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October 17, 2016

Mr. John Schultz
Marquette Board of Light and Power
2200 Wright Street
Marquette, Michigan 49855

RE: CCR Impoundment Hazard Classification Assessment: Shiras Steam Plant, Marquette Board of Light and Power, Marquette, Michigan; AECOM Project No. 60445171

Dear Mr. Schultz:

As requested by the Marquette Board of Light and Power (MBLP), AECOM is pleased to present the result of our hazard classification assessment for the MBLP Shiras Steam Plant CCR holding pond as required by the CCR Rule for existing CCR surface impoundments.

Background

The MBLP Shiras Steam Plant includes three coal-fired power-generating units:

Unit 1 – 10 megawatts (out-of-service with no plans to re-commission)

Unit 2 – 21 megawatts

Unit 3 – 45 megawatts

Bottom ash resulting from the burning of coal from Units 2 and 3 is sluiced to a pair of dewatering bins. The plant sumps also discharge to the dewatering bins. Coal ash removed by the dewatering bins is disposed of off-site.

Sluicing water separated in the dewatering bins is directed to a series of five holding ponds located adjacent to Lake Superior. The ponds are constructed of steel sheet piles which form the perimeter and interior sides of the ponds and separate the impoundment from the Lake. Additional wastewater streams enter the holding ponds, including coal pile runoff and some storm water. The ponds are periodically drained (normally by means of consumption through process operations) and residual solids which settle out in the holding ponds are removed, temporarily staged on-site and transported to offsite for disposal or beneficial reuse. Water from the holding ponds is pumped to a 300,000 gallon equalization tank for recycling and reuse within the plant.

Based on our work with the MBLP on an Ash Handling System Study in 2014, AECOM understands that approximately 0.5 million gallons per day of water is cycled through this loop for operation of the facility. Discharge of water from the holding ponds is regulated via an NPDES permit through a permitted outfall (#004A). However, discharge from the ponds has been reserved for emergency situations and there have reportedly been only three to five discharges in the last fifteen years with very short durations.

On April 17, 2015, the US Environmental Protection Agency (USEPA) published rule 40 CFR Part 257 titled Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule). While the MBLP does not own or operate an ash landfill for disposal of coal ash, it is AECOM's opinion that the holding ponds in their current state fall within the definition of an "existing CCR surface

impoundment”, which requires the MBLP to comply with the new CCR Rule. One requirement of the rule is the hazard classification of this CCR surface impoundment.

Hazard Classification

The owner of a CCR surface impoundment must conduct initial and periodic hazard potential classification assessments of the CCR unit. The initial assessment must be completed by October 17, 2016 with subsequent periodic assessment completed every 5 years. This is the initial hazard potential classification.

The owner of a CCR surface impoundment must classify the CCR unit as either a high hazard potential CCR surface impoundment, a significant hazard potential CCR surface impoundment, or a low hazard potential CCR surface impoundment.

In AECOM's opinion the CCR unit at the MBLP Shiras Steam Plant should be classified as a significant hazard potential CCR surface impoundment. The basis for this classification is twofold. First, it is unlikely that failure of the unit and a resulting release of the impounded water would result in the loss of human life. The impounded water would either be released directly into Lake Superior to the north or onto a generally unoccupied portion of land to the west which would then drain directly into Lake Superior. Neither scenario is likely to cause loss of human life.

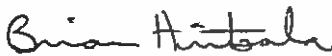
There are, however, environmental concerns with a release from the impoundment. A release of water from the impoundment into Lake Superior would likely be accompanied by a release of at least some of the CCR residuals from the impoundment. This would result in a considerable amount of siltation to the lake and environmental damage. This is the primary reason AECOM regards the unit as a significant hazard potential CCR impoundment.

Conclusion

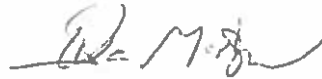
It is AECOM's opinion the CCR unit at the MBLP Shiras Steam Plant should be classified as a significant hazard potential CCR surface impoundment.

AECOM appreciates this opportunity to provide assistance to MBLP at the Shiras Steam plant. Please contact us if you have any questions.

Sincerely,



Brian Hintsala, P.E.
Senior Project Engineer



Ivan Martysz, P.E.
Vice President

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BAH/cec

cc: Mark Rokoff, P.E.

