**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
WASHINGTON, D.C. 20460

January 7, 2011

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

VIA E-MAIL AND FEDERAL EXPRESS

Mr. William Marsan, Vice President
Indianapolis Power
One Monument Circle
Indianapolis, Indiana 46204-2901

Dear Mr. Marsan,

On April 29-30, 2010 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the Petersburg Generating Station. The purpose of this visit was to assess the structural stability of the impoundments or other similar management units that contain "wet" handled CCRs. We thank you and your staff for your cooperation during the site visit. Subsequent to the site visit, EPA sent you a copy of the draft report evaluating the structural stability of the units at the Petersburg Generating Station and requested that you submit comments on the factual accuracy of the draft report to EPA. Your comments were considered in the preparation of the final report.

The final report for the Petersburg Generating Station is enclosed. This report includes a specific rating for each CCR management unit and recommendations and actions that our engineering contractors believe should be undertaken to ensure the stability of the CCR impoundment(s) located at the Petersburg Generating Station. These recommendations are listed in Enclosure 2.

Since these recommendations relate to actions which could affect the structural stability of the CCR management units and, therefore, protection of human health and the environment, EPA believes their implementation should receive the highest priority. Therefore, we request that you inform us on how you intend to address each of the recommendations found in the final report. Your response should include specific plans and schedules for implementing each of the recommendations. If you will not implement a recommendation, please explain why. Please provide a response to this request by February 7, 2011. Please send your response to:

Mr. Stephen Hoffman
US Environmental Protection Agency (5304P)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

If you are using overnight of hand delivery mail, please use the following address:

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

You may also provide a response by e-mail to hoffman.stephen@epa.gov

You may assert a business confidentiality claim covering all or part of the information requested, in the manner described by 40 C. F. R. Part 2, Subpart B. Information covered by such a claim will be disclosed by EPA only to the extent and only by means of the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when EPA receives it, the information may be made available to the public by EPA without further notice to you. If you wish EPA to treat any of your response as "confidential" you must so advise EPA when you submit your response.

EPA will be closely monitoring your progress in implementing the recommendations from these reports and could decide to take additional action if the circumstances warrant.

You should be aware that EPA will be posting the report for this facility on the Agency website shortly.

Given that the site visit related solely to structural stability of the management units, this report and its conclusions in no way relate to compliance with RCRA, CWA, or any other environmental law and are not intended to convey any position related to statutory or regulatory compliance.

Please be advised that providing false, fictitious, or fraudulent statements of representation may subject you to criminal penalties under 18 U.S.C. § 1001.

If you have any questions concerning this matter, please contact Mr. Hoffman in the Office of Resource Conservation and Recovery at (703) 308-8413. Thank you for your continued ongoing efforts to ensure protection of human health and the environment.

Sincerely,
/Suzanne Rudzinski/, Director
Office of Resource Conservation and Recovery

Enclosures

## 4.3 Maintaining and Controlling Vegetation Growth

Tall, dense vegetation in areas obscured visual observations of the perimeter embankment slopes, in particular, on the east and north interior slope of Pond A and Pond A - Discharge, and around the perimeter of Pond B and Pond C. Typical practice is to remove 4-inch diameter and larger woody growth.

CDM recommends that vegetation be cut on a regular basis to ensure that adequate visual observations can be made by IPL's personnel during routine inspections and independent consultant during their semi-annual inspection.

## 4.4 Erosion Protection and Repair

Surface erosion, loss of ground cover, over-steep slopes, and tractor ruts were observed on multiple embankment slopes of Pond B and Pond C as discussed in Section 2. Thinning and loss of grass cover due to concentrated flow was noted on the embankment slopes.

CDM recommends filling all surface erosion and re-seeding these areas.

## 4.5 Impoundment Hydraulic and Stability Analysis

IPL did not provide CDM with a hydraulic analysis showing the ability of the impoundment to safely pass or store the 50% PMP event. However, a preliminary evaluation performed by CDM suggests there is enough storage capacity at the current operating pool levels to safely store precipitation from this rainfall event.

CDM recommends IPL perform a complete study to confirm this conclusion, and update the study if operating levels of the pond change in the future.

CDM was not provided with information regarding stability analyses performed prior to or following construction of Pond A, Pond A – Discharge, Pond B, or Pond C or information regarding properties of the embankment and foundation materials.

It is recommended that detailed stability analyses be performed for Pond A, Pond A – Discharge, Pond B, and Pond C embankments. The stability analyses for each pond should include a subsurface investigation to evaluate existing soil parameters in the embankments and foundation soils and the installation of piezometers to measure the phreatic surface. Stability analyses should consider all appropriate operating and loading conditions including rapid drawdown, if applicable, and seismic events.

A recent subsurface exploration program was carried out by BT SQUARED between April 22 and April 23, 2010 for Pond B and Pond C. The exploration consisted of four test borings with continuous sampling down to depths of 30 feet below the crest. Based on historic test boring logs, the recent test boring performed by BT SQUARED did not penetrate the bottom of the original embankment or the foundation soils. A complete evaluation of the stability of the Pond B and Pond C embankments cannot be performed without evaluating the foundation conditions.

CDM recommends performing additional test borings into the foundation soils with selected borings drilled down to bedrock to properly evaluate the stability of the embankments.

CDM recommends that all analyses be performed by a registered professional engineer experienced in earthen dam design.

## 4.6 Inspection Recommendations

Based on the information reviewed by CDM it does not appear that IPL has adequate inspection practices. Currently inspection documentation prepared by plant personnel consist of limited checklists completed every two weeks for all five ponds to document the presence of any failures, erosion, vegetative cover in a “yes” or “no” format and to document operation conditions such as work activities. The inspection checklists are inadequate to document specific potential items that need to be addressed and the area where they are located.

CDM recommends that plant personnel develop more-detailed inspection documentation procedures to aid in ensuring that they are performing adequate inspections and adequately documenting observations over time. Documentation should include a sketch of relevant features observed, and the documentation should be periodically reviewed to identify if conditions are worsening and/or if significant changes are occurring which could lead to additional maintenance issues or safety concerns.

Inspection procedures should include the recording of data from existing piezometers on Pond B and Pond C. A staff gage should be installed at outlet structures to record water levels in the impoundments, if applicable. In addition, inspections should be made following heavy rainfall and/or high water events on the White River, and the occurrence of these events should be documented.

It is recommended that inspection records be retained at the facility for a minimum of three years.