

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Kennebec Water District

Project No. 2555-010 and -012

ORDER MODIFYING AND APPROVING STREAMFLOW MONITORING PLAN
AND MINIMUM FLOW RELEASE PLAN

(Issued August 09, 2000)

Kennebec Water District (licensee), filed on June 8, 2000, its streamflow monitoring and minimum flow release plans under articles 403 and 404 of the license for the Automatic Project (FERC No. 2555). The project is located on Messalonskee Stream, a tributary of the Kennebec River, in Kennebec County, Maine.

BACKGROUND

Article 403 of the license requires the licensee to file, for Commission approval, a plan to install, operate, and maintain streamflow monitoring equipment necessary to monitor and record compliance with the minimum flows required by article 401 and the impoundment water level elevations required under article 402. The plan is to include: a schedule for installing the monitoring equipment; the proposed location, design, and calibration of the monitoring equipment; the method of data collection; a provision for providing the data to the consulted agencies, within 30 days from the date of the agencies request; and a provision for notification of the Maine Department of Inland Fisheries and Wildlife (MDIFW) and the Maine Department of Environmental Protection (MDEP) prior to any proposed draw-down of up to 8 feet for flood control. This plan may incorporate existing monitoring equipment as long as it meets the standards of the U.S. Geological Survey (USGS).

Article 404 requires the licensee to file, for Commission approval, a plan to release the minimum flows required by article 401 of the license. The plan is to include: the method of release; specific measures that would ensure that the minimum flow requirements would be met at all times; an explanation of any modifications to existing facilities to release the required minimum flows; and design drawings, including any pertinent hydraulic calculations, and technical specifications for any modifications to facilities necessary to meet the minimum flow requirements.

Article 401 requires the licensee, within 60 days of installation of the streamflow monitoring equipment required under article 403, to release a minimum flow of 100 cubic feet per second (cfs) or inflow, whichever is less (except that at no time shall minimum flows drop below 1.5 cfs) from the Automatic Project as measured in the

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project's tailrace immediately downstream of the dam. Article 402 requires the licensee, within 60 days of installation of the streamflow monitoring equipment required under article 403, to limit the maximum drawdown of water levels in the Automatic impoundment to 1.0 foot of the full pond elevation of 94.3 feet.

LICENSEE'S PLAN

The licensee currently monitors headwater levels in the M4 Automatic Project impoundment on a continuous basis with a supervisory control and data acquisition (SCADA) system. Headwater levels are measured by a submerged 1-5 psi pressure sensor with an eleven foot range. This sensor is located inside the powerhouse. This sensor is periodically subjected to head loss effect from plugged or dirty screens, but during periods of low flow it is accurate to 1/1000 of a foot.

The licensee will install an ultrasonic level transmitter on the upstream side of the project dam before October 2000. An exterior sensor will be subject to the effects of weather, logs, and debris in the stream, so monitored results will have to be averaged to eliminate momentary high and low results. All results will be continuous and recorded both graphically and automatically in spreadsheet form with daily maximum, minimum, and average values. Levels can be trended at daily, weekly, monthly, or other intervals.

The SCADA program that is linked to the M4 water levels is connected to a pager/telephone alarm system that will be programmed to alarm within 0.5 feet of full pond level from June 1 to September 1 and from 1.0-foot of full pond level from September 1 to June 1. All alarms are set with a 5-10 minute time delay to eliminate momentary interference or electronic error. The MDIFW and MDEP will be contacted as soon as possible any time the stream level varies over 1.0 foot from full pond level for more than one hour, except in event of winter storm water events that are beyond the control of the licensee.

Because the M4 Automatic Project is a run-of-the-river facility and the project impoundment is relatively small (900 acre-feet), the licensee indicates it cannot significantly increase or decrease the streamflow. Flow moves downstream from Messalonskee Lake through the Oakland (FERC No. 2559), Rice Rips (FERC No. 2557), Automatic, and Union Gas (FERC No. 2556) projects before it enters the Kennebec River. Streamflow release records are available from the Oakland Project and minimum streamflow records are available from the Union Dam Project. Streamflow levels as reported from these facilities will be logged daily in cooperation with the licensee (FPL Energy Maine Hydro LLC).

After discussion with the MDEP, a decision was made that the licensee would not monitor flow at the M4 Automatic facility because there is no water storage capacity at the facility, no control over the overall flow, and no way for the licensee to significantly impact the flow if licensed headwater levels are maintained. As a result of the estimated leakage, the M4 Automatic facility cannot drop streamflow levels below 15 cfs.

AGENCY COMMENTS

The USGS, by letter dated May 11, 2000, and the MDEP, by letter dated May 15, 2000, concurred with the licensee's plan.

DISCUSSION AND CONCLUSIONS

The licensee completed the required consultation and developed a plan which included the provisions required by articles 403 and 404 of the project license. The licensee proposes to operate the project in a run-of-river mode and measure flows by monitoring the headwater elevation. In accordance with article 402 of the license, the licensee will limit the drawdown of water levels in the impoundment to 1.0 foot of full pond elevation of 94.3 feet. By continuously releasing inflows downstream in a run-of-river operation, there will not be a need for the licensee to provide a minimum flow release as required by article 401.

It is the Commission's standard practice to require the licensee to report any deviation from its requirements. After reviewing the licensee's report, Commission staff can make a determination as to whether modifications to project operations or facilities are necessary. So that the Commission can monitor the licensee's compliance with the operational requirements of article 402, the licensee should be required to notify the Commission of any deviations from the requirements specified in those articles. Based upon the licensee's report and the Commission's evaluation of the incident, the Commission should reserve the right to require modifications to project facilities and operations to ensure compliance with the specific requirements in article 402.

The licensee's flow monitoring plan and minimum flow release plan, with the above modification, should be adequate to document the licensee's compliance and should, therefore, be approved.

The Director orders:

(A) The licensee's flow monitoring plan under article 403 and minimum flow release plan under article 404 of the license for the Automatic Project (FERC No. 2555), filed on June 8, 2000, as modified by paragraph (B) below, is approved.

(B) If the run-of-river operation or headpond elevation as measured by the approved monitoring system, deviates from the requirements of article 402, the licensee shall file a report with the Commission within 30 days of the date that the data becomes available regarding the incident. The report shall, to the extent possible, identify the cause, severity, and duration of the incident, and any observed or reported adverse environmental impacts resulting from the incident. The report shall also include: (1) operational data necessary to determine compliance with article 402; (2) a description of any corrective measures implemented at the time of occurrence and the measures implemented or proposed to ensure that similar incidents do not recur; and (3) comments or correspondence, if any, received from the resource agencies regarding the incident. Based on the report and the Commission's evaluation of the incident, the Commission reserves the right to require modifications to project facilities and operations to ensure future compliance.

(C) The licensee shall file an original and seven copies of any filing required by this order with:

The Secretary
Federal Energy Regulatory Commission
Mail Code: DHAC, PJ-12.3
888 First Street, N.E.
Washington, D.C. 20426

(D) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 CFR § 385.713.

Rebecca M. Martin

Rebecca M. Martin
Team Leader
Division of Hydropower Administration
and Compliance

94 FERC ¶ 61,267

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

FLP Energy)

Project No. 2556-026

ORDER MODIFYING AND APPROVING WATER QUALITY MONITORING PLAN
UNDER ARTICLE 407

(Issued March 30, 2001)

FLP Energy (licensee) filed, on March 28, 2000, under article 407 of the Messalonskee Project license,¹ its plan to monitor water quality at the project. The project is located on Messalonskee Stream, a tributary of the Kennebec River in Kennebec County, Maine.

Article 407 required the licensee to file for Commission approval a water quality monitoring plan to ensure that project operations and facilities do not contribute to violations of state water quality standards or of the state water quality certificate, which is appended to the project license. The licensee is required to monitor, for a 5-year period, dissolved oxygen (DO), water temperature, and chlorophyll a concentrations in Messalonskee Stream, record the flow from Messalonskee dam and identify periods of generation during the monitoring. The plan is to include a description of the sampling methodology, based on the Maine Department of Environmental Protection's (DEP) most recent river sampling protocol, a schedule for implementing the monitoring plan, for consulting with the resource agencies regarding the monitoring results and for filing the results, agencies' comments, and licensee's response to comments with the Commission. The licensee is to prepare the plan after consultation with the DEP, the U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), Maine Department of Inland Fisheries and Wildlife (DIFW), Maine Department of Marine Resources (DMR), and documentation of consultation is to be included in the filing.

BACKGROUND

The Messalonskee Project consists of four developments. These are from upstream to downstream, Messalonskee Lake dam, Oakland, Rice Rips, and Union Gas developments. The Messalonskee Lake dam serves to control flows into the stream below; there are no generating facilities. The dams at the three downstream developments each have one generating unit.

¹ Order Issuing New License, issued July 28, 1999, 88 FERC ¶ 61,122

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The decision to operate the system is wholly dependent on inflow to Messalonskee Lake from upstream lakes, which are managed for recreational water levels. If there is adequate flow for operation, an operator visits each development in the morning, opening or checking gates at Messalonskee Lake, and proceeds downstream to start the units. The same sequence is followed at the end of the generating shift(s), to shut the units down. Additionally, Union Gas cycles automatically, based on a pond level sensor. Only the Union Gas development can be started and stopped remotely.

During periods of non-generation, a gate at Messalonskee dam will be set to pass the minimum flow, which will pass down through the project's developments. During generation, flow from Messalonskee Lake, and down through the project, is generally set at 570 cfs.

LICENSEE'S MONITORING PLAN

The licensee stated the intent of the sampling effort is to determine whether the required water quality standards are met in Messalonskee Stream under the minimum flow required by article 401.²

The licensee proposed to sample DO, water temperature, and chlorophyll a concentrations in Messalonskee Stream once weekly during periods of non-generation beginning the week of June 15 and ending September 15. Sampling would occur during periods of minimum flow only, when flow is below 100 cfs. The licensee would record the flow volumes as determined from the gate openings at the start of each sampling period, and note any recent periods of generation.

The licensee proposed to collect water quality data at the following locations: Oakland dam at the intake, Rice Rips dam at the intake, confluence of Rice Rips tailrace and bypass, Union Gas dam at the intake, and downstream from Union Gas dam. DO and water temperature data would be collected using a portable DO/temperature meter. Data would be collected at one meter intervals below the water surface in the impoundments. Riverine sites would be sampled at mid-channel at mid-depth. Samples will be obtained for chlorophyll a determination by a certified lab. Chlorophyll a sampling would take place at Oakland dam at the intake, Rice Rips dam at the intake, and Union Gas dam at the intake. Sampling would take place in the early morning and in the afternoon of each sampling day, to capture diurnal fluctuations in DO. All DO/temperature meters would be properly calibrated for accuracy.

²

Article 401 was amended by the October 12, 2000, Order on Rehearing, 93 FERC ¶ 61,047.

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The licensee would implement the proposed sampling schedule, and commence the water quality monitoring in the summer of 2001, following the Commission's approval of the proposed plan. Water quality sampling would continue annually for up to five years, until sufficient data has been collected to confirm that water quality standards are met throughout the stream during extended periods of minimum flow releases (15 cfs) and high water temperature conditions. Sampling locations and frequency are subject to reduction based on the results of the monitoring. The DEP would be consulted before any changes to sampling locations and frequency would be implemented.

The licensee would prepare a report at the end of each annual sampling period, for review by the DEP. A final report, including any DEP comments or recommendations and the licensee's responses would be filed with the Commission and the resource agencies.

The licensee would provide or make available to the consulted resource agencies flow data and water quality data within 30 days of a written request for specific data.

RESOURCE AGENCIES' COMMENTS AND LICENSEE'S RESPONSES

The licensee consulted with resource agencies in preparation of the plan. In a March 27, 2000 letter to the licensee, the FWS stated it concurs with the licensee's proposed water quality monitoring plan.

The DEP, NMFS, DIFW, and DMR, did not comment on the plan.

DISCUSSION AND CONCLUSIONS

The licensee proposed to consult with the DEP before any changes to sampling locations and frequency would be implemented. The licensee should consult with all of the resource agencies and receive Commission approval prior to any changes in sampling protocol.

Implementation of the licensee's proposed plan should provide the data needed to document the effect of the project's minimum flow release on water quality in the vicinity of the project. The licensee's proposed plan, with the modification discussed above, meets the requirements of article 407 and of the state water quality certificate, and should, therefore, be approved.

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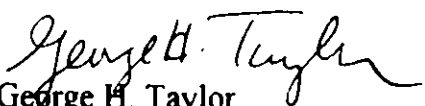
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The Director Orders:

(A) The licensee's water quality monitoring plan, filed with the Commission on March 28, 2000, pursuant to article 407, and as modified in paragraph (B), is approved.

(B) Prior to any changes in the water quality monitoring protocol approved by this order, the licensee shall consult with the Maine Department of Environmental Protection, the U.S. Fish and Wildlife Service, National Marine Fisheries Service, Maine Department of Inland Fisheries and Wildlife, and Maine Department of Marine Resources. After consultation with the resource agencies, the licensee shall file any request for a change in the water quality monitoring protocol with the Commission for approval, and shall include comments of the resource agencies on the proposed change in the filing.

(C) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 CFR § 385.713.


George H. Taylor
Group Leader
Division of Hydropower Administration
and Compliance