

FEDERAL POWER COMMISSION LICENSE

for

Project 2669

BEAR SWAMP PROJECT
(Composite)

Presiding Examiner's Initial Decision, February 11, 1970

Presiding Examiner's Initial Decision, Errata Notice, March 5, 1970

Commission Opinion and Order No. 576, April 28, 1970

Commission Order Clarifying and Amending Order No. 576, May 25, 1970

The Commission orders:

(A) The Initial Decision of the Presiding Examiner issued herein on February 11, 1970, except as modified with respect to the status of certain documents marked for identification but not offered in evidence, and except for the Examiner's conclusion with respect to the status of the .1 mile of new line, is affirmed and adopted, and such decision, as so modified, shall become effective as the decision of the Commission as of the date of issuance of this Order.

(B) The license shall be effective as of April 1, 1970.

(C) All other exceptions to the Examiner's Decision are hereby denied.

Examiner's Decision:

ORDERING PARAGRAPHS

(1) With respect to the application for the proposed Bear Swamp Pumped Storage Project, Project No. 2669:

(A) This license is hereby issued to New England Power Company (Licensee) of Boston, Massachusetts, under Section 4(e) of the Federal Power Act (Act) for a period of 50 years, effective on the first day of the month in which the license order is issued for the construction, operation, and maintenance of the proposed Bear Swamp Project No. 2669, to be located on the Deerfield River in Franklin and Berkshire Counties, Massachusetts, subject to the terms and conditions of the Act which is incorporated herein by reference as a part of this license and subject to such rules and regulations as the Commission has issued or prescribed under the provisions of the Act.

(B) The license shall be effective as of the first day of the month in which the Licensee has filed with the Commission acknowledgment of acceptance of this license. This license creates no rights in the Licensee until it becomes effective.

(C) The Bear Swamp Project No. 2669 consists of:

(i) All lands constituting the project area and enclosed by the project boundary or limits which are otherwise defined and/or interest in such lands necessary or appropriate for the purposes of the project, whether such lands or interests therein are owned or held by the Licensee or the United States; such project area and project boundary being more specifically shown and described by certain exhibits which formed a part of the application for license and which are designated and described as follows:

<u>Exhibit</u>	<u>FPC No. 2669</u>	<u>Showing</u>
J-1	-1	Transmission Lines - General Map
J-2	-2	Project - General Map
K2-1	-3	Project Area

The above Exhibit J and K drawings are approved only insofar as they show the general location of the project.

(ii) All project works consisting of: (1) an upper reservoir containing 4,900 acre-feet of useable storage with 50 feet drawdown from normal maximum water surface elevation 1600 feet M.S.L.; (2) four rockfill bituminous-concrete faced dams having a composite length of about 4,800 feet; (3) an unlined 28-foot diameter vertical shaft about 620 feet long; (4) a concrete lined 21-foot diameter tunnel about 750 feet long; (5) two 14-foot diameter steel penstocks each about 570 feet long; (6) a powerhouse containing two reversible pump generating units each rated 300,000 kilowatts; (7) a lower reservoir containing 4,900 acre-feet of useable storage with 40 feet drawdown from normal maximum water surface elevation 870 feet M.S.L.; (8) a rolled earthfill dam having maximum height of about 130 feet and length of about 700 feet; (9) a concrete gravity spillway structure about 125 feet long surmounted by three tainter gates each 36 feet wide by 30 feet high; (10) a concrete gravity intake section about 55 feet long; (11) a powerhouse containing one tube type turbine rated 10,000 kilowatts; (12) a 13.8 kv transmission line,

1.0 mile long, from Fife Brook to Bear Swamp; (13) a 115 kv tap line, 1.6 miles long, from Bear Swamp to the Adams-Harriman 115 kv transmission line; (14) connecting circuits between the 115 kv bus and the 13.8 kv bus at Bear Swamp; (15) a 115 kv switchyard; (16) recreational facilities; and (17) appurtenant mechanical and electrical equipment, the location, nature, and character of which are more fully described by the exhibits which also formed a part of the application for license and which are designated and described as follows:

<u>Exhibit</u>	<u>FPC No. 2669</u>	<u>Showing</u>
L-1	-4	Plan - Tailpond Dam, Powerhouse and Intakes
L-2	-5	Plan and Section - Upper Reservoir and Dikes
L-3	-6	Plan and Section - Tailpond Dam Spillways, Embankment, and Wall
L-4	-7	Floor Plan - Powerhouse
L-5	-8	Section - Intake and Powerhouse

The above Exhibit L drawings are approved only insofar as they show the general layout of the project structures.

Exhibit M consisting of three typewritten pages entitled "General Descriptions and General Specifications of Mechanical Electrical and Transmission Equipment," filed on February 15, 1968.

Exhibit R consisting of one typewritten page entitled "Recreational Plan" and a forty-one page report with illustrations, maps, including Exhibit R Map, FPC No. 2669-9, and appendices, prepared by Charles T. Main, Inc. entitled "Bear Swamp Exhibit R Recreation Development Plans."

(iii) All other structures, fixtures, equipment or facilities used or useful in the maintenance and operation of the project area, including such portable property as may be useful in connection with the project or any part thereof,

whether located on or off the project area, if and to the extent that the inclusion of such property as a part of the project is approved or acquiesced in by the Commission; also all riparian or other rights, the use or possession of which are necessary or appropriate in the maintenance and operation of the project.

(D) The license terms are as follows:

Article 1. The entire project, as described in the order of the Commission, shall be subject to all the provisions, terms, and conditions of the license.

Article 2. No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: Provided, however: That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval amended, supplemental, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

Article 3. Said project works shall be constructed in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, no substantial alteration or addition not in conformity with the approved plans shall be made to any dam or other project works under the license without the prior approval of the Commission; and any emergency alteration or addition so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in the project works or divergence from such approved exhibits may be made if such changes will not result in decrease in efficiency, in material increase in cost, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct. Upon the completion of the project, or at such other time as the Commission may direct, the Licensee

shall submit to the Commission for approval revised maps, plans, specifications, and statements insofar as necessary to show any divergence from or variations in the project area and project boundary as finally located or in the project works as actually constructed when compared with the area and boundary shown and the works described in the license or in the maps, plans, specifications, and statements approved by the Commission, together with a statement in writing setting forth the reasons which in the opinion of the Licensee necessitated or justified variations in or divergence from the approved maps, plans, specifications, and statements. Such revised maps, plans, specifications, and statements shall, if and when approved by the Commission, be made a part of the license under the provisions of Article 2 hereof.

Article 4. The construction, operation, and maintenance of the project and any work incident to additions or alterations shall be subject to the inspection and supervision of the Regional Engineer, Federal Power Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of the project. Construction of the project works or any feature thereof shall not be initiated until the program of inspection for the project works or any such feature thereof has been approved by said representative. The Licensee shall also furnish to said representative such further information as he may require concerning the construction, operation, and maintenance of the project, and of any alteration thereof, and shall notify him of the date upon which work will begin, as far in advance hereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall allow him and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may from time to time prescribe for the protection of life, health, or property.

Article 5. The Licensee within two years from date of issuance of the license shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction, maintenance and operation of the project. The Licensee, its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights of occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deed or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

Article 6. In the event the project is taken over by the United States upon the termination of the license, as provided in Section 14 of the Act, or is transferred to a new licensee under the provisions of Section 15 of the Act, the Licensee, its successors and assigns will be responsible for and will make good any defect of title to or of right of occupancy and use in any of such project property which is necessary or appropriate or valuable and serviceable in the maintenance and operation of the project, and will pay and discharge, or will assume responsibility for payment and discharge, of all liens or incumbrances upon the project or project property created by the Licensee or created or incurred after the issuance of the license: Provided, That the provisions of this article are not intended to require the Licensee, for the purpose of transferring the project to the United States or to a new Licensee, to acquire any different title to or right of occupancy and use in any of such project property than was necessary to acquire for its own purposes as Licensee.

Article 7. The actual legitimate original cost of the original project, and of any addition thereto or betterment thereof, shall be determined by the Commission in accordance with the Act and the Commission's rules and regulations thereunder.

Article 8. After the first 20 years of operation of the project under the license, six percent per annum shall be the specified rate of return on the net investment in the project for determining surplus earnings of the project for the establishment and maintenance of amortization reserves, pursuant to Section 10(d) of the Act; one-half of the project surplus earnings, if any, accumulated after the first 20 years of operation under the license, in excess of six percent per annum on the net investment, shall be set aside in a project amortization reserve account as of the end of each fiscal year: Provided, that, if and to the extent that there is a deficiency of project earnings below six percent per annum for any fiscal year or years after the first 20 years of operation under the license, the amount of such deficiency shall be deducted from the amount of any surplus earnings accumulated thereafter until absorbed, and one-half of the remaining surplus earnings, if any thus 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.

Article 9. For the purpose of determining the stage and flow of the stream or streams from which water is diverted for the operation of the project works, the amount of water held in and withdrawn from storage, and the effective head on the turbines, the Licensee shall install and thereafter maintain such gages and stream-gaging stations as the Commission may deem necessary and best adapted to the requirements; and shall provide for the required readings of such gages and for the adequate rating of such stations. The Licensee shall also install and maintain standard meters adequate for the determination of the amount of electric energy generated by said project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission and may be altered from time to time if necessary to secure adequate determinations, but such alteration shall not be made except with

the approval of the Commission or upon the specific direction of the Commission. The installation of gages, the ratings of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of said project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient record of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Article 10. The Licensee shall install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so, after notice and opportunity for hearing.

Article 11. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically with such other power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order. As part of that coordination and pursuant to the continuing regulatory jurisdiction of this Commission, the Licensee shall make provisions for selling and making available to all electric systems which may request project service, such portions of project capacity as are excess to the system needs of the operating subsidiaries in any current or future holding company system registered under the Public Utility Holding Company Act of 1935, as amended, of which the Licensee is a part, all upon just, reasonable and non-discriminatory terms and conditions.

Article 12. Whenever the Licensee is directly benefited by the construction work of another licensee, a permittee, or of the United States of a storage reservoir or other headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for such part of the annual charges for interest, maintenance, and depreciation thereon as the Commission shall determine to be equitable, and shall pay to the United States the cost of making such determination as fixed by the Commission. For benefits provided by a storage reservoir or other headwater improvement of the United States the Licensee shall pay to the Commission the amounts for which it is billed from time to time for such headwater benefits and for the costs of making the determinations pursuant to

Article 13. The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes; and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

Article 14. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall, after notice and opportunity for hearing, permit such reasonable use of its reservoirs or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission in the interest of comprehensive development of the waterway or waterways involved and the conservation and utilization of water resources of the region, for water supply for the purpose of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation, at least full reimbursement for any damages or expenses which the joint use causes him to incur, for use of its reservoirs or other project properties or parts

thereof for such purposes, any such compensation to be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot be concurrently submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Article 15. In the construction or maintenance of the project works, the Licensee shall place and maintain suitable structures and devices to reduce to a reasonable degree the liability of contact between its transmission lines and telegraph, telephone and other signal wires or power transmission lines constructed prior to its transmission lines and not owned by the Licensee, and shall also place and maintain suitable structures and devices to reduce to a reasonable degree the liability of any structures or wires falling or obstructing traffic or endangering life. None of the provisions of this article are intended to relieve the Licensee from any responsibility or requirement which may be imposed by other lawful authority for avoiding or eliminating inductive interference.

Article 16. The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance and operation of such facilities and comply with such reasonable modifications of the project structures and operation as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing and upon findings based on substantial evidence that such facilities and modifications are necessary and desirable, reasonably consistent with the primary purpose of the project, and consistent with the provisions of the Act.

Article 17. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife

facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of Licensee's lands and interest in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be prescribed by the Commission, reasonably consistent with the primary purpose of the project, in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Article 18. The Licensee shall construct, maintain and operate or shall arrange for the construction, maintenance and operation of such recreational facilities including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities and utilities, and shall comply with such reasonable modifications of the project structures and operations as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal and State agencies, after notice and opportunity for hearing and upon findings based upon substantial evidence that such facilities and modifications are necessary and desirable, and reasonably consistent with the primary purpose of the project.

Article 19. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and recreational purposes, including fishing and hunting, and shall allow to a reasonable extent for such purposes the construction of access roads, wharves, landings, and other facilities on its lands the occupancy of which may in appropriate circumstances be subject to payment of rent to the Licensee in a reasonable amount: Provided, that the Licensee may reserve from public access, such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property and Provided, further, that the

Licensee's consent to the construction of access roads, wharves, landings, and other facilities shall not, without its express agreement, place upon the Licensee any obligation to construct or maintain such facilities. These facilities are in addition to the facilities that the Licensee may construct and maintain as required by the license.

Article 20. The Licensee shall be responsible for and shall take reasonable measures to prevent soil erosion on lands adjacent to the stream and to prevent stream siltation or pollution resulting from construction, operation or maintenance of the project. The Commission upon request, or upon its own motion, may order the Licensee to construct and maintain such preventive works to accomplish these purposes and to revegetate exposed soil surface as the Commission may find to be necessary after notice and opportunity for hearing.

Article 21. The Licensee shall clear and keep clear to an adequate width lands along open conduits, shall clear lands within the bottom and margin of reservoirs (except as may be otherwise specified in the license), and shall dispose of all temporary structures, unused timber, brush, refuse, or inflammable material resulting from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the margins of reservoirs within the project boundaries, which may die during operations of the project shall be removed. The clearing of the lands and the disposal of the material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission.

Article 22. Insofar as any material is dredged or excavated in the prosecution of any work authorized under the license, or in the maintenance of the project, such material shall be removed and deposited so it will not interfere with navigation, and will be to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

Article 23. Whenever the United States shall desire to construct, complete, or improve navigation facilities in connection with the project, the Licensee shall convey to the United States, free of cost, such of its lands and its rights-of-way and such right of passage through its dams or other structures, and permit such control of pools as may be required to complete and maintain such navigation facilities.

Article 24. The Licensee shall furnish free of cost to the United States power for the operation and maintenance of navigation facilities at the voltage and frequency required by such facilities and at a point adjacent thereto whether said facilities are constructed by the Licensee or by the United States.

Article 25. The operation of any navigation facilities which may be constructed as a part of or in connection with any dam or diversion structure constituting a part of the project works shall at all times be controlled by such reasonable rules and regulations in the interest of navigation, including the control of the level of the pool caused by such dam or diversion structure, as may be made from time to time by the Secretary of the Army.

Article 26. The Licensee shall for the protection of navigation, construct, maintain and operate at its own expense such lights and other signals on fixed structures in or over navigable waters of the United States as may be directed by the Secretary of the Department in which the Coast Guard is operating.

Article 27. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project for a period of three years, or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license, and not less than 90 days after public notice may in its discretion terminate the license.

Article 28. Upon abandonment of the project the Licensee shall remove all structures, equipment and power lines from the stream and restore said stream to a condition satisfactory to the Commission's authorized representative and shall fulfill such other obligations under the license as the Commission may prescribe.

Article 29. The right of the Licensee and of its transferees and successors to use or occupy waters, over which the United States has jurisdiction, under the license, for the purpose of maintaining the project works or otherwise, shall

absolutely cease at the end of the license period, unless Licensee has obtained a new license pursuant to the then existing laws and regulations or an annual license under the terms and conditions of this license.

Article 30. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

Article 31. Licensee shall commence construction within one year from the effective date of the license and shall thereafter and in good faith and with due diligence prosecute such construction and shall complete construction of such project works within five years from the effective date of the license.

Article 32. Licensee shall retain a board of three or more independent qualified consultants to assess and make recommendations for safety and adequacy, specifications, design and construction of the project. Among other things, the board shall assess: the geology of the project site and surroundings, including the bedrock and over-burden of the reservoir sites for their water retaining capabilities; the proposed design, specifications, and construction of the dike embankments, the associated dike instrumentation, drainage systems, and plans for surveillance during test filling and operation of the reservoirs; the proposed design, specifications, and the construction of the powerhouse, waterways, electrical and mechanical equipment involved in water control, emergency power supply and other project works; and the construction inspection program. Licensee shall submit the board's reports to the Commission covering each portion of the project prior to or simultaneously with the submittal of the corresponding revised Exhibit L final design drawings. The Licensee shall also submit the board's final report covering the construction of the project works, and a schedule for test filling of the upper reservoir, and the Licensee shall secure Commission approval prior to the initial filling of the project's upper reservoir.

Article 33. Licensee shall, prior to commencement of construction, arrange with the Peabody Museum, Harvard University, Cambridge, Massachusetts 02138, for an archaeological and historical survey and any necessary archaeological excavations and Licensee shall provide an amount not to exceed \$10,000 for such survey and excavations to be conducted prior to construction or flooding, whichever is applicable.

Article 34. Licensee shall cooperate with appropriate State and local agencies in the identification of historical structures, if any, within the project area, and, if necessary, cooperate in developing a plan for protection or relocation of such structures.

Article 35. Licensee shall minimize any disturbance caused by construction and maintenance of the project works to the scenic values of the area by consulting with the appropriate Federal and State agencies and professional land use planners in developing a plan to blend project works with the natural view, and shall within one year from issuance of this license submit an architectural rendering showing the plan developed for the major project features including transmission facilities.

Article 36. Insofar as any material is excavated, other than in the Deerfield River, in the prosecution of any work authorized under license, or in the maintenance of the project, such material shall be removed and deposited and borrow areas restored to the satisfaction of the Commission's New York Regional Engineer.

Article 37. Licensee shall install instrumentation and other devices as necessary for monitoring seepage, uplift, and performance of the project structures and reservoir slopes. A plan of instrumentation and a schedule of recording instrument readings shall be furnished to the Commission prior to initial filling of the reservoirs. Licensee shall periodically furnish to the Commission, as may be requested by the Commission or its New York Regional Engineer, a report and analysis of the instrument readings.

Article 38. Licensee shall provide primary and back-up systems to stop the pumping cycle automatically when the water surface of the upper reservoir reaches a level of 1,600 feet mean sea level. In the event the Commission, upon the Licensee's filing of its final Exhibit L drawings for approval, shall find such systems inadequate reasonably to prevent overpumpage and consequent damages, the Licensee shall construct a spillway and take such other measures as the Commission shall order to prevent damages from overpumpage.

Article 39. Licensee shall enter into an agreement with the District Engineer, Department of the Army, providing for the coordinated operation of Project Nos. 2323 and 2669 during flood conditions on the Deerfield River in accordance with the rules and regulations prescribed by the Secretary of the Army. A conformed copy of the agreement shall be filed with the Commission prior to commencement of commercial operation of Project No. 2669. In the event that agreement with the Department of the Army cannot be achieved prior to that time, Project No. 2669 shall be operated during flood conditions on the Deerfield River in accordance with a plan prescribed by the Commission.

Article 40. Licensee shall submit in accordance with the Commission's rules and regulations Exhibits J and L drawings and Exhibit M showing the final designs of the project works and the Licensee shall not begin construction of the project structures until the Commission has approved such exhibits.

Article 41. Licensee shall, within one year from the date of completion of the project, and in accordance with Commission rules and regulations, file an Exhibit F and, for Commission approval, a revised Exhibit K. Preparation of the revised Exhibit K shall be coordinated with the preparation of the revised Exhibit K for Project No. 2323.

Article 42. Licensee shall pay to the United States the following annual charges:

For the purposes of reimbursing the United States for the costs of administration 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 such purposes is 813,000 horsepower.

Article 43. Licensee shall, prior to relocation or construction of transmission lines, roads and railroads, consult with appropriate Federal, State and local agencies and shall submit its plans showing the proposed relocation or construction including vertical clearance of transmission lines and plans for the preservation and enhancement of the environment as it may be affected by the relocation or construction. In preparing this plan, the Licensee shall give appropriate consideration to recognized guidelines for protecting the environment and to the beneficial uses, including wildlife, of the transmission lines rights-of-way.

Article 44. The Licensee following cooperation with the Massachusetts Division of Fisheries and Game and the U.S. Fish and Wildlife Service shall make or pay the cost of making reasonable studies to determine the effect of the project and its operation on fish including the effects of the lower project reservoir fluctuation on fish food organisms, trout habitat and fish.

Article 45. The Licensee shall release sufficient water from the lower project reservoir to maintain at the Charlemont gage on the Deerfield River a minimum flow of not less than 120 cubic feet per second (cfs) during the months of July and August of each year, not less than 100 cfs during the remainder of the fishing season of each year, and 50 cfs during the remainder of each year.

Article 46. The Licensee shall, within one year from the date of issuance of the license and in accordance with Commission rules and regulations, file for Commission approval a revised Exhibit R. Preparation of the revised Exhibit R shall be coordinated with the preparation of a revised Exhibit R for Project No. 2323 and revised Exhibits K for the project and for Project No. 2323.

(E) The exhibits designated and described in the above ordering paragraphs are hereby approved as part of this license to the extent therein indicated.

(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, and failure to file such an application shall constitute acceptance of this license. In acknowledgment 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.

**Amendment to
the Bear Swamp
License**

BEAR SWAMP LICENSE HIGHLIGHTS:

- 50-year license. Effective April 1, 1970 through March 31, 2020
- 3 Significant License amendments since initial issuance:
 - April 4, 1997 – Operational, recreation and cultural resource requirements associated with Deerfield River Project Settlement Agreement.
 - November 13, 1998 – Partial transfer of license– in conjunction with the sale-leaseback.
 - November 19, 1998 – Amended license by deleting 2.6 mi. 115-kv tap and 115-kv portion of the Bear Swamp switchyard
- Licensed Recreational / Public Use Facilities
 - Visitor's Center, including info on Bear Swamp, regional recreation opportunities, and archeology found during construction
 - Public Access area below Fife Brook – Angler access area, whitewater put-in boat slide, parking, toilets
 - Open Lands – available for hunting, fishing, hiking except for fenced in reservoir shorelines.
 - Term conservation easements on project lands (term associated with License term); revised project map showing conservation in progress.
- Public use operational requirements
 - Minimum flows below Fife Brook dam – instantaneous 125 cfs guaranteed
 - Scheduled whitewater releases – 106, 3-hour whitewater releases of 700-1100 cfs scheduled in advance. Flow typically through generation.
 - Flow information telephone – current and flow forecast information 24-hr in advance.