

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

AUG 23 1979

Before Commissioners: Don S. Smith, Acting Chairman,  
Georgiana Sheldon, and Matthew Holden, Jr.

*Ln*  
~~DOCKET SECTION~~

License (Major);  
Relicense; Competing  
Application; New  
capacity (study);  
Erosion Control;  
Fish Passage  
Facilities;  
Hydraulic Co-  
ordination

New England Power Company )

Project No. 1904

ORDER ISSUING NEW LICENSE  
(Issued June 25, 1979)

New England Power Company (NEPCO) filed an application under Part I of the Federal Power Act for a new license to authorize the continued operation and maintenance of the Vernon Project No. 1904. The project is located on the Connecticut River in Windham County, Vermont, and Cheshire County, New Hampshire. 1/

Notice of the filing of an application was issued and the Environmental Defense Fund, Western Massachusetts Public Interest Research Group, Inc., For Lands' Sake, Trout Unlimited, and the town of Vernon, Vermont, have been permitted to intervene in this proceeding. The town of Brattleboro, Vermont, was also granted intervention, but it subsequently filed notice of withdrawal of its intervention.

The project was first constructed for the Connecticut River Power Company of New Hampshire. Eight generating units were in operation in 1910. In 1921, two additional generating units were constructed. On January 1, 1955, NEPCO purchased these properties and the other assets of the Connecticut River Power Company. 2/ The original

1/ The application was filed on June 23, 1970, and supplemented at various times, the latest being the filing of Exhibit S fish passage facility drawings on January 30, 1978.

2/ The acquisition was authorized by order issued January 4, 1955, Docket No. E-6591, 14 FPC 501, 504.

license for the project was issued March 26, 1945, 4 FPC 670, and terminated on June 30, 1970. The project has been operated under annual licenses since expiration of the original license.

#### Description of the Project and its Operation

The constructed project is a general run-of-the-river project with negligible pondage, and includes a concrete gravity dam, a reservoir with a surface area of 2,550 acres, and an installed generating capacity of 24,400 kW. A more detailed description is given in ordering paragraph (B) below. During periods of low flow, the plant is used to supply daily peak load power by storing the previous night's stream flow. During high flow periods, the plant is operated for base load power and substantially passes water as it is received. The project reservoir supplies water to Vermont Yankee Nuclear Power Plant for cooling purposes. <sup>3/</sup> No additional construction or changes in the operation of the project are proposed, except for installation of fish passage facilities, as more fully explained below.

#### Safety

All project structures, machinery, and appurtenant facilities were inspected by the Commission's staff and found to be adequately maintained and in good operating condition. The concrete overflow spillway and powerhouse have been checked for stability and found to be safe against sliding and overturning for various loading conditions, including the normal reservoir and flood levels. The analysis demonstrated that the spillway overflow section is stable through the range of water surface elevations prior to and including submergence.

<sup>3/</sup> The existing license for the project was amended for the use of the project as a source of cooling water by order dated July 31, 1970, 44 FPC 220. Pursuant to this order, NEPCO maintains a minimum stream flow through the project of 1,200 cfs.

The spillway has successfully passed all flood flows since 1910, including the maximum flood of record, 176,000 cfs in March 1936. With a flow of 176,000 cfs, Vernon reservoir is surcharged to elevation 231.3 feet m.s.l. leaving 5.8 feet of freeboard on the left abutment. With the reservoir at elevation 237.0 feet m.s.l., or zero freeboard, the spillway discharge is estimated to be about 227,000 cfs. On the basis of our staff's report, we conclude that the project works are safe and adequate.

#### Comprehensive Development

The drainage area above Vernon project is 6,266 square miles, or about 55 percent of the total Connecticut River Basin area. The reservoir has a total volume of about 40,000 acre-feet at full reservoir elevation of 220.13 feet. Backwater effects raise the full reservoir levels to about elevation 227 feet at the upstream end of the reservoir. Usable storage amounts to 11,950 acre-feet in five feet of drawdown. NEPCO owns and operates power storage capacity above Vernon of about 255,900 acre-feet. NEPCO also utilizes 99,300 acre-feet of storage from the state of New Hampshire's Lake Francis, and also benefits from the stream flow regulation provided by other reservoirs with a combined usable capacity of about 310,000 acre-feet. Hydraulic capacity of the plant at full station load of 24,400 kW is 13,200 cfs. The estimated annual generation is 119,000,000 kW-hrs.

The United States Corps of Engineers cited in its report on the application the need for closer coordination of operation of the federal projects and the licensed projects located in the Connecticut River Basin. NEPCO recognizes the need to coordinate the operation of all such facilities during periods of floods, but believes it must continue to control fully the operation of its projects located on the Connecticut River. NEPCO has met with personnel of the Corps' Reservoir Control Center to determine how such coordination shall be carried out. Article 32 of this license requires coordination of the project operation for flood control and navigation, with the Corps of Engineers.

The applicant has studied the feasibility of utilizing Vernon reservoir as the lower reservoir for the 450,000 kW Wantastiquet Mountain pumped storage project, which may be economically feasible at some time in the future. We have reviewed the Connecticut River Basin Comprehensive Report and the FPC Planning Status and Evaluation Reports. A Commission staff study in 1968 analyzed the feasibility of adding 50,000 kW of new capacity at the project, with an estimated increase in generation of 84,000,000 kWh. The analysis at that time developed a cost/benefit ratio of 0.60, which indicated that the installation of the additional units would be unattractive when compared to alternate sources of generation in the area. In light of changed economic conditions since that study was performed, however, additional generation at the Vernon Project may now be feasible. Article 39 of this license requires the Licensee to file a feasibility analysis of installing additional generating capacity and, if feasible, a schedule for filing an application to add capacity. Under Article 9 of this license, we retain the authority to require the Licensee to install additional capacity that may be economically feasible.

We conclude that the project as constructed makes effective use of the fall and flow of the Connecticut River and, upon compliance with the terms and conditions of the license, will be best adapted to a plan for comprehensive development of the Connecticut River for beneficial public uses.

#### Federal Takeover

Section 14 of the Federal Power Act reserves to the United States the right to take over a non-publicly owned project upon expiration of the license, after paying to the licensee the net investment in the project, not to exceed the fair value of the property taken, plus severance damages, if any.

No federal agency, state, or municipality recommended takeover or redevelopment of the project by the United States or any other entity. The project is not in conflict with any project authorized or under study by the United States. None of the above governmental units has objected to the licensing of the project. We know of no reason why federal takeover of the project would better serve the public interest than issuance of this license. Consequently, we shall not recommend federal takeover.

Fish Passage Facilities

Project waters provide a warmwater fishery during the spring, summer, and fall months and afford a limited winter fishery when ice conditions permit access. Fishing is popular in the tailrace and certain portions of the reservoir.

The Department of the Interior (Interior) and the New Hampshire Fish and Game Department (NHFG) recommended that the fish passage facilities, needed for the restoration of Atlantic salmon and American shad to upstream reaches of the Connecticut River, should be constructed as soon as possible. The New Hampshire Office of State Planning, the New England River Basins Commission, and the Vermont Federation of Sportsmen's Club, Inc. expressed similar views. A restoration program was initiated in December, 1966. NEPCO has cooperated in studies conducted in conjunction with this program and has contributed funds supporting such studies.

On October 5, 1978 in Docket No. E-7561, the Commission approved a schedule for construction of fish passage facilities at the Vernon Project. Construction is now ready to begin and is expected to be completed during two construction seasons. Standard Article 15 of the license will provide for continuing supervision of the construction and operation of fish passage facilities at the Vernon Project.

Stream Flow Releases

In 1970, the Commission set a minimum flow release of 1,200 cfs for the Vernon Project, to prevent heat build-up in the reservoir from cooling system discharges from the Vermont Yankee Nuclear Power Plant. In this proceeding, the Department of the Interior recommended that a minimum flow of 1,250 cfs be released from the project at all times, except when limited by inflow. The Environmental Protection Agency (EPA) recommended a flow of 0.20 cfs/m (cubic feet per second per square mile of drainage)--equivalent to 1,250 cfs here--as adopted by the Connecticut River Coordinating Committee. Vermont,

Massachusetts, and the New England River Basins Commission also recommended 0.20 cfs as the minimum flow release. <sup>4/</sup> The New Hampshire Fish and Game Department and the Policy Committee for Fisheries Management of the Connecticut River Basin favored a minimum release of 0.25 cfs. Our staff recommends the 0.20 cfs release that represents the consensus of the interested agencies.

In Article 34 of this license, we require a minimum flow release of 1250 cfs, or 0.20 cfs, from the project. Should this minimum flow release prove inadequate to protect the Connecticut River fishery, however, we may require higher flow releases under Article 12 or Article 15. As noted above, this license also requires coordination of project operation with the Corps of Engineers for flood control purposes.

#### Recreation

The Department of the Interior has commented that the recreation plan now before the Commission adequately provides for public use of the recreation resources at the project. Interior recommends provisions for periodic review and updating in cooperation with pertinent agencies and in conjunction with the biennial submission of the Form 80. The Cheshire County Commissioners indicated that the recreational development and use by residents is satisfactory to their needs.

Adequate public access to the project waters is provided by state parks and state boat launch sites, access from highways crossing the project reservoir, privately owned launch and access areas, and Applicant-owned and operated facilities.

The Vernon Glen Recreation Area and the Governor Hunt Picnic Area are the two major recreation areas at the Vernon Project. Part of the Vernon Glen Recreation Area is currently leased for agricultural purposes. The lease for agricultural purposes is acceptable; we are, however, requiring that this agricultural land be reserved for possible future recreational development.

<sup>4/</sup> The New Hampshire Water Supply and Pollution Control Commission certified the project's compliance with New Hampshire water quality standards. The Vermont Agency of Environmental Conservation waived state certification under §401 of the Federal Water Pollution Control Act on condition that the 0.20 cfs flow release be maintained.

Portions of the Governor Hunt Picnic area lie within the flood plain of the Connecticut River, immediately downstream from the project powerhouse tailrace. Flooding and turbulent water below the powerhouse have in the past created maintenance problems for the small boat launching site in that area. NEPCO proposes to improve the launching facilities (as well as the access road and parking area) at the Governor Hunt Picnic Area by grading, stating that a permanent ramp is not feasible. But our staff reports that a launch ramp constructed of steel grid tread, which would be portable enough either to be cabled down or to be removed under flood conditions, might provide a better solution. Under Article 33, NEPCO must improve the launching facilities within one year, to the satisfaction of our authorized representative, the Regional Engineer (see Article 4). Since the boat launching site is just downstream from the tailrace, there is a need for safety facilities to alert public visitors to potential hazards. Article 36 of this license requires installation of safety devices to the satisfaction of our authorized representative.

Neither the Vernon Glen Recreation Area nor the Governor Hunt Picnic Area currently has a potable water supply. Both areas are within short distances of the powerhouse where a water supply exists, but is not available to the public. Article 33 requires NEPCO to provide a potable water supply at an appropriate location in each of these areas.

The Vernon Neck Forest Demonstration Area has archeological and biological interest. It is, however, unsuited for general public use because of hazardous access as well as unstable soil and slope conditions. However, the reforestation program which NEPCO has instituted for erosion control would have intrinsic natural, aesthetic, and wildlife values. Article 33 would require Vernon Neck to remain a natural area, and permit only limited public use of the area.

### Erosion Control

The New Hampshire Fish and Game Department recommended that NEPCO be required to stabilize bank conditions within the impoundment area. The Department contends that fluctuation of the reservoir level has caused serious bank erosion and resultant siltation in the Connecticut River. Intervenors, including For Lands' Sake, have also raised this issue. We addressed this matter in our earlier "Order Approving Settlement Agreement Concerning Fish Passage Facilities..." 5/ There, we recognized that the Corps of Engineers was conducting a study of the Connecticut River to determine the causes of erosion, problem areas, and methods to reduce erosion. In our order we denied For Lands' Sake's motion that we not issue a license for the Wilder Project No. 1892 until the erosion study was complete and the findings were reviewed. We found that standard license Article 19 and, if necessary, special articles could retain ample means for us to address any erosion problems the Corps' study might establish.

The Corps' final report on its erosion study is not yet available. Special Article 40 of this license requires NEPCO to file a copy of the Corps' report within 30 days after it is issued. If the Corps' study report identifies erosion problems associated with Project No. 1904, we shall then entertain, on our own motion or the motion of others, the question of what mitigative measures might be appropriate.

### Historical and Archeological Resources

The State Historic Preservation Officers (SHPO) of Vermont and New Hampshire were requested to review the proposed recreational development for the Vernon Project to determine what effects, if any, relicensing and construction of any new recreational facilities might have on any known archeological remains. The Vermont SHPO stated that the issuance of a license for the Vernon project will not affect properties that are included or eligible

5/ New England Power Co., Docket No. E-7561, Project Nos. 1904, 1855, and 1892 (issued Oct. 5, 1978).



for inclusion in the National Register of Historic Places. No response has been received to date from the New Hampshire SHPO, but our staff reports that no site listed in the National Register is within the project boundary. Since there are archeological remains within the project area, some of which have been salvaged, it is in the public interest to require Applicant to consult with the SHPO in both Vermont and New Hampshire to prevent possible loss of any archeological remains within project boundaries. Article 35 of this license will ensure proper protection of historical and archeological values.

#### Other Environmental Considerations

Approval of a new license for Project No. 1904 would permit the continued project operation which started in 1909. No additional power facilities are proposed. Continued operation and maintenance of the project and resulting environmental impacts are discussed in this order. The only construction authorized or required by this license is for limited recreational development and will not result in any significant adverse environmental impacts. On the basis of the record, including agency and intervenor comments and the staff's independent analysis, the Commission concludes that issuance of this new license for Project No. 1904, as conditioned, is not a major federal action significantly affecting the quality of the human environment.

#### License Term

Our usual policy on relicensing is to limit the license term to 30 years if no substantial redevelopment is contemplated or proposed. <sup>6/</sup> In the circumstances of this project, however, we consider a longer term warranted, even though NEPCO does not propose to add new generating capacity. NEPCO will be investing a significant amount of new capital in the project to provide fish passage facilities. In addition, the Vernon Project is located upstream from the Turners Falls Project No. 1889, and the Northfield Mountain Project No. 2485. The expiration date of the license for the Northfield Mountain

<sup>6/</sup> See The Montana Power Co., Mystic Lake Project No. 2301, Order Issuing New License (Major) (issued Oct. 5, 1976).

Project, which makes joint use of the Turners Falls Reservoir, is April 30, 2018. In the interests of coordinating the administration of projects on this reach of the Connecticut River, the license for Project No. 1904 will terminate on April 30, 2018, too.

Exhibit K

Our staff reports that NEPCO's Exhibit K fails to conform with the requirements of §4.41 of our regulations, in that it does not adequately show the extent of fee ownership or flowage rights for project lands. Article 38 of this license requires NEPCO to file a revised Exhibit K conforming to our regulations and curing these deficiencies within one year. 7/

The Commission orders:

(A) This license is issued to New England Power Company (Licensee) of Westboro, Massachusetts, under Part I of the Federal Power Act, for a period effective the first day of the month in which this order is issued and terminating April 30, 2018, for the continued operation and maintenance of the Vernon Project No. 1904, located in Windham County, Vermont, and Cheshire County, New Hampshire, on the Connecticut River, a navigable waterway of the United States. 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 Vernon Project No. 1904 consists of:

(1) All lands, to the extent of the Licensee's interests in those lands, constituting the project area and enclosed by the project boundary, the project area and boundary being shown and described by certain exhibits which form part of the application for license and which are designated and described as:

7/ In addition, the Exhibit K in the application for license fails to include all the information contained on Exhibit K-2, Sheet 3A of 14, filed as part of NEPCO's May 31, 1968, application for amendment of license. Article 38 also requires NEPCO to include the deleted information in its revised Exhibit K.

<u>Exhibit</u>	<u>FPC No. 1904-</u>	<u>Showing</u>
J Sheet 2-A	43	General Map
K-2	44	Project Map
K-2; 1-A	45	Project Map
K-1; 1A-14	46	Project Map
K-2; 2A-14	47	Project Map
K-2; 3B-14	48	Project Map
K-2; 4A-14	49	Project Map
K-2; 5A-14	50	Project Map
K-2; 6A-14	51	Project Map
K-2; 7A-14	52	Project Map
K-2; 8A-14	53	Project Map
K-2; 9A-14	54	Project Map
K-2; 10A-14	55	Project Map
K-2; 11A-14	56	Project Map
K-2; 12A-14	57	Project Map
K-2; 13A-14	58	Project Map
K-2; 14A-14	59	Project Map

## (2) Project works consisting of:

(a) A concrete gravity dam comprising a spillway section 600 feet long with eight-foot-high flashboards and a non-overflow section 353 feet long; (b) Vernon Reservoir with a water surface area of 2,550 acres at normal pool elevation 220.1 feet m.s.l. extending about 27 miles upstream; (c) a powerhouse containing eight 2,000-kW and two 4,200-kW generating units, for a total installed capacity of 24,400 kW; (d) transmission facilities consisting of: (i) generator leads; (ii) the 2.4/69-kV step-up transformers located within the powerhouse; (iii) the 69-kV leads to the outdoor 69 kV switchyard bus; and (e) appurtenant facilities.

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

<u>Exhibit</u>	<u>FPC No. 1904-</u>	<u>Showing</u>
L-1A	-60	General Layout of Plant
L-2A	-61	Details of Spillway
L-3A	-62	Powerhouse and Switchyard
L-4A	-63	Section of Powerhouse
L-5A	-64	Section of Powerhouse
L-6A	-65	Section of Powerhouse

Exhibit M Entitled "General Description and Specifications of Equipment", consisting of seven typewritten pages, filed June 23, 1969.

Exhibit R filed September 2, 1971, and supplemented and revised November 5, 1973, consisting of: (1) 12 pages of text; (2) site development plans entitled "Estimated Public Visitation"; (3) Appendix A entitled "Proposed Recreation Development Vernon Glen", and "Proposed Demonstration Forest Vernon Neck", and (4) Exhibit R drawing, FPC No. 1904-66 titled "General Recreation Map".

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

(C) Exhibits J, L, and M, designated and described in ordering paragraph (B) above, are approved and made a part of the license. Exhibit K is approved only to the extent that it shows the general location, description, and nature of the project and subject to license Article 38. Exhibit R is approved insofar as it describes existing and proposed recreational development at the project, subject to the conditions imposed by license Article 33.

(D) This license is also subject to Articles 1 through 28 set forth in Form L-3 (Revised October 1975) entitled "Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters of the United States", 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 29. Pursuant to Section 10(d) of the Act, a specified reasonable rate of return upon the net investment in the project shall be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. One-half of the project surplus earnings, if any, accumulated under the license, in excess of the specified rate of return per annum on the net investment, shall be set aside in a project amortization reserve account as the end of each fiscal year: Provided, that, if and to the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year under the license, the amount of such deficiency shall be deducted for the amount of any surplus earnings accumulated thereafter until absorbed, and one-half of the remaining surplus earnings, if any, cumulatively computed, shall be set aside in the project amortization reserve account; and the amounts thus established in the project amortization reserve account shall be maintained therein until further order of the Commission.

The annual specified reasonable rate of return shall be the sum of the weighted cost components of long-term debt, preferred stocks, and the cost of common equity, as defined herein. The weighted cost component for each element of the reasonable rate of return is the product of its capital ratios and cost rate. The current capital ratios for each of the above elements of the rate of return shall be calculated annually based on an average of 13 monthly balances of amounts properly includable in the Licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rates for such ratios shall be the weighted average cost of long-term debt and preferred stock for the year, and the cost of common equity shall be the interest rate on 10-year government bonds (reported as the Treasury Department's 10-year constant maturity series) computed on the monthly average for the year in question plus four percentage points (400 basis points).

Article 30. The Licensee shall pay the United States the following annual charge, effective the first day of the month in which this license is issued: For the purpose of reimbursing the United States for the cost of administra-

tion of Part I of the Act, a reasonable annual charge as determined by the Commission in accordance with the provisions of its regulations in effect from time to time. The authorized installed capacity for that purpose is 32,500 horsepower.

Article 31. Licensee shall implement, and modify when appropriate, the emergency action plan on file with the Commission designed to provide an early warning to upstream and downstream inhabitants and property owners if there should be an impending or actual sudden release of water caused by an accident to, or failure of, project works. That plan shall include: instructions to be provided on a continuing basis to operators and attendants for actions they are to take in the event of an emergency; detailed and documented plans for notifying law enforcement agents, appropriate Federal, State, and local agencies, operators of water-related facilities, and those residents and owners of properties that could be endangered; actions that would be taken to reduce the inflow to the reservoir, if possible, by limiting the outflow from upstream dams or control structures; and actions to reduce downstream flows by controlling the outflow from dams located on tributaries to the stream on which the project is located. Licensee shall also maintain on file with the Commission a summary of the study used as a basis for determining the areas that may be affected by an emergency, including criteria and assumptions used. Licensee shall monitor any changes in upstream or downstream conditions which may influence possible flows or affect areas susceptible to damage, and shall promptly make and file with the Commission appropriate changes in the emergency action plan. The Commission reserves the right to require modifications to the plan.

Article 32. The Licensee shall enter into an agreement with the Department of Army, Corps of Engineers (Corps), providing for the coordinated operation of the project, in the interest of flood control and navigation, on the Connecticut River in accordance with rules and regulations prescribed by the Secretary of the Army. A conformed copy of the agreement shall be filed with the Commission within one year of the date of issuance of this license. If the Licensee and the Corps fail to reach agreement, then within one year from the date of issuance of this license the Licensee

shall file its proposals for coordinated operation of the project with other water resource projects on the Connecticut River, together with a copy of the Corps' objections to the Licensee's proposals. The Commission reserves the right to impose conditions on the Licensee for coordinated operation of the project.

Article 33. The Licensee shall: (a) within one year from the date of issuance of this order: (1) provide a potable water supply at appropriate locations in both the Vernon Glen Recreation Area and the Governor Hunt Picnic Area; and (2) complete all improvements to the roadway, parking areas, and launch facilities at the Governor Hunt Boat Launching Area to the satisfaction of the Commission's authorized representative; and (b) within two years from the date of issuance of this order, complete the development of all recreational facilities approved in the Exhibit R. The Vernon Neck Demonstration Forest Area shall be designated as a natural area, with only limited public use. The northern portion of the Vernon Glen Recreation Area may continue in existing agriculture use, subject to its reservation for future recreational development that may be determined necessary during the license period.

Article 34. The Licensee shall maintain a continuous minimum flow of 1,250 cfs (0.20 cubic feet per second per square mile of drainage basin) or a flow equal to the inflow of the reservoir, whichever is less, from the project into the Connecticut River. These flows may be modified temporarily: (1) during and to the extent required by operating emergencies beyond the control of the Licensee; and (2) for short periods of time in the interest of recreation and protection of the fisheries resources upon mutual agreement between the Licensee and the Fish and Game Departments of the States of New Hampshire and Vermont.

Article 35. Prior to the commencement of any construction or development of any project works or other facilities at the project, the Licensee shall consult and cooperate with the appropriate State Historic Preservation Officer(s) (SHPO) to determine the need for, and extent of, any archeological or historic resource surveys and any mitigative measures that may be necessary. The Licensee shall provide funds in a reasonable amount for such activity.

If any previously unrecorded archeological or historic sites are discovered during the course of construction, 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 mitigation 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 36. The Licensee shall, to the satisfaction of the Commission's authorized representative, install and operate any signs, lights, sirens or other devices that may be reasonably needed to warn the public of fluctuations in flow from the project and to protect the public in its recreational use of project lands and waters.

Article 37. In the interests of protecting and enhancing the scenic, recreational, and other environmental values of the project, Licensee: (1) shall supervise and control the use and occupancy of project lands and waters; (2) shall prohibit, without further Commission approval, the further use and occupancy of project lands and waters other than as specifically authorized by this license; (3) may authorize, without further Commission approval, the use and occupancy of project lands and waters for landscape plantings and the construction, operation, and maintenance of access roads, power and telephone distribution lines, piers, landings, boat docks, or similar structures and facilities, and embankments, bulkheads, retaining walls, or other similar structures for erosion control to protect the existing shoreline; (4) shall require, where feasible and desirable, the multiple use and occupancy of facilities for access to project lands and waters; and (5) shall ensure to the satisfaction of the Commission's authorized representative that all authorized uses and occupancies of project lands and waters: (a) are consistent with shoreline aesthetic values, (b) are maintained in a good state of repair, and (c) comply with State and local health and safety regulations. Under item (3) of this



article, Licensee may, among other things, institute a program, for issuing permits to a reasonable extent for the authorized types of use and occupancy of project lands and waters. Under appropriate circumstances, permits may be subject to the payment of a fee in a reasonable amount. Before authorizing the construction of bulkheads or retaining walls, Licensee shall:

- (a) inspect the site of the proposed construction,
- (b) determine that the proposed construction is needed, and
- (c) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site.

If an authorized use or occupancy fails to comply with the conditions of this article or with any reasonable conditions imposed by the Licensee for the protection of the environmental quality of project lands and waters, the Licensee shall take appropriate action to correct the violations, including, if necessary, cancellation of the authorization and removal of any non-complying structures or facilities. The Licensee's consent to an authorized use or occupancy of project lands and waters shall not, without its express agreement, place upon the Licensee any obligation to construct or maintain any associated facilities. Licensee shall, within 60 days prior to commencement of a program for issuing permits, furnish a copy of its guidelines and procedures for implementing the program to the Commission's authorized representative and its Director, Office of Electric Power Regulation. Whenever the Licensee makes any modification to these guidelines and procedures, it shall promptly furnish a copy to each of those persons. The Commission reserves the right to require modifications to these guidelines and procedures.

Article 38. Within one year of the date of issuance of this license, the Licensee shall file for approval a revised Exhibit K complying with the requirements of §4.41 of the Commission's regulations and (1) clearly delineating its flowage rights for project lands, as well as fee ownership, and (2) incorporating all information denoted on Exhibit drawing K-2 Sheet 3A of 14 which was a part of the application for amendment of license filed May 31, 1968.

Article 39. The Licensee shall, within six months from the date of issuance of the license, prepare and file with the Commission a feasibility analysis of installing additional generating capacity at the Vernon Project, taking into account, to the extent reasonable, all benefits that would be derived from the installation, including any contribution to the conservation of non-renewable natural resources. If the study shows additional capacity to be economically feasible, the Licensee shall simultaneously file a schedule for filing an application to amend its license to install that capacity.

Article 40. Within 30 days after the U.S. Army Corps of Engineers issues its final report on its study of erosion on the Connecticut River, the Licensee shall file a copy of that report with the Commission.

(E) The application for approval of revised Exhibit K filed May 31, 1968, is dismissed.

(F) This order shall become final 30 days from the date of its issuance unless application for rehearing shall be filed as provided in Section 313(a) of the Act. Failure of the Licensee to file such an application shall constitute acceptance of this license. In acknowledgement of the acceptance of this license it shall be signed for the Licensee and returned to the Commission within 60 days from the date of issuance of this order.

By the Commission.

( S E A L )



Kenneth F. Plumb,  
Secretary.

Project No. 1904

IN TESTIMONY of its acknowledgment of acceptance of  
all of the terms and conditions of this Order, New England  
Power Company this 22nd day of August, 1979,  
has caused its corporate name to be signed hereto by  
John F. Kaslow, its \_\_\_\_\_  
President, and its corporate seal to be affixed hereto and  
attested by Robert King Wulff its Clerk  
~~Secretary~~, pursuant to a resolution of its Board of Directors  
duly adopted on the 26th day of July, 1979, a  
certified copy of the record of which is attached hereto.

By J. F. Kaslow  
President

Attest:

Robert King Wulff  
~~Secretary~~  
Clerk

(Executed in quadruplicate)

NEW ENGLAND POWER COMPANY

Certified Copy of Vote re:  
Acceptance of License for  
FERC Project No. 1904 for Vernon

RECEIVED  
AUG 22 1979  
FEDERAL ENERGY REGULATORY COMMISSION

VOTED: That the license for the Vernon Project of this Company, tendered by order of the Federal Energy Regulatory Commission issued June 25, 1979, be accepted by this Company; and any officer or officers of this Company are authorized, in the name and on behalf of this Company, to execute an acceptance of said license and to take such other action in connection therewith, including any modification of said license, as the officer or officers so acting deem advisable.

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I, Robert King Wulff, hereby certify that I am Clerk of New England Power Company; that the foregoing is a true copy from the records of votes duly passed at a meeting of the Directors of said Company duly held July 26, 1979, at which meeting a quorum was present and acting throughout; and that said vote remains in full force and effect without alteration.

A T T E S T:

August 22, 1979

  
Clerk