



DEPARTMENT OF ENVIRONMENTAL AND NATURE RESOURCES
WATER SUPPLY & POLLUTION CONTROL DIVISION

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December 13, 1991

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John Slagle
Kleinschmidt Associates
75 Main St., PO Box 576
Pittsfield, ME 04967

Re: Water Quality Certificate (pursuant to Section 401 of the Clean Water Act): FERC Project #2300. James River Corporation-Shelburne Hydroelectric Project, Shelburne, NH.

Dear Mr. Slagle:

The Division has determined that under the conditions outlined in this certificate, FERC Project #2300 will comply with the applicable provisions of Section 301, 302, 303, 306, and 307 of the Clean Water Act as amended.

The following condition is placed on this section 401 Water Quality Certificate:

- 1) The following water quality monitoring program must be enacted no later than the first summer following FERC licensing.
 - (a) Bathymetrically survey the Shelburne impoundment to determine the deepest location, and any other deep spots that should be monitored.
 - (b) Sample at least four discrete locations during the first, second and third years of the new license as follows:
 - (i) Riffles just upstream of the impoundment,
 - (ii) Profile of the deepest location in the impoundment at 1 meter intervals,
 - (iii) Profile just above the dam in the area of the powerhouse intake,
 - (iv) Tailwater,
 - (v) Additional deep spots in the impoundment (if necessary).
 - (c) Sample data will be obtained in situ using a portable dissolved oxygen and temperature meter such as a YSI meter. Additional sampling locations may be added if needed, at the discretion of the sampler. Equipment calibration and quality control measures must be followed and documented to assure accurate reporting.
 - (d) Collect samples twice per day (between 6 am - 8 am, between 1 pm - 2 pm) for 3 consecutive days during the following periods: late June - early July, late July - early August, late August - early September, at as near worst case conditions (warm water >20°C, low flow <2100 cfs, non-storm event) as possible.
 - (e) Record river flow, weather conditions and other pertinent data.

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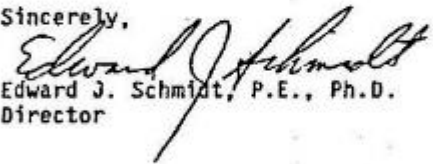
- (f) Prepare a summary of the findings and submit a report to the DES prior to October 1 of each sampling year. The report will explain the sample results based on recorded parameters, and will include all flow data, water quality data and quality control information. It will also include any recommendations for changing the study plan.
- (g) If any stratification or water quality violations are encountered, James River will immediately initiate additional consultation with DES to discuss appropriate modifications to the sampling program.
- (h) Following the third year of sampling and reporting, the need for future monitoring will be assessed by DES. Nothing shall preclude DES from requiring further monitoring and water quality studies in future years due to operational changes in the James River-Shelburne hydroelectric project (e.g., flashboards).

If structural and/or operational modifications are made at the Shelburne Project beyond the scope of the plans submitted for review by DES, this Section 401 certificate shall be void, and a new Section 401 certificate must be applied for. In addition, if a FERC license has not been issued for this project effective January 1, 1994, this Section 401 certificate shall be void, and a new Section 401 certificate must be applied for.

This office reserves the right to gain access to the Shelburne Project site at any time to check monitoring equipment and records to assure compliance with New Hampshire's Class B water quality standards.

Finally, all existing river uses must be maintained and protected, and at no time shall Class B water quality standards be violated.

Sincerely,


Edward J. Schmidt, P.E., Ph.D.
Director

RBJ/EJS/tmk:B20BD

cc: Delbert Downing - NHWB
Raymond Carter, P.E., Water Quality, Permits & Compliance
Gretchen Rule - Comm
Katherine Ueland - Comm
Tim Drew - Comm
Chuck Holtman - AG
Town of Shelburne

Nancy Derey - Dept. of the Army
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