

## Ash Recycle Evaluation and Pond Closure Design



The ash recycling evaluation and pond closure design determined the value of and removal options for 7 million tons of CCR material.

### Client

Midwest Electric Generation Client

### Location

Indiana, USA

### Contract Value

USD 750K (excluding EPC)

### Years

2017—present

### More Information

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### Project Overview

AECOM completed an evaluation of multiple options to remove CCR materials from a 160-acre valley-fill ash pond along with transportation and off-site beneficial reuse of the materials in cement production. AECOM prepared the closure plan, fulfilled permitting requirements and prepared construction documents for the pond closure.

### Client Benefits

- AECOM met the client's scheduling requirements for the evaluation without interrupting plant operations.
- The team engaged with client's management and plant operations staff to identify methodologies to transition from CCR disposal to beneficial reuse.

### Work Performed

**ASH RECYCLING EVALUATION.** AECOM conducted an ash recycling evaluation on the market for and potential uses of CCR material for the client. The evaluation included the following:

- Examination of costs and methods to excavate and process 7 million tons of impounded CCR materials for beneficial reuse in cement production.
- Evaluation of available technologies, environmental implications, cost and ash resale market.
- Assessment of dewatering, staging, and scheduling requirements to remove ash while satisfying ongoing plant operations and meeting regulatory criteria.
- Analysis of conveyance and trucking alternatives, and approaches to transportation of the material over land or by river to the offsite cement manufacturer.

**CLOSURE ANALYSIS & DESIGN.** AECOM developed an alternatives analysis report for three closure options: closure by removal, closure in place, and construction of an on-site landfill. The report rated each alternative based on life-cycle cost, construction and implementation duration, environmental and regulatory considerations, public perception and acceptance, and risk considerations. In addition to the evaluation, the team developed design packages for multiple closure options at the CCR pond. AECOM also provided additional construction support services to the client, including the preparation of construction documents and procurement services for the closure by removal design.

**FUTURE WORK.** EPC construction of pond closure and conveyor, storage & transfer infrastructure to barge loadout on Ohio River for beneficial reuse in cement production. Projected construction duration is 10-13 years.