

FEDERAL ENERGY REGULATORY COMMISSION  
Washington, D. C. 20426

OFFICE OF ENERGY PROJECTS

Project No. 2785-090--Michigan  
Sanford Project

Project No. 10808-051--Michigan  
Edenville Project

Project No. 10809-041--Michigan  
Secord Project

Project No. 10810-045--Michigan  
Smallwood Project  
Boyce Hydro Power, LLC.

**September 17, 2015**

Lee W. Mueller  
Co-Member Manager  
Boyce Hydro Power, LLC  
10120 W. Flamingo Road, Suite 4192  
Las Vegas, NV 89147

Subject: Status of 2015 Water Quality Monitoring Pursuant to Articles 402 or 407

Dear Mr. Mueller:

On August 20, 2015, we received your response to our request for additional information about the status of water quality monitoring at the Sanford (FERC No. 2785),<sup>1</sup> Edenville (FERC No. 10808),<sup>2</sup> Smallwood (FERC No. 10810),<sup>3</sup> and Secord (FERC No. 10809)<sup>4</sup> projects.

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<sup>1</sup> Order on Rehearing and Amending License Order. 61 FERC ¶ 61,066 (issued October 16, 1998).

<sup>2</sup> Order Issuing Original License. 85 FERC ¶ 61,063 (issued October 16, 1998).

<sup>3</sup> Order Issuing Minor License. 85 FERC ¶ 61,065 (issued October 16, 1998).

<sup>4</sup> Order Issuing Minor License. 85 FERC ¶ 61,064 (issued October 16, 1998).

## **Background**

We received a report from the Michigan Department of Natural Resources (MDNR) alleging that you were not fulfilling your water quality monitoring obligations pursuant to Article 407 of the amended Sanford Project license, Article 402 of the Edenville, Smallwood, and Secord project licenses, and the approved Water Quality Monitoring Plans (plans)<sup>5</sup> for all of the projects. The plans require you to monitor water temperature and dissolved oxygen (DO) concentrations on an hourly basis below each project at the confluence of the tailrace and the bypassed reach; temperature is to be monitored year-round and DO is to be monitored June 1 through September 30.

On July 15, 2015, you responded to the MDNR's inquiry about water quality monitoring by stating that you were running turbines 24 hours a day and had spill gates open much of the time due to numerous rain events during early June, and that you were unable to install the DO probes in the tailrace of each project until June 30. You also stated that you were monitoring the results on a daily or weekly basis (depending on the project), working on installing a connection to the SCADA system at the Smallwood project, and opening gates at the Smallwood and Secord projects to determine the effect on water quality.

The MDNR's letter to the Commission included a review of the U.S. Geological Survey (USGS) gage located at Midland, Michigan, on the Tittabawassee River. The MDNR stated that data from this gage indicates that high flows, requiring you to open gates at the projects or provide 24-hour operation, did not occur until mid-June. Further, the MDNR stated that the hydrograph did not support your claim that you were unable to install the DO sensors in the river prior to June 1 as required, because river flows in late May and early June 2015 were near normal and the projects were being operated in a peaking mode, including storing water over the weekends. The MDNR alleges that you delayed installing the sensors while waiting for the Commission to respond to your January 30, 2015 request to amend the water quality requirements.

## **Your Response**

By letter dated August 5, 2015 we requested additional information regarding your response to the MDNR's letter. Your August 20, 2015, response letter confirms that you had not done any work to prepare for installing the DO monitoring equipment until the second week of June, after you received our June 3, 2015 letter denying your request to amend the water quality monitoring requirements. You state that high river flows at the four projects during mid-June prevented you from installing the monitoring equipment. At the Sanford and Edenville projects, you report streamflows ranging from 2,000 to

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<sup>5</sup> Order Modifying and Approving Water Quality Monitoring Plans. 87 FERC ¶ 62,365 (issued June 29, 1999).

3,800 cubic feet per second (cfs) in early June and remaining above 2,000 cfs until the last week of June. You also state that high flows at the Smallwood and Secord projects required you to keep the turbines and gates online the entire day in order to keep the reservoir levels within the required operation ranges, and that this allowed you to pass most of the flow.

You state that it is impossible for staff to be in the water to deploy the water quality monitoring equipment under any flow condition without a total shutdown of the project. Additionally, during this time you also had to address a fire in the switchgear at the Sanford project, which rendered the project inoperable and destroyed the switchgear. Addressing this incident occupied much of your staff and your resources during May and June.

### **Discussion and Conclusion**

According to your previous three years of reports, DO concentration monitoring has never been started by June 1. In 2012 you conducted a truncated monitoring season of four weeks from late July to mid-August, and in 2013 and 2014 you provided data from June through September, although some of the monitoring season was not included, and was not explained in the reports. The table below provides the dates for which you reported DO concentration data:

<b>DO Concentration Dates</b>	
<b>2012</b>	7/23-8/15
<b>2013</b>	6/17-9/27
<b>2014</b>	6/5-10/8 (Secord); 6/10-10/8 (other projects)

Your previous annual reports do not identify when the DO monitoring equipment was installed at each project, though we presume it is on or near the first date of recorded data. In your future reports, beginning with your next annual report due by December 31, 2015, please include the date you install and remove the monitoring equipment so we are unable to determine the river flows at the time of installation, and state whether installation of the equipment was delayed due to high flows or other reasons. In order to comply with the requirements of each project, we remind you that the equipment must be in place so that DO monitoring occurs the entire June 1 through September 30 season. This may require you to monitor flow conditions and perhaps require you to install the equipment weeks ahead of time. Regardless, the equipment must be in place and recording data by June 1.

According to the data tables you provided, flows were below 2,000 cfs within days of our June 3, 2015 letter being issued. You do not state where flows were measured or how they were calculated (e.g., using gate settings, turbine operation, and/or reservoir

elevation to determine flow; the projects have headwater and tailwater gages to monitor reservoir elevations). In 1998, Commission staff issued a Multiparty Environmental Assessment for the projects which did not recommend inflow stream gages or rain gages at the projects, and only recommended outflow stream gages below Edenville<sup>6</sup> and Sanford<sup>7</sup> where there are minimum instream flow requirements.

Without access to the same data you presented, we instead examined streamflow as measured at the U.S. Geological Survey (USGS) gage on the Tittabawassee River at Midland, Michigan.<sup>8</sup> The USGS gage shows the increase in flows during the early June time frame. Your data tables indicate that streamflows at the Sanford Project increased to above 3,000 cfs on June 12, and at the Edenville Project increased to above 2,000 cfs on June 11, and remained high throughout much of June. You state that you did not receive our letter informing you that your amendment request had not been approved until the second week of June, which was a period of high flows.

According to the USGS gage data, on June 1, 2015, the average daily stream flow was close to 3,000 cfs, and the daily average for the week prior to June 1 was above 2,440 cfs. The higher streamflows on June 1 and the week leading up to June 1 could have prohibited you from installing the equipment in time for start of the monitoring season, had you planned to install the monitoring equipment by June 1. In the days after our letter was issued, from June 5 through 11, average daily streamflow as measured at the USGS gage was less than 2,000 cfs (your data table for the Sanford Project indicates that flows measured there were also less than 2,000 cfs on those same days). However, you state you did not receive our letter until the middle of the following week, when flows had increased and then remained high until late June, preventing you from installing the monitoring equipment.

We acknowledge that in late May 2015 streamflows may have been considerably high to prevent you from installing monitoring equipment by June 1. We also acknowledge that our determination denying your January 30, 2015 amendment request

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<sup>6</sup> Article 403 of the Edenville Project license requires the licensee to install and maintain stream flow gages to monitor minimum flows into the Tobacco River. The licensee is to provide a minimum flow of 40 cfs from October 1 through March 31 and 66 cfs from April 1 through September 30.

<sup>7</sup> Article 402 of the Sanford Project license requires the licensee to develop a plan to install streamflow and reservoir water level gages to monitor compliance with Articles 401 (run-of-river operations) and 404 (reservoir level schedule).

<sup>8</sup> USGS gage number 04156000 is located on the Tittabawassee River 12 miles downstream from Sanford Dam and 2,000 feet downstream from the Dow diversion dam.

was issued on June 3, 2015, three days after the water quality monitoring at the project was scheduled to begin, and that by the time you indicate that you received our letter the following week, streamflows had risen and prevented you from installing the equipment. However, your request for an amendment to the monitoring requirements does not stay the requirements of your approved monitoring plans, and you should have taken steps to conduct monitoring on time as required, as you did not have approval to cease monitoring. It is your obligation to ensure compliance with your license requirements.

We note that there are actions you could have taken in order to remain in compliance with the schedule requirements under your water quality plans. You could have installed the monitoring equipment earlier than June 1, or as soon as it was feasible to do so. If conditions did not allow you to do so prior to the June 1 date required by the plan, you should have notified the resource agencies and the Commission that a delay was inevitable due to conditions outside of your control. In this case, streamflow was less than 2,000 cfs from June 5 through June 11 and although late, the equipment could have been installed at that time. Or, upon realizing that the high streamflows and the switchgear fire would prohibit you from installing the monitoring equipment in a timely manner, you could have notified the resource agencies and the Commission of the delay and proposed to install the equipment as soon as practical. You did neither of these, and based on your past history of failing to monitor DO by June 1 for the last three years, it is evident that a similar behavior was repeated this year.

Further, our records indicate that you are either eSubscribed or eServed regarding these projects, which means you receive an electronic notification of all Commission issuances for your projects. Therefore you should have been aware of our June 3 determination denying your amendment application on June 3 and the monitoring equipment could have been installed from June 5 through 11 when the average daily streamflow was less than 2,000 cfs. For these reasons, we conclude that your failure to monitor DO concentration at the four subject projects, constitute a violation of your water quality monitoring plans. Monitoring equipment was subsequently installed on June 30 and July 1, and DO was monitored and recorded, bringing the projects back into compliance with the license requirements. While no enforcement action or penalties pursuant to Section 31 of the Federal Power Act will be recommended at this time, this violation will be made a part of the compliance history for these projects and considered in the course of our review of any similar violations to determine appropriate Commission action.

We remind you that the connection between the water quality monitoring equipment and the SCADA system was to be completed at the Smallwood Project no later than August 31, 2015, and that you are to file a report by September 30, 2015 verifying that the monitoring equipment at the Smallwood Project has been successfully connected to the project's SCADA system.

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Thank you for your timely response to our request for additional information and we look forward to receiving your September 30 report. If you have any questions pertaining to this letter, please contact Holly Frank at (202) 502-6833.

Sincerely,

Thomas J. LoVullo  
Chief, Aquatic Resources Branch  
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and Compliance

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