

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Jay Boeri, Jr.) Project No. 7373-001

ORDER ISSUING LICENSE (MINOR)
(Issued December 28, 1984)

Jay Boeri, Jr. (Applicant) filed on March 2, 1984, an application for license under Part I of the Federal Power Act (Act) to construct, operate, and maintain the Martinsville Upper Project No. 7373. 1/ The project would be located on the Lullis Brook in Windsor County, Vermont, and would affect the interests of interstate or foreign commerce.

Notice of the application has been published and comments have been received from interested Federal, State, and local agencies. No protests or motions to intervene have been received, and none of the agencies objected to issuance of the license.

The Proposed Project

The run-of-river project would consist of a new 15-foot-high concrete gravity dam with 4-foot-high flashboards, a small reservoir, an intake structure, a 490-foot-long steel penstock, a powerhouse with an installed capacity of 250 kW, a short tailrace, and a transmission line. A more detailed project description is contained in ordering paragraph (B).

- 1/ Authority to act on this matter is delegated to the Director, Office of Hydropower Licensing, under §375.314 of the Commission's regulations, 49 Fed. Reg. 29,369 (1984) (Errata issued July 27, 1984), (to be codified at 18 C.F.R. §375.314). This order may be appealed to the Commission by any party within 30 days of its issuance pursuant to Rule 1902, 18 C.F.R. 385.1902 (1983). Filing an appeal and final Commission action on that appeal are prerequisites for filing an application for rehearing as provided in Section 313(a) of the Act. Filing an appeal does not operate as a stay of the effective date of this order or of any other date specified in this order, except as specifically directed by the Commission.

DC-A-18

Safety and Adequacy

The proposed dam is classified low hazard. The project structures would impound 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 28, 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 Lulls 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 Lulls 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:

<u>Exhibit</u>	<u>FERC No. 7373</u>	<u>Showing</u>
G Sheet 1 (Figure 1 of Exhibit E) G (Figure 2)	3 4	Project Location Project Map

(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 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, 490-foot-long penstock, 390 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) .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 A, pages A-1 and A-2.

<u>Exhibit</u>	<u>FERC No. 7373-</u>	<u>Showing</u>
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(i) 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.

(E) This license is also subject to Articles 1 through 18 in Form L-15 (October 1975), entitled "Terms and Conditions for Unconstructed Minor Project Affecting the Interests of Interstate or Foreign Commerce," attached to and made a part of this license. This license is also subject to the following special conditions set forth as additional articles.

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 Lulls 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 Lulls 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 resource 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 start of construction. The Director, Division of Inspections may require changes in the plans and specifications to assure a safe and adequate project.

Article 23. The Licensee shall review and approve the design of contractor-designed cofferdams and deep excavations prior to the start of construction and shall ensure that construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days prior to start of construction of the cofferdam, the Licensee shall file with the Commission's Regional Engineer and Director, Division of Inspections, one copy of the approved cofferdam construction drawings and specifications and a copy of the letter(s) of approval.

Article 24. The Licensee shall within 90 days of completion of construction file for approval by the Director, Division of Project Management revised Exhibits A, P and G to describe and show the project as-built.

Article 25. The Licensee shall pay the United States the following annual charge, effective the first day of the month in which this license is issued:

- (a) For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 330 horsepower.

Article 26. (a) In accordance with the provisions of this article, the Licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain other types of use and occupancy, without prior Commission approval. The Licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the Licensee shall also have continuing responsibility to supervise and control the uses and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the Licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the Licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, cancelling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(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 smaller 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 Licensee's 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 drains and water mains; (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 erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-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) sewer or effluent lines that discharge 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 erection of 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 E; 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 at least 75 feet, measured horizontally, from the edge of the project reservoir at normal 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 a letter to 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 (a marked Exhibit G or K map may be used), the nature of the proposed use, 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 Federal and State 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 E; 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.

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(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.

(f) 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 approval of revised Exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project 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.

(F) 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
Quentin A. Edson
Director, Office of
Hydropower Licensing

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)

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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Jay Boeri, Jr.

Project No. 7373-009
Vermont

ORDER AMENDING LICENSE AND APPROVING AS-BUILT EXHIBITS

(Issued April 27, 1995)

Jay Boeri, Jr., licensee for the Martinsville Upper Project, FERC No. 7373, filed as-built exhibits A, F, and G on May 25, 1994, and supplemented the filing on September 14, 1994.

Article 24 of the license requires the licensee to file as-built exhibits within 90 days of completion of the project.

Although the project was completed by 1987, the Commission never approved the as-built exhibits at that time. The licensee filed a new set of exhibits to correct this matter.

Background

In the December 28, 1984, Order Issuing License, the Commission authorized Mr. Boeri to construct, operate, and maintain the Martinsville Upper Project on the Lullis Brook in Windsor County, Vermont. The project was to consist of a concrete gravity dam with 4-foot-high flashboards, an intake structure, a 390-foot-long wood-stave penstock leading to a 100-foot-long steel penstock, a powerhouse, and a short transmission line. The powerhouse was to contain two horizontal shaft Francis turbines connected to two induction generators with rated capacities of 50 kW and 200 kW.

The project began commercial operation in December 1986. In June 1987, an engineer from the Commission's New York Regional Office performed the final construction inspection of the Martinsville Upper Project. The engineer's final construction report indicated that the project's dam was approximately 20 feet upstream and the powerhouse was approximately 60 feet downstream from the locations authorized in the license. Also, the report indicated that the licensee installed two Ossberger turbines instead of the authorized Francis turbines. The Ossberger turbines are each connected to an induction generator with a rated capacity 125 kW, for a total installed capacity of 250 kW.

Prior to the inspection, the licensee notified federal and state fish and wildlife agencies concerning the changes to the project features. By letter dated April 29, 1987, the Vermont Agency of Environmental Conservation stated that they

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 6, 1994, 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 Ossberger 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 Lullis Brook. The penstock is positioned along a steep, wooded embankment between U.S. Route 5 and Lullis 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 anadromous fish in Lullis 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 29, 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 amends 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.

The Director orders:

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

Exhibit A: Pages 1 and 2 of the submittal entitled: "Martinsville Hydro, Project 7373-000 VT, Exhibit A: Project Description." This filing supersedes the exhibit A approved in the December 28, 1984, Order Issuing License.

EXHIBIT	FERC NO.	TITLE	SUPERSEDED/ DELETED
P-1	7373-5	Site Plan	7373-1
P-2	7373-6	Dam & Intake Works	7373-2
P-3	7373-7	Powerhouse Plan	7373-2
P-4	7373-8	Powerhouse Plan & Details	7373-2
P-5	7373-9	Turbine/Generator Plan	7373-2
G-1	7373-10	Project Site Plan & Profile Features	7373-3

(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) 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 Diazo-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 (P-1 through G-1), drawing title, and date of this order should be typed on the upper left corner of each aperture card.

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.

Joseph A. Robinson
J. Mark Robinson
 Director, Division of Project
 Compliance and Administration