

WATER QUALITY CERTIFICATION

(P.L. 92-500, Section 401)

In the matter of: Donald H. Leveille
Leveille, Inc.
Moscow, VT 05662
Application for Leveille Hydroelectric Project

The Water Quality Division of the Vermont Department of Water Resources and Environmental Engineering has examined the prefilled testimony for the Vermont Public Service Board hearing under general order #65 as technical supporting documentation for the Water Quality Certification application filed on March 31, 1982 by Mr. Samuel C. Fitzpatrick, Esq. on behalf of Leveille Inc. (the applicant). The Division has made the following findings:

1. The applicant owns and operates a sawmill on the Little River, a tributary of the Winooski River, in the community of Moscow in the Town of Stowe. The maximum capacity of the generator at the site is 93 kw. The output exceeds the requirements of the mill, and the applicant intends to sell the excess power produced to the Village of Stowe Electric Department. The applicant has been operating the turbine since the fall of 1981.

2. The existing dam is a concrete gravity structure approximately 155 feet long and varying in height from 10 to 20 feet. The forebay is on the right end of the dam. The tailrace discharges from under the sawmill, which contains a vertical turbine supplying power through a bevel gear to a horizontal shaft which both runs a large mill saw and activates the generator.

3. The applicant has stated that the project would be operated in a run-of-the-river manner. The Department interprets this to mean that the project will not be operated out of storage, and that instantaneous flows downstream of the power plant tailrace will equal instantaneous inflows to the impoundment. About 89 cubic feet per second of flow is required to run the turbine and meet the installed capacity of the generator. The tailrace

discharges into the Little River about 50 feet downstream of the dam. The prefiled testimony indicates that the Leveille plant discharges into the backwater of the so-called Adams Dam, which is approximately 600 yards downstream. The surface area of the Leveille impoundment is about 1 acre. The operating head of the plant is about 14 feet.

4. The watershed area at the site has been estimated at 82 square miles. It has also been estimated, based on the Dog River gaging station in Northfield Falls, that the generation flow of 89 CFS would be available about 80 percent of the time.

5. This section of the Little River is Class C waters and receives effluent from the wastewater treatment facility in Stowe Village. A water quality sampling station was located at the highway bridge just upstream of the dam. Samples collected between 1974 and 1977 indicated good levels of dissolved oxygen, and that reoxygenation by spilling over the dam is not critical to meeting water quality standards. The 7Q10 value for the stream is probably less than 10 CFS. During periods of low flow, when the hydraulic capacity of the system cannot be met, the Department shall require as a condition of this certification that all inflows be spilled over the dam in order to provide additional reaeration.

CONDITIONS

The Vermont Department of Water Resources and Environmental Engineering certifies that this project will meet Vermont Water Quality Standards with the following conditions:

A. The project shall be operated in a strict run-of-the-river manner, with instantaneous flows downstream of the tailrace equaling instantaneous inflows to the project. Inflows shall be spilled at the dam whenever the project is not being operated. Under no conditions shall the project totally interrupt stream flow in order to facilitate repairs or maintenance operations.

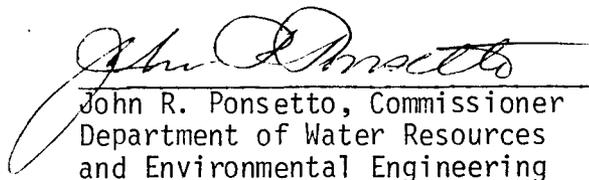
B. Flashboards shall not be installed without the prior written approval of the Department of Water Resources and Environmental Engineering.

C. Desilting shall be done in accordance with the Agency of Environmental Conservation's Desilting Policy, a copy of which attached.

D. The applicant shall insure that every reasonable precaution is taken to prevent the discharge of petro chemicals and debris to state waters.

E. Any debris removed from the dam in trashracks shall be disposed of properly.

F. Any significant changes to the project, including the operational scheme, must be submitted to the Department of Water Resources and Environmental Engineering for review and approval prior to effecting the change.


John R. Ponsetto, Commissioner
Department of Water Resources
and Environmental Engineering

Dated at Montpelier, Vermont this
2nd day of June, 1982.