



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
GRAND RAPIDS DISTRICT OFFICE



LIESL EICHLER CLARK
DIRECTOR

April 8, 2021

VIA EMAIL AND U.S. MAIL

Mr. Erik Booth
Grand Haven Board of Light and Power
1700 Eaton Drive
Grand Haven, MI 49417

Dear Mr. Booth:

SUBJECT: Unit 3 Closure and Alternate Source Demonstration Responses

On March 15, 2021, Michigan Department of Environment, Great Lakes and Energy (EGLE) hosted a technical meeting with Grand Haven Board of Light and Power (GHBLP) to discuss issues that remained with the Unit 3 closure process and the Alternate Source Demonstration (ASD). Many topics and technical issues were discussed, and some items resolved with a plan moving forward. However, the letters submitted by GHBLP to EGLE on February 12 and 22, 2021 included several statements made by GHBLP that need to be addressed that were not discussed in the conference call on March 15, 2021. In the following sections, EGLE will provide the statement made by GHBLP in bold and EGLEs response below.

Unit 3 Closure Denial
Analytical Values

GHBLP: In emails dated December 11 and 22, 2020, EGLE took the position that without documentation as to the source of the clay used in the Unit 3 Impoundment, Golder must base its comparison on the Part 201 Statewide residential standards (MCL 324.20120a(3)).

EGLE: In the above referenced emails, EGLEs comments were:

December 11, 2021

“GHBLP is defined by Part 201 as a non-residential property and must also consider the non-residential soil clean-up criteria. If the property does not have a restrictive covenant to exclude residential development, then GHBLP must also comply with residential soil criteria standards.” “GHBLP must use the most restrictive soil criteria when determining compliance objectives. Similar to groundwater monitoring objectives onsite, the lowest standard should be selected when determining impact to the clay liner. Background may be used if it is higher than listed protective standards.”

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December 22, 2021

"Be advised that if GHBLP determines it does not have appropriate restrictions on the property to prohibit residential development, then the criteria may need to be adjusted accordingly."

GHBLP: While EGLE has taken a position that the 2015 soil survey should not be used here, that is not consistent with MCL 324.20101(1)(e) which provides that a person may demonstrate that a hazardous substance does not exceed background concentration including by using two standard deviations of that mean for the soil type and glacial lobe area in which the hazardous substance is located.

EGLE: If GHBLP would be able to provide the source location of the Unit 3 clay liner, using the glacial lobe specific data would be appropriate. Because GHBLP has stated they do not know the source of the clay, the first option in MCL 324.20101(1)(e) is, "The hazardous substance complies with the statewide default background levels under table 2 as referenced in R 299.46 of the Michigan Administrative Code." EGLE has advised GHBLP to use the statewide default background levels in its December 11, 2020 email.

GHBLP: Golder agrees that arsenic, iron, lithium and selenium are above the Statewide Default background screening levels.

EGLE: Barium, Chromium, Cobalt and Nickel are also above Statewide Default background screening levels in the Unit 3 clay liner.

The Constituents are naturally occurring.

GHBLP: It is clear from the 2005 Michigan Soil Survey that the levels reported in the remaining clay are below levels found naturally elsewhere throughout Michigan (see link: EGLE Remediation and Redevelopment Division's Soil Background and Use of the 2005 Michigan Soil Survey (MBSS), Resource Materials, dated September 2019).

EGLE: The highest background value for Selenium per the 2005 Michigan Soil Survey is 1,500 ug/kg. All 21 samples collected from the Unit 3 clay liner ranged from 2,500-3,700 ug/kg averaging about 3,000 ug/kg. This is well above the highest background concentrations detected throughout Michigan. GHBLP is incorrect to say that the remaining Unit 3 clay are below background soil concentrations for the State of Michigan.

GHBLP: In addition, there were no other CCR related constituents such as boron, cobalt, fluoride, mercury, molybdenum, etc., with reported concentrations above the screening levels which further supports the reported concentrations of selenium are representative of background for the clay liner.

EGLE: Coal ash related constituents such as Arsenic, Barium, Chromium, Cobalt, Iron, Lithium and Nickel, in addition to Selenium, are all reported with values above generic soil cleanup criteria and/or background. Boron impacts could not be properly assessed

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in the Unit 3 clay liner. Twenty out of 21 samples had laboratory detection limits three times higher than Part 201 generic soil cleanup criteria. Only one sample produced reportable concentrations at 50,000 ug/kg which is five times higher than Part 201 generic soil cleanup criteria. Part 201 target detection limits for Boron in soil is 8,000 ug/kg. Detections of the above mentioned coal ash related constituents above Part 201 generic soil cleanup criteria and/or background would indicate impact to the clay liner from the storage of coal ash waste in Unit 3.

GHBLP: Further, EGLE requested on November 20, 2020 that GHBLP confirm any remaining clay left in place is protective of the GSI, as permitted by Michigan Administrative Code 299.22.

EGLE: EGLE does not have documentation of this request on November 20, 2020.

GHBLP: The SPLP results show that constituents do not leach above Rule 57 (GSI) criteria. Therefore, the analytical testing conducted on the remaining clay liner from the former Unit 3 Impoundments does not show evidence of residual in the clay liner.

EGLE: SPLP is a leachability test to determine if specific wastes or impacted media has the potential to leach constituents into the environment. SPLP provides information on the potential to leach under current conditions but does not inform the potential to leach historically over the operation duration of Unit 3. SPLP also does not inform of the total concentration of metals to compare to Part 201 generic soil cleanup criteria. EGLE will again remind GHBLP that SPLP analysis does not factor in determining impact to the Unit 3 clay liner from coal ash wastes.

Avoidance of exacerbation.

EGLE's position appears to be that the clay in this location must be stripped off the former Unit 3 leaving the existing historical fill materials underneath exposed to leach out to the environment.

EGLE: EGLE has never taken the position or ever recommended GHBLP to leave historical fill materials exposed to leach out into the environment. If it is determined that clean soils are needed to prevent unnecessary exposure to human health and the environment, then GHBLP has Part 201 obligations to mitigate this exposure.

Unit 3 Alternate Source Demonstration.

GHBLP: The ASD was prepared for SSLs of chromium, cobalt, fluoride, lead and lithium. The demonstration provided is applicable to the Appendix III constituents (boron, calcium, chloride and TDS) however not required following the site statistical program.

EGLE: An ASD for Sec. 11511a (3) parameters is required to demonstrate that Unit 3 has not impacted groundwater. GHBLP entered assessment monitoring because of

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Sec. 11511a (3) parameters that are elevated above background concentrations. This indicates impact from Unit 3 unless demonstrated otherwise.

This letter details the state law requirements under Part 115 with which GHBLP must comply for Unit 3A/3B. Compliance with state law does not obviate the obligation that GHBLP comply with federal law, including the United States Environmental Protection Agency's coal combustion residuals program and its closure requirements.

If GHBLP would like to discuss any of the above information, please contact me by email at waltersk7@michigan.gov or by telephone at 616-278-4350

Sincerely,

A handwritten signature in black ink, appearing to read 'KAW', is positioned above the typed name and title.

Kent A. Walters, Geologist
Grand Rapids District Office
Materials Management Division

cc: Ms. Tiffany Johnson, Golder
Ms. Margie Ring, EGLE
Ms. Alexandra Clark, EGLE
Mr. Fred Sellers, EGLE
Mr. Timothy Unseld, EGLE
Mr. David Willard, EGLE