



December 15, 2016

Michelle Marion
Consumers Energy Company
1945 Parnall Street
Jackson, Michigan 49201

Reference: Annual Progress Report
Consumers Energy's JR Whiting Plant Pond 6 Closure
Erie, Michigan

Dear Ms. Marion:

This report summarizes the progress of closure implementation of Consumers Energy's JR Whiting Plant, Pond 6 (Pond 6) located in Erie, Michigan. This report includes a description of the actions completed to date, any problems encountered and a description of the actions taken to resolve the problems, and projected closure activities for the upcoming year. The closure of Pond 6 is currently on schedule and is expected to be completed as originally planned by April 17, 2018. Background information, description of actions completed to date and actions planned through completion of closure activities are presented below.

BACKGROUND INFORMATION

Consumers Energy Company (CEC) intends to close Pond 6, which is an inactive coal combustion residual (CCR) surface impoundment, no later than April 17, 2018 under the requirements of 40 CFR 257.102(d) as described in the *Notification of Intent to Initiate Closure of an Inactive Surface Impoundment* prepared by CEC and dated December 14, 2015. Additionally, the *JR Whiting Pond 6 Final Cover Report* was prepared and approved by the Michigan Department of Environmental Quality (MDEQ) in 2008 that includes state-specific engineering and certification requirements for surface impoundments. Closure operations were initiated and are expected to be completed by April 17, 2018 as detailed in the following sections.

DESCRIPTION OF ACTIONS COMPLETED TO DATE

Prior to installing the final cover, revised grading plans that establish grades lower than originally permitted were submitted to MDEQ and approved along with results of a slope stability evaluation that demonstrates that the proposed grading plan has an adequate factor of safety during construction and at end of construction. In addition, while bidding out geomembrane, it was determined that textured geomembrane provides better interface friction strength than smooth, so the specification sheets were revised to allow the use of textured geomembrane and improve the design, this revision was approved by the MDEQ.

Ash grading operations occurred over the spring and summer of 2016. The pre-construction meeting for cap placement was held on August 31, 2016. Physical closure of Pond 6 began shortly thereafter. To date, approximately 19.5 acres of the approved final cover system has been placed including geotextile, textured 40 mil High Density Polyethylene (HDPE) geomembrane, a 24-inch thick infiltration layer, and a 6-inch thick erosion layer. This area has also been seeded, mulched, and fertilized. Additionally, ash on the remaining acreage without final cover has been graded and straw mulch placed to minimize dust and erosion over winter.



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PROBLEMS ENCOUNTERED AND ACTIONS TAKEN TO RESOLVE PROBLEMS

Few issues were encountered during closure operations. All issues were resolved and approved by the MDEQ as described below.

- While preparing the surface geomembrane installation, erosion control stone that had migrated from the inside of the clay dike was encountered in the fly ash structural base making it difficult to meet the original specification for a smooth surface prior to placement of geomembrane. To mitigate this, MDEQ approved the Mannik & Smith Group's proposal to use a 10 ounce geotextile to provide the required puncture protection for the geomembrane, which improved the design.
- It was determined, based on visual observation in the field, that fly ash exists outside the design toe for the final cover, but within the original permitted limits, so the design was reviewed and revised to assure that the geomembrane extends beyond the observed limits of the fly ash. This improvement and clarification was included in the revision to the geomembrane liner determination detail which was approved by the MDEQ.

All issues encountered were resolved through detail design clarifications submitted and approved by the MDEQ, resulting in an overall better design and final cover.

2017 PROJECTED CLOSURE ACTIVITIES

Consumers Energy plans to place final cover on the remaining acreage (approximately 13.4 acres) on the southern portion of Pond 6 and complete closure of JR Whiting Pond 6 during the 2017 construction season. CEC completed the closure of 19.5 acres in 2016, as such; the closure of 13.4 acres in 2017 is feasible. The certification report documenting closure activities will be prepared, certified, and entered into the operating record by April 17, 2018.

Based on the results of our review of progress activities for the closure of Pond 6, we conclude that the closure of Pond 6 is on schedule and is expected to be completed as originally planned by April 17, 2018. In addition, we certify that this annual progress report meets the requirements of 40 CFR 257.100 (c)(2).

Sincerely,



Ibraheem S. Shunnar, P.E.
The Mannik Smith Group

cc: George McKenzie, P.E.
Brad Runkle, P.E.
Harold D. Register, Jr., P.E.
Frank Rand.