

**Michigan Department of Environmental Quality
Certification Under Section 401 of the
Federal Clean Water Act**

**In the matter of: Consumers Energy Company and DTE Electric Company
Ludington Pumped Storage Hydroelectric Project
3525 South Lakeshore Drive
Ludington, Michigan
Federal Energy Regulatory Commission (FERC) Project #2680**

This Certification is issued to Consumers Energy Company and DTE Electric Company, co-Licensees of the Ludington Pumped Storage Hydroelectric Project, and managed by Consumers Energy Company under Section 401(a) of the federal Clean Water Act based on their Certification request letter dated June 28, 2017, and received by the Michigan Department of Environmental Quality (MDEQ) on June 29, 2017, and other information contained in the official files of the MDEQ, Water Resources Division. The Licensees of the Ludington Pumped Storage Hydroelectric Plant (LPSHP) will comply with the Michigan Water Quality Standards (WQS), provided the conditions set forth in this Certification are met.

1.0 Operational Requirements:

1.1 Upon FERC license issuance, the LPSHP will operate as an open loop system.

1.2 During adverse conditions such as a heavy rain or storm when the requirements in this certificate cannot be met, the Licensees shall, within one business day, contact the MDEQ, Cadillac District Supervisor, regarding emergency actions taken or planned to meet the requirements. Consultation during the adverse conditions shall continue following a mutually agreed upon schedule. Upon cessation of the adverse conditions, the LPSHP shall resume the normal operations.

2.0 Water Quality Limitations:

2.1 The LPSHP shall not warm Lake Michigan, by operation of the project, to temperatures in degrees Fahrenheit higher than the following monthly maximum temperatures:

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
40	40	40	50	55	70	75	75	75	65	60	45

This Section (2.1) shall not apply when the natural temperatures of Lake Michigan exceed the above monthly maximum temperature values. In such cases water released from the man-made impoundment should not raise the Lake Michigan water temperature by more than 3 degrees Fahrenheit

2.2 The compliance point for the temperature shall be at a representative location in Lake Michigan, which will be identified in the Water Quality Monitoring Plan referenced in Section 3.3, and must be approved by the MDEQ.

2.3 In the event that any of the water quality limitations listed in this Certification are not met, or if conditions change to indicate that they may not be met, the LPSHP shall immediately notify the MDEQ, Cadillac District Supervisor, and take all practical steps,

including appropriate monitoring, to achieve compliance and minimize impacts on adjacent waters.

3.0 Water Quality Monitoring and Reporting:

3.1 The LPSHP shall monitor the temperature adjacent to the pumped storage facility at the compliance point hourly from June 1 through October 31 after the FERC license is issued. If the project consistently meets the limits in Sections 2.1 of this Certification after one year of continuous monitoring, Licensees may request MDEQ approval for a reduced monitoring schedule.

3.2 After the issuance of the FERC license and every five years thereafter, the LPSHP shall provide fish samples for MDEQ monitoring of the edible portion of fish from the project area for mercury, polychlorinated biphenyls (PCB), dioxin/furans, and dioxin-like PCBs. The sample shall consist of ten legal-size (> 15 inches total length) Lake Trout (*Salvelinus namaycush*) in a range of sizes if possible. These fish can be collected in Lake Michigan, in the project area, during the routine gill net surveys inside and outside of the barrier net. Fish shall be frozen and provided to the MDEQ for individual analysis at the state laboratory. Other fish tissue data of adequate quality less than five-years old from the project area may be substituted upon approval of the MDEQ.

3.3 The LPSHP shall submit for the MDEQ approval a plan for the monitoring specified in Sections 3.1-3.2 within six months of FERC license issuance. An annual report of the data generated to comply with Sections 3.1 and 3.2 shall be submitted to the MDEQ within 3 months of completing the sampling. The report shall include a summary of quality assurance data.

4.0 Emergency Response Plan Requirement:

4.1 The Licensees shall notify the MDEQ with an emergency response per the current emergency plan for access to the facility in the event of shoreline erosion damaging the main entrance road leading to the facility.

5.0 Schedule Modification:

5.1 The MDEQ may modify the specified implementation schedules within this Certification upon written request from the Licensees, in the event the Licensees, despite their good faith effort, are unable to meet the schedules specified within this Certification because of events beyond their control. Schedules identified in this certification may be modified by the MDEQ, in consultation with the Licensees, should the data being collected no longer be needed or the frequency of collection changes.

6.0 Natural Resources Damages and Penalties:

6.1 The state reserves the right to seek civil and/or criminal penalties and liabilities under applicable law for natural resource damages that may occur.

7.0 Permits and Approvals:

7.1 The issuance of this Certification does not authorize violation of any federal, state, or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other MDEQ permits, or approvals from other units of government as may be required by law.

8.0 Right of Entry:

8.1 The Licensees shall allow the MDEQ, or any agent appointed by the MDEQ, upon the presentation of credentials, to enter upon the LPSHP premises at reasonable times to have access to, and copy any records required to be kept under the conditions of this Certification, and to inspect the facilities or to conduct any environmental sampling for compliance with this certificate. MDEQ agents shall comply with Consumers Energy personnel safety requirements while on Consumers Energy property unless more stringent safety procedures are required by the State of Michigan.

9.0 Project - Changes:

9.1 The Licensees shall provide written notification to the MDEQ, and a copy to the Michigan Department of Natural Resources (MDNR), within five days of any change that has occurred or may occur in the structures or operation of the LPSHP, which may affect compliance with this Certification or the WQS.

10.0 Revocation:

10.1 If the MDEQ determines that the Licensees can no longer comply with Section 401(a) of the federal Clean Water Act or the WQS, then this Certification may be revoked or modified after appropriate public notice.

The contact points for consultations, approvals, and submittal of plans and reports as referred to in this document are as follows:

MDEQ	Unit Supervisor, Lake Michigan Unit Surface Water Assessment Section P.O. Box 30458 Lansing, Michigan 48909-7958 Phone: 517-284-5540
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	Cadillac District Supervisor 120 West Chapin Street Cadillac, Michigan 49601-2158 Phone: 231-429-0982
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MDNR	Habitat Management Unit Fisheries Division P.O. Box 30446 Lansing, Michigan 48909 Phone: 517-284-5830
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Issued this ____ day of ____ 2018, by the MDEQ and shall expire at the end of the FERC license period.

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Diana Klemans, Manager
Surface Water Assessment Section
Water Resources Division
Michigan Department of Environmental Quality