundments in a safe and responsible manner. Based on ongoing monitoring, maintenance and inspections, Duke Energy is confident that the ash ponds have the structural integrity necessary to protect the public and the environment.

After reviewing the draft "Dam Safety Assessment of CCW Impoundments" report for the Gibson Generating Station, Duke Energy submits the following comments:

**Section 1.7, Page 2**

1. In the second sentence, change "October 2009" to "October 2008."

**Section 2.1, Page 3**

2. The third sentence in the paragraph is incorrect; Gibson Generating Station is operated under an Indiana Department of Environmental Management Rule 6 Permit. To state correctly, replace the incorrect sentence with the following two sentences: "Gibson Generating Station is a closed loop facility with no discharge of any process water to waters of the US. Storm water impacted from remote industrial activities on haul roads is regulated by IDEM under a Rule 6 NPDES storm water permit."

**Section 2.2, Page 4**

3. In Table 2.1, change "5.0" to "3.0" regarding the estimated freeboard (ft) at time of the site visit for East Ash Pond #3. Reference the checklist inspection form and the configuration notes.

**Section 2.4, Page 4**

4. In the first paragraph, replace "9-feet by 9-feet wide" with "9-feet long by 9-feet wide by 16-feet tall."

**Section 2.7, Pages 5-6**

5. In the first paragraph the following two sentences need to be modified for clarification: "Currently, only coal combustion waste from Units 1, 2, and 3 are being wet sluiced into the North Ash Pond where the primary settling occurs. Coal combustion waste from Units 4 and 5 are collected dry, processed, and then disposed of in two permitted onsite landfills." Replace with the following sentences: "Currently, bottom ash and boiler slag from all five units are being wet sluiced to North Ash Pond where primary settling occurs. Flyash from Units #1, #2, and #3 are also wet sluiced to the North Ash Pond where primary settling occurs. Flyash from Units #4 and #5 are collected dry and managed in onsite landfills."
6. Insert "397.57" as the missing discharge elevation in the eighth sentence of the second paragraph.
7. Delete the following sentence from page 6: "East Ash Ponds #1, #2, and #3 were designed to receive and store hydraulically dredged coal combustion waste that consists primarily of fly ash and lesser amounts of bottom ash, boiler slag, flue gas emission control residuals and a minor amount of operational and cleaning wastes from the North Ash Ponds." Replace with the following sentence: "East Ash Ponds #1, #2, and #3 were designed to receive and store hydraulically dredged coal combustion waste that consists primarily of fly ash and lesser amounts of bottom ash, boiler slag, flue gas emission control residuals and a minor amount of process wastewater from the North Ash Pond."

8. Delete the following sentence from page 6: "However, East Ash Pond #3 of the system began state approved closure in 2009 and is no longer receiving the hydraulically dredged waste." Replace with the following sentence: "However, East Ash Pond #3 of the system began closure in 2009 upon receipt of the Indiana Department of Environmental Management approved Closure/Post Closure Plans on March 7, 2009 and is no longer receiving the hydraulically dredged waste."

**Section 3.0, Page 7**

9. Delete the following sentence from the fourth paragraph: "However, DEI's interpretation of their groundwater monitoring program led them to believe that there is a leak in East Ash Pond #3." Replace with the following sentence: "However, DEI's interpretation of their groundwater monitoring program led them to believe that the bottom portion of the liner system was more permeable than the original design for East Ash Pond #3."
10. Delete the following sentences:
    "Material placed in this landfill has been described by DEI as:
    - The dewatered FGD solids (calcium sulfate from forced oxidation scrubbers) from Units 1, 2, & 3.
    - The fly ash from Units 4 & 5 mixed in a pug mill with dewatered FGD solids (calcium sulfite from inhibited oxidation scrubber) and quicklime."

    Replace with the following:
    "The CCR placed in the FSS Landfill include:
    - Dewatered FGD solids (synthetic gypsum) and FGD wastewater treatment solids from Units 1, 2, and 3.
    - Flyash, FGD solids (calcium sulfite) and quicklime from Unit 4.
    - Flyash, FGD solids (synthetic gypsum) and quicklime from Unit 5."

**Section 5.2.2, Page 11**

11. Replace "through the decant structure" with "through the two decant structures" in the second paragraph. The corrected sentence should read: "Under the current configuration, decant water in the North Ash Pond is routed to the North Settling Basin through the two decant structures located through the interior separating dike."

**Section 7.4.1, Page 15**

12. In the fourth sentence, insert "galvanized" between "consist of" and "corrugated metal pipe (CMP)." The corrected sentence should read: "The outlet conduits consist of galvanized corrugated metal pipe (CMP), which is susceptible to corrosion and have a reduced service life compared to more robust pipe materials."

**Section 9.2, Page 21**

13. Delete the following sentence: "Cursory inspections of the East Ash Ponds and Settling Basin are made every two years by an independent engineering firm, but dam safety-related inspections have not been previously made by state or federal agencies." Replace with the following sentences: "Inspections of the East and North Ash Ponds and

both settling basins are made every two years by an independent engineering firm. Dam safety inspections have not previously been required or performed by state or federal agencies. However, the independent engineering firm's inspection reports are submitted to the Indiana Department of Natural Resources Division of Water, Dams, and Levees (IDNR) every two years."

**Section 9.3, Page 21**

14. Delete the following sentence: "The ash ponds and settling basins are not regularly patrolled by DEI operations personnel." Replace with the following sentence: "The ash ponds and settling basins are checked for fugitive dust issues once per shift by DEI operations personnel."

**Section 11.1, Page 24**

15. Add the following statement to the beginning of the first recommendation: "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."

**Section 11.3, Page 25**

16. Remove "informally" from the first sentence, because the six CCW impoundments are inspected and documented in the independent engineering firm's formal reports.

**Coal Combustion Waste (CCW) Impoundment Inspection (East Settling Basin)**

17. Replace "Indiana Department of Environmental Management" with "Indiana Department of Natural Resources (IDNR) Division of Water, Dams & Levees."

**Coal Combustion Waste (CCW) Impoundment Inspection (East Pond #1)**

18. Replace "Indiana Department of Environmental Management" with "IDNR."

**Coal Combustion Waste (CCW) Impoundment Inspection (East Pond #2)**

19. Replace "Indiana Department of Environmental Management" with "IDNR."
20. Under Type of Outlet, replace the "36" inside diameter" with "(4) 15" inside diameter" HDPE pipes.
21. Under Type of Outlet remove the check from "welded steel" material of construction and check the "plastic (HDPE, PVC, etc.)" for material of construction.
22. Under Type of Outlet Comments add: "The water drains by gravity thru the (4) 15" pipes or thru the constructed emergency spillway into Cell 1."

**Coal Combustion Waste (CCW) Impoundment Inspection (East Pond #3)**

23. Replace "Indiana Department of Environmental Management" with "IDNR".
24. Under Hazard Potential, remove the check from "Low Hazard Potential" option and place a check for "Less than Low Hazard Potential" option. Under Hazard Potential, the

description explaining the reasoning behind the chosen hazard rating must be revised due to its "Closure" status. There is no free water in Cell #3.

25. Under Type of Outlet, replace the "36" inside diameter" with "30" inside diameter" (Ref. Ph 3 Construction Drawing M-1-P-5).

**Coal Combustion Waste (CCW) Impoundment Inspection (North Ash Pond)**

26. Replace "Indiana Department of Environmental Management" with "IDNR."

**Coal Combustion Waste (CCW) Impoundment Inspection (North Settling Basin)**

27. Replace "Indiana Department of Environmental Management" with "IDNR."

If you have any questions regarding these comments or need additional information, please contact me at 980-373-3719.

Sincerely,

D. Edwin M. Sullivan

D. Edwin M. Sullivan, PE
Corporate EHS Services