

FEDERAL ENERGY REGULATORY COMMISSION
Washington, D. C. 20426

OFFICE OF ENERGY PROJECTS

Project No. 362-025 and 362-026 –
Minnesota
Ford Project
Twin Cities Hydro, LLC

November 20, 2023

Mr. Danny Maguire
Brookfield Renewable
184 Elm Street
Potsdam, NY 13676

Subject: Reservoir Elevation Deviations – Article 401

Dear Mr. Maguire:

Thank you for your two letters filed on November 3, 2023, in which you reported a planned deviation from the reservoir surface elevation requirement that occurred October 9, 2023, through October 25, 2023, and an unplanned deviation that occurred October 26, 2023, at the Ford Project No. 362. As discussed in more detail below, we will not consider the deviations that occurred at your project a violation of Article 401 of your license.

License Requirements

Article 401 of the license¹ requires you to operate the project in a run-of-the-river mode for the protection and enhancement of water quality and fisheries resources in the Mississippi River, coordinated with the operation of the Army Corps of Engineers' (Corps) Lock No. 1 operation and required by the Corps as follows:

- A) During the navigation season, the pool must be kept at elevation 723.1 feet msl or above. If the flashboards are down during the navigation season, you must maintain the pool above elevation 723.1 feet msl (crest of spillway).
- B) When the river is closed to navigation, the pool must be kept at elevation 722.8 feet msl or above; and
- C) During the navigation season when the pool level is below elevation 725.1 feet msl, you must minimize pool fluctuations within a 0.5 foot per day variance, except, during low flow conditions (less than 1,000 cfs) the pool level must not vary by more than 0.3 foot per day.

¹ *Ford Motor Company*, 109 FERC ¶ 62,102 (2004).

You must always act to minimize the fluctuation of the reservoir surface elevation by maintaining a discharge from the project so that, at any point in time, flows, as measured downstream of the project tailrace and the Corps lock, approximate the sum of the inflows to the project reservoir. You must continue to participate in the “System-Wide Low Flow Management Plan, Mississippi River above St. Paul, Minnesota, September 1996”, to ensure run-of-river operation is maintained during low flow conditions.

Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee (operation during Corps lock operations, and starting and stopping of project turbines), or for short periods upon mutual agreement between the licensee and the Minnesota Department of Natural Resources (MNDNR). If the flow is so modified, you must notify the Commission as soon as possible, but no later than 10 days after each incident.

Planned Deviation

In your first letter filed November 3, 2023, you provide notification of a reservoir elevation deviation that occurred October 9, 2023, through October 25, 2023, at the Ford Project for maintenance activities. The maintenance was performed to conduct inspections and repairs to the pneumatic flashboard system. To safely complete the work, the head pond at the project was drawn down 1.0 foot below masonry crest or 3.0 feet below the crest of the pneumatic flashboard system, 1.0 foot below the licensed impoundment limits.

Per the reporting requirements of Article 402, MNDNR and the Corps of were consulted prior to the event as to the magnitude and duration of the drawdown. Per Article 402 and the direction of the Corps and MNDNR, drawdown and refill rates did not exceed 0.5 feet per day. No environmental impacts were observed or reported as a result of the event.

Unplanned Deviation

In your second letter filed November 3, 2023, you provide notification of a reservoir elevation deviation that occurred October 26, 2023, at the Ford Project. At 1443 hours the reservoir elevation at the project fell below 724.6 feet, resulting in a level fluctuation of more than 0.5 feet per day. The lowest elevation observed was 724.3 feet; a 0.8 feet fluctuation below 725.1 feet within a 24-hour period. The reservoir returned above 724.6 feet at 1527 hours. Prior to the event, units 1 through 4 were generating 12 MW and passing approximately 6,300 cfs. To prevent the impoundment from lowering further the system operator decreased generation on units 1, 2 and 3 and shut down unit 4. System operators were challenged with maintaining the project impoundment level throughout the day due to a heavy rain event and frequent changes in inflow stemming

from maintenance work at an upstream dam. The duration of the event was 44 minutes. No environmental impacts were observed or reported by operations after the inspection of the site. The Corps and MNDNR were both notified.

Review

Based on our review of the available information, we will not consider the reservoir elevation deviations that occurred at your project October 9, 2023, through October 25, 2023, and on October 26, 2023, violations of Article 401 of your license. The first deviation was for planned maintenance activities. The second deviation occurred due to decreased inflows beyond your control due to a heavy rain event and frequent changes in inflow stemming from maintenance work at an upstream dam and you responded in a reasonable manner. After each deviation event you notified the Corps and MNDNR, as required by Article 401, and you did not observe any adverse environmental impacts in either case.

Thank you for your cooperation. If you have any questions concerning this letter, please contact Greg Morris at (202) 502-8116, or by e-mail at Gregory.Morris@ferc.gov.

Sincerely,

Kelly Houff
Chief, Engineering Resources Branch
Division of Hydropower Administration
and Compliance