



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING



LIESL EICHLER CLARK
DIRECTOR

June 15, 2020

VIA E-MAIL

United States House of Representatives
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515-6115

Dear Committee Members:

SUBJECT: Edenville Dam, Dam ID No. 549, Gladwin County, Michigan

Thank you for your June 1, 2020, letter requesting additional information about the actions the State of Michigan has taken in overseeing the Edenville Dam. Below are your questions and our corresponding responses.

1. *As you are aware, Michigan inspected the Edenville dam on October 8, 2018 [please note the inspection was on October 4, 2018], and found the facility in “fair structural condition,” despite FERC’s finding only one month prior that resulted in the revocation of the project’s hydropower license. Please detail what assessment was performed to reach that finding.*

The Federal Energy Regulatory Commission (FERC) and the State of Michigan do not coregulate licensed hydropower dams in Michigan, meaning that when a dam is licensed by FERC to generate hydroelectricity, that dam is exempt from regulation under Michigan’s dam safety statute, Part 315, Dam Safety, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); MCL 324.31501 *et seq.* This being the case, when FERC revoked the license to generate hydroelectricity at the Edenville Dam in September 2018, Michigan’s Dam Safety Program assumed jurisdiction over the dam on the date the order became effective. Virtually all technical information related to FERC-regulated hydropower dams is protected as Critical Energy Infrastructure Information (CEII) and is not publicly disseminated. As such, Michigan’s Dam Safety Program staff did not possess much documentation on the dam and lacked vital knowledge of the dam’s history and past engineering assessments. The October 4, 2018, inspection of the dam was not intended to be an in-depth engineering analysis of the dam, but rather to provide a chance to meet with the owner, gain familiarity with the site, identify any critical structural deficiencies that might put the dam at risk of immediate failure, and to request past documentation needed to understand the overall safety of the dam and compliance with State statute. The October 4, 2018, inspection included only a surface inspection of the visible portions of the dam and did not include an analysis of hydraulic capacity, embankment stability, or operational adequacy. No critical structural issues were observed during that inspection warranting a “fair”

assessment of structural condition, per the report. An evaluation of hydraulic capacity, embankment stability, and operational adequacy was to be performed at a later date after the State of Michigan had received additional information from FERC and the owner as necessary to complete that evaluation.

It should be noted that though many of the FERC dam safety requirements are similar to those of Michigan, one major difference exists. FERC requires that high hazard potential dams are able to safely convey the full Probable Maximum Flood (PMF), while Part 315 requires high hazard potential dams over 40 feet high are able to safely convey the one-half PMF. While it was well-documented by FERC that the dam could not pass PMF flows, no analysis of its ability to pass the one-half PMF had been completed prior to revocation of the license. A full assessment of the dam's overall condition would include both structural integrity and hydraulic adequacy components. Additional data collection and analyses were being coordinated by the owner's consultant group and Michigan's Dam Safety Program staff throughout 2019, with a final consultant's report expected in March 2020.

2. *What communications did Michigan have with FERC regarding the Edenville dam prior to and during the noncompliance and revocation proceedings?*

FERC provided Michigan's Dam Safety Program with copies of a compliance order and cease generation order dated June 15, 2017, and November 20, 2017, respectively. Those orders instructed the owner, Boyce Hydro, LLC (Boyce), to first enact a plan to come into compliance with federal regulations and later to stop producing electricity until the dam was brought into compliance. These were the only direct communications from FERC to the State of Michigan. Later, the State of Michigan was made aware of an order proposing revocation issued by FERC on February 15, 2018, and the order revoking license issued by FERC on September 10, 2018, and effective 15 days later on September 25, 2018. No formal consultation regarding the revocation and transition to state jurisdiction occurred.

Following revocation, Michigan's Dam Safety Program staff reached out to FERC in an effort to build a better understanding of the compliance history, obtain technical documents not publicly available, and discuss the likelihood that the owner's appeals would be granted and the FERC license would be reinstated. The main takeaways from those conversations were: FERC would not be reconsidering the license revocation so the dam would remain under State of Michigan jurisdiction until such a time that the owner was granted a new license; and all nonpublic information related to the Edenville Dam provided to the State of Michigan would need to come via FERC's CEII Freedom of Information Act (FOIA) process or be provided by the owner, at their discretion.

It should be noted that FERC has indicated they cannot broadcast legal actions related to the revocation of a license prior to ordering the revocation. This, coupled

with the difficulties in sharing information related to CEII, has inhibited the transition of regulatory authority over the Edenville Dam from FERC to the State of Michigan.

3. *What did Michigan view as its authorities and obligations with respect to the Edenville dam prior to FERC's revocation of the hydroelectric license for the dam in September 2018?*

Dams regulated by FERC are expressly exempt from regulation under Part 315. As such, the State of Michigan had no regulatory oversight of the safety of the dam prior to the license revocation. The State of Michigan does regulate work at/around the dam under other statutes, including any work within regulated inland lakes and streams, floodplains, and wetlands.

4. *What did Michigan view as its authorities and obligations with respect to the Edenville dam after FERC's revocation of the hydroelectric license for the dam?*

Upon revocation of the FERC license, the State of Michigan assumed regulatory authority over the safety of the dam under Part 315. Under Part 315, the State of Michigan can direct the owner to perform engineering evaluations of the dam to include assessment of structural integrity, hydraulic capacity, embankment stability, and operational adequacy. Part 315 also requires that a dam be maintained in a safe condition and that it can safely convey the regulatory design flood, in this case, one-half PMF. If a deficiency exists that could endanger a dam, the general course of action is to work with the owner to resolve issues prior to becoming a dam safety emergency. If the owner is unable or unwilling to remedy a deficiency, the State of Michigan can pursue elevated enforcement action, including providing notice of the violation, instilling penalties, and issuing orders to the owner to compel compliance. Additionally, local jurisdictions obtained legal lake level orders for Wixom Lake in May 2019 from the local circuit courts under Part 307, Inland Lake Levels, of the NREPA; MCL 324.30701 *et seq.* The Part 307 orders authorized the local jurisdictions to require the owners to maintain a certain lake level, purchase the dam, and collect assessments from property owners to help maintain the dam once purchased. The Part 307 orders also triggered the requirement that the local jurisdictions ensure that comprehensive inspections of the dam be performed on a regular basis and submitted to the State of Michigan for review.

5. *What actions did Michigan take with respect to Edenville dam after FERC's revocation of the hydroelectric license for the dam?*

Upon revocation of the license, the State of Michigan's first action was to reach out to FERC in order to gain a better understanding of the appeal process, as the revocation was being appealed by the owner. Once it was determined that the order was final and that the dam would remain under state jurisdiction until such a time that the owner applied for and received a new license to generate hydroelectricity,

the State of Michigan established communications with the owner and set up an initial site visit, which was the October 4, 2018, visual inspection of the dam. Since there were no apparent structural deficiencies observed during the October 4, 2018, inspection that would be expected to cause immediate failure of the dam, the State of Michigan requested all available technical documents related to the dam from both FERC and the owner. The request included past inspection reports and supporting documentation, engineering analyses, and hydraulic evaluations.

The majority of the requested documents were provided by the dam owner, while some documents were eventually provided by FERC after navigating the CEII FOIA process. Additionally, a summary hydraulic analysis from the owner's consultant, dated January 4, 2019, was provided to the State of Michigan. This analysis indicated that the dam did have adequate capacity to safely convey the design flood (one-half PMF) per state requirements. The analysis provided did not contain enough detail for the state to verify the calculations, so additional details were requested starting on February 8, 2019.

At about the same time, there was an effort by Gladwin and Midland Counties, through their delegated authority, Four Lakes Task Force (FLTF), to purchase all four Boyce-owned dams along the Tittabawassee River and establish legal lake levels on all four lakes: Secord Lake, Smallwood Lake, Wixom Lake, and Sanford Lake. That was why the local jurisdictions obtained the Part 307 orders. As the counties' delegated authority, FLTF was to take over all operation and maintenance of the dams, though the transfer of ownership from Boyce to the counties was to take several years. Michigan's Dam Safety Program staff communicated directly to the FLTF's consultant, Spicer Group, Incorporated (Spicer), as funding to make improvements to the dams would come via fundraising by FLTF, as well as a special tax assessment of the lakefront and lake access property owners. In other words, FLTF and Spicer would be designing and implementing any necessary repairs and modifications to the dam to ensure compliance with applicable state and federal regulations.

The State of Michigan communicated concerns over the hydraulic analysis provided by Boyce and the dam's ability to safely convey the one-half PMF per state requirements and set up a call with Boyce's consultant, Purkeypile Consulting, LLC, for March 16, 2019. During that call, the consultant indicated that additional data collection and analysis would be required to verify previous hydraulic calculations. This included gate tests to determine the maximum opening height and a review of flood operations of the dam by dam personnel, among other things. These were scheduled for June 2019, with the results provided to the State of Michigan in August 2019. It was communicated at that time by Spicer to the State of Michigan that the assumptions made by Boyce's consultant were not appropriate and that the dam did not likely have adequate capacity to convey the one-half PMF, though Spicer did not submit a signed and sealed finding to that effect to the State of

Michigan. Later in 2019, Michigan's Dam Safety Program compiled all information available, including the new data collected that summer, and performed a preliminary hydraulic analysis of the Edenville Dam's two spillways, based on current conditions at that time. In early 2020, those preliminary results were communicated to Spicer, who indicated that their analysis yielded similar results and that the dam did not appear to have enough spillway capacity to pass the one-half PMF. Spicer also indicated that they were working on compiling a full inspection report, as required under Part 315, which would identify all known deficiencies of the dam, including spillway capacity, and which would be provided to the State of Michigan in March 2020. The intent of the state was to respond to that inspection report when received and instruct the owner to provide a plan and schedule for addressing all deficiencies that could endanger the dam. Spicer performed the evaluation between June 2019 and March 2020, but submittal of that report was apparently delayed due to COVID-19 work-from-home precautions by Spicer, so the expected submittal date was pushed back to May 2020. The dam failed on May 19, 2020, before a final report was submitted to the State of Michigan. Spicer submitted the report on June 4, 2020.

6. *According to press reports, a January 31, 2020 communication from an engineer employed by your department to consultants indicated that the dam did not meet safety standards. What additional assessment or action undertaken by Michigan during the period between October 2018 when the dam was found to be in "fair" condition and January 2020 led to the conclusion that the dam did not meet safety standards?*

Please refer to the response to question 5, above. In short, the October 4, 2018, inspection by Dam Safety Program staff was intended to be a visual inspection to identify any deficiencies that would place the dam at imminent risk of failure, requiring immediate action. That report found the dam to be in "fair" structural condition but did not include an evaluation of hydraulic capacity of the dam as that information was not available at the time. Throughout 2019 and early 2020, Dam Safety Program staff continued to work with the owner group and their consultants to receive all necessary information to complete an evaluation of spillway capacity of the dam. By early 2020, Dam Safety Program staff suspected that the dam did not have adequate spillway capacity to safely convey the design flood (one-half PMF) event per Part 315 requirements. This deficiency would have warranted a "poor" overall condition assessment for the dam. Dam Safety Program staff expected the report to be provided by Spicer in March 2020, which was provided on June 4, 2020, would confirm their analysis.

7. *In May 2020, Michigan sued Boyce Hydro for alleged counts of environmental violations, public nuisance, and conversion, based upon Boyce Hydro's lowering of Lake Wixom's water levels in the winters of 2018 and 2019. What legal and regulatory actions, if any, has Michigan taken against Boyce Hydro with respect to*

the Edenville dam? Please provide a list of all legal and regulatory actions taken by Michigan against Boyce Hydro between September 2018 and today.

The following legal and/or regulatory actions have been taken by the State of Michigan between September 2018 and June 9, 2020:

- October 2018: Boyce lowered Wixom Lake far below FERC-mandated levels to inspect the dam but did not return the lake to FERC-mandated levels as FERC's September 19, 2018, order authorizing the drawdown had required. This exposed large areas of bottomland for many months.
- November 2, 9, and 14, 2018: Site inspections of Wixom Lake by Michigan Department of Natural Resources (DNR) and Michigan Department of Environment, Great Lakes, and Energy (EGLE) staff to evaluate natural resource damages following a citizen's complaint regarding drawdown of Wixom Lake.
- May 16, 2019: Permit WRP016343 v.1 issued to Boyce Hydro, LLC, at Boyce's request to refill Wixom Lake back to normal summer pool elevation.
- November 25, 2019: Boyce had applied for a permit to drawdown Wixom Lake temporarily over the winter months by approximately eight feet and then return the lake to normal summer pool elevation in spring 2020. EGLE denied the permit application because Boyce's desire not to spend money for ice management over the winter, as other dam owners throughout Michigan do, did not outweigh the natural resource damages an extended drawdown would cause.
- December 2019: Boyce performed the temporary winter drawdown despite the denial of its permit application.
- December 5, 2019: Consent Judgement entered by Gladwin County Circuit Court resolving a previous June 2016 lawsuit unrelated to dam safety. Boyce had violated the State of Michigan's water quality, floodplains, inland lakes and streams, wetlands, and soil erosion statutes. The Consent Judgement required Boyce to obtain a soil erosion and sedimentation control permit and notice of coverage, restore impacted wetland and stream areas, conduct floodplain compensation, obtain an after-the-fact permit, and pay \$161,000 of enforcement costs and charges.
- December 12, 2019: Enforcement Notice issued to Boyce for drawdown of Wixom Lake without authorization under Part 301, Inland Lakes and Streams; Part 303, Wetlands Protection; and Part 307 of the NREPA.
- December 13, 20, and 23, 2019: Site inspections of Wixom Lake by DNR and EGLE staff to evaluate natural resource damages.
- January 2, 2020: Boyce Trusts and FLTF signed a purchase agreement for FLTF to acquire Wixom, Sanford, Secord, and Smallwood Dams and lake bottoms over the course of two years, closing in January 2022.
- February 6, 2020: Preapplication meeting with FLTF consultants regarding Edenville Dam to discuss repairs, permitting, and next steps.

- February 14, 2020: Permit WRP020435 v.1 issued to Boyce to conduct spillway repairs on the Edenville Dam.
- March 16, 2020: Another preapplication meeting with FLTF consultants to discuss repairs, permitting, and next steps for the Edenville Dam.
- April 9, 2020: Permit WRP021788 v.1 issued to Boyce at its request to refill Wixom Lake to normal summer pool elevation as required by the Part 307 orders.
- May 1, 2020: Complaint was filed in Ingham Circuit Court against Boyce to recover natural resource damages for the harm caused by the unauthorized, yet temporary, winter 2018 and 2019 drawdowns. The complaint had nothing to do with the lake level. It did not seek to require Boyce to maintain a certain lake level; the Part 307 orders obtained by the local jurisdictions already did that. Nor did it seek to require Boyce to raise the lake to its normal summer pool level; Boyce had already done that. It was solely to recover damages for the past temporary drawdowns and to require Boyce to obtain permits before performing any drastic temporary drawdowns in the future.
- May 22, 2020: After the Tittabawassee River side of the Edenville Dam failed on May 19, 2020, the Tobacco River side remained intact but showed signs of weakness. An Emergency Inspection Order was issued to Boyce requiring an engineer to evaluate the remainder of the dam and report findings to Michigan's Dam Safety Program no later than May 24, 2020. Boyce did not comply.
- May 28, 2020: Notice sent to Boyce directing them to form an Independent Forensic Investigation Team to complete a detailed investigation of the condition and structural integrity of Edenville Dam.
- June 9, 2020: Complaint was filed in Ingham County Circuit Court against Boyce because of its failure to maintain the Edenville Dam despite using it for years to earn profits from the use of Michigan's natural resources. The complaint seeks damages, civil fines, and an order requiring Boyce to repair the damage the failure of its dam has caused.
- June 9, 2020: A motion for a temporary restraining order was filed to require Boyce to immediately comply with the May 22, 2020, dam Emergency Inspection Order.

8. *What resources, including financial and personnel, does Michigan dedicate to the state's dam safety program?*

Michigan's Dam Safety Program consists of two full-time dam safety engineers, a supervisor, and one part-time administrative support. Total budget for the program is less than \$350,000 annually. The funding is comprised of approximately \$87,000 in federal funding, \$112,000 from the DNR for inspection of DNR dams, \$74,000 in permit fees, and \$74,000 in state general funds.

9. *What communications has Michigan had with FERC regarding the safety of the Edenville dam since FERC's revocation of the hydroelectric license for the dam?*

Please refer to the response to question 5, above. There was little communication post-revocation between FERC and EGLE other than EGLE's request for past CEIL-protected technical documents related to the dam, which were provided in December 2018.

Dam Safety Program staff met with a FERC engineer immediately following the failure of the Edenville and Sanford Dams to perform site inspections of both failed dams as well as the Secord and Smallwood Dams (both FERC-regulated) in order to determine additional flooding risks and stability of the dams. In addition, Dam Safety Program staff has had weekly calls with several FERC representatives to plan and coordinate the forensic investigations of both the Edenville and Sanford Dams, preferably as a joint effort by one independent investigation team.

Please let us know if there are any additional questions or concerns or if clarification of these responses is needed. We look forward to continuing these discussions related to the Edenville Dam and Michigan's Dam Safety Program.

Sincerely,



Liesl Eichler Clark
Director
517-284-6712

cc: Ms. Dana Sherry, Governor's Washington D.C. Office
Mr. Aaron B. Keatley, Chief Deputy Director, EGLE
Ms. Amy Epkey, Senior Deputy Director, EGLE
Ms. Sarah M. Howes, Legislative Liaison, EGLE
Ms. Teresa Seidel, EGLE
Mr. Mario Fusco, Jr., EGLE
Mr. Dan DeVaan, EGLE
Mr. Luke Trumble, EGLE

ONE HUNDRED SIXTEENTH CONGRESS
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June 1, 2020

Liesl Clark
Director
Michigan Department of Environment, Great Lakes, and Energy
Constitution Hall
525 West Allegan, P.O. Box 30473
Lansing, Michigan 48909

Dear Director Clark:

On May 19, 2020, the Edenville dam breached, resulting in catastrophic flooding and the evacuation of approximately 10,000 residents in the areas downstream of the dam. We write to request further information about the actions the State of Michigan (Michigan) took in overseeing the 96-year-old Edenville dam, which is currently under Michigan's jurisdiction.

The Edenville dam, operated by Boyce Hydro Power, LLC (Boyce Hydro) has a long history of non-compliance with safety requirements, and in September 2018, the Federal Energy Regulatory Commission (FERC) issued an order revoking its Federal hydropower license.¹ While states maintain jurisdiction over non-powered state- and privately-owned dams within state boundaries, FERC maintains jurisdiction over non-Federal dams that produce electricity. With Edenville's FERC permit revoked, regulatory authority passed to the State of Michigan. Most states, including Michigan, have established a regulatory program for the safety of dams not under federal jurisdiction. State dam safety programs typically include safety evaluations of existing dams and periodic reviews.

To assist us in better understanding the current situation, the period leading up to the transfer of authority over the dam from FERC to Michigan, and the sufficiency of tools available to Michigan to address the public safety risks presented by high hazard dams, we request responses to the following questions:

1. As you are aware, Michigan inspected the Edenville dam on October 8, 2018, and found the facility in "fair structural condition," despite FERC's finding only one month prior

¹ United States Federal Energy Regulatory Commission, *Order Revoking License*, 164 FERC 61,178 (2018).

that resulted in the revocation of the project's hydropower license.² Please detail what assessment was performed to reach that finding.

2. What communications did Michigan have with FERC regarding the Edenville dam prior to and during the noncompliance and revocation proceedings?
3. What did Michigan view as its authorities and obligations with respect to the Edenville dam prior to FERC's revocation of the hydroelectric license for the dam in September 2018?
4. What did Michigan view as its authorities and obligations with respect to the Edenville dam after FERC's revocation of the hydroelectric license for the dam?
5. What actions did Michigan take with respect to Edenville dam after FERC's revocation of the hydroelectric license for the dam?
6. According to press reports, a January 31, 2020 communication from an engineer employed by your department to consultants indicated that the dam did not meet safety standards.³ What additional assessment or action undertaken by Michigan during the period between October 2018 when the dam was found to be in "fair" condition and January 2020 led to the conclusion that the dam did not meet safety standards?
7. In May 2020, Michigan sued Boyce Hydro for alleged counts of environmental violations, public nuisance, and conversion, based upon Boyce Hydro's lowering of Lake Wixom's water levels in the winters of 2018 and 2019.⁴ What legal and regulatory actions, if any, has Michigan taken against Boyce Hydro with respect to the Edenville dam? Please provide a list of all legal and regulatory actions taken by Michigan against Boyce Hydro between September 2018 and today.
8. What resources, including financial and personnel, does Michigan dedicate to the state's dam safety program?
9. What communications has Michigan had with FERC regarding the safety of the Edenville dam since FERC's revocation of the hydroelectric license for the dam?

² Letter from Jim Pawloski P.E., Hydrologic Studies and Dam Safety Unit, Water Resources Division, Department of Environmental Quality, State of Michigan (Oct. 2018) (www.michigan.gov/documents/egle/egle-EdenvilleDamInspection-10042018_691245_7.pdf).

³ *State found by January that Edenville Dam didn't meet Michigan safety standards*, The Detroit News (May 22, 2020).

⁴ Summons and Complaint (May 1, 2020), *Michigan Department of Environment, Great Lakes, and Energy; and the Department of Natural Resources v. Boyce Hydro Power, LLC* (No. 20-255-CE).

Ms. Liesl Clark

June 1, 2020

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Please provide a response to the above questions by Monday, June 15, 2020. If you have any questions please contact Jean Fruci (Jean.Fruci@mail.house.gov) or Rick Kessler (Rick.Kessler@mail.house.gov) with the Committee Majority Staff at (202) 225-2927 or Brandon Mooney (Brandon.Mooney@mail.house.gov) with the Committee Minority Staff at (202) 225-3641. Thank you for your consideration and attention.

Sincerely,



Frank Pallone, Jr.
Chairman



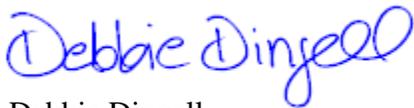
Greg Walden
Ranking Member



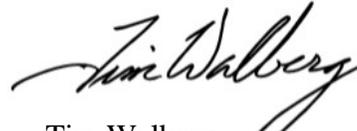
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