

April 30, 2020 Project No. 18113500

Erik Booth, P.E.

Power Supply Manager

Grand Haven Board of Light and Power

J.B. Sims Generating Station

1231 North Third Street

Grand Haven, Michigan 49417

RE: GRAND HAVEN BOARD OF LIGHT AND POWER
JB SIMS GENERATING STATION
SUMMARY OF CORRECTIVE ACTION ACTIVITIES

Dear Mr. Booth,

During a conference call with the Environmental Protection Agency (EPA) on Monday, April 27, 2020, staff from the agency requested information on the corrective actions that Golder Associates Inc. (Golder) and the Grand Haven Board of Light and Power (GHBLP, Board) have undertaken since the Notice of Initiating Assessment of Corrective Measures. Therefore, Golder has prepared this letter to summarize the corrective action tasks/activities initiated since Golder prepared and submitted the Notice of Initiating Assessment of Corrective Measures for the GHBLP, JB Sims Generating Station (JB Sims, Plant), Units 1 and 2 inactive surface impoundment and Unit 3 active surface impoundments, dated February 8, 2019. The Notice of Initiating Assessment of Corrective Measures was prepared in accordance with 40 Code of Federal Regulations (40 CFR) §257.95(g)(3)(i) and §257.95(g)(5).

The reports and information prepared and/or submitted (Draft and Final versions) for the Assessment of Corrective Measures have been added to GHBLP's operating record. Reports that have been finalized are uploaded to GHBLP's Coal Combustion Residuals (CCR) Compliance website:

https://ghblp.org/about-us/reports/ccr-rule-compliance-data-and-information/

Given that the Board is a municipal electric utility, the process for awarding and conducting work is not the same as a for profit business. All work must be transparent and follow a public process that requires decisions to be made by a five-member elected Board of Directors in a public setting. Therefore, this requires that careful planning be conducted so a series of logical steps can be taken sequentially.

Prior to discussing the corrective actions that the Board has undertaken since submitting the Notice of Initiating Assessment of Corrective Measures, it is important for the regulatory agencies to have an understanding of the actions the GHBLP and the City of Grand Haven took to begin the impoundment closure process by retiring the JB Sims Power Plant. These decisions and actions are extremely significant and are critical to the impoundment closure process.

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- February 15, 2018, presentation by GHBLP staff to GHBLP Board of Directors in which the recommendation was made to cease operations of the JB Sims Power Plant by June 1, 2020. The plant could not be retired prior to that date due to a lack of adequate transmission service. The GHBLP is a point-to-point transmission customer and cannot receive Network Integrated Transmission Service (NITS) until after investments and upgrades were made to the Blendon substation located North of Zeeland. A request for NITS must be made to the Midcontinent Independent System Operator (MISO) before transmission upgrades could be undertaken and NITS must be obtained before the plant would be authorized to retire.
- It should also be noted that due to the original deadline of October 2018 to have CCR compliant impoundments, the Board hired engineering firm Lutz, Daily & Brain in January 2018 to design and prepare technical specifications to bid out the construction of new CCR compliant impoundments. This action was taken in the case neither the GHBLP Board of Directors nor the City Council voted to retire the facility. Due to long lead times for construction, bid specifications were finalized and prequalified contractors were contacted and selected by March 23, 2018.
- April 23, 2018, presentation by GHBLP staff to Environmental Protection Agency (EPA) on staff's understanding of 40 CFR 257.103 applicability and steps the Board needs to take to determine compliance with the alternate closure provisions of the rule. The Lutz, Daily & Brain CCR impoundment retrofit plan was presented to EPA during this discussion with the understanding that the Board may vote to retire the facility however the utility is prepared to construct CCR compliant ponds if the Board votes to keep operating.
- April 24, 2018, the GHBLP Board of Directors voted to cease operations of the JB Sims Power Plant and retire the facility by June 1, 2020. The Board also voted to conduct an independent condition assessment to provide transparency in the process and assist the City Council with a decision on whether to retire the facility or keep it in operation.
- May 7, 2018, Grand Haven Network Integrated Transmission Service load request was conditionally confirmed by the Midcontinent Independent System Operator with estimated service available on May 1, 2020. This would have been the earliest date JB Sims could officially retire.
- November 19, 2018, the Grand Haven City Council voted unanimously to cease operations and retire the JB Sims Power Plant by June 1, 2020 following a ten-month public process, the completion of the Independent Condition Assessment, completion of an independent Power Supply Planning Analysis, and multiple public forums.
- December 20, 2018, the GHBLP Board of Directors voted to hire engineering firm Burns and McDonnell to begin engineering services to include conducting the hazardous materials assessment and development of demolition cost estimates for the JB Sims Power Plant.

Below is a summary of the assessment of corrective measures GHBLP has initiated since the February 9, 2019, submittal of Notice of Initiating Assessment of Corrective Measures.

- February 21, 2019, the GHBLP Board of Directors unanimously voted to hire Golder to engineer the closure of Unit 3 impoundments and Units 1 & 2 impoundment.
- March 2019, the first semiannual monitoring event for 2019 was completed.



Grand Haven Board of Light and Power

- April 2019, Golder coordinated with GHBLP and subcontractors to install two new assessment monitoring wells (MW-9 and MW-10) downgradient of locations with statistically significant increases (SSI) exceedance.
- April 24, 2019, GHBLP delayed installation of assessment monitoring wells following Michigan Department of Environment, Great lakes, and Energy (EGLE) request during a conference call to develop and submit a formal Work Plan prior to installing new wells.
- June 25, 2019, submitted Work Plan to EGLE which included two new monitoring wells (MW-9 and MW-10) and six staff gauges (SW-1 through SW-6).
- July 8, 2019, submitted the "No Alternative Disposal Capacity" demonstration to EGLE and the CCR compliance website.
- July 18, 2019, following completion of the hazardous materials assessment and cost estimates, the GHBLP Board of Directors voted unanimously to award the development of the technical specifications and bid assistance to Burns and McDonnell for power plant demolition.
- July 26, 2019, received approval from EGLE for Work Plan for well installation via e-mail from Kent Walters.
- August 12, 2019, installed two monitoring wells, advanced one soil boring and submitted soil samples for sequential extraction, and installed six staff gauges.
- August 28, 2019, GHBLP received letter from EGLE requesting preparation and submittal of a Hydrogeologic Monitoring Plan (HMP), a comprehensive ash delineation and a closure plan for CCR removal .
- September 2019, the second semiannual monitoring event for 2019 was completed.
- October 14, 2019, submitted Ash Delineation Report for Unit 3 Impoundments and Units 1 & 2 Impoundment to EGLE.
- October 14, 2019, submitted Revised Closure Plan (previous revisions were submitted in April and December 2017) to EGLE and CCR Compliance Website.
- October 14, 2019, submitted Joint Permit Application (JPA) to EGLE in anticipation of closure of Units 1 & 2 impoundment, which ceased operation in 2012 for the removal of wetlands that had become established in the former impoundment area. A JPA was required due to the location of Units 1 & 2 impoundment in relation to the groundwater table and because wetland conditions were established since impoundment abandonment in 2012.
- October 31, 2019, submitted HMP to EGLE.
- November 19, 2019, submitted additional information for ash delineation as requested by EGLE.
- November 20, 2019, Golder began detailed engineering plans and technical specifications to bid out impoundment closure.
- November 2019, initiated additional water level gauging at a frequency of twice per month per recommendation from EGLE.
- December 19, 2019, the GHBLP Board of Directors voted to award the JB Sims Power Plant demolition contract to Bierlein Construction.



- December 20, 2019, received comments from EGLE on the draft HMP.
- January 31, 2020, submitted the 2019 Annual Groundwater Monitoring and Corrective Action Report. This report contains information on the groundwater corrective actions in 2019 noted in this letter and was posted to the operating record and GHBLP's CCR compliance website.
- February 7, 2020, submitted request for bids for impoundment closure construction.
- February 13, 2020, Unit 3 last day of operation. Unit 3 was brought offline at 2:27 pm.
- February 13, 2020, mandatory pre-bid meeting held for interested contractors for the Units 1, 2, and 3 closure construction project, held same day at the last day of operation at JB Sims.
- February 14, 2020, submittal and posting of Permanent Cessation of Coal Fired Boiler.
- February 28, 2020, public opening of bids received from contractors to close impoundments.
- March 4, 2020, submittal of responses to EGLE comments on the October 31, 2019, HMP. Note that the HMP is still in draft form and has not been approved by EGLE to date.
- March 6, 2020, letter from EGLE with comments on the October 14, 2019, delineation plan. Note that delineation has not been approved by EGLE.
- March 19, 2020, the GHBLP Board of Directors voted to award the construction closure contract to Catskill Remedial Contracting and the purchase of wetland mitigation credits pending approval of a permit from EGLE.
- April 10, 2020, submittal to EGLE of detailed Units 1, 2, and 3 closure engineering design and construction quality assurance (CQA) documents. Note that no comment from EGLE received to date.
- On April 17, 2020, GHBLP received from EGLE an email requesting a comprehensive Dewatering Plan for the Units 1 and 2 impoundment before the wetland JPA permit applied for on October 14, 2019 can be issued.

Golder has been actively working with EGLE to develop an HMP and subsequent assessment monitoring plan, response action plan in accordance with the State of Michigan Public Act No. 640 of 2018 (PA 640) to amend the Natural Resources and Environmental Protection Act, also known as Part 115 of PA 451 of 1994, as amended (i.e. Michigan Part 115 Solid Waste Rules). Golder, GHBLP, and EGLE are working to develop, review, and approve details regarding the closure by removal plans for the CCR units at JB Sims which is still ongoing.

As documented above, a significant number of appropriate and timely corrective action measures have been taken by Golder and the Board in communication and coordination with EGLE since Notice of Initiating Corrective Measures was placed in the Operating Record. The actions have led to the point of closure construction activities, which are currently delayed until the JPA permit is received and by the high ground water levels on Harbor Island. Golder understands that the fact that the GHBLP is a municipal utility which, by Charter, requires a public process to be used and decisions made by a five-member elected Board has not impacted the utility from taking the necessary corrective actions required by 40 CFR 257 in a timely manner. Significant progress on corrective actions has been made since submittal of the Notice of Initiating Assessment of Corrective Measures was prepared and submitted to the Operating Record.



As previously stated, the current site conditions on Harbor Island include record flooding and historically high-water levels in the surrounding Grand River. Golder and the Board are taking the appropriate corrective action by seeking agency (EGLE and EPA) guidance before the final phase of closure begins which includes discussions of the timing of CCR removal from the Units 1 and 2 impoundment to protect human health and the environment due to the flooding.

If you have any questions regarding this summary of corrective measures that have been initiated and implemented, feel free to contact the undersigned at (248) 295-0135 or (517) 482-2262.

Sincerely,

Golder Associates Inc.

Carolyn E. Powrozek, C.P.G.

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Senior Geologist

Tiffany D. Johnson, P.E.

Principal, Senior Consultant

CEP/TDJ

CC: Paul Cederquist, JB Sims (electronic only)

Dawn Prell, Golder (electronic only)

https://golderassociates.sharepoint.com/sites/106416/18113350_ghblp jb sims/5 technical work/epa meeting 4-27-20/lt-ghblp corrective action summary 4-30-20 final.docx

