



**Upper Peninsula Power Company**  
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[www.UPPCO.com](http://www.UPPCO.com)

December 17, 2018

FERC Project No. 10855  
NATDAM Nos. MI00175 & MI00183

Ms. Kimberly D. Bose, Secretary  
The Federal Energy Regulatory Commission  
888 First Street NE  
Washington, D.C. 20426

Dear Secretary Bose:

**Dead River Hydroelectric Project**

Article 402 – Start of Month Target Elevation Proposed Temporary License Amendment:

In accordance with Article 402 of the Order Issuing License for the Dead River Hydroelectric Project dated October 4, 2002, and as amended September 1, 2011, Upper Peninsula Power Company (UPPCO) is required to “strive to operate the existing project facilities to achieve the start of month target elevations.” Recently, UPPCO has reviewed the requirements of Article 402 and is proposing the temporary License amendments outlined below, with the full proposal attached in Appendix A.

In summary, the amendment involves changes to the start of month target elevations at the Silver Lake Development (Silver Lake Storage Basin / SLSB) during the months of February through October 2019 and at the Hoist Development (Dead River Storage Basin / DRSB) for the month of May 2019.

On November 16, 2018, UPPCO sent a formal request for comment to the Michigan Department of Environmental Quality (MDEQ), the Michigan Department of Natural Resources (MDNR) and the U.S. Fish and Wildlife Service (USFWS).

Additionally, UPPCO hosted a teleconference with the resource agencies on November 30, 2018 to review and discuss the proposed license amendments. All resource agencies (MDEQ, MDNR, USFWS) had comments on the proposal that UPPCO reflected in the revised proposal sent to the agencies for comment on December 4, 2018.

**UPPCO’s Proposal:**

Start of Month Target Elevation:

The proposed start of month target elevations for 2019 are displayed in the table below. The proposed changes from the current license are high-lighted in yellow.

	Silver Lake Storage Basin			Dead River Storage Basin		
	Min. Outflow (cfs)	Min. Elev. (ft)	Target Elev. (ft)	Min. Outflow (cfs)	Min. Elev. (ft)	Target Elev. (ft)
January	15	1477.5	1479.0	100	1337.5	1339.0
February	15	1477.0	1479.0	100	1337.0	1337.5
March	15	1477.0	1479.0	100	1337.0	1337.5
April	25	1477.0	1485.0	100	1337.0	1337.5
May	20	1478.5	1485.0	100	1339.0	1341.0
June	15	1480.5	1485.0	100	1339.0	1341.0
July	10	1480.0	1485.0	100	1339.5	1341.0
August	10	1479.0	1482.5	100	1339.5	1341.0
September	10	1479.0	1480.0	100	1339.5	1341.0
October	15	1479.0	1480.0	100	1339.5	1341.0
November	15	1478.5	1479.0	100	1339.5	1341.0
December	15	1478.5	1479.0	100	1338.5	1339.0

Minimum Reservoir Elevation / Flow Requirements:

UPPCO is not proposing to modify any minimum elevation or flow requirements from the SLSB or the DRSB. This does not include changes that may need to be made as part of the dry year consultation process.

Channel Forming Flow Releases from SLSB:

Regardless of the target elevation requirements for the license and the temporary amendment (if granted), UPPCO will release 150 cfs channel forming flows from the SLSB for a minimum of 72 hours during the peak of spring runoff as required by the Consent Judgment Agreement. Releases can be made from the outlet, over the spillway, or a combination of both.

Releases During July and August 2019:

Since the specific weather conditions for January through August 2019 are unknown, UPPCO will host the first consultation meeting in mid-June (6/10-6/24, 2019). Historical data shows spring runoff flows are generally complete near the first week of June. During the consultation meeting, UPPCO and the agencies can discuss the timing of future communications or required consultations. The focus of the discussions will be based upon improving water quality downstream of the DRSB and supporting recreation use of the DRSB.

UPPCO received formal replies to the December 4, 2018 request from the MDNR, MDEQ and USFWS. All agencies were in support of the proposed license amendment, and documentation of the agency consultation is included as Appendix B for your reference. The MDEQ responded in support of the proposal as submitted. The MDNR and FWS had specific individual comments that are addressed below:

**MDNR Comment 1:** UPPCO host a discussion to determine how water stored in SLSB will be allocated in the summer for the purpose of improving water quality. DNR believes that the discussion should take place as soon as possible following spring runoff, (UPPCO proposed no later than July 1, 2019, while MDNR would like it to occur in May or as soon as most snowpack has been converted to runoff).

- The objective of the post-runoff consultation will be to assess the current storage in the Dead River system and propose strategies for flow conditions most likely to alleviate water quality concerns.
  - The simulation in Option 3a of UPPCO's Appendix A (December 4, 2018, p7) approximates the pattern of minimum outflow that seems both most likely to occur, and to alleviate water quality concerns.
- Follow-up discussions to shape minor adjustments (such as specific timing of augmenting flows) will likely be required closer to July 1, 2019 and August 1, 2019 as UPPCO recommended as the first occurrence of consultation in its December 4, 2018 letter.

**UPPCO Response to Comment 1:** UPPCO will host the first consultation meeting in mid-June (6/10-6/24, 2019). Historical data shows spring runoff flows average completion is near the first week of June. During the consultation meeting, UPPCO and the agencies can discuss the timing of future communications or required consultations.

**MDNR Comment 2:** UPPCO collects and provides data, and summaries outlined below as part of an evaluation of effectiveness toward the end of the 2019 season:

- Fish and Mussel stranding survey reports associated with reservoir fluctuations/subsequent drawdowns of 0.3-0.5 foot/day or more for two or more days, as well as any time where elevation is reduced by one foot or more within in any three-day period. (UPPCO has described operations plans intended to reduce fluctuations, so the conditions under which these surveys would be required may be avoided entirely).
  - Efforts should be made to relocate all stranded organisms to the permanently inundated portions of the reservoir upon discovery.
  - The report should be provided within 30 days of any survey and include species found, number of organisms' dead, alive, and relocated.
  - If more than 20 organisms are found, MDNR should be notified within 24 hours.

**UPPCO Response to Comment 2:** UPPCO will perform partial shoreline fish and mussel surveys if water elevations at the SLBS drop more than 0.6 feet in a 48-hour period.

**MDNR Comment 3:** Continuation of existing water quality monitoring in all impoundments and stream reaches following the procedures and data presentation used in developing and explaining this proposal.

**UPPCO Response to Comment 3:** UPPCO will continue to perform all water quality monitoring as required in Article 408.

**MDNR Comment 4:** Report of reservoir elevations and outflows (to include route of water outflows: over spillway, low level outlet or generation for each development, as well as the number of units running, or other operational details as appropriate).

**UPPCO Response to Comment 4:** A summary report on the Temporary Amendment submitted to the agencies by November 30th, 2019. The summary report will include data related to reservoir elevations and outflows (LLO, Spillway and Powerhouse flows) from the SLSB and the DRSB.

**MDNR Comment 5:** Summary of provision of channel-forming bankfull flows (dates, duration, flows).

**UPPCO Response to Comment 5:** A summary including start date, end date and flow releases will be provided via email after the event (No later than June 1, 2019) and included in the summary report submitted by November 30th, 2019.

**MDNR Comment 6:** Summary of augmentation flow periods and its effects on associated water quality data.

**UPPCO Response to Comment 6:** In the summary report on the Temporary Amendment submitted by November 30th, 2019, UPPCO will include a graph depicting actual flows, required minimum flows, Dissolved Oxygen Values and Water Temperature Values and how one impacts the other.

**MDNR Comment 7:** Summary report of metrics included in UPPCO's December 4, 2018 letter (tables used for predicting spilling, dry year consultations, pages 4 and 5).

**UPPCO Response to Comment 7:** UPPCO will provide a summary on metrics in the Temporary Amendment submitted by November 30th, 2019

**MDNR Comment 8:** Summary of whether and to what extent expectations outlined in UPPCO's eight points of 'benefits' were met as defined in UPPCO's December 4, 2018 letter (pages 9 and 10).

**UPPCO Response to Comment 8:** UPPCO will provide a summary of the on the proposed benefits in the Temporary Amendment submitted by November 30th, 2019

**MDNR Comment 9:** Inclusion of erosion data, formal or anecdotal comments from recreational users, as well as correspondence with MBLP and other downstream stakeholders.

**UPPCO Response to Comment 9:** UPPCO has no plans for additional erosion monitoring outside of the requirement in the license but will provide a summary of any comments received.

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**FWS Comment 1:** We also recommend that UPPCO coordinate closely with other stakeholders well in advance of the modifications if adopted to ensure they are fully informed that the temporary amendment is intended solely to test their efficacy for providing the required channel forming releases and addressing water quality issues.

**UPPCO Response to Comment 1:** UPPCO agrees to coordinate closely with other stakeholders well in advance of the modifications.

UPPCO, in conjunction with the resource agencies, believe that changes to the start of month target elevations at the SLSB to allow for water storage will have a positive impact to all downstream developments.

If you have any questions about material presented in the letter, please do not hesitate to contact Josh Ball at (906) 485-2419, or Virgil Schlorke at (906) 232-1431.

Sincerely,



Virgil Schlorke  
Director - Generation and Environmental Services

JBB/EBR

Enclosure: Appendix A: Proposed Dead River License Amendment for 2019  
Appendix B: Documentation of Agency Consultation

cc: Mr. Josh Ball, UPPCO	Mr. Scott Hicks, USFWS	Mr. Shawn Puzen, Mead & Hunt
Mr. Jim Grundstrom, DRCI	Mr. Gene Mensch, KBIC	Ms. Emily Rushford, UPPCO
Ms. Elle Gulotty, MDNR	Ms. Amira Oun, MDEQ	