

December 14, 2015

Director Dan Wyant
c/o Delegated Representative Margie Ring, State Solid Waste Coordinating Engineer
Michigan Department of Environmental Quality
Office of Waste Management and Radiological Protection
Constitution Hall, Floor 4
525 West Allegan Street
Lansing, MI 48913

RE: NOTIFICATION OF INTENT TO INITIATE CLOSURE OF AN INACTIVE SURFACE IMPOUNDMENT

Dear Director Wyant:

This letter serves as the Notification of Intent to Initiate Closure of an Inactive Service Impoundment.

Consumers Energy intends to close Pond 6, which is an inactive coal combustion residual (CCR) surface impoundment, at the JR Whiting Plant, in Erie, MI no later than April 17, 2018 under the requirements of 40 CFR 257.100 (b)(1) through (4).

Prior to October 19, 2015, JR Whiting Pond 6 had ceased all fly ash sluicing activities in preparation for closure of the JR Whiting Plant and had disabled the sluicing equipment. JR Whiting Pond 6 is proceeding to construct final grades in anticipation of installing the final cover system. Dewatering began prior to October 19, 2015 in preparation for final closure as well as stabilization of the ash.

Pursuant to 40 CFR 257.100(c)(1), attached to this notification is a report and a certification by a registered professional engineer including a narrative description of how the surface impoundment will be closed leaving CCR in place, a schedule for completing closure activities, and the required certifications under 40 CFR 257.100 (b)(4) and (6).

As shown in the attached report, the planned closure meets the requirements of 40 CFR 257.100.

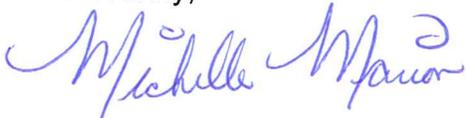
Also, pursuant to 40 CFR 257.106, this letter serves as notification that the Notification of Intent to Initiate Closure of an Inactive CCR Surface Impoundment for the JR Whiting

Pond 6 inactive surface impoundment, in Erie, MI has been placed in Consumers Energy's Operating Record as required by 40 CFR 257.105 and, pursuant to 40 CFR 257.107, on the publicly accessible internet site;

<https://www.consumersenergy.com/content.aspx?id=8240>.

If you have any questions regarding this submittal, please contact Michelle Marion at 517-788-5824.

Sincerely,



Michelle Marion
Sr. Environmental Planner

cc: Ibraheem Shunnar, P.E, MSG
Brad Runkle, P.E. Consumers Energy
Alex Whitlow, OWMM Jackson MDEQ
Dan Rock, Monroe County Health Department



December 10, 2015

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

Re: Intent to Initiate Closure of an Inactive Surface Impoundment
Consumers Energy JR Whiting Ash Pond 6
MDEQ License No. 9403

Dear Ms. Marion:

This report presents our evaluation of Consumer Energy Company's (CEC) intent to initiate closure of Pond 6, which is an inactive coal combustion residual (CCR) surface impoundment, at the JR Whiting Plant, in Erie, MI under the requirements of 40 CFR 257.100 (b)(1) through (4). To complete our evaluation, we reviewed available design documents and surveys and assessed the feasibility of the closure under relative parts of 40 CFR 257.100 as detailed below.

Pursuant to 40 CFR 257.100(c)(1), this report includes a narrative description of how the surface impoundment will be closed leaving CCR in place, a schedule for completing closure activities, and the required certifications under 40 CFR 257.100 (b)(4) and (6).

NARRATIVE DESCRIPTION OF CLOSURE ACTIVITIES

JR Whiting Pond 6 will be closed in accordance with the *Final Cover System Report for Ash Pond 6*, prepared by Black & Veatch and dated March 17, 2008. This report was approved by the Michigan Department of Environmental Quality (MDEQ) and is incorporated by reference in the JR Whiting Solid Waste Disposal Area License Number 9403. The proposed closure will be completed in a manner consistent with the requirements of 40 CFR 257.100 (b) (1) as described below:

- The final cover will include a geomembrane with low permeability that will minimize infiltration of liquids into the waste ash. Furthermore, it will include infiltration and erosion layers and will slope in a manner that will promote stormwater drainage which will further reduce the potential for infiltration. The CCR materials will be contained within clay dikes and final cover system that will minimize any releases of CCR, leachate, or contaminated run-off to groundwater, surface water, and the atmosphere.
- The final cover will have a minimum slope of 4 percent to preclude the probability of future impoundment of water, sediment, or slurry. In addition, ash below the final cover will be compacted to reduce the potential for ponding due to localized settlement.
- To enhance stability of the final cover system, free liquids will be removed prior to placement of the final cover and a compacted base will be placed below the final cover in accordance with project specifications to prevent the sloughing or movement of the final cover system.

TECHNICAL SKILL.
CREATIVE SPIRIT.

- The final cover will be founded on a compacted base that will reduce the potential for settlement. In addition, the final cover slopes are relatively flat (4 percent slope) which minimizes the need for future maintenance.

The proposed pre-closure activities will be completed in a manner consistent with the requirements of 40 CFR 257.100 (b) (2). Prior to installing the final cover system, all free liquids will be eliminated by a combination of dewatering and stabilization with fly ash. Any remaining wastes will be stabilized sufficiently to support the final cover system. Ash materials placed below the cover system will be compacted in accordance of project specification to provide a structural base for the final cover system.

The proposed final cover system meets the requirements of 40 CFR 257.100 (b)(3)(i). The final cover system consists of the following layers from bottom up:

1. 40 mil High Density Polyethylene (HDPE) geomembrane that exhibits maximum permeabilities less than 1×10^{-9} cm/sec which exceeds the requirements of 40 CFR 257.100 (b)(3)(i)(A),
2. 24-inch thick infiltration layer that exceeds the requirements of 40 CRF 257.100 (b)(3)(i)(B), and
3. 6-inch thick erosion layer that meets the requirements of 40 CFR 257.100(b)(3)(i)(C).

In addition, to meet the requirements of 40 CFR 257.100 (b)(3)(i)(D), the ash fills placed below the final cover system will be compacted to reduce settling and subsidence in order to minimize the disruption of the final cover system.

SCHEDULE FOR COMPLETING CLOSURE ACTIVITIES

A preliminary schedule has been developed for the closure of the Pond 6 Ash Disposal Area. The schedule was based on working 10-hour days, 5-days a week. The basis and an outline of the proposed schedule are presented below.

Closure activities are expected to include the following:

1. Placement of about 400,000 cubic yards of beneficial reuse materials to provide the required closure grades consistent with the approved MDEQ closure plans. Based on our onsite experience during prior closures, contractors in average place about 4,000 cubic yards per day. On that basis, a total of **100 days** will be required for this activity.
2. Placement of about 34 acres of geomembrane. Based on our onsite experience during prior closures, contractors in average place about one acre per day. On that basis, a total of **34 days** will be required for this activity.
3. Placement of about 110,000 cubic yards of infiltration layer. Based our onsite experience during prior closures, contractors in average place about 4,000 cubic yards per day. On that basis, a total of **27.5 days** will be required for this activity.
4. Placement of about 27,500 cubic yards of erosion layer. Based on our onsite experience during prior closures, contractors in average place about 2,500 cubic yards per day. On that basis, a total of **11 days** will be required for this activity.
5. Seeding mulching and fertilizing of about 35 acres. Based on our experience, contractors can seed mulch and fertilize about one acre per day. On that basis, a total of **35 days** will be required for this activity.

As detailed above, Pond 6 closure activities, when taken sequentially, will require about 207.5 days which are about **41.5 weeks**. Assuming that construction activities will occur between March and November of 2016 and 2017, a total of **68 weeks** is available, which is in excess of the required 41.5 weeks. Please note that a 5 day week was assumed to allow working 6 day weeks to compensate for potential weather delays.

Based on the results of our evaluations and review, the planned closure for Pond 6, which is an inactive coal combustion residual (CCR) surface impoundment, is consistent with the requirements of 40 CFR 257.100. The final cover system meets the requirements of 40 CFR 257.100 (b)(3)(i). In addition, the closure can be completed by April 17, 2018.

Sincerely,



Ibraheem S. Shunnar, PE
Mannik Smith Group

cc: George McKenzie, PE
Brad Runkle, PE
Harold D. Register, Jr., PE
Frank Rand,
Bob Wagner

STATEMENT OF CERTIFICATION

I, Ibraheem S. Shunnar, a Professional Engineer registered in the State of Michigan, as requested by 40 CFR 257.100 (b)(4), hereby certify that the final cover system for Pond 6 meet the requirements of 40 CFR 257.100 (b)(3)(i). In addition, as requested by 40 CFR 257.100(b)(6), I hereby certify that the closure of Pond 6 under 40 CFR 257.100 (b) (1) through (4) is technically feasible by April 17, 2018.

Ibraheem Shunnar

Ibraheem S. Shunnar, PE
State of Michigan Professional Engineer
Registration No. 39106

