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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Power Authority of the State of New York) Project No. 3211-002

ORDER ISSUING LICENSE (MAJOR)

(Issued August 12, 1982)

The Power Authority of the State of New York (Applicant) filed an application on December 22, 1981, for a license for the Hinckley Hydroelectric Project, FERC No. 3211-000. 1/ The project would be located on West Canada Creek at river mile 35.4, a stream subject to the jurisdiction of Congress under its authority to regulate interstate commerce, near the Hamlet of Hinckley, in Oneida and Herkimer Counties, New York. The project dam is located 2.5 and 4.5 miles upstream from the Niagara Mohawk Power Corporation's (NMPC) Prospect and Trenton generating facilities (FERC Project No. 2701), respectively. Notice of the application has been published and comments have been received from interested Federal, State, and local agencies. No protests or petitions to intervene have been received, and none of the agencies objected to issuance of the license.

Existing facilities include the state-owned Hinckley Dam and 2,850-acre Hinckley Reservoir. Hinckley Dam consists of earthen embankments 570 and 2,600 feet long on each end of a non-overflow gravity dam section 65 feet long, and a 400-foot-long spillway. The Applicant proposes to construct intake and power conduits, a 70-foot by 68-foot powerhouse with 2 turbine/generator units rated at 4.5 MW each, and a 280-foot-long tailrace. The project would be a peaking facility, operating in coordination with Project No. 2701.

No Federal lands would be impacted by the proposed action.

Project Operation and Minimum Flows

The Department of the Interior (Interior) recommended that the project be operated in a run-of-river mode such that there would be a minimum flow of 160 cfs downstream of the New York State Department of Transportation (DOT) barge canal diversion weir.

1/ Authority to act on this matter is delegated to the Director, Office of Electric Power Regulation, under 18 C.F.R. §375.308 (1982).

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Interior further recommended that when adequate flows for project operation are not available, all flows should be passed over the spillway. Also, during periods when flows exceed the maximum hydraulic capacity of the project, all excess flows should be passed over the spillway.

The Applicant stated that it would operate the project in conformity with the terms and conditions of the Section 401 Water Quality Certification issued on October 28, 1981. The certification includes resource management recommendations as outlined in a letter dated November 6, 1981, and requires that the Applicant assure that sufficient water would be made available at all times to maintain the 160-cfs continuous downstream flow requirement, as well as diversion flows required for DOT barge canal purposes. The Applicant further stated that the 160 cfs flow requirement would be met through the coordinated operation of Hinckley, Prospect, and Trenton Falls power facilities as outlined in the Exhibit B of the license application.

In response to Interior's recommendations concerning spillage, the Applicant stated that since 1920, DOT has operated the Hinckley Reservoir on the basis of a rule curve prepared by the Department of the State Engineer and Surveyor. The reservoir is annually drawn down to at least 35 feet below the spillway crest. Since 1960, the average reservoir elevation has been 12.6 feet below the spillway crest. The Applicant's proposed operating scheme is based on this 1920 reservoir rule curve.

Spillage of flows as recommended by Interior would require that the reservoir remain filled. This would preclude the reservoir's intended function of providing low-flow augmentation to the barge canal, would inhibit meeting the 160-cfs continuous downstream minimum flow required by the 401 Certification and recommended by Interior, and would eliminate any flood control potential.

It is concluded that the Applicant's proposed operating plan as outlined in Exhibit B is consistent with the intended function of the reservoir in providing low-flow augmentation to the DOT barge canal. This plan would also provide assurance of a 160-cfs minimum flow below the barge canal diversion weir for maintenance of the downstream aquatic habitat. Therefore, Special Article 20 is included in this license to ensure that the project, in coordination with Project No. 2701 downstream, would provide the necessary flows for maintenance of the aquatic habitat below the barge canal diversion weir.

Recreational Resources

There are no recreational facilities in the immediate area of proposed construction; however, Hinckley Reservoir supports substantial water-based recreation, as does the Prospect impoundment and West Canada Creek. West Canada Creek is considered an important and well-utilized trout fishery.

Interior stated that the Report on Recreational Resources (Report) contained in the Exhibit E does not provide a thorough evaluation of the project's recreational potential, and that a recreational plan should be developed in cooperation with the New York State Office of Parks and Recreation (OPR). OPR recommended that the Applicant contribute to facilities to accommodate fishing, boating, parking, and picnicking. The Applicant responded that it would develop appropriate boat access on Hinckley Reservoir, and would assist in developing recreational opportunities in the downstream Prospect Pool as outlined in the DEC coordinated resource management recommendations, dated November 6, 1981.

The Applicant's Report did not include a detailed plan for recreational development at the project. Therefore, Special Article 21 is included in the license requiring the Applicant to consult with the DEC, OPR, DOT, and NMPC in developing a revised Report for the project.

Cultural Resources

Interior stated that the Applicant has not provided evidence of the State Historic Preservation Officer's (SHPO) determination regarding impacts to historical, archeological, or cultural resources. The Applicant responded that the SHPO was provided material to determine the significance of existing structures and possible effects of project development and, further, that DEC stated, as lead agency, that its review was coordinated with the SHPO. Nevertheless, Special Article 22 requires the Applicant to consult with the SHPO prior to any ground-disturbing construction activity to ascertain whether any archeological or cultural surveys, or mitigative measures are necessary.

Endangered Species

The U.S. Fish and Wildlife Service (FWS) has stated that except for occasional transient species, no Federally-listed or proposed threatened or endangered species are known to exist in the project impact area.

Historical and Archeological Resources

No sites either listed or determined to be eligible for inclusion in the National Register of Historic Places are located within the project impact area.

Environmental Impacts

Impacts associated with the project as proposed and conditioned would be confined to the construction period. Localized increases in turbidity and sedimentation would result, primarily from placement of a cofferdam on the upstream face of the project dam, and excavation for the tailrace channel, power tunnel and powerhouse foundation. The degree of impact would be dependent on local climatic conditions. The Applicant would, however, employ erosion and sedimentation control measures to preclude any significant impacts to the City of Utica's water supply and downstream aquatic resources.

During project operations, no significant impacts to the Hinckley Reservoir environs, wetlands, or downstream aquatic habitats are foreseen. The rate of seasonal reservoir water level fluctuation would be moderated, and the downstream Prospect Reservoir would be stabilized and remain at a higher elevation for a longer period. Operation of the project in coordination with Project No. 2701 would provide for low-flow augmentation to the DOT barge canal, a minimum flow of 160 cfs below the diversion weir, and adequate water supply for the City of Utica. Therefore, on the basis of the record and Staff's independent analysis, it is concluded that issuance of a license for the project will not constitute a major Federal action significantly affecting the quality of the human environment.

Safety and Adequacy

The existing dam has a high hazard potential. The New York Regional Office inspected the project and found spalling of concrete surfaces and vegetative growth, depressions and burrow holes in the earth embankment. The Applicant is aware of the deficiencies and intends to correct them upon acquisition of an easement from the State of New York Department of Transportation, the current dam owners, for use of the project for hydroelectric generating purposes. 2/ The spillway capacity with the impoundment 1 foot below the top of the embankment is approximately equal to the PMF flood peak outflow of 106,000 cfs. The spillway is adequate.

2/ Although the Hinckley Dam and Reservoir are state-owned, we are not including in the license a special article re-affirming Applicant's obligation to secure the rights necessary to use these structures or reasserting the Commission's licensing jurisdiction over the Dam and Reservoir for project purposes as we did in New York State Electric Gas Assoc., Project No. 2934, 15 FERC ¶61,066 (April 23, 1981). Applicant has included the Dam and Reservoir in its license application and represented that adequate rights to use those facilities will be secured. Moreover, the terms of Article 5 constitute an explicit statement of the Licensee's obligation on this matter.

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The dam is not safe against overturning and sliding for flood loading. The Applicant proposes to study methods for strengthening the dam and Special Article 23 requires the Applicant to submit for approval prior to start of construction the design details of the proposed modification and a stability analysis of the dam under various loading conditions, including PMF and earthquake.

Comprehensive Development and Economic Feasibility

The project will make good use of the flow and fall of West Canada Creek, is not in conflict with any planned or potential development, and will be best adapted to the comprehensive development of the basin under present conditions upon compliance with the terms and conditions of the license. The project will operate as a peaking facility and generate an estimated average 25,410,000 kWh annually. ^{3/} The project is economically feasible compared to the fuel cost for an equivalent amount of peaking power in the first year of operation.

License Term

The proposed scale of development is less than that which would warrant a full 50-year term since the project's dam and reservoir currently exist. Therefore pursuant to the Commission's policy for licensing projects involving moderate development, ^{4/} this license term will be for a period of 40 years.

It is ordered that:

(A) This license is issued to the Power Authority of the State of New York, (Licensee), under Part I of the Federal Power Act (Act), for a period of 40 years, effective the first day of the month in which this order is issued, for the construction, operation, and maintenance of the Hinckley Project No. 3211 located on West Canada Creek in Oneida and Herkimer Counties, New York. The project affects the interests of interstate commerce. This license is subject to the terms and conditions of the Act, which are incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the Act.

^{3/} The project will produce 25,410,000 kWh annually, saving the equivalent of 41,700 barrels of oil or 11,800 tons of coal annually.

^{4/} See The Montana Power Company, Mystic Lake Project No. 2301, Order Issuing New License (Major) (issued October 3, 1976).

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(B) The Hinckley Project No. 3211 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 are shown and described by certain exhibits that form part of the application for license and that are designated and described as:

<u>Exhibit</u>	<u>FERC No. 3211-</u>	<u>Showing</u>
G, Sheet 1	8	Project Location Map

Project works consisting of: (1) a dam consisting of earthen embankments 570 and 2,600 feet long, both 53 feet high, a non-overflow gravity dam section 65 feet long and 82 feet high, and a 400-foot-long spillway, 83 feet high; (2) Hinckley Reservoir, with a surface area of 4.46 square miles and a usable storage capacity of 76,200 acre-feet between spillway crest elevation of 1,225 and elevation 1,164.5; (3) an intake structure in the non-overflow gravity section and a 120-foot-long conduit 15 feet in diameter through this section; (4) two 90-foot-long power penstocks 10.5 feet in diameter; (5) a powerhouse approximately 70 feet square containing two 4.5-MW turbine/generator units operating under a head of 63 feet; (6) an open trapezoidal tailrace channel 280 feet long and 50 feet wide at the bottom; (7) 4.16-kV generator leads and the 10-MVA, 4.16/46-kV step-up transformer; (8) a 3-mile-long, 46-kV transmission line to be owned and built by the Niagara Mohawk Power Corporation between the project switchyard and the Prospect substation; and (9) 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 and reports that also form part of the application for license and that are designated and described as:

<u>Exhibit</u>	<u>FERC No. 3211-</u>	<u>Showing</u>
F, Sheet 1	1	Dam Profile
F, Sheet 2	2	Existing Structures Plan
F, Sheet 3	3	Existing Structures Section
F, Sheet 4	4	North Chamber Outlet Works

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<u>Exhibit</u>	<u>FERC No. 3211-</u>	<u>Showing</u>
F, Sheet 5	5	South Chamber Outlet Works
F, Sheet 6	6	New Intake, Plan & Section
F, Sheet 7	7	Proposed Project, Plan & Section

(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 boundary, all portable property that may be employed in connection with the project, located within or outside the project boundary, as approved by the Commission, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) Exhibit A, paragraph 3 which includes information on generating equipment, Section 3 of Exhibit E, and the Exhibit F and G drawings are approved and made a part of the license.

(D) This license is also subject to Articles 1 through 18 set forth in Form L-11 (revised October, 1975), entitled "Terms and Conditions of License for Unconstructed Major Project Affecting the Interest of Interstate or Foreign Commerce," attached to, and made a part of this license. The license is also subject to the following additional articles:

Article 19. (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.

(reported at 54 FERC 1864)

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(b) The types of use and occupancy of project lands and waters for which the Licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities; 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.

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(d) The Licensee may convey fee title 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 Electric Power Regulation, 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.

Article 20. Licensee, in cooperation with the Niagara Mohawk Power Corporation, the New York State Department of Transportation (DOT), and the New York State Department of Environmental Conservation, shall operate the Hinckley Hydroelectric Project in such a manner as to provide a continuous minimum flow of 160 cubic feet per second in West Canada Creek downstream of the DOT barge canal diversion weir.

Article 21. The Licensee shall, within 1 year from the date of issuance of this license, file for approval a revised Report on Recreational Resources for the project. The report shall be prepared in consultation with the New York State Office of Parks and Recreation, the New York State Department of Environmental Conservation, the New York Department of Transportation, and the Niagara Mohawk Power Corporation, and shall include a description of the type and location of the recreational facilities to be provided and the construction, operation, and maintenance schedule.

Article 22. The Licensee shall, prior to the commencement of any construction at the project, consult with the New York State Historic Preservation Officer (SHPO) about the need for any cultural resources survey and salvage work. The Licensee shall make available funds in a reasonable amount for any survey and mitigation work as required. If any previously unrecorded archeological or historic sites are discovered during the course of construction or development of any project works or other facilities at the project, construction activity 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 and implement a mitigative plan for the protection of significant archeological or historical 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 23. The Licensee shall submit for approval by the Director, Office of Electric Power Regulation, within six months from the issuance date of this order a schedule and design details, including a design report, for proposed modifications that would ensure the stability of Hinckley Dam for the loading conditions of normal pool plus maximum credible earthquake and floods up to and including the probable maximum flood. The Licensee shall not commence construction of any project works until the schedule and design of proposed modifications are approved.

Article 24. The Licensee shall file with the Commission's Regional Engineer and the Director, Office of Electric Power Regulation, one copy each of the 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, Office of Electric Power Regulation, may require changes in the plans and specifications to ensure a safe and adequate project. 7

Article 25. The Licensee shall review and approve the design and construction procedures for contractor-designed cofferdams and deep excavations prior to the start of construction. The Licensee shall file with the Commission's Regional Engineer and Director, Office of Electric Power Regulation, one copy of the approved construction drawings and specifications, and a copy of the letter of approval.

Article 26. The Licensee shall commence construction of the project within two years from the effective date of the license and shall thereafter in good faith and with due diligence prosecute such construction and shall complete construction of such project works within four years from the effective date of the license.

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Article 27. The Licensee shall pay the United States the following annual charges, 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 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 12,000 horsepower.

Article 28. The Licensee shall continue to consult and cooperate with the U.S. Fish and Wildlife Service, the U.S. Park Service of the Department of the Interior, the New York State Office of Parks and Recreation, the New York State Department of Environmental Conservation, the New York State Department of Transportation, and other appropriate agencies for the protection and development of the environmental resources and values of the project area. The Commission reserves the right to require changes in the project works or operations that may be necessary to protect and enhance those resources and values.

(E) This order is final unless a petition appealing it to the Commission is filed within 30 days from the date of its issuance, as provided in Section 1.7(d) of the Commission's regulations, 18 C.F.R. Section 1.7(d) (1981). The filing of a petition appealing this order to the Commission or an application for rehearing as provided in Section 313(a) of the Act does not operate as a stay of the effective date of this license or of any other date specified in this order, except as specifically ordered by the Commission. 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.

Lawrence R. Anderson
Director, Office of Electric
Power Regulation

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