Safety and Adequacy

The proposed dam is classified low hazard. The project structures would impose an insignificant amount of water and their failure would not be a hazard to downstream property or human life. The proposed project would be safe and adequate if constructed in accordance with sound engineering practices and the requirements of the license.

Minimum Flow

The Department of the Interior recommends that the Applicant provide: (1) an instantaneous discharge below the project of at least 11 cubic feet per second (cfs) or inflow to the project reservoir, whichever is less; to protect downstream aquatic resources; and (2) a minimum flow release from the dam of 2 cfs or inflow, whichever is less, for the protection of water quality and aquatic habitat in the bypass reach. The water quality certification issued for the project by the Vermont Department of Water Resources and Environmental Engineering on November 20, 1983 as required by Section 401 of the Clean Water Act, includes these flow recommendations. The Applicant offered no objection to the recommended minimum flow releases. Implementation of these flows as required by Article 19 will ensure adequate protection of fish and wildlife resources of the project area.

Cultural Resources

There are no known historic, cultural, or archeological resources that will be affected by the proposed project. The inclusion of Article 20 will protect any cultural resources that may be discovered during the proposed construction or in the event of any future construction at the project.

Other Environmental Considerations

The proposed project will not affect any Federally listed threatened or endangered species or critical habitat, or any sites listed on the National Register of Historic Places or eligible for listing on the National Register of Historic Places.

Finding of No Significant Impact

Construction impacts will include a temporary decrease in water quality with increased turbidity and sedimentation, a decrease in air quality, and an increase in noise levels. There will be a minor long-term impact on streamflow as a result of operation of the project. Also, the natural beauty of the area would be negatively affected by the construction of the powerhouse and related structures.
On the basis of the record and Staff's independent environmental analysis, issuance of a license for the project, as conditioned herein, will not constitute a major federal action significantly affecting the quality of the human environment.

Other Aspects of Comprehensive Development

The project would not be in conflict with any proposed or existing developments on the river, makes good use of the flow and fall of Lollis Brook, and will be best adapted to the comprehensive development of the Connecticut River Basin, upon compliance with the terms and conditions of the license.

The proposed project would operate run-of-river and generate an estimated 1,200,000 kWh annually, which represents a fuel savings of 1,970 barrels of oil or 560 tons of coal. The project is economically feasible based on the sale of project power at the avoided cost in the State of Vermont, adjusted for escalation.

It is ordered that:

(A) This license is issued to Jay Boeri, Jr. (Licensee) under Part I of the Federal Power Act (Act), for a period of 50 years, effective the first day of the month in which this order is issued, for the construction, operation, and maintenance of the Martinsville Upper Project No. 7373, located on the Lollis Brook in Windsor County, Vermont and affecting the interests of interstate and foreign commerce. This license is subject to the terms and conditions of the Act, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the Act.

(B) The Martinsville Upper Project No. 7373 would consist of:

(1) All lands, to the extent of the Licensee's interests in those lands, constituting the project area. The project area is shown and described by a certain exhibit that forms part of the application for license and that is designated and described as:

<table>
<thead>
<tr>
<th>Exhibit</th>
<th>FERC No. 7373</th>
<th>Showing</th>
</tr>
</thead>
<tbody>
<tr>
<td>G Sheet 1</td>
<td>3</td>
<td>Project Location</td>
</tr>
<tr>
<td>(Figure 1 of Exhibit E)</td>
<td>4</td>
<td>Project Map</td>
</tr>
</tbody>
</table>

(2) Project works consisting of: (a) a 15-foot-high and 47-foot-long concrete gravity dam with 4-foot-high flashboards; (b) a small impulse with negligible storage capacity at normal maximum water surface elevation of 547.5 feet mean sea level; (c) an intake structure at the west side of the dam; (d) a 3-foot-diameter, 490-foot-long penstock, 300 feet of which is wood-stave pipe and 100 feet of which is steel pipe; (e) a powerhouse with 2 turbine-generator units with a total installed capacity of 250 kW; (f) a 480-kV generator leads, a 0.48/12.47-kV 375-kVA transformer bank, a 100-foot-long and 12.47-kV transmission line; and (g) other appurtenances.

The location, nature, and character of these project works are more specifically shown and described by the exhibit cited above and by certain other exhibits which also form part of the application for license and which are designated and described as:


Exhibit | FERC No. 7373 | Showing |
---------|---------------|---------|
| F-1 | 1 | Project Site Plan and Profile |
| F-2 | 2 | Project Sections and Profiles |

(3) All of the structures, fixtures, equipment, or facilities used or useful in the operation or maintenance of the project and located within the project area, all portable property that may be employed in connection with the project, located within or outside the project area, as approved by the Commission, and all riparian or other rights necessary or appropriate in the operation or maintenance of the project.

(C) Exhibits A, G and F designated in ordering paragraph (B) above are approved and made a part of the license.

(D) Pursuant to Section 10(f) of the Act, it is in the public interest to waive the following Sections of Part I of the Act, and they are excluded from the license:

Section 4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to public notice and to the acceptance and expression in the license of terms and conditions of the Act that are waived here; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.
Article 19. Licensee shall discharge from the Martinsville Upper Project, a continuous minimum flow of 11 cubic feet per second (cfs), as measured immediately below the project powerhouse, or inflow to the reservoir, whichever is less, for the protection of fish and wildlife resources in Lulu Brook. Licensee shall discharge from the project dam a continuous minimum flow of 2 cfs, or the inflow to the project reservoir, whichever is less, for the protection of fish and wildlife resources in Lulu Brook between the project dam and tailrace. Minimum flows may be temporarily modified if required by operating emergencies beyond the control of the Licensee, and for short periods upon mutual agreement between the Licensee and the Vermont Department of Fish and Game.

Article 20. Licensee shall, prior to the commencement of any future construction at the project, consult with the Vermont State Historic Preservation Officer (SHPO) about the need for any cultural resources survey and salvage work. Licensee shall make available funds in a reasonable amount for any such work as required. If any previously unrecorded archeological or historical sites are discovered during the course of construction or development of any project works or other facilities at the project, construction activity in the vicinity shall be halted, a qualified archeologist shall be consulted to determine the significance of the sites, and the Licensee shall consult with the SHPO to develop a mitigative plan for the protection of significant archeological or historic resources. If the Licensee and the SHPO cannot agree on the amount of money to be expended on archeological or historic work related to the project, the Commission reserves the right to require the Licensee to conduct, at its own expense, any such work found necessary.

Article 21. Licensee shall commence construction of the project works within 2 years from the effective date of the license and shall complete construction of the project within 4 years from the effective date of the license.

Article 22. Licensee shall file with the Commission's Regional Engineer (one copy) and the Director, Division of Inspections (two copies) of the final contract drawings and specifications for pertinent features of the project, such as water retention structures, powerhouse, and water conveyance structures, at least 60 days prior to the start of construction. The Director, Division of Inspections, may require changes in the plans and specifications to assure a safe and adequate project.
(b) The types of use and occupancy of project lands and waters for which the Licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time where said facility is intended to serve single-family type dwellings and (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the Licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The Licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the uses and occupancies for which it grants permission are maintained in good repair and comply with applicable State and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the Licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the Licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the costs of administering the permit program. The Commission reserves the right to require the Licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

c) The Licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges and roads for which all necessary State and Federal approvals have been obtained; (2) storm drainage systems; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require relocation of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (49-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the Licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

d) The Licensee may convey fee titles to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary State and Federal approvals have been obtained; (2) new or effluent discharges into project waters, for which all necessary Federal and State water quality certificates or permits have been obtained; (3) other pipelines that cross project lands or waters, but do not discharge into project waters; (4) non-project overhead electric transmission lines that require relocation or support structures within the project boundary, for which all necessary Federal and State approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit R; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located in at least 75 feet, measured horizontally, from the edge of the project reservoir at maximum surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 45 days before conveying any interest in project lands under this paragraph (d), the Licensee must file with the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (if marked Exhibit C or a map may be used), the nature of the proposed use, and the identity of any Federal or State agency official consulted, and any Federal or State approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the Licensee to file an application for prior approval, the Licensee may convey the intended interest at the end of that period.

e) The following additional conditions apply to any intended conveyance under paragraphs (c) or (d) of this article:

(1) Before conveying the interest, the Licensee shall consult with State and Federal fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the Licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit R or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.
(3) The instrument of conveyance must include covenants running with the land adequate to ensure that: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project.

(4) The Commission reserves the right to require the Licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(5) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G or K drawings would be filed for approval for other purposes.

(6) The Licensee's failure to file a petition appealing this order to the Commission shall constitute acceptance of this license. In acknowledgment of acceptance of this order and its terms and conditions, it shall be signed by the Licensee and returned to the Commission within 60 days from the date this order is issued.

Quentin A. Edson
Director, Office of Hydropower Licensing

Project No. 7373-001

IN TESTIMONY of its acknowledgment of acceptance of all of the terms and conditions of this order, Jay Boeri, Jr. this ___ day of ____________, 19___, has caused its corporate name to be signed hereto by ________________, its President, and its corporate seal to be affixed hereto and attested by ____________________, its Secretary, pursuant to a resolution of its Board of Directors duly adopted on the ___ day of ____________, 19___, a certified copy of the record of which is attached hereto.

By ________________
President

Attest:

__________________________
Secretary

(Executed in quadruplicate)
did not consider the changes to be significant. By letter dated August 25, 1987, the U.S. Fish and Wildlife Service stated that they have no objection to the changes in location of the project facilities.

As-Built Exhibits

As requested by the Commission’s staff in a letter dated April 5, 1984, Mr. Boeri filed a new set of as-built exhibits A, F, and G. The exhibits show the constructed configuration of the Martinsville Upper Project. In particular, the exhibits describe the actual location of the project’s dam and powerhouse, and the installed Oesberger turbines.

The Commission’s staff reviewed the effects of the changes to the project’s features. The dam and powerhouse were constructed on exposed bedrock that underlies Lulis Brook. The penstock is positioned along a steep, wooded embankment between U.S. Route 5 and Lulis Brook. Staff finds that the slight relocation of the dam and powerhouse should not affect the visual impacts of the project. Also, there are no anomalous fish in Lulis Brook. Subsequently, the change in the type of turbines should not significantly increase fish mortality.

Staff finds that the environmental impacts of the constructed project are similar to those of the project authorized in the license. Therefore, staff agrees with the conclusions from the Vermont Agency of Environmental Conservation’s April 28, 1987, letter, and U.S. Fish and Wildlife Service’s August 25, 1987, letter, that the changes are not significant.

This order approves the as-built exhibits and amend the project description in the license to describe the constructed configuration of the project features. This order does not change the installed capacity of the project or alter the Commission’s annual charges for administration of Part I of the Federal Power Act.

TheDirector orders:

(A) The following exhibits filed on May 25, 1984, and supplemented on September 14, 1994, are approved and made part of the license:

Exhibit A Pages 1 and 2 of the submitted entitled: “Martinsville Hydro, Project 7373-009 VII, Exhibit A: Project Description.” This filing supersedes the exhibit A approved in the December 28, 1984, Order Issuing License.
The original and one duplicate set of aperture cards should be filed with the Secretary of the Commission. The remaining duplicate set of aperture cards should be filed with the Commission's New York Regional Office.

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

++3++

++4++

(B) The project description in ordering paragraph (B)(2) of the license is revised to read:

(2) Project works consisting of: (a) a 15-foot-high, 49-foot-long concrete gravity dam with 4-foot-high flashboards along a 37-foot-long spillway section of the dam; (b) a small impoundment with negligible storage capacity at normal maximum water surface elevation of 547.5 feet mean sea level; (c) an intake structure at the west side of the dam; (d) a 3-foot-diameter, 455-foot-long wood-stave penstock section leading to a 3-foot-diameter, 100-foot-long steel penstock section; (e) a powerhouse, approximately 26 feet long and 14 feet wide containing two 125-kW generating units; (f) a 0.48-kV generator leads a 0.48/12.47-kV transformer, and a 75-foot-long, 12.47-kV transmission line that ties into an existing distribution line; and (g) appurtenant facilities.

(C) Within 90 days of the issuance date of this order, the licensee shall file an original and two duplicate aperture cards of the approved drawings. The originals should be reproduced on silver or gelatin 35 mm microfilm. The duplicates are copies of the originals made on Diodo-type microfilm. All microfilm should be mounted on a Type D (3 1/4" x 7 3/8") aperture card.

Prior to microfilming, the FERC Drawing Number (7373-5 through 7373-10) shall be shown in the margin below the title block of the approved drawings. After mounting, the FERC Drawing Number should be typed in the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (F-1 through G-1), drawing title, and date of this order should be typed on the upper left corner of each aperture card.