

THE FEDERAL POWER COMMISSION.

LICENSE ON GOVERNMENT LANDS.

Project No. 553

Washington

CITY OF SEATTLE

WHEREAS, by Act of Congress, approved June 10, 1920 (41 Stat., 1063) designated therein as "The Federal Water Power Act" and hereinafter called "the Act," the Federal Power Commission, hereinafter called "the Commission," is authorized and empowered, inter alia, to issue licenses for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs, power houses, transmission lines, or other project works necessary or convenient for the development, transmission and utilization of power across, along, from or in any of the navigable waters of the United States, or upon any part of the public lands and reservations of the United States (including the Territories), or for the purpose of utilizing the surplus water or water power from any Government dam; and

WHEREAS, the City of Seattle, _____
hereinafter called "the Licensee," a municipal corporation
organized and existing under the laws of the State of Washington
and having its office and principal place of business in the city of
Seattle in the State of Washington, has
pursuant to the terms of a preliminary permit issued March 3, 1927,

made application in due and proper form to the Commission for a license for a power project designated as Project No. 553 on the records of the Commission, and for authority to construct, maintain and operate, ~~at~~ on ~~Singit River~~, in the ~~vicinity of~~ Mt. Baker National Forest, in the County of Whatcom, State of Washington,

certain project works, as hereinafter described, necessary or convenient for the development, transmission and utilization of power, and to occupy and use therefor certain lands of the United States, as hereinafter described together with all riparian rights appurtenant thereto which are necessary or useful for the purposes of the project; and

WHEREAS, the Licensee has submitted to the Commission satisfactory evidence of its compliance with the laws of the State of Washington as required by Section 9, subsection (b) of the Act, and the Commission is satisfied as to the ability of the Licensee to carry out the plans for said project as filed with said application; and

WHEREAS, notice of said application has been given and published by the Commission, as required by Section 4 of the Act; full opportunity has been given to all interested parties to be heard, and no application for said project, or in conflict therewith, has been filed by any State or other municipality; and

WHEREAS, the maps, plans and specifications of said project and of said project works, as hereinafter described, have been approved by the Commission, and the Commission has found that said project, as hereinafter described, will be best adapted to a comprehensive scheme of improvement and utilization for the purposes of water-power development and of other beneficial public uses, and that the license will not interfere or be inconsistent with the purpose for which any reservation affected thereby was created or acquired; and

WHEREAS, the Licensee, on the 21st day of October, 1927, pursuant to an authorization of its ^{City Council} ~~board of directors~~, a copy of the record thereof being hereto attached, accepted in writing all the terms and conditions of the Act and of this license;

NOW, THEREFORE, the Commission hereby issues this license to the Licensee for the purpose of constructing, operating and maintaining upon the lands of the United States hereinafter designated and described, certain project works necessary or convenient for the development, transmission and utilization of power and constituting a part of the project hereinafter described, and of authorizing in connection with and as a part of said project the occupancy and/or use by the Licensee of said lands of the United States and of all riparian rights appurtenant thereto which are necessary or useful for the purposes of the project; said license, including the period thereof, being subject to all the terms and conditions of the Act and of the rules and regulations of the Commission pursuant thereto as amended and made effective on the first day of April, 1924, as though fully set forth herein, which said rules and regulations are attached hereto and made a part hereof, and being subject also to the following express conditions and limitations, to wit:

Article 1. This license is issued for a period of fifty (50) years from the date hereof, and in consideration of such license and the benefits and advantages accruing thereunder to the Licensee it is expressly agreed by the Licensee that the entire project, project area and project works as hereinafter designated and described, whether or not upon lands of the United States, shall be subject to all the terms and conditions of this license, including the terms and conditions of the Act and of the rules and regulations of the Commission pursuant thereto and made a part of this license.

Article 2. The project covered by and subject to this license is located on lands of the United States in Mt. Baker National Forest and consists of—

A. All lands constituting the project area and inclosed, or the location of which is shown, by the project boundary, and/or interests in such lands necessary or useful for the purposes of the project, whether such lands or interests therein are owned or held by the Licensee or by the United States; such project area and project boundary being more fully shown and described by certain exhibits which accompanied said application for license and which are designated and described as follows:

Exhibit J - "General Map Skagit River Projects."

Exhibit K - (Sheet 2) "Map of Flow Line and Dam Site Diablo Project."

Each of the above drawings being signed November 8, 1926, by J. D. Ross, Superintendent of Lighting, and J. D. Blackwell, City Engineer.

B. All water rights pertaining to the project; initiation of such rights and further details thereof being shown in a certain exhibit which accompanied said application and which is designated and described as:

Exhibit D - "Compliance with the Laws of the State of Washington," signed November 8, 1926, by J. D. Ross, Superintendent of Lighting, and J. D. Blackwell, City Engineer, and consisting of one typewritten and nine photostatic sheets.

C. All project works, consisting of a concrete dam, reservoir, tunnels and power plant known as the Diablo project; and transmission line extending therefrom to the existing Gorge plant, there connecting with the present transmission system, as existing or to be enlarged, such project works being more fully shown and described by certain exhibits which accompanied said application for license and which are designated and described as follows:

Exhibit L - Sheet 1, "Map of Dam Site, Tunnels, and Power House, Diablo."

Sheet 3, "Profile of Dam, Tunnel, and Power House Diablo Project."

Sheet 6, "Plan and Section Elevation Diablo Power House."

Sheet 7, "General Plan of Dam and Intake, Diablo Project."

Sheets 9, 10, 11, "Log of Diamond Drillings, Diablo Dam Site."

Each of above sheets, 1, 3, 6, 7, 9, 10, and 11 inclusive, being signed November 8, 1926, by J. D. Ross, Superintendent of Lighting, and J. D. Blackwell, City Engineer.

Exhibit L - Sheet 12, "Diablo Canyon Dam, Plan, and Sections."

Sheet 13, "Diablo Canyon Dam, Elevation, and Sections."

Each of the above sheets, 12 and 13, being signed Sept. 6, 1927, October 17, 1927, ^{respectively,} by L. Murray Grant, Chairman, Board of Public Works, and W. O. Morse, City Engineer, and filed as an amendment to Sheets 1, 2, 3, 4, 7, and 8 of Exhibit L, in so far as the design of the dams is concerned.

Exhibit M - General description and specifications of mechanical, electrical, and transmission equipment. Signed November 8, 1926, by J. D. Ross, Superintendent of Lighting, and J. D. Blackwell, City Engineer, and consisting of six typewritten sheets.

D. All other structures, fixtures, equipment, or facilities used or useful in the maintenance and operation of the project, whether owned by the Licensee or by the United States, and located upon the project area, including such portable property as may be used and 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 works is approved or acquiesced in by the Commission; also all other rights, easements, or interests, including said riparian rights, the ownership, use, occupancy or possession of which is necessary or appropriate in the maintenance and operation of the project or appurtenant to the project area.

Article 3. The maps, plans, specifications, and statements designated and described in Article 2 hereof as Exhibits D, J, K, L, and M, respectively, and approved by the Executive Secretary for the Commission in accordance with its authorization of October 10, 1927, are hereby made a part of this license, and no substantial change shall hereafter be made in said exhibits, or any of them, until such change shall have been approved by the Commission: Provided, however, that if the Licensee deems it necessary or desirable that said approved maps, plans, specifications and statements, or any of them, be changed there shall be submitted to the Commission for approval amended, supplemental, or additional maps, plans, specifications and statements covering the proposed changes, and upon approval by the Commission of such proposed changes such amended, supplemental or additional maps, plans, specifications and statements shall become a part of this license and shall supersede, in whole or in part, such map, plan, specification, or statement, or part thereof, theretofore made a part of this license as may be specified, respectively, in the order or endorsement of approval.

Article 4. Said project works shall be constructed in substantial conformity with the approved maps, plans and specifications thereof made a part of this license and designated and described in Articles 2 and 3 hereof or as changed in accordance with the provisions of said Article 3. 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 constructed under this 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 shall direct. Minor changes in or divergence from such approved maps, plans, and specifications may be made in the course of construction, 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 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.

Article 5. The work of construction under this license, whether or not conducted upon lands of the United States, shall be subject to the inspection and approval of the District Forester, Forest Service, Portland, Oregon 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 notify such representative of the date upon which work will begin, and as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of construction for a period of more than one week, and of its resumption and completion.

Article 6. Subject to the provisions of Section 13 of the Act, the Licensee shall begin the construction of Diablo dam and reservoir on or before January 1, 1928 and complete the same on or before July 1, 1930; and shall begin the construction of the first power tunnel and power house for 3 units at Diablo dam, the installation of said units and the construction of the transmission line on or before January 1, 1930, and complete the same on or before December 31, 1935. The remaining half of the Diablo power plant herein authorized shall be constructed at such time as may be approved by the Commission as necessary to keep pace with the growth of the Licensee's requirements for power.

Article 7. Upon the completion of the project works, 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, in so far as necessary to show any divergence from or variations in the project area as finally located or in the project works as constructed when compared with the area shown and the works designated or described in this license or in the maps, plans, specifications, and statements approved by the Commission under the provisions of Article 3 hereof, 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 this license and shall, to the extent and in the particulars set forth in the order or endorsement of approval, be substituted for the maps, plans, specifications and statements theretofore approved by the Commission under the provisions of Article 3 hereof. The maps finally approved by the Commission and made a part of this license under the provisions of Article 3 and/or 7 hereof shall show the project area to an adequate scale and the boundary thereof either by legal subdivisions, by metes and bounds survey, or by uniform offsets from center-line survey. Said project area shall include all lands without respect to ownership and whether or not the exact boundaries can be definitely fixed and determined, the use and occupancy of which are or will be valuable or serviceable in the maintenance and operation of the project; on which are located or to which are appurtenant the project works (other than portable property) and the rights, easements, or interests likewise valuable and serviceable; and the ownership or possession, or the right of use and occupancy, of which are subject to acquisition by the United States under the provisions of Section 14 of the Act. Said maps shall show the ownership of each parcel of land in said project area, and with respect to each parcel to which the Licensee has not the fee title, the character of the right of use and occupancy possessed by the Licensee together with the term of such right.

Article 8. For the purpose of determining the stage and flow of the stream or streams from which water is to be diverted for the operation of said project works and of the amount of water held in and drawn from storage, the Licensee shall maintain the present gaging stations on Skagit River near Ruby Creek and at Gorge power camp, _____

SECRETARY OF WAR, CHAIRMAN
SECRETARY OF THE INTERIOR
SECRETARY OF AGRICULTURE

O. C. MERRILL Executive Secretary

ADDRESS REPLY TO
EXECUTIVE SECRETARY
AND REFER TO

EP-553-Wash.
City of Seattle

FEDERAL POWER COMMISSION
WASHINGTON

October 28, 1927

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OCT 31 1927
RECEIVED
F. B. I.
U. S. DEPT. OF COMMERCE

Mr. W. C. Morse, City Engineer,
Department of Public Works,
Seattle, Wash.

Dear Sir:

There is enclosed the original copy of the license, executed this date, for your power project on the Skagit River.

In accordance with the provisions thereof the District Forester, Forest Service, Portland, Oregon, will have supervision over the construction work and operations under the license. The District Engineer, 404 Federal Building, Tacoma, will supervise the stream-gaging work.

It is requested that in the future all correspondence pertaining thereto be addressed to these representatives.

Very truly yours,



Executive Secretary.

Incl. #4199.

INCLOSURE

4199

FROM

FEDERAL POWER COMMISSION

FEDERAL POWER COMMISSION

WASHINGTON, D. C.



LICENSE OF GOVERNMENT LANDS

Project No. 558, Washington

City of Seattle



I, O. C. Merrill, Executive Secretary of the Federal Power Commission, do hereby certify that the following is a true and correct copy from the record of the proceedings of the Commission in my custody, of that portion of the minutes of the ninetieth meeting of the Commission, held on the 10th day of October, 1927, which refers to the action taken by the Commission on the application of the City of Seattle, Washington (project No. 553):

"In the matter of the application, pursuant to the terms of a preliminary permit issued on March 3, 1927, to the City of Seattle, Washington (project No. 553), for a license for a power project on the Skagit River and on lands of the United States within the Mt. Baker National Forest, in Whatcom County, Washington: Said city having submitted satisfactory evidence of its compliance with the laws of the State of Washington as required by section 9, subsection (b) of the Federal water power act and of its ability to carry out its proposed plans; notice of said application having been given and published as required by section 4 of said act, full opportunity having been given for all interested parties to be heard, and no application for said project or in conflict therewith having been filed by the State or any other municipality; and the maps, plans, and specifications of the proposed project works having been approved by the Commission; the Commission thereupon found that said project will be best adapted to a comprehensive scheme of improvement and utilization for the purposes of water-power development and of other beneficial public uses, and that the license will not interfere or be inconsistent with the purpose for which any reservation affected thereby was created or acquired, and in pursuance of such finding authorized issuance of license for a period of fifty (50) years for so much of said project as covers the so-called Diablo dam, reservoir, power house and transmission line, subject to the provisions of said act, to the rules and regulations of the Commission pursuant thereto, to the following special conditions, and to such further conditions, if any, as the Secretaries of War and Agriculture shall deem necessary for the adequate protection of the interests of interstate and foreign commerce and the protection and utilization of said Mt. Baker National Forest:

"(a) The licensee shall construct and maintain a roadway across the said proposed dam.

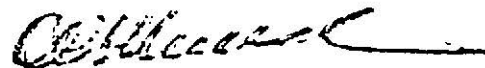
"(b) The United States specifically retains and safeguards the right to use water in such amount, to be determined by the

Secretary of War, as may be necessary for the purposes of navigation; and the operations of the licensee so far as they affect the use, storage and discharge from storage of waters affected by this license shall at all times be controlled by such reasonable rules and regulations as the Secretary of War may prescribe in the interests of navigation and as the Federal Power Commission may prescribe in the interests of flood control and of the fullest practicable use of said waters for power purposes.

"(c) The licensee shall interpose no objections to and shall in no way prevent the use of water for domestic purposes and of the reservoirs and project area for boating, fishing and other recreational purposes by the public when and to the extent that such public use does not directly interfere with power use.

"(d) The licensee shall establish and maintain, in a form approved by the Commission, a system of accounts covering its entire electric-power production, transmission and distribution, whether such power is produced at plants covered by this license or otherwise."

Witness my hand and the seal of the Federal Power Commission
at Washington, D. C., this 27th day of October, 1927.



Executive Secretary.

shall provide for the required readings of such gages and for the adequate rating of said station or 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 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 its authorized representative 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 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 reimburse the said United States Geological Survey for costs incurred in such supervision or for such part thereof as said District Engineer may deem equitable in the circumstances. The Licensee shall keep accurate and sufficient record of the foregoing determinations to the satisfaction of the Commission, shall make return of such records annually, at such time and in such form as the Commission may prescribe.

Article 9. The Licensee shall be liable for all damages occasioned to the property of others by the construction, maintenance or operation of said project works, or of the works appurtenant or accessory thereto, and in no event shall the United States be liable therefor.

Article 10. The Licensee shall be liable for injury to, or destruction of, any buildings, bridges, roads, trails, lands, or other property of the United States, occasioned by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto constructed under the license. Arrangements to meet such liability, either by compensation for such injury or destruction, reconstruction or repair of damaged property, or otherwise, shall be made with the appropriate department or agency of the United States.

Article 11. Timber upon lands of the United States, to be used or destroyed in the construction of the project works, shall be paid for in accordance with the requirements and estimates of the Department concerned.

Article 12. In the construction and maintenance of the project works herein specified, the Licensee shall place and maintain suitable structures 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 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 and obstructing traffic and endangering life on highways, streets, or railroads.

Article 13. The Licensee shall construct and maintain a roadway across the Diablo dam.

Article 14. The Licensee shall, before placing any transmission line into operation, make provision satisfactory to the Commission for avoiding inductive interference between such transmission line and any existing telephone line or lines of the United States, or with any such line or lines for which location has been made and specifications prepared but upon which construction has not begun at the time of erection of said transmission line. Such provisions may be applied either to the transmission line or to the telephone line or to both, as may be determined upon the basis of least cost. The Licensee hereby agrees to assent to such changes in the location or design of any of its transmission lines as may in the opinion of the Commission be necessary or desirable in order to avoid inductive interference with any telephone line or lines of the United States hereafter constructed or proposed to be constructed, provided such changes are made at the expense of the United States.

Article 15. The Licensee shall clear the bottoms and margins of all reservoirs up to high-water level, shall clear and keep clear to an adequate width lands of the United States along open conduits and along transmission lines, and shall dispose to the satisfaction of said representative of the Commission of all temporary structures, brush, refuse or unused timber on lands of the United States resulting from the clearing of lands or from the construction and maintenance of said project works.

Article 16. The Licensee shall permit the use of any reservoir included in the project for the temporary storage or for the transportation of logs, ties, poles, lumber, or other forest products, and upon demand of the Secretary of Agriculture, shall construct a logway or logways approved by said Secretary and suitable for the passage of such logs, ties, poles, lumber, or other forest products, over or around the dam at any such reservoir without undue hindrance or delay; Provided, That the use of said reservoir or of such logway or logways by owners of such logs, ties, poles, lumber, or other forest products, shall be under such rules and regulations adopted by the Licensee as may be approved by the Secretary of Agriculture.

Article 17. The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of War, as may be necessary for the purposes of navigation and the operations of the Licensee so far as they affect the use, storage, and discharge from storage of waters affected by this license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of War may prescribe in the interests of navigation and as the Federal Power Commission may prescribe in the interests of flood control and of the fullest practicable use of said waters for power purposes.

Article 18. The Licensee will interpose no objections to and will in no way prevent the use of water for domestic purposes and of the reservoirs and project area for boating, fishing, and other recreational purposes by the public when and to the extent that such public use does not directly interfere with power use.

Article 19. The Licensee shall allow officers and employees of the United States free and unrestricted access in, through and across the said project and project works in the performance of their official duties, and shall allow the Forest Service, without charge, to construct or permit to be constructed in, through and across the said project, railroads, chutes, roads, trails, conduits, and other means of transportation not inconsistent with the enjoyment of said project by the Licensee for the purposes herein set forth.

Article 20. The Licensee shall do everything reasonably within its power and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon request of officers of the Forest Service, or other agents of the United States, to prevent and suppress fires on or near the lands to be occupied under this license.

Article 21. The Licensee shall establish and maintain, in a form approved by the Commission, a system of accounts covering its entire electric-power production, transmission, and distribution, whether such power is produced at plants covered by this license, or otherwise.

Article 22. Upon the completion of the construction of said project or of each of the separable parts thereof for which dates of completion are specified in Article 6 hereof, or of any addition to or betterment of said project, the Licensee shall file with the Commission a statement under oath in duplicate showing the actual legitimate cost of construction thereof and the price paid for water rights, lands, or interest in lands appurtenant to such construction as required by Regulation 20, Section 2, of said rules and regulations of the Commission. Any such statement shall include all proper and legitimate costs, whether incurred prior to issuance of license or on and after such date; and the Licensee shall, if requested by the Commission, show separately on any such statement, or on a special report or reports, the items and amounts of cost incurred prior to date of issuance of license, with such other details as the Commission may require. Each and every item of cost included in any such statement shall be supported by proper voucher or other evidence; and any such voucher or evidence or certified copy thereof, in support of any item properly includible in said cost shall become a part of the permanent records of said project and shall be kept and retained by the Licensee in the manner required by the Commission. Any statement or report submitted to the Commission under the provisions of this article shall be subject to the provisions of Section 6 of said Regulation 20.

Article 23. 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 such reservoir or other improvement for such part of the annual charges for interest, maintenance and depreciation thereon as the Commission may deem equitable. The proportion of such charges to be paid by the Licensee shall be determined from time to time by the Commission. Whenever such reservoir or other improvement is constructed by the United States the Licensee shall pay similar charges into the Treasury of the United States upon bills rendered by the Commission.

Article 24. The Licensee shall pay to the United States reasonable annual charges for the purpose of reimbursing the United States for the costs of the administration of the Act and for recompensing it for the use, occupancy and enjoyment of its lands or other property hereinbefore described: ~~The payment by the Licensee of such annual charges for any calendar year shall be made to the United States at the end of the year, or within thirty days thereafter, upon bills rendered or approved by the Commission. Such charges shall be determined in accordance with the provisions of Regulation 14 of said rules and regulations of the Commission, and for the purposes of such determination~~ Provided, That the charges for administration of the act and for recompensing the United States for the use of its lands will be remitted to the extent that the Licensee is able to show to the satisfaction of the Commission that the power developed, transmitted or distributed hereunder is sold to the public without profit or is used by the Licensee for municipal purposes. The payment by the Licensee of such annual charges for any calendar year shall be made to the United States at the end of the year, or within thirty days thereafter, upon bills rendered or approved by the Commission. Such charges shall be determined in accordance with the provisions of Regulation 14 of said rules and regulations of the Commission, and for the purposes of such determination the capacity of the Diablo power site shall be taken as 31,000 horsepower.

Article 25. After the first twenty years of operation of said project under this license, out of surplus earned thereafter, if any, accumulated in excess of a specified reasonable rate of return upon the actual, legitimate investment of the Licensee in said project, all as defined in and determined by the provisions of Regulation 17 of said rules and regulations of the Commission, the Licensee shall establish and maintain amortization reserves, which reserves shall, in the discretion of the Commission, be held until the termination of the license or be applied from time to time in reduction of the net investment. Such specified rate of return shall, subject to the proviso of Paragraph A, Section 3 of said regulation, be one and one-half ($1\frac{1}{2}$) times the weighted average annual interest rate payable on the par value of the bona fide interest-bearing debt of the Licensee actually outstanding, in whole or in part, on account of project property at the beginning of the period of amortization and of each calendar year thereafter; such weighted average annual interest rate being determined as provided in Paragraphs B and C of Section 3 of said Regulation 17: Provided, That, if at the beginning of the period of amortization or of any calendar year thereafter, the outstanding interest-bearing debt of the Licensee on account of the project or projects under license, together with any other works or property operated in connection therewith, is less than 25 per cent of the actual, legitimate investment of the Licensee in said project or projects, then and in such event for the calendar year next following the specified rate of return shall be two (2) times the legal rate of interest in the State in which the project or major part thereof is located.

Subject to the provisions of Section 6 of said regulation, the following proportions of such surplus earnings shall be paid into and held in such amortization reserves: Of all surplus earnings up to and including 2 per cent upon the actual, legitimate investment, 30 per cent thereof shall be so paid; of all surplus earnings in excess of 2 per cent and not in excess of 4 per cent upon such investment, 50 per cent thereof shall be so paid; of all surplus earnings in excess of 4 per cent and not in excess of 6 per cent, 70 per cent thereof shall be so paid, and of all surplus earnings in excess of 6 per cent, 90 per cent thereof shall be so paid: Provided, That if at the end of any calendar year of the amortization period the Commission shall find that the accumulated earnings of the Licensee during the period of operation, including the first twenty (20) years thereof, have not yielded a fair return upon the actual, legitimate investment in the project or projects under license, the proportion of such surplus earnings for such calendar year and for succeeding calendar years to be paid into such amortization reserves shall be ten (10) per cent thereof until such time as the accumulated earnings of the Licensee represent, in the judgment of the Commission, a fair return upon such investment for such period of operation.

Article 25. No lease of said project or part thereof whereby the lessee is granted the exclusive occupancy, possession or use of project works for purposes of generating, transmitting or distributing power shall be made without the prior written approval of the Commission; and the Commission may, if in its judgment the situation warrants, require that all the conditions of this license, of the Act, and of said rules and regulations of the

Commission shall be applicable to such lease and to such property so leased to the same extent as if the lessee were the Licensee hereunder: Provided, That the provisions of this article shall not apply to parts of the project or project works which may be used by another jointly with the Licensee under a contract or agreement whereby the Licensee retains the occupancy, possession, and control of the property so used and receives adequate consideration for such joint use, or to leases of land while not required for purposes of generating, transmitting, or distributing power, or to buildings or other property not built or used for said purposes, or to minor parts of the project or project works the leasing of which will not interfere with the usefulness or efficient operation of the project by the Licensee for said purposes.

Article 27. It is hereby understood and agreed that the Licensee, its ~~(his)~~ successors and assigns will, during the period of this license, retain the possession of all project property covered by this license as issued or as hereafter amended, including the project area, the project works, and all franchises, easements, water rights, and rights of occupancy and use; and that none of such properties valuable and serviceable to the project and to the development, transmission, and distribution of power therefrom will be voluntarily sold, transferred, abandoned, or otherwise disposed of without the approval of the Commission: Provided, That a mortgage or trust deed or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article. The Licensee further agrees, on behalf of itself ~~(himself)~~, its ~~(his)~~ successors and assigns, that, in the event said project is taken over by the United States upon the termination of this 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, it ~~(he)~~ will be responsible for and will make good any defect of title to or of right of user in any 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 said project or project property created by said Licensee or created or incurred after the issuance of this license: Provided, That 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, or 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 or right of user in any such project property than was necessary to acquire for its ~~(his)~~ own purposes as Licensee.

Article 23. The Licensee shall abide by such reasonable regulation of the services to be rendered to customers or consumers of power, and of rates and charges of payment therefor, as may from time to time be prescribed by any duly constituted agency of the State in which the service is

rendered or the rate charged; and in case of the development, transmission, distribution, sale or use of power in public service by the Licensee or by its customers engaged in public service within a State which has not authorized and empowered a commission or other agency or agencies within said State to regulate and control the services to be rendered by the Licensee or by its customers engaged in public service, or the rates and charges of payment therefor, or the amount or character of securities to be issued by any of said parties, it is agreed as a condition of this license that jurisdiction is hereby conferred upon the Commission, upon complaint of any person aggrieved or upon its own initiative, to exercise such regulation and control until such time as the State shall have provided a commission or other authority for such regulation and control: Provided, That the jurisdiction of the Commission shall cease and determine as to each specific matter of regulation and control prescribed in this Article as soon as the State shall have provided a commission or other authority for the regulation and control of that specific matter.

Article 29. With the written consent of the Licensee, the Commission may by order made under its seal, and after the public notice required by Section 6 of the Act, modify, alter, enlarge or omit, in so far as authorized by law, any one or more of the conditions or provisions of this license.

Article 30. The enumeration herein of any rights reserved to the United States or to any State or municipality under the Act, or of any requirement of the Act or of said rules and regulations of the Commission shall not be construed in any degree as impairing any other rights so reserved by the Act or as limiting the force of any other requirement of said Act or of said regulations.

WITNESS WHEREOF, the Federal Power Commission has caused its name and seal to be hereto signed and affixed by its Executive Secretary, C. C. Hill, this 28th day of October, 1927, pursuant to authority given at its meeting of October 10, 1927, a certified copy of the record thereof being attached.

FEDERAL POWER COMMISSION

By



Executive Secretary.

In testimony of acceptance of all the terms and conditions of the Federal Water Power Act of June 10, 1920, and of the further conditions imposed in the foregoing license, the Licensee, this 21st day of October, 1927, has caused its name and corporate seal to be here-
to signed and affixed by Bertha K. Landes, its
Mayor, City
pursuant to a resolution of its ~~board of~~
~~Council~~
~~directors~~, passed on the 17th day of October, 1927, a certified
copy of the record thereof being hereto attached.

CITY OF SEATTLE

BY Bertha K. Landes
Mayor.

Attest:

Attn. Council

City Comptroller

SPC

RESOLUTION No. 4512

WHEREAS Ordinance No. 50038, approved December 17th, 1925, relating to the Skagit River Lower Development Project authorized and directed the Superintendent of Lighting and the City Engineer to make certain applications with reference thereto, and providing: "Section 3. That said Superintendent of Lighting and City Engineer be and they are hereby authorized and directed for and on behalf of the City of Seattle, to apply for and sign, execute, transmit and deliver all forms, statements, and other papers and documents necessary to procure a final permit for the further development and extension of the Skagit River Development Project by the construction of an impounding and power dam across the Skagit River at Diablo Canon, the crest of said dam to be at approximate elevation twelve hundred (1200) feet above sea level, and for the construction of a power house and other works on the banks of the Skagit River to be constructed and operated in connection with said dam with necessary conduits or tunnels;" and

WHEREAS The Superintendent of Lighting and the City Engineer, under date of November 8th, 1926, duly prepared and filed an application for a license for Skagit River Projects, copy thereof being Comptroller's File No. 107932; and

WHEREAS The Federal Power Commission issued a preliminary permit under date of March 3rd, 1927; and

WHEREAS Said Federal Power Commission have caused to be prepared a form of license for certain of said works designated as "Project 553 on the records of the Commission"; and

WHEREAS Said form of license provides for the acceptance by the City of Seattle of all the terms and conditions of the Federal Water Power Act of June 10th, 1920, and of the further conditions imposed in said license, therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEATTLE;

That the Mayor be authorized and directed to sign said license form in duplicate, accepting the terms and conditions of the Federal Water Power Act of June 10th, 1920, and of the further conditions imposed in said proposed license, designated as Project No. 553 on the records of said Federal Power Commission, duly attested by the City Comptroller and Ex-officio City Clerk, who shall cause the corporate seal of the City to be thereunto affixed in accordance with the requirements of said license.

CHT

Passed the City Council this 17 day of MAY, 1927,
and signed by me in open session in authentication of its
passage this 17 day of MAY, 1927.

E. L. Blaine
President of the City Council

Filed by me this 17 day of MAY, 1927

H. W. MARROLL
City Comptroller and Ex-Officio
City Clerk

By E. L. Blaine
Deputy Clerk

MAY 19 1927

Date of first publication

J. A. B. B. B. B.
City Comptroller and Ex-Officio
City Clerk

By
Deputy Clerk

2 OF WASHINGTON,
TY OF KING.
OF SEATTLE.

4. W. CARROLL, City Comptroller and ex-officio City Clerk of the City of Seattle, do hereby certify that the within and foregoing is a true and correct ~~statement~~ copy of

Resolution No.9312 of the City Council of The City of Seattle,

ame appears on file of record in this department.

8 WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of The City

I, this 19th day of October, 1927

NT CHARGE
ARGE
ATE (SEAL) CHARGE
ARGE

H. W. CARROLL.

City Comptroller and ex-officio City Clerk.

Comptroller and Clerk.

Chief Deputy.

Number 2

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Commissioners) Leland Olds, Chairman, Claude L. Traper, Basil Manly
) and Clyde L. Seavey. John W. Scott not participating.

December 15, 1942

In the Matter of)
City of Seattle, Washington) Project No. 553

ORDER EXTENDING TIME FOR ACCEPTANCE OF AMENDMENT
OF LICENSE (MAJOR)

It appearing that:

- (a) On September 19, 1942, triplicate copies of draft of amendment No. 1 of license for Project No. 553 were sent to City of Seattle, Washington, for acceptance within 60 days after receipt thereof;
- (b) By letter dated October 26, 1942, applicant requested that the period for acceptance of the aforesaid amendment of license be extended 60 days because said acceptance must be by City Ordinance signed by the Mayor and said ordinance will not be effective until 30 days after approval by the Mayor;

The Commission finds that:

The requested extension of time is necessary; and

It is ordered that:

The time for acceptance of Amendment No. 1 of license for Project No. 553 be and it is hereby extended to and including January 21, 1943.

By the Commission.

Leon M. Fuquay,
Secretary.

*Original in Gen. File
FPC Letter of Dec. 18, 1942*

the project area, in and to the extent that installation of such property as a part of the project works is or shall be required in by the Commission; also, all other rights, easements, or interests, the ownership, use, occupancy or possession of which is necessary or appropriate in the maintenance and operation of the project or appurtenant to the project area.

Paragraph II. Subparagraph (c) of Article 6 of the License as amended February 11, 1914, is further amended by changing the elevation specified for the top of the second step of Ross Dam, from 1500 feet to 1551 feet, and by changing the date specified for completion of the second step from January 1, 1913, to October 1, 1947; so that said article shall read as follows:

Article 6. Subject to the provisions of Section 13 of the Act, the Licensee shall -

(a) Begin the construction of Diablo Dam and reservoir on or before January 1, 1928, and complete the same on or before December 1, 1930; begin the construction of the first tunnel and power house for two units of 60,000 KW. capacity each at Diablo Dam and the installation of said units and the construction of the transmission line from Diablo power plant to Gorge power plant on or before January 1, 1930, and complete the first tunnel, power house, and installation of the two units on or before April 16, 1937, and complete the construction of the transmission line from Diablo power plant to Gorge power plant on or before December 31, 1936; and complete the installation at the Diablo Dam to its ultimate capacity at such time as the Commission may direct so as to supply adequately the reasonable market demands;

(b) Begin the construction of the Diablo transmission line from the Gorge power house to Seattle on or before January 1, 1937, and complete the same on or before March 31, 1939;

(c) Begin the construction of Ross Dam and Reservoir on or before October 1, 1937, complete the first step to elevation 1,200, more or less, on or before March 15, 1940, and complete the second step to elevation 1551 on or before October 1, 1947.

The construction of Ross Dam and Reservoir to its contemplated ultimate height, and the power plant at said dam to its contemplated ultimate capacity, shall be subject to the further act of the Commission upon application duly made for the licensing thereof in accordance with the provisions of the then existing laws and regulations.

It is specifically agreed that amendment of this article shall not be construed as a determination by the Commission of the date upon which construction of any portion of the project works was actually completed.

AMENDMENT III. Article 24 of the license as amended January 22, 1943, is further amended by inserting the words "and the rules and regulations of the Commission thereunder" immediately after the word "Act" in the second line and the word "gross" immediately before the words "energy" and "number" in the sixth and ninth lines respectively of subparagraph (a); by substituting the year "1945" for the year "1942" in the first line of paragraph (2) and by increasing the charge specified in subparagraph (b) from \$1,066.57 to \$1,191.46; so that said article as amended shall read as follows:

Article 24. Subject to the provisions of Section 10(e) of the Act, and the rules and regulations of the Commission thereunder, the licensee shall pay to the United States the following charges:

- (1) For the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands occupied by the Ross development for the period July 23, 1937, to and including December 31, 1941, \$4,460.32.
- (2) Effective from January 1, 1946, the licensee shall pay the following annual charges applicable to each calendar year:

(a) For the purpose of reimbursing the United States for the costs of administration of Part I of the Federal Power Act, one (1) cent per horsepower on the horsepower capacity (320,000 horsepower) authorized to be installed by the license, plus two and one-half (2½) cents per thousand kilowatt-hours of gross energy generated by the project during the fiscal year ended June 30 of the calendar year to which the annual charges apply. A statement of the gross number of kilowatt-hours generated during said fiscal year, certified under oath, shall be filed with the Commission on or before September 1 following the end of said fiscal year;

(b) For the purpose of recompensing the United States for the use, occupancy and enjoyment of its lands other than those used for transmission lines only \$1,191.46; and

(c) For the purpose of recompensing the United States for the use, occupation and enjoyment of its lands the licensee shall pay only \$215.00;

(d) Payment by the licensee of annual charges shall be made to the United States within thirty (30) days after the close of the calendar year, or after date of statement rendered by the Commission, whichever is later. A penalty shall be levied pursuant to the provisions of the Act for delinquency in payment unless otherwise ordered by the Commission.

PARAGRAPH IV. Article 31 of said license is amended by substituting the word "Ross" for "Ruby" and by eliminating from the end of the article the words, "elevation 1500 feet", and then adding to the article the words, "an elevation to be determined later by the Commission"; so that said article as amended shall read as follows:

Article 31. The Licensee shall construct and maintain a roadway along the top of Ross Dam when constructed to an elevation to be determined later by the Commission.

PARAGRAPH V. Article 33 of said license is amended by adding the words "of November 12, 1936, and the Memorandum of Agreement of February 21, 1940" after the word "Agreement" in the second line of the article, by adding the words "clearing and" after the words "regard to" in the third line of the article and by substituting in the last line the word "Ross" for "Ruby" so that said article as amended shall read as follows:

Article 33. The Licensee shall continue all provisions of the Timber Settlement Agreement of November 12, 1936 and the Memorandum of Agreement of February 21, 1940, between the Licensee and the United States Forest Service in regard to clearing and fire protection, until the completion of the Ross Dam and Reservoir.

PARAGRAPH VI. The license is further amended by adding thereto Article 35 reading as follows:

Article 35. The Licensee shall install in the second and subsequent steps of Ross Dam, at locations approved by the Commission or its authorized representative, all such motors, gates, and other

measuring devices as the Commission or its authorized representatives may deem necessary and adequate for the determination, on the surfaces, and within the dam, abutments, and foundations of stresses, strains, deflections, accelerations, temperatures, and other similar data; shall provide for the required readings of such measuring devices at such times and under such conditions of load and operation as the Commission may prescribe, and shall make return of such readings at such time and in such form as the Commission may prescribe. The Licensee shall cause analyses by competent technical experts to be made of the readings of such measuring devices for the purpose of making such data useful in connection with the safety, maintenance and operation of Ross Dam and with the design and construction of future steps thereof. Reports of such analyses shall be submitted to the Commission from time to time as requested.

PARAGRAPH VII. Except as specifically amended in Paragraphs I, II, III, IV, V, and VI hereof, the License as heretofore amended shall remain in full force and effect, and all the provisions thereof shall apply to all works and properties described herein as fully as if this amendment had been originally a part of the License.

IN WITNESS WHEREOF, the Commission has caused its name to be signed hereto by LELAND OLDS, its Chairman, and its seal to be affixed hereto and attested by A. J. KESTRAPE, its Acting Secretary, this 12th day of December, 1946, pursuant to its orders dated July 17, 1945, January 25, 1946, and May 3, 1946, attached hereto.

FEDERAL POWER COMMISSION

By Le L. Olds
Chairman.

Attest:

A. J. Kestrape
Acting Secretary.

Witness
7-20-46

IN TESTIMONY of its agreement to the foregoing amendment, The City of Seattle, this 25 day of NOVEMBER, 1946, has caused its corporate name to be signed hereto by E. R. HOFFMAN, its _____ Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by W. C. THOMAS, its ^{City Comptroller &} ex-officio City Clerk, pursuant to an Ordinance of its City Council duly passed on the 18 day of NOVEMBER, 1946, and approved by its Mayor on the 20 day of NOVEMBER, 1946, a certified copy of the record of which is attached hereto.

THE CITY OF SEATTLE

By E. R. Hoffman
Superintendent of Lighting

Attest:

W. C. Thomas
City Comptroller
and Ex-officio City Clerk.

(Executed in triplicate)

E. R. HOFFMAN
Superintendent

ORDINANCE NO. 75535

AN ORDINANCE relating to the Department of Lighting and conditionally accepting Amendment No. 3 of Federal Power Commission License Project No. 553-Washington, for the Shagit River Project.

WHEREAS, the Federal Power Commission under date October 28, 1927, issued its License for Project No. 553-Washington (Comptroller's File No. 113317) for the City's Shagit River Project; and

WHEREAS, upon applications dated August 24, 1940, November 12, 1940, March 6, 1943 and November 5, 1945 filed by the City The Commission under dates July 17, 1945, January 25, 1946 and May 3, 1946 issued its orders authorizing Amendment No. 3 of said License; and

WHEREAS, said Commission has submitted to the City for acceptance the formal Amendment of said License styled "Amendment No. 3 of License Project No. 553-Washington;" Now, Therefore,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. That with the reservation that nothing herein contained shall prejudice the City's contention that under the Federal Power Act no annual charges are due to the United States under said License and that any such charges heretofore or hereafter made were and are paid under protest and without prejudice, the City of Seattle hereby accepts Federal Power Commission Amendment No. 3 of License Project No. 553-Washington, and in order to effectuate such purpose the Superintendent of Lighting and City Comptroller are authorized and directed for and on behalf of the City of Seattle to execute and deliver in quadruplicate a qualified acceptance of said Amendment of License in words and figures as follows, to-wit:

"In testimony of its qualified agreement to the foregoing amendment, the City of Seattle, this _____ day of _____, 1946, has caused its corporate name to be signed hereto by E. R. Hoffman, its Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by W. C. Thomas, its City Comptroller and ex-officio City Clerk pursuant to an Ordinance of its City Council duly passed on the _____ day of _____, 1946, and approved by its Mayor on the _____ day of _____, 1946, a certified copy of the record of which is attached hereto.

The City of Seattle

By E. R. Hoffman
Superintendent of Lighting

NOV 29 1946

Section 2. That the City Comptroller is authorized and directed to duly certify and transmit with said Acceptance of Amendment four (4) copies of this Ordinance.

Section 3. This ordinance shall take effect and be in force thirty days from and after its passage and approval, if approved by the Mayor; otherwise it shall take effect at the time it shall become a law under the provisions of the city charter.

Passed the City Council the 18th day of November, 1946, and signed by me in open session in authentication of its passage this 18th day of November, 1946.

Mrs. F. F. Powell, President Pro Tem of the
City Council.

Approved by me this 20th day of November, 1946.

M. B. Mitchell, Acting Mayor.

Filed by me this 20th day of November, 1946.

Attest: M. C. Thomas, City Comptroller and ex-officio
City Clerk.

By: C. G. Erlandson, Deputy Clerk.

(S E A L)

STATE OF WASHINGTON)
COUNTY OF KING)
CITY OF SEATTLE)

SS

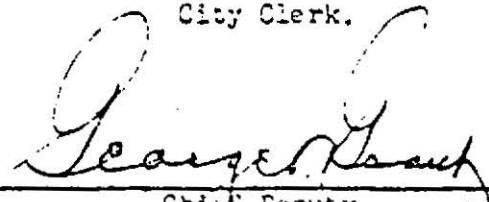
I, W. C. THOMAS, City Comptroller and ex-officio City
Clerk of the City of Seattle, do hereby certify that the
within and foregoing is a true and correct copy of

Ordinance No. 75535, relating to the Department
of Lighting and conditionally accepting Amendment
No. 3 of Federal Power Commission License Project
No. 553-Washington, for the Skagit River Project.

as the same appears on file, and of record in this Department.

IN WITNESS WHEREOF, I have hereunto set my hand and
affixed the seal of The City of Seattle, this 20th day of
November, 1946.

W. C. THOMAS,
City Comptroller and ex-officio
City Clerk.


Chief Deputy

*Went to City Engineer's Office
to get file No. 175,776.
COP*

FEDERAL POWER COMMISSION

WASHINGTON, D. C.



AMENDMENT NO. 1 OF LICENSE

PROJECT NO. 553 - WASHINGTON

SEATTLE OF SEATTLE



FPC Form No. 92

FEDERAL POWER COMMISSION
AMENDMENT NO. 1 OF LICENSE
PROJECT NO. 553-WASHINGTON
CITY OF SEATTLE

The license for Project No. 553-Washington, issued October 28, 1927, to City of Seattle is hereby amended, effective as of July 23, 1937, to include within the project the Ruby (now known as Ross) Development to elevation 1500 feet; the amendment being:

PARAGRAPH I. The paragraph immediately preceding Article I of the license is amended by inserting a certain clause after the words "made a part hereof," in the next to the last line thereof, so that said paragraph shall read as follows:

NOW THEREFORE, the Commission hereby issues this license to the Licensee for the purpose of constructing, operating and maintaining upon the lands of the United States hereinafter designated and described, certain project works necessary or convenient for the development, transmission and utilization of power and constituting a part of the project hereinafter described, and of authorizing in connection with and as a part of said project the occupancy and/or use by the Licensee of said lands of the United States and of all riparian rights appurtenant thereto which are necessary or useful for the purpose of the project; said license, including the period thereof, being subject to all the terms and conditions of the Act, and of the rules and regulations of the Commission pursuant thereto as amended and made effective on the first day of April 1924, as though fully set forth herein, which said rules and regulations are attached hereto and made a part hereof, said license, as amended pursuant to the Commission's order of July 23, 1937, being subject to the Federal Power Act (the Federal Water Power Act as amended) which is hereby referred to and incorporated as a part hereof, and subject to the rules and regulations of the Commission thereunder, and being subject also to the following express conditions and limitations, to wit:

FEDERAL POWER COMMISSION

Application of)
)
City of Seattle)
) Project No. 553

Authorization for amendment of license (major)

Upon application filed June 29, 1937, by the City of Seattle, Washington, licensee under the license for project No. 553, located on lands of the United States in Mt. Baker National Forest, Whatcom County, Washington, for amendment of said license to include the Ruby development, consisting of the following principal features:

(a) Ruby Dam, located on Skagit River about $1\frac{1}{2}$ miles below the mouth of Ruby Creek and 6 miles above Diablo Dam at the head of Diablo Reservoir, designed as a concrete arch dam of variable radius type 425 feet high with spillway crest at elevation 1,500, and with provision for its incorporation in a higher dam which may ultimately be constructed to elevation 1,725, said arch dam to be constructed initially in full section to a temporary crest at elevation 1,280, plus or minus;

(b) Ruby Reservoir, created by Ruby Dam, which at the 1,500-foot level will have a capacity of 500,000 acre-feet;

(c) Ruby power house and appurtenances, located immediately below the dam, with provision made for the installation of hydro-electric generating units at a later date;

(d) A 26,000-volt transmission line for construction purposes from Diablo Power plant to Ruby Dam;

(e) Two steel tower, double-circuit, 220,000-volt transmission lines from Ruby power plant to Seattle, to be constructed at a later date;

all as shown in the following Exhibits and parts of Exhibits: Exhibit J-2, sheet R-0, Exhibit K, sheet 1, revised, Exhibit K, sheets R-1 to R-10, inclusive, and R-16 to R-18, inclusive, Exhibit L, sheets R-0, R-1 to R-11, inclusive, R-12A, and R-13 to R-16, inclusive;

And upon submission by the applicant of revised and additional drawings of the Diablo development, designated Exhibit K, sheets 5A, 5B, and 5C;

Project No. 300 (cont'd.) - 2 -

The Commission having considered said application and Exhibits, the reports submitted thereon, and the record of proceedings had with reference to said license, including the report of the Secretary of Agriculture, finds:

- (1) That said Ruby development and the Diablo development heretofore covered by said license will be parts of a single project;
- (2) That said project, including therein the said Diablo and Ruby developments, is necessary or convenient for the development, transmission, and utilization of power along, from, and in the Skagit River, a stream over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States, and upon a part of Mt. Baker National Forest, a reservation of the United States;
- (3) That said project, including therein the said Diablo and Ruby developments, will not interfere or be inconsistent with the purposes for which the Mt. Baker National Forest was created;
- (4) That the proposed construction under the license, amended as hereinafter provided for, will affect the navigable capacity of the Skagit River, a navigable river of the United States;
- (5) That no other application with reference to said Ruby development; or in conflict therewith, is before the Commission;
- (6) That applicant has submitted satisfactory evidence of its compliance with the requirements of the laws of the State of Washington, within which said project, including said Ruby development, is to be located, with respect to bed and banks and to the appropriation, diversion, and use of water for power purposes, and with respect to the right to engage in the business of developing, transmitting, and distributing power, and in any other business necessary to effect the purposes of said license, amended as hereinafter provided for;
- (7) That said project, including therein the said Diablo and Ruby developments, will be best adapted to a comprehensive plan for improving or developing the Skagit River for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water power development, and for other beneficial public uses, including recreational purposes;
- (8) That after the first twenty (20) years of operation of the project, six percent per annum is a reasonable rate of return upon the net investment in the project under license for determining surplus earnings to be held in amortization reserves

until the termination of the license, or, in the discretion of the Commission, to be applied from time to time in reduction of the net investment, and that a reasonable portion of any surplus earnings in excess of such six percent per annum received for any calendar year to be paid into such reserves will be one-half of such excess;

- (9) That the amount of reasonable annual charges to be paid by the licensee under the license, amended as hereinafter provided for, is as follows: (a) For the purpose of reimbursing the United States for costs of administration of Part I of the Federal Power Act, one cent per horsepower on 320,000 horsepower, the authorized installed capacity, plus two and one-half cents per thousand kilowatt-hours for energy generated by the project during the preceding fiscal year ended June 30; and (b) For the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands, other than lands used for transmission lines only, four percent per annum of the commercial value of said lands as hereafter determined by the Commission; and for lands used for transmission lines only, five dollars per mile per annum, one hundred feet or less in width, with proportional increase for additional width;
- (10) That said revised and additional maps, plans, and specifications of the Diablo development provide for an increase in the ultimate installation of generating capacity at the Diablo power house from six units of 31,500 kw. each to four units of 60,000 kw. each, and for a modification in the program of installation of such generating capacity; and that such changes are not incompatible with the public interest, and will supply adequately the reasonable market demands;
- (11) That all other changes described and shown on said revised and additional maps, plans, and specifications of the Diablo development are minor changes in, or divergences from, previously approved maps, plans, and specifications, made in the course of construction, and that such changes will not result in decrease in efficiency, in material increase in cost, or in impairment of the general scheme of development, and hence are in accord with the provisions of Article IV of said license;

And, subject to (a) the approval by the Chief of Engineers and Secretary of War of the plans for the project dams and other structures affecting navigation, and (b) the approval by the Secretary of Agriculture of the conditions hereinafter imposed for the protection and utilization of the said Mt. Baker National Forest, the Commission orders:

7/23/37

Project No. 553 (cont'd.) - 4 -

(A) That the revised and additional drawings of the Diablo development, designated Exhibit K, sheets 5A, 5B, and 5C, and the drawings of the Ruby development designated Exhibit J-2, sheets R-0, Exhibit K, sheets 1 revised, Exhibit M, sheets R-1 to R-10, inclusive, and R-16 to R-18, inclusive, Exhibit L, sheets R-0, R-1 to R-11, inclusive, R-12A, and R-13 to R-16, inclusive, which were submitted with the application for amendment, insofar as they pertain to the construction of the Ruby Development to elevation 1,500 feet, be and they hereby are approved as a part of said license, subject to such changes in the design of the drainage system of Ruby Dam as the Commission may require after further consideration;

(B) That Article 2 of said license be amended so as to include the Ruby development to elevation 1,500 feet in the description of the project works, to include the above-designated drawings, and to include a revised Exhibit M, to be submitted by the applicant, and approved by the Commission; and to eliminate Exhibit J, Exhibit K, sheet 2, Exhibit L, sheets 1 and 7, and Exhibit M of the original license, which are superseded;

(C) That the paragraph immediately preceding Article 1 of said license be amended by inserting after the words "made a part hereof," in the next to the last line of said paragraph, the following clause:

"....said license, as amended pursuant to the Commission's order of July 23, 1937, being subject to the Federal Power Act (the Federal Water Power Act as amended) which is hereby referred to and incorporated as a part hereof, and subject to the rules and regulations of the Commission thereunder,"

(D) That the first four lines of Article 3 of said license be amended to read as follows:

"The maps, plans, specifications and statements designated and described as exhibits in Article 2 hereof, and approved by the Commission, are hereby made * * *";

(E) That Article 6 of said license be amended to read as follows:

"Subject to the provisions of Section 13 of the Act, the licensee shall -

(a) Begin the construction of Diablo Dam and reservoir on or before January 1, 1923, and complete the same on or before July 1, 1930, and shall begin the construction of the first power tunnel and power house for two units of 60,000 kw.

capacity each at Diablo Dam, the installation of said units and the construction of the transmission line from Diablo power plant to Gorge power plant on or before January 1, 1930, and complete the same on or before December 31, 1936;

(b) Begin the construction of the Diablo transmission line from the Gorge power house to Seattle, on or before January 1, 1937, and complete the same on or before July 1, 1938;

(c) Begin the construction of Ruby Dam and reservoir on or before October 1, 1937, complete the first step to elevation 1,280, more or less, on or before June 30, 1939, and complete the second step to elevation 1,500 on or before January 1, 1943;

The construction of Ruby Dam and reservoir to its contemplated ultimate height, and the Ruby power plant to its contemplated ultimate capacity, shall be subject to the further act of the Commission upon application duly made for the licensing thereof in accordance with the provisions of the then existing laws and regulations."

(F) That Article 22 of said license be amended so that the first and the last sentences thereof shall read as follows respectively:

"Upon the completion of the construction of said project or of each of the separable parts thereof for which dates of completion are specified in Article 6 hereof, or of any addition thereto or betterment thereof, the Licensee shall file with the Commission a statement under oath in duplicate showing the actual legitimate original cost of construction thereof and the price paid for water rights, rights of way, lands, or interest in lands appurtenant to such construction as required by the rules and regulations of the Commission.

"Each and every item of cost included in any such statement shall be supported by proper voucher or other evidence; and any such voucher or evidence or certified copy thereof, in support of any item properly includible in said cost shall become a part of the permanent records of said project and shall be kept and retained by the Licensee in the manner required by the Commission."

(G) That Article 24 of said license be amended to provide for the payment by the Licensee of annual charges in the amount hereinbefore found reasonable;

(H) That Article 25 of said license be amended to fix the rate of return and the portion of surplus earnings, to be used for the establishment of amortization reserves as hereinbefore found reasonable;

7/23/37

(I) That Article 29 of said license be changed to read as follows:

"This license is subject to change in accordance with the provisions of the Federal Power Act."

(J) That the license be appropriately amended to include the following special conditions:

(a) The licensee shall construct and maintain a roadway along the top of the Ruby Dam, when constructed to elevation 1,500 feet;

(b) The licensee shall, after storage is begun in Ruby Reservoir, maintain a navigable waterway through the flooded area to the satisfaction of the representative of the Commission and/or the Regional Forester, and the representative of the Commission may require the construction of booms to catch and divert floating debris from the river channel;

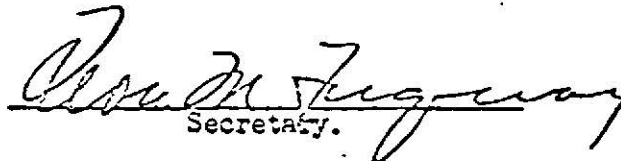
(c) The licensee shall continue all provisions of the Timber Settlement Agreement between the licensee and the United States Forest Service in regard to fire protection, until the completion of the Ruby dam and reservoir;

(d) The licensee shall provide suitable quarters at the project works for housing representatives of the Federal Power Commission who may be from time to time assigned to actual field work on the project.

* * * * *

I, LEON M. FUQUAY, Secretary of the Federal Power Commission, hereby certify that the foregoing is a true and correct copy of a portion of the minutes of a meeting of the Federal Power Commission in the City of Washington, District of Columbia, on the 23rd day of July, 1937.

In testimony whereof, I have hereunto set my hand and caused the seal of the Federal Power Commission to be affixed at the City of Washington, District of Columbia this 19th day of August 1942.


Secretary.

UNITED STATES OF AMERICA

FEDERAL POWER COMMISSION

Commissioners } Leland Olds, Chairman, Claude L. Draper, Basil Manly,
 } John W. Scott and Clyde L. Seavey.

June 9, 1942

In the Matter of }
City of Seattle, Washington } Project No. 553

ORDER MODIFYING AND SUPPLEMENTING JULY 23, 1937, ORDER
AUTHORIZING AMENDMENT OF LICENSE (MAJOR)

It appearing that:

- (a) By order dated July 23, 1937, the Commission authorized amendment of license for Project No. 553 to include the Ruby development, occupying lands of the United States within the Mt. Baker National Forest, in Whatcom County, Washington, said order being subject to:
 - (i) The approval by the Chief of Engineers and Secretary of War of the plans for the project dams and other structures affecting navigation;
 - (ii) The approval by the Secretary of Agriculture of certain supplementary conditions imposed in said order for the protection and utilization of the national forest involved; and
 - (iii) The approval of a revised Exhibit M to be submitted by the licensee;
- (b) The aforesaid order (i) provided, by error, that the Commission should determine the amount of annual charges for the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands, other than lands used for transmission lines only, on the "commercial" value of the lands rather than on the reasonable value thereof; and (ii) did not specify the time for completion of the ultimate installation at Diablo powerhouse;

6/9/42

The Commission, having considered the aforesaid order of July 23, 1937, all subsequent reports connected therewith and the project record, finds that:

- (1) The Chief of Engineers and the Secretary of War have approved the plans for the project structures affecting navigation;
- (2) The Acting Secretary of Agriculture has approved the supplementary provisions imposed in said order as being adequate for the protection and utilization of the national forest involved;
- (3) Exhibit M, as revised, conforms to the Commission's rules and regulations;
- (4) In order to effectuate the purposes of Section 10(e) and other pertinent provisions of the Federal Power Act, it is desirable to modify and supplement the aforesaid July 23, 1937, order to:
 - (i) Eliminate finding (9) of said order;
 - (ii) Fix and specify the amount of reasonable annual charges to be paid under the license as amended; and
 - (iii) Specify the time for completion of the ultimate installation at Diablo powerhouse;
- (5) The amount of annual charges to be paid under the license as amended for the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands by the Ruby development for the period July 23, 1937, to and including December 31, 1941, is reasonable as fixed and specified in paragraph (D) below;
- (6) The amount of annual charges to be paid under the license as amended for reimbursing the United States for the costs of administration of Part I of the Federal Power Act and for recompensing it for the use, occupancy, and enjoyment of its lands for the period commencing on January 1, 1942, is reasonable as fixed and specified in paragraph (E) below;
- (7) The intention of the Commission to predicate the annual land charges upon the "reasonable" rather than the "commercial" value of the lands of the United States occupied by the project was presented to the licensee on November 3 and November 14, 1941, and no objection to such course has been made;

It is ordered that:

The aforesaid order of the Commission dated July 23, 1937, is hereby modified and supplemented as follows:

6/9/42

(A) Finding (9) of the order be stricken;

(B) Paragraph (G) of the order to read:

"(G) Subject to Section 10(e) of the Federal Power Act and commencing on January 1, 1942, the amount of annual charges to be paid under the license as amended are:

(i) For the purpose of reimbursing the United States for the costs of administration of Part I of the Federal Power Act, one (1) cent per horsepower on the horsepower capacity (320,000 horsepower) authorized to be installed by the licensee, plus two and one-half ($2\frac{1}{2}$) cents per thousand kilowatt-hours of energy generated by the project during the fiscal year ended June 30 preceding the submission of a bill therefor by the Commission;

(ii) For the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands other than those used for transmission lines only, \$1,066.57; and

(iii) For the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands used for transmission lines only, \$215.36";

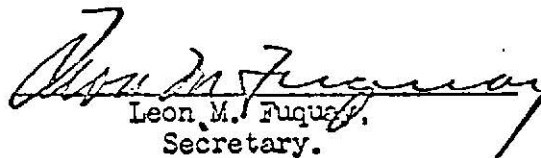
(C) Subparagraph (a) of paragraph (E) of the order to read:

"(a) Begin the construction of Diablo Dam and reservoir on or before January 1, 1928, and complete the same on or before July 1, 1930; shall begin the construction of the first tunnel and powerhouse for two units of 60,000 kw. capacity each at Diablo Dam, the installation of said units and the construction of the transmission line from Diablo power plant to Gorge power plant on or before January 1, 1930, and complete the same on or before December 31, 1936; and shall complete the installation at the Diablo Dam to its ultimate capacity at such time as the Commission may direct so as to supply adequately the reasonable market demands."

6/9/42

- (D) The licensee shall pay to the United States the amount of \$4,480.32 for recompensing it for the use, occupancy, and enjoyment of its lands occupied by the Ruby development for the period July 23, 1937, to and including December 31, 1941;
- (E) Revised Exhibit M, sheets 6 to 10, inclusive, filed on June 29, 1937, is hereby approved and made a part of the license as amended.

By the Commission.


Leon M. Fuqua,
Secretary.

PARAGRAPH II. Article 2 of the license is amended so as to include the Ruby Development to elevation 1500 feet in the description of the project works, to include additional exhibits, and to eliminate certain exhibits from the license, which are superseded, so that Article 2 shall read as follows:

Article 2. The project covered by and subject to this license is located in and along Skagit River and on lands of the United States in Mt. Baker National Forest and consists of:

A. All lands constituting the project area and inclosed by the project boundary, and/or interests in such lands necessary or useful for the purposes of the project, whether such lands or interests therein are owned or held by the Licensee or by the United States; such project area and project boundary being more fully shown and described by certain exhibits which accompanied the applications for license and amendment thereof and which are designated and described as follows:

Exhibit J-2. Sheet R-0 (FPC No. 553-37) General project map, signed June 14, 1937, by W. J. McKeen, Acting Superintendent of Lighting, and W. A. Carle, City Engineer.

1. Diablo Development

Exhibit J(t) (FPC No. 553-30) Map showing general location of transmission line from Diablo Plant to Seattle.

Exhibit K Sheets 1 and 2 (FPC Nos. 553-25 and 26) Detail Maps entitled "Map of proposed transmission line thru Mt. Baker National Forest."

(Above exhibits signed July 31, 1929, by J. D. Ross, Supt. of Lighting, and W. D. Barkhuff, City Engineer, and approved by the Commission on March 15, 1930)

Exhibit K Sheets 5A, 5B and 5C (FPC Nos. 553-34 to 36 inclusive) Maps showing project boundary entitled "Diablo Development, Project Works," signed by J. D. Ross, Superintendent of Lighting, and approved by the Commission on July 23, 1937.

2. Ruby (Ross) Development to elevation 1500 feet

Exhibit K Sheets R-1 to 10, inclusive, and R-16 to 18, inclusive.
(FPC Nos. 553-38 to 50, inclusive) Detail maps of project area entitled "Topography of Ruby Reservoir," signed June 14, 1937, by W. J. McKeen, Acting Superintendent of Lighting, and N. A. Carle, City Engineer, and approved by the Commission on July 23, 1937, insofar as they pertain to the construction of Ruby Development to elevation 1500 feet.

B. All water rights, the use and possession of which are necessary in the operation of the project or appurtenant thereto, such as are described in Exhibit D of the applications for license and amendment thereof.

C. All project works consisting principally of:

1. Diablo Development

A concrete arch dam in sec. 5, T. 37 N., R. 13 E., W.M., 339 feet high; a spillway section at each end of the dam surmounted by Taintor gates; a reservoir created by said dam extending about 4 miles upstream to Ruby Dam site and having a capacity of 90,000 acre-feet, of which 60,000 acre-feet is usable; an intake structure; two concrete lined tunnels about 2,000 feet long each directly connected to two steel penstocks, extending from the dam to the power house; a differential type surge tank at the lower end of each tunnel; a power house containing 4 units each having a capacity of 60,000 kilowatts, making a total of 240,000 kilowatts or 320,000 horsepower; a transmission line extending from the power house to the existing Gorge plant; a transmission line known as the Diablo transmission line extending from the Gorge plant to Seattle; and other appurtenants used in operating the project; the location and character of the project works being more fully shown and described by the exhibits cited in Paragraph A hereof, and by the following additional exhibits:

Exhibit L. Sheet 3 (FPC No. 553-10) "Profile of Dam, Tunnel & Power House - Diablo Project."

Sheet 6 (FPC No. 553-13) "Plan & Section Elevation, Diablo Power House."

Sheets 9, 10 and 11 (FPC Nos. 553-16, 17 and 18) "Log of Diamond Drillings, Diablo Dam Site."

(Above sheets signed November 8, 1926, by J. D. Ross, Superintendent of Lighting and J. D. Blackwell, City Engineer, and approved by the Commission on October 10, 1927.)

Exhibit L Sheet 12 (FPC No. 553-23) "Diablo Canyon Dam, Plan and Sections."

Sheet 13 (FPC No. 553-24) "Diablo Canyon Dam, Elevation and Sections."

(Each of the above sheets 12 and 13 signed on September 6, 1927 and October 17, 1927, respectively, by L. Murray Grant, Chairman of Board of Public Works, and W. C. Morse, City Engineer, and approved by the Commission on October 10, 1927.)

Exhibit L(t) (FPC No. 553-29) "Map showing general design of tower structure for transmission line from Diablo Plant to Seattle," signed July 31, 1929, by J. D. Ross, Superintendent of Lighting and March 3, 1930 by W. D. Barkhuff, City Engineer, and approved by the Commission on March 15, 1930.

Exhibit M (t) A typewritten sheet entitled "Proposed Skagit-Seattle Transmission Line," approved by the Commission on March 15, 1930.

Exhibit M Sheets 6 to 10, inclusive, of a printed document entitled "The Skagit Power Development," approved by the Commission on June 9, 1942.

2. Ruby Development

A concrete arch dam to elevation 1500 feet, approximately 425 feet in height, located in sec. 35, T. 38 N., R. 13 E., W.M.; a reservoir created by said dam having a capacity of 500,000 acre-feet at elevation 1500 feet; a transmission line extending from Diablo plant to Ruby Dam; and other appurtenant facilities; the location and character of the project works being more fully shown and described by the exhibits cited in Paragraph A hereof, and by the following additional exhibits:

Exhibit L Sheet R-0 (FPC No. 553-51) "General Location Map of Ruby Dam and Test Pits at Roland Bar."

Sheet R-1 (FPC No. 553-52) "Sand and Gravel Test Pits at Roland Bar."

Sheet R-2 (FPC No. 553-53) "Hydrograph of Skagit River at Ruby Dam Site, 1919 to 1932 inclusive."

Sheet R-3 (FPC No. 553-54) "Hydrograph of Skagit River at Ruby Dam Site, 1933-1936 inclusive."

Sheet R-4 (FPC No. 553-55) "Location of Diamond Drill Holes and Electrical Soundings at Ruby Dam Site."

Sheets R-5 and 6 (FPC Nos. 553-56 and 57) "Profile and Log of Diamond Drill Holes at Ruby Dam Site."

Sheet R-7 (FPC No. 553-58) "General Vicinity Map of Ruby Dam and Diablo Lake."

Sheet R-8 (FPC No. 553-59) "Plan of Ruby Dam to Elevation 1300."

Sheet R-9 (FPC No. 553-60) "River Diversion, By Pass Tunnel, Shaft, and Control Chamber for Ruby Dam."

Sheet R-10 (FPC No. 553-61) "By Pass Details for Ruby Dam."

Sheet R-11 (FPC No. 553-62) "Soundings in Skagit River from Ruby Dam Site to Buster Brown Flats."

Sheet R-12A (FPC No. 553-63) "Foundation Grout Holes, Contraction Joints and Keys for Ruby Dam."

Sheet R-13 (FPC No. 553-64) "Elevation and Details of Ruby Dam."

Sheet R-14 (FPC No. 553-65) "Keys, Reinforcement, Seal, Light and Piping Details for Ruby Dam."

Sheet R-15 (FPC No. 553-69) "Sections at Contraction Joints, Ruby Dam."

Sheet R-16 (FPC No. 553-67) "Miscellaneous details for Ruby Dam."

(The above sheets of Exhibit L signed June 14, 1937, by W. J. McKeen, Acting Superintendent of Lighting, and N. A. Cerle, City Engineer, and approved by the Commission on July 23, 1937, insofar as they pertain to the construction of Ruby Development to elevation 1500 feet.)

Exhibit M Sheets 6 to 10, inclusive, of a printed document entitled "The Skagit Power Development," approved by the Commission on June 9, 1942.

D. All other structures fixtures, equipment, or facilities used or useful in the maintenance and operation of the project and located within the project area, including such portable property as may be used and useful in connection with the project or any part

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

PARAGRAPH III. Article 3 of the license is amended to read as follows:

Article 3. The maps, plans, specifications and statements designated and described as exhibits in Article 2 hereof, and approved by the Commission, are hereby made a part of this license, and no substantial change shall hereafter be made in said exhibits, or any of them, until such change shall have been approved by the Commission; provided, however, that if the Licensee deems it necessary or desirable that said 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, shall become a part of this license and shall supersede, in whole or in part, such exhibits theretofore made a part of this license, as may be specified by the Commission.

PARAGRAPH IV. Article 6 of the license is amended to read as follows:

Article 6. Subject to the provisions of Section 13 of the Act, the Licensee shall-

(a) Begin the construction of Diablo Dam and reservoir on or before January 1, 1928, and complete the same on or before July 1, 1930; shall begin the construction of the first tunnel and power house for two units of 60,000 KW. capacity each at Diablo Dam, the installation of said units and the construction of the transmission line from Diablo power plant to Gorge power plant on or before January 1, 1930, and complete the same on or before December 31, 1936; and shall complete the installation at the Diablo Dam to its ultimate capacity at such time as the Commission may direct so as to supply adequately the reasonable market demands.

(b) Begin the construction of the Diablo transmission line from the Gorge power house to Seattle, on or before January 1, 1937, and complete the same on or before March 31, 1939.

(c) Begin the construction of Ruby Dam and Reservoir on or before October 1, 1937, complete the first step to elevation 1280, more or less, on or before June 30, 1939, and complete the second step to elevation 1500 on or before January 1, 1943.

The construction of Ruby Dam and Reservoir to its contemplated ultimate height, and the Ruby power plant to its contemplated ultimate capacity, shall be subject to the further act of the Commission upon application duly made for the licensing thereof in accordance with the provisions of the then existing laws and regulations.

PARAGRAPH V. The first sentence of Article 22 of the

license is changed and the last sentence of said article is eliminated so that Article 22 shall read as follows:

Article 22. Upon the completion of the construction of said project or of each of the separable parts thereof for which dates of completion are specified in Article 6 hereof, or of any addition or betterment thereof, the Licensee shall file with the Commission a statement under oath in duplicate showing the actual legitimate original cost of construction thereof and the price paid for water rights, rights of way, lands, or interest in lands appurtenant to such construction as required by the rules and regulations of the Commission. Any such statement shall include all proper and legitimate costs, whether incurred prior to issuance of license or on and after such date; and the Licensee shall, if requested by the Commission, show separately on any such statement, or on a special report or reports, the items and amounts of cost incurred prior to date of issuance of license, with such other details as the Commission may require. Each and every item of cost included in any such statement shall be supported by proper voucher or other evidence; and any such voucher or evidence or certified copy thereof, in support of any item properly includible in said cost shall become a part of the permanent records of said project and shall be kept and retained by the Licensee in the manner required by the Commission.

PARAGRAPH VI. Article 24 of the license concerning the

matter of annual charges is changed to read as follows:

Article 24. Subject to the provisions of Section 10(e) of the Act, the Licensee shall pay to the United States the following charges:

(1) For the purpose of recompensing the United States for the use, occupancy and enjoyment of its lands occupied by the Ruby development for the period July 23, 1937, to and including December 31, 1941, \$4,480.32.

(2) Effective from January 1, 1942, the Licensee shall pay the following annual charges applicable to each calendar year;

(a) For the purpose of reimbursing the United States for the costs of administration of Part I of the Federal Power Act, one (1) cent per horsepower on the horsepower capacity (320,000 horsepower) authorized to be installed by the License, plus two and one-half (2½) cents per thousand kilowatt-hours of energy generated by the project during the fiscal year ended June 30 of the calendar year to which the annual charges apply. A statement of the number of kilowatt-hours generated during said fiscal year, certified under oath, shall be filed with the Commission on or before September 1 following the end of said fiscal year;

(b) For the purpose of recompensing the United States for the use, occupancy and enjoyment of its lands other than those used for transmission lines only, \$1,066.57; and

(c) For the purpose of recompensing the United States for the use, occupancy and enjoyment of its lands used for transmission lines only \$215.36;

(d) Payment by the Licensee of annual charges shall be made to the United States within thirty (30) days after the close of the calendar year, or after date of statement rendered by the Commission, whichever is later. A penalty will be imposed pursuant to the provisions of the Act for delinquency in payment unless otherwise ordered by the Commission.

PARAGRAPH VII Article 25 of the license, fixing the rate of return and the portion of surplus earnings to be used for the establishment of amortization reserves, is hereby amended so that said article shall read as follows:

Article 25. After the first twenty (20) years of operation of the project, six percent per annum is a reasonable rate of return upon the net investment in the project under license for determining surplus earnings to be held in amortization reserves until the termination of the license, or, in the discretion of the Commission, to be applied from time to time in reduction of the net investment, and that a reasonable portion of any surplus earnings in excess of such six percent per annum received for any calendar year to be paid into such reserves will be one-half of such excess.

PARAGRAPH VIII. Article 29 of the license is changed

to read as follows:

Article 29. This license is subject to change in accordance with the provisions of the Federal Power Act.

PARAGRAPH IX. The license shall contain the following

new articles:

Article 31. The Licensee shall construct and maintain a roadway along the top of Ruby Dam, when constructed to elevation 1500 feet.

Article 32. The Licensee shall, after storage is begun in Ruby Reservoir, maintain a navigable waterway through the flooded area to the satisfaction of the representative of the Commission and/or the Regional Forester, and the representative of the Commission may require the construction of booms to catch and divert floating debris from the river channel.

Article 33. The Licensee shall continue all provisions of the Timber Settlement Agreement between the Licensee and the United States Forest Service in regard to fire protection, until the completion of the Ruby Dam and Reservoir.

Article 34. The Licensee shall provide suitable quarters at the project works for housing representatives of the Federal Power Commission who may be from time to time assigned to actual field work on the project.

IN WITNESS WHEREOF, the Federal Power Commission has
caused its name to be signed hereto by BASIL MANLY
its Acting Chairman, and its seal to be affixed hereto
and attested by LEON M. FUQUAY, its Secretary,
this 22nd day of January, 1943, pursuant to its
orders dated July 23, 1937, and June 9, 1942, attached hereto.

FEDERAL POWER COMMISSION

By Basil Manly
Acting Chairman

Attest:

Leon M. Fuquay
Secretary

TMC:ca
8:10:42

IN TESTIMONY of its agreement to the foregoing amendment, The
City of Seattle, this 5th day of January, 19 43,
has caused its corporate name to be signed hereto by E. R. Hoffman
Lighting
its Superintendent of, and its corporate seal to be affixed hereto
and attested by W. C. Thomas, its City Comptroller and ex-officio City Clerk.
an Ordinance passed on December 29th, 1942,
pursuant to ~~the resolution~~ of its City Council duly ~~adopted on the~~
and approved by its Mayor on the
30th day of December, 19 42 a certified copy of the record
of which is attached hereto.

THE CITY OF SEATTLE

By E. R. Hoffman
Superintendent of Lighting

Attest:

W. C. Thomas
City Comptroller and
ex-officio City Clerk.
Executed in triplicate

ORDINANCE NO. 72357

AN ORDINANCE relating to the Department of Lighting and conditionally accepting Amendment No. 1 of Federal Power Commission License Project No. 553 - Washington, for the Skagit River Project, and declaring an emergency.

WHEREAS, the Federal Power Commission under date October 28, 1927, issued its License for Project No. 553 - Washington (Comptroller's File No. 113817) for the City's Skagit River Project; and

WHEREAS, under date July 23, 1937, said Commission issued its Authorization for Amendment to License (Comptroller's File No. 156259); and

WHEREAS, said Commission has submitted to the City for acceptance the formal Amendment of said License styled "Amendment No. 1 of License Project No. 553 - Washington;" Now, Therefore,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. That with the reservation that nothing herein contained shall prejudice the City's contention that under the Federal Power Act no annual charges are due to the United States under said License and that any such charges heretofore or hereafter made were and are paid under protest and without prejudice, and with the further reservation that the City further contends that Art. 25 of the License relating to amortization reserve payments and rate of return does not apply its operation under the laws of the State of Washington, the City of Seattle hereby accepts Federal Power Commission Amendment No. 1 of License Project No. 553 - Washington, and in order to effectuate such purpose the Superintendent of Lighting and City Comptroller are authorized and directed for and on behalf of the City of Seattle to execute and deliver in quadruplicate a qualified acceptance of said Amendment of License in words and figures as follows, to-wit:

"In Testimony of its qualified agreement to the foregoing amendment as set forth in Ordinance No. _____ of the City of Seattle duly approved the _____ day of _____, 1942, certified copy of which is hereto attached and made a part hereof, the City of Seattle this _____ day of _____ 1942, has caused its corporate name to be signed hereto by E.R. Hoffman, its Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by W.C. Thomas, its City Comptroller and ex-officio City Clerk, pursuant to the Ordinance hereinabove referred to.

ATTEST:

THE CITY OF SEATTLE

City Comptroller and ex-officio
City Clerk.

By _____
Superintendent of Lighting"

Section 2. That the City Comptroller is authorized and directed to duly certify and attach to each copy of said Amendment of License a copy of this Ordinance.

Section 3. WHEREAS, the Federal Power Commission has allowed an extension of time for acceptance of said Amendment of License to January 21, 1943, only, thereby creating a situation constituting an emergency, which is hereby declared to exist, in which it is necessary for the immediate preservation of the Public peace, health and safety that this ordinance become effective without delay; Now, Therefore,

Section 4. By reason of the facts set forth in this ordinance an emergency is declared to exist; therefore, this ordinance shall take effect and be in force from and after its approval, if approved by the Mayor; if not so approved it shall take effect and become a law at the time and in the manner provided for non-emergency ordinances under the provisions of the city charter.

Passed the City Council the 29 day of December 1942, and signed by me in open session in authentication of its passage this 29 day of December 1942.

BOB JONES
President of the City Council

Approved by me this 30 day of December 1942

WM F DEVIN
Mayor

Filed by me this 30 day of December 1942.

Attest:

W.C. THOMAS
City Comptroller and ex-officio City Clerk

By C.G. ERLANDSON
Deputy Clerk.

(SEAL)

I hereby certify that the above is a true and correct copy of Ordinance No. 72357 as the same appears on file and of record in the City Comptroller's Department.

A. C. Thomas

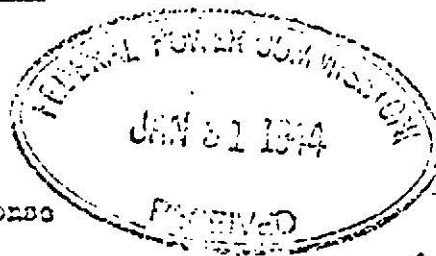
City Comptroller and
ex-officio City Clerk.

DATED at Seattle, Washington,
this 5th day of January, 1943.



FEDERAL POWER COMMISSION

WASHINGTON, D. C.



Amendment No. 2 of License

Project No. 553-Washington

The City of Seattle



FPC Form No. 23



=P-170

Instrument No. 4.

NATIONAL POWER CORPORATION

AMENDMENT NO. 2 OF LICENSE

PROJECT NO. 553-WASHINGTON

THE CITY OF SEATTLE

The license for project No. 553, issued October 28, 1927 to the City of Seattle, license, is hereby amended to extend the time specified for completion of certain project work; said amendments being:

PARAGRAPH 1. Article 6 of the license as amended January 22, 1943, is further amended by changing the dates specified for completion of the project work as follows: (1) for Diablo Dam and reservoir from July 1, 1930 to December 1, 1930; (2) for Diablo tunnel and power house, with two 60,000-horsepower units, from December 31, 1935 to April 16, 1937; and (3) for the first stop of Rees (Ruby) Dam and reservoir from June 30, 1939 to March 15, 1940; so that said article shall read as follows:

Article 6. Subject to the provisions of Section 13 of the Act, the license shall -

(a) Begin the construction of Diablo Dam and reservoir on or before January 1, 1928, and complete the same on or before December 1, 1930; shall begin the construction of the first tunnel and power house for two units of 60,000 hp. separately each at Diablo Dam and the installation of said units and the construction of the transmission line from Diablo power plant to George power plant on or before January 1, 1930, and complete the first tunnel, power house, and installation of the two units on or before April 16, 1937, and complete the construction of the transmission line from Diablo power plant to George power plant on or before December 31, 1935; and shall complete the installation of the Diablo Dam to its ultimate capacity at such time as the Commission may direct so as to comply adequately the reasonable public demand.

(b) Begin the construction of the Diablo transmission line from the George power house to Seattle on or before January 1, 1937, and complete the same on or before March 31, 1939.

(c) Begin the construction of Ross (Ruby) Dam and reservoir on or before October 1, 1937, complete the first step to elevation 1,200, more or less, on or before March 15, 1940, and complete the second step to elevation 1,500 on or before January 1, 1943.

The construction of Ross (Ruby) Dam and reservoir to its contemplated ultimate height, and the power plant at said dam to its contemplated ultimate capacity, shall be subject to the further act of the Commission upon application duly made for the licensing thereof in accordance with the provisions of the then existing laws and regulations.

It is specifically agreed that amendment of this article shall not be construed as a determination by the Commission of the date upon which construction of any portion of the project works was actually completed.

PARAGRAPH II. Except as specifically amended in Paragraph I hereto, the license as heretofore amended shall remain in full force and effect, and all the provisions thereof shall apply to all works and properties described herein as fully as if this amendment had been originally a part of the license.

IN WITNESS WHEREOF, the Commission has caused its name to be signed hereto by LELAND J. WOOD, its Chairman, and its seal to be affixed hereto and attested by LEON H. TUCKAY, Secretary, this 11th day of February, 1943, pursuant to its order dated September 23, 1943, attached hereto.

FEDERAL POWER COMMISSION

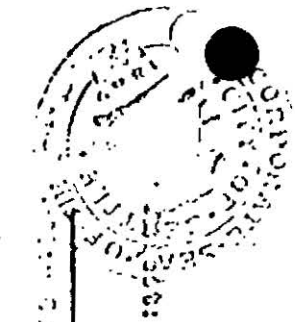
By LELAND J. WOOD
Chairman.

Attest:

LEON H. TUCKAY
Secretary.

RTD:204
11-6-43

IN WITNESS of its agreement to the foregoing amendment, the City
of Seattle, this 10 day of August, 1941, has caused its
corporate name to be signed hereto by E. H. Haggard,
its Superintendent of Lighting, and its corporate seal to be affixed
hereto and attested by W. J. Brown, its
City Clerk, and its President or Vice-President
W. J. Brown, pursuant to an Ordinance of its City
Council duly passed on the 10 day of August, 1941, and
approved by the Mayor on the 10 day of August, 1941, a
certified copy of the record of which is attached hereto.



W. J. Brown
City Clerk and ex-officio

THE CITY OF SEATTLE
By E. H. Haggard
Superintendent of Lighting.

(Executed in triplicate)

AN ORDINANCE relating to the Department of Lighting and accepting Amendment No. 2 of Federal Power Commission License Project No. 553 - Washington, for the Skagit River Project.

WHEREAS, the Federal Power Commission under date October 1927 issued its license for Project No. 553 - Washington (Comptroller's File No. 113817) for the City's Skagit River Project; and

WHEREAS, upon application filed by the City August 20, 1943, the Commission under date September 23, 1943, issued its order authorizing amendment No. 2 of said license; and

WHEREAS, said Commission has submitted to the City for acceptance the formal Amendment of said license styled "Amendment No. 2 of License Project No. 553 - Washington, The City of Seattle;" Now, Therefore,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. That the City of Seattle hereby accepts Federal Power Commission Amendment No. 2 of License Project No. 553, Washington, and in order to effectuate such purpose the Superintendent of Lighting and City Comptroller are authorized and directed for and on behalf of the City of Seattle to execute and deliver in triplicate an acceptance of said Amendment of License in words and figures as follows, to-wit:

"In testimony of its agreement to the foregoing amendment, The City of Seattle, this ____ day of _____, 1943, has caused its corporate name to be signed hereto by R.R.Hoffman, its Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by W.C.Thomas, its City Comptroller and ex-officio City Clerk pursuant to an Ordinance of its City Council duly passed on the ____ day of _____, 1943, and approved by its Mayor on the ____ day of _____, 1943, a certified copy of the record of which is attached hereto.

The City of Seattle.

Attest:

By _____
Superintendent of Lighting

City Comptroller and ex-officio
City Clerk."

Section 2. That the City Comptroller is authorized and directed to duly certify and transmit with said Acceptance of Amendment four (4) copies of this Ordinance.

Section 3. This ordinance shall take effect and be in force thirty days from and after its passage and approval, if approved by the Mayor; otherwise it shall take effect at the time it shall become a law under the provisions of the city charter.

Passed the City Council the 20 day of December 1943, and signed by me in open session in authentication of its passage this 20 day of December 1943.

JOHN E. CARROLL

President of the City Council

Approved by me this 22 day of December 1943

WM. F. DEVIN, Mayor

Filed by me this 22 day of December 1943

Attest:

W.C.THOMAS

City Comptroller and ex-officio City Clerk.

By L.S.BAILES

Deputy Clerk.

(SEAL)

STATE OF WASHINGTON }
COUNTY OF KING } SS
CITY OF SEATTLE }

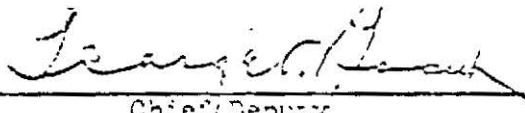
I, W. C. THOMAS, City Comptroller and ex-officio
City Clerk of the City of Seattle, do hereby certify that
the within and foregoing is a true and correct copy of
ORDINANCE NUMBER 73010 of the City of Seattle, Wash.

as the same appears on file, and of record in this
Department.

IN WITNESS WHEREOF, I have hereunto set my hand and
affixed the seal of The City of Seattle, this 23rd day of December 1943



W. C. THOMAS,
City Comptroller and ex-officio
City Clerk,


Chief Deputy

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Commissioners } Ireland Olds, Chairman, Claude L. Dreger,
} Basil W. Myly and John W. Scott.

September 28, 1943

In the Matter of }
City of Seattle, Washington } Project No. 553

ORDER AUTHORIZING AMENDMENT OF LICENSE (W-5703)

It appearing to the Commission:

- (1) That City of Seattle filed application August 20, 1943, for amendment to its license for Project No. 553, issued by the Commission on October 28, 1927;
- (2) That the amendment as applied for would provide a change in Article 6 of the license for certain dates for the completion of the project works, as follows:
 - (i) For the Diablo Dam and Reservoir, from July 1, 1930, to December 1, 1930;
 - (ii) For the Diablo Tunnel and Powerhouse with two 60,000 kilowatt units, from December 31, 1936, to April 16, 1937; and
 - (iii) For the first step of Ross (Ruby) Dam and Reservoir, from June 30, 1939, to March 15, 1940;
- (3) Licensee states that the amendment is desirable so that the dates on which construction of the above portions of the project works were actually completed will be within the time specified in the license for such completion.

The Commission having considered the application and the project records, finds:

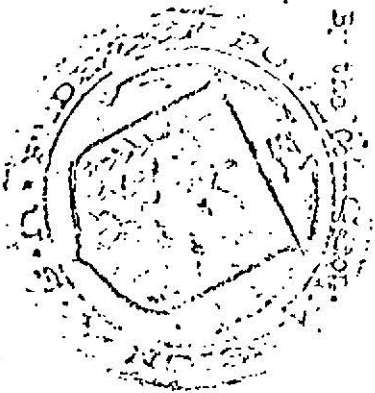
- (1) That it is appropriate and not inconsistent with the public interest to grant the licensee's request that the dates fixed in the license for the completion of the project works be changed to conform to the request of the licensee, above set forth;

9/26/43

- (2) That the amendment of the license as requested in said application does not constitute an alteration of the license within the meaning of Section 6 of the Act so as to require the 90 days' public notice prescribed therein.

Therefore, it is ordered:

That the license for Project No. 555 be amended so that the dates fixed therein for the completion of construction of the above portions of the project works shall be those dates requested by licensee's application for amendment filed August 20, 1943; provided, that nothing herein shall be construed as a determination by the Commission of the date upon which construction of any portion of the project works was actually completed.



Leon W. August
Leon W. August,
Secretary.

Amendment 3

2 P-179
FEDERAL POWER COMMISSION
AMENDMENT NO. 3 OF LICENSE
PROJECT NO. 553-WASHINGTON
THE CITY OF SEATTLE

The license for major project No. 553, issued to The City of Seattle on October 20, 1927, as subsequently amended is hereby amended: to incorporate in the license additional exhibits showing the Ross Dam as constructed to elevation 1300 (first step); to incorporate in the license an additional exhibit showing the design for raising the Ross Dam to elevation 1551 feet with the crest of the spillway at elevation 1525 feet, a timber wave wall extending 3 feet above the dam, and two power tunnels around the abutment of the dam; to incorporate in the license additional exhibits showing the Diablo development as constructed; to incorporate in the license an additional exhibit showing the Diablo transmission line; to add to the list of project facilities the carrier current telephone system installed on the Diablo transmission line; to extend the time specified for completion of certain project works; to modify Article 33 relating to an agreement between the Licensee and the Forest Service; to modify the requirement for a roadway along the top of Ross Dam at elevation 1500 feet; to add a new article to the license; and to adjust the amount of the annual charges; the amendment being:

AMENDMENT I. Article 2 of said license, as amended January 22, 1943, is hereby amended:

1. By changing the word "Diablo" to read "Ross" except where word "Diablo" is used in titles of exhibits;

(2). By adding to the list of exhibits under item 1, Diablo Development, of Paragraph A:

Exhibit K Sheets 5B Revised, 5C Revised, and 5D (FPC Nos. 553-72, -73, and -81), Sheets 1-1 to 7-3 inclusive (FPC Nos. 553-91 to -96 inclusive);

(3). By eliminating from the list of exhibits under item 1, Diablo Development, of Paragraph A:

Exhibit K Sheets 1 and 2 (FPC Nos. 553-25 and -26) and Sheets 5A, 5B, and 5C (FPC Nos. 553-34, -35, and -36);

(4). By changing in the twelfth and thirteenth lines under item 1, Diablo Development, of Paragraph C the phrase reading, "transmission line known as the Diablo transmission line extending from the Gorge Plant to Seattle," to read, "transmission line known as the Diablo transmission line, with carrier current telephone system installed thereon, extending from the Gorge Plant to Bothell Y";

(5). By adding to the list of exhibits under item 1, Diablo Development, of Paragraph C:

Exhibit L Sheets 12A, 13A, and 14 (FPC Nos. 553-82, -83, and -84) and Sheets 15 to 20 inclusive (FPC Nos. 553-85 to -90 inclusive);

(6). By eliminating from the list of exhibits under item 1, Diablo Development, of Paragraph C:

Exhibit L Sheets 3, 6, 12, and 13 (FPC Nos. 553-10, -13, -23, and -24);

(7). By changing in the first four lines under item 2, Ruby Development, of Paragraph C the phrases reading, "A concrete arch dam to elevation 1500 feet, approximately 425 feet in height, located

in Sec. 35, T. 38 N., R. 13 E., W. M., a reservoir created by said dam having a capacity of 500,000 acre-feet at elevation 1500 feet;" to read "A concrete arch dam in Sec. 35, T. 38 N., R. 13 E., W. M., known as Ross Dam, to be constructed to elevation 1551 with crest of the spillway at elevation 1525 feet, and a timber wave wall extending three feet above the nonoverflow sections of the dam; a reservoir created by said dam having a total capacity of 676,000 acre-feet at elevation 1525 feet; two power tunnels around the left abutment of the dam extending downstream from the intake works, one about 1,000 feet and the other about 1,100 feet";

(8). By adding to the list of exhibits under item 2, Ruby Development, of Paragraph C:

Exhibit L Sheets R-8-A, R-9-B, R-10-A, R-12-C, R-13-A, and R-14-A (FPC Nos. 553-70 to -75 inclusive), Sheets R-15-C, R-90-B, and R-97 (FPC Nos. 553-76, -77, and -78), and Sheets R-129, R-130, R-135, and R-255, Nos. D-13129, -13130, -13135, and -13255 (FPC Nos. 553-99, -100, -101, and -102);

(9). By eliminating from the list of exhibits under item 2, Ruby Development, of Paragraph C:

Exhibit L Sheets R-8, R-9, R-10, R-12A, R-13, and R-14 (FPC Nos. 553-59, -60, -61, -63, -64, and -65);

so that said article as amended, including all prior amendments, shall read as follows:

Article 2. The project covered by and subject to this license is located in and along Skagit River and on lands of the United States in Mt. Baker National Forest and consists of:

A. All lands constituting the project area and enclosed by the project boundary, and/or interests in such lands necessary or useful for the purposes of the project, whether such lands or interests therein are

ground as held by the United States; such project area and project boundary being more fully shown and described by certain exhibits upon accompanying the applications for license and amendments thereof and which are designated and described as follows:

Exhibit E-2

Sheets E-2 (FPC No. 553-97) General Project Map, signed June 14, 1937, by W. J. Nelson, Acting Superintendent of Lighting, and W. A. Gable, City Engineer;

1. Diablo Division and

Exhibit J(4)

(FPC No. 553-98) Map showing General location of transmission line from Diablo Plant to Seattle, signed July 31, 1929, by J. D. Ross, Supt. of Lighting, and W. J. Swinduff, City Engineer;

Exhibit K

Maps in 3 sheets signed The City of Seattle, by E. D. Hoffman, Superintendent of Lighting on September 18, 1940, comprising:

Sheet 5B, Revised (FPC No. 553-79), entitled "Diablo Reservoir & Diablo to Ruby Transmission Line Right-of-Way";

Sheet 5C, Revised (FPC No. 553-80), entitled "Location of Dam, Intake, Tunnel and Power-house"; and

Sheet 5D (FPC No. 553-81), entitled "Project Boundary";

Map in 8 sheets signed The City of Seattle, by E. D. Hoffman, Superintendent of Lighting, on September 18, 1940, comprising:

Sheets E-1 to E-8 inclusive (FPC Nos. 553-91 to -98 inclusive) entitled "Transmission System Right-of-Way Diablo to Bothell, Wn";

2. Pass Development

Exhibit L

Detailed map of project area, entitled "Topography of Ruby Reservoir", signed June 14, 1937, by W. J. Nelson, Acting Superintendent of Lighting, and W. A. Gable, City Engineer, and approved by the Commission on July 23, 1937, inasmuch as they pertain to the construction of Pass Development to elevation 1500 feet, comprising:

Sheets B-1 to 10, inclusive, and B-16 to -20, inclusive (FPC Nos. 553-23 to -50 inclusive);

B. All water rights, the use and possession of which are necessary in the operation of the project or appurtenant thereto, such as are described in Exhibit D of the applications for license and amendments thereof;

C. All project works consisting principally of:

1. Diablo Development

A concrete arch dam in Sec. 5, T. 37 N., R. 13 E., W.M., 309 feet high; a spillway section at each end of the dam surmounted by Tainter gates; a reservoir created by said dam extending about 4 miles upstream to Ross Dam site and having a capacity of 90,000 acre-feet, of which 60,000 acre-feet is usable; an intake structure; two concrete lined tunnels about 2,000 feet long each directly connected to two steel penstocks, extending from the dam to the powerhouse; a differential type surge tank at the lower end of each tunnel; a powerhouse containing 4 units each having a capacity of 60,000 kilowatts, making a total of 240,000 kilowatts or 320,000 horsepower; a transmission line extending from the powerhouse to the existing Gorge plant; a transmission line known as the Diablo transmission line with carrier current telephone system installed thereon extending from the Gorge plant to Bothell "17"; and other appurtenant facilities used in operating the project; the location and character of the project works being more fully shown and described by the exhibits cited in Paragraph A hereof, and by the following additional exhibits:

Exhibit L

Drawing in three sheets, entitled "Log of Diamond Drillings, Diablo Dam Site", signed November 8, 1926, by J. D. Ross, Superintendent of Lighting and J. D. Blackwell, City Engineer, and approved by the Commission on October 10, 1927, comprising:

Sheets 9, 10, and 11 (FPC Nos. 553-16, -17, and -18);

Drawings in 9 sheets signed The City of Seattle, by E. R. Hoffman, Superintendent of Lighting, on September 18, 1940, comprising:

Sheet 12A (FPC No. 553-82) entitled "Diablo Dam and Intake, General Plan";

Sheet 13A (FPC No. 553-83) entitled "Diablo Dam, Elevation and Sections";

Sheet 14 (TPO No. 553-84) entitled "Plans and Elevation of Bridge, T. 36 N. and P. 13 E. S. 35";

Sheets 15 and 16 (TPO Nos. 553-85 and -86) entitled "Apparatus Layout, Main Floor of Transformer";

Sheet 17 (T.O. No. 553-87) entitled "Transformer House Sections";

Sheet 18 (TPO No. 553-88) entitled "Elevation through Converter";

Sheet 19 (TPO No. 553-89) entitled "Plan and Elevation of Switchyard"; and

Sheet 20 (TPO No. 553-90) entitled "Plan and Section of Transformer".

Exhibit L(t) (TPO No. 553-29) "Map showing general design of tower structure for transmission line from Diablo Plant to Seattle", signed July 31, 1929, by J. D. Rees, Superintendent of Lighting and March 3, 1930 by W. D. Burkhardt, City Engineer, and approved by the Commission on March 15, 1930;

Exhibit M(t) A typewritten sheet entitled "Proposed Skagit-Seattle Transmission Line", approved by the Commission on March 15, 1930.

Exhibit N Sheets 6 to 10 inclusive of a printed document, entitled "The Skagit Power Development," approved by the Commission on June 9, 1942.

2. Rees Development

A concrete arch dam in Sec. 35, T. 36 N., R. 13 E., W. 4, known as Rees Dam, to be constructed to elevation 1551 with the crest of the spillway at elevation 1525 feet, and a timber wave wall extending three feet above the nonoverflow sections of the dam; a reservoir created by said dam having a total capacity of 676,000 acre-feet at elevation 1525 feet; two power tunnels around the left abutment of the dam extending downstream from the intake works, one about 1,000 feet and the other about 1,100 feet; a transmission line extending from the dam to Diablo plant; and other appurtenant facilities; the location and character of the project works being more fully shown and described by the exhibits cited in Paragraph A hereof, and by the following additional exhibits:

Exhibit L

Drawings in 11 sheets signed June 14, 1937, by W. J. McKean, Acting Superintendent of Lighting, and W. A. Carlo, City Engineer, and approved by the Commission on July 23, 1937, insofar as they pertain to the construction of Ruby Development to elevation 1500 feet, comprising:

Sheet R-0 (FPC No. 553-51) "General Location Map of Ruby Dam and Test Pits at Roland Bar";

Sheet R-1 (FPC No. 553-52) "Sand and Gravel Test Pits at Roland Bar";

Sheet R-2 (FPC No. 553-53) "Hydrograph of Skagit River at Ruby Dam Site, 1919 to 1932 inclusive";

Sheet R-3 (FPC No. 553-54) "Hydrograph of Skagit River at Ruby Dam Site, 1933-1936 inclusive";

Sheet R-4 (FPC No. 553-55) "Location of Diamond Drill Holes and Electrical Soundings at Ruby Dam Site";

Sheet R-5 and 6 (FPC Nos. 553-56 and -57) "Profile and Log of Diamond Drill Holes at Ruby Dam Site";

Sheet R-7 (FPC No. 553-58) "General Vicinity Map of Ruby Dam and Diablo Lake";

Sheet R-11 (FPC No. 553-62) "Soundings in Skagit River from Ruby Dam Site to Buster Brown Flats";

Sheet R-15 (FPC No. 553-69) "Sections at Contraction Joints, Ruby Dam"; and

Sheet R-16 (FPC No. 553-67) "Miscellaneous Details for Ruby Dam";

Drawings in 9 sheets signed The City of Seattle by E. R. Hoffman, Superintendent of Lighting, on July 19, 1940, comprising:

Sheet R-8-A (FPC No. 553-70), entitled "Plan of Ross Dam to Elev. 1380 as Constructed";

Sheet R-9-B (FPC No. 553-71), entitled "River Diversion & By-Pass Tunnel for Ross Dam as Constructed";

Sheet R-10-A (FPC No. 553-72), entitled "General Layout of By-Pass Inlet Structure Ross Dam as Constructed";

Sheet R-12-B (FPC No. 553-73), entitled "Foundation Grout & Drainage Holes, Cont'r. Joints & Keys - Ross Dam as Constructed";

Sheet R-13-A (FPC No. 553-74), entitled "Elevation and Details of Ross Dam as Constructed";

Sheet R-14-A (FPC No. 553-75), entitled "Plan and Profile of Inspection Gallery, Typical Grout Piping at Joints, & Typical Top Keys - Ross Dam, as Constructed";

Sheet R-15-B (FPC No. 553-76), entitled "Sections at Construction Joints Ross Dam as Constructed";

Sheet R-20-B (FPC No. 553-77), entitled "Concrete Wing Walls Right & Left Abutments as Constructed";

Sheet R-97 (FPC 553-78), entitled "Location & Details of Timber Crib Dam & Abutments as Constructed";

Drawings in 4 sheets signed The City of Seattle by E. R. Hoffman, Superintendent of Lighting, on February 18, 1943, comprising:

Sheet R-129 No. D-13129 (FPC No. 553-99), entitled "Ross Dam - 2nd Step, Plan to Elev. 1550 and Key Details";

Sheet R-130 No. D-13130 (FPC No. 553-100), entitled "Ross Dam - 2nd Step, from Exist. Concrete to Elev. 1550";

Sheet R-135, No. 13135 (FPC No. 553-101), entitled "Ross Dam - 2nd Step, Sections at Construction Joints and Miscellaneous Details"; and

Sheet R-255, No. D-13255 (FPC No. 553-102), entitled "Ross Dam - 2nd Step, Power Tunnels and Intake Structures, Plan and Profiles.

Exhibit M Sheets 6 to 10, inclusive, of a printed document, entitled "The Skagit Power Development," approved by the Commission on June 9, 1942.

D. All other structures, fixtures, equipment, or facilities used or useful in the maintenance and operation of the project and located within the project area, including such portable property as may be used and useful in connection with the project or any part thereof, whether located on or off

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Leland Olds, Chairman; Claude L. Draper and
Commissioners: Nelson Lee Smith.

January 25, 1946

In the Matter of)
City of Seattle, Washington) Project No. 553

ORDER AUTHORIZING AMENDMENT OF LICENSE
AND
MODIFYING JULY 17, 1945, ORDER AUTHORIZING AMENDMENT OF LICENSE AND
DISMISSING, IN PART, APPLICATION FOR AMENDMENT OF LICENSE (MAJOR)

Upon application filed November 5, 1945, by City of Seattle, Washington,
licensee for major Project No. 553, for amendment of license as herein-
after specified; and

It appearing that:

- (a) The applicant seeks to define the location of the terminal of the project transmission line at but not including the Bothell "Y" switching station, stating that it contemplates the establishment of a switching and transformation station at the point designated as the Bothell "Y" where the project transmission line will connect with applicant's interconnected primary transmission system;
- (b) By its order dated July 17, 1945, the Commission, among other things, ordered the licensee to submit exhibits showing the project transmission line as constructed from Bothell "Y" switching station to South substation in Seattle, including the Renton switching station;

The Commission finds that:

- (1) The license further amended as hereinafter provided will not interfere or be inconsistent with the purposes for which the Mount Baker National Forest or any reservation or withdrawal of public lands of the United States were created or acquired; it will not alter any of the basic facts upon which the license was issued; and it will not require public notice;

Project No. 553
(Amended)

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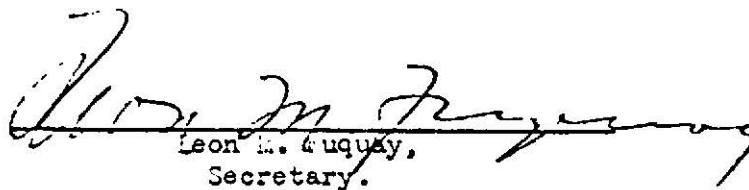
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(3) Under the circumstances, the exhibits referred to in paragraph 2, above are no longer necessary and modification of the said July 17, 1945, order to eliminate therefrom paragraphs (C) and (D), relative to the submission of the said exhibits is appropriate;

It is ordered that:

- (A) The license for Project No. 553 be further amended to define the location of the terminal of the project transmission line as but not including the Bothell "Y" switching station;
- (B) The July 17, 1945, order authorizing amendment of license for Project No. 553 and dismissing, in part, application for amendment of the license be and it hereby is modified to eliminate therefrom paragraphs (C) and (D), and nothing herein shall be construed as modifying the said order in any other respect.

By the Commission.


Leon M. Guquay,
Secretary.

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UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Basil Manly, Chairman; Claude L. Draper and
Commissioners: Leland Olds.

July 17, 1945

In the Matter of)
) Project No. 553
City of Seattle, Washington)

ORDER AUTHORIZING AMENDMENT OF LICENSE AND DISMISSING,
IN PART, APPLICATION FOR AMENDMENT OF LICENSE (MAJOR)

Upon filings August 24, 1940, and November 12, 1940, by City of Seattle,
Washington, licensee for major Project No. 553, of certain exhibits;
and

Upon application filed November 12, 1940, by the said company for amend-
ment of license for the said project, as hereinafter specified; and

It appearing that:

- (a) The August 24, 1940, filing seeks approval for incorporation
in the license of the following plans showing the Ross dam as
constructed to elevation 1380 (first step):

Exhibit L, Sheets R-8-A, R-9-B, R-10-A, R-12-C,
R-13-A, and R-14-A (FPC Nos. 553-70 to -75,
inclusive), superseding Exhibit L, Sheets R-8,
R-9, R-10, R-12A, R-13, and R-14 (FPC Nos. 553-59
to -61, inclusive, and -63 to -65, inclusive)
now part of the license, and Exhibit L, Sheets
R-15-C, R-90-B, and R-97 (FPC Nos. 553-76 to -78,
inclusive);

- (b) The November 12, 1940, filing seeks approval for incorporation
in the license of the following maps and plans showing the
stable development (with the exception of the transmission
line) as constructed:

Exhibit K, Sheets 5B Revised and 5C Revised (FPC
Nos. 553-79 and 553-80), superseding Exhibit K,
Sheets 5B and 5C (FPC Nos. 553-35 and 553-36)
now part of the license; Exhibit L, Sheets 12A,
13A, and 14 (FPC Nos. 553-32 to -34, inclusive);

7/17/45

superseding Exhibit L, Sheets 12, 13, 3, and 6 (FPC Nos. 553-23, -24, -10, and -13) now part of the license; and Exhibit M, Sheets 5B (FPC No. 553-31), and Exhibit L, Sheets 15 to 20, inclusive (FPC Nos. 553-85 to -90, inclusive);

- (c) The November 12, 1940, application seeks approval for incorporation in the license of the following maps showing the location of the Diablo and Gorge transmission lines as constructed from Gorge plant to Bothwell "Y" switching station and the identification and definition of the Diablo transmission-line structures and their locations on the right-of-way as distinguished from the Gorge transmission-line structures and their locations:

Exhibit K, Sheets T-1 to T-8, inclusive (FPC Nos. 553-91 to -98, inclusive), superseding Exhibit K, Sheets 1, 2, and 5A (FPC Nos. 553-25, -26, and -31) now part of the license;

and recites the installation of a carrier current telephone system on the Diablo transmission line as part of the project works;

- (d) The Gorge transmission line is apparently a necessary facility for the Gorge plant, and the said plant and transmission line (to wit that part of the line under license as Project No. 1015) operate under permit from the Secretary of Agriculture;
- (e) The Chief of Engineers and the Secretary of War have approved the plans of the Diablo development affecting navigation;

The Commission finds that:

- (1) The carrier current telephone system installed on the Diablo transmission line is a necessary part of the project works;
- (2) Exhibit L, Sheets R-8-A, R-9-B, R-10-A, R-12-C, R-13-A, R-14-A, R-15-C, R-90-B, and R-97 (FPC Nos. 553-70 to -78, inclusive), and Sheets 12A, 13A, and 14 to 20, inclusive (FPC Nos. 553-82 to -90, inclusive), and Exhibit K, Sheets 5B Revised, 5C Revised, and 5D (FPC Nos. 553-79 to -81, inclusive) conform to the Commission's rules and regulations;
- (3) Exhibit K, Sheets T-1 to T-8, inclusive (FPC Nos. 553-91 to -98, inclusive), conform to the Commission's rules and regulations insofar as they show the Diablo transmission line as constructed from Gorge plant to Bothwell "Y"

7/17/45

switching station and the identification and definition of the Diablo transmission-line structures and their locations on the right-of-way as distinguished from the Gorge transmission-line structures and their locations;

- (4) Exhibit L, Sheets R-8, R-9, R-10, R-12A, R-13, and R-14 (FPC Nos. 553-59 to -61, inclusive, and -63 to -65, inclusive) and Sheets 12, 13, 3 and 6 (FPC Nos. 553-23, -24, -10, and -13) and Exhibit K, Sheets 5B and 5C (FPC Nos. 553-35 and 553-36) have been superseded and no longer serve a useful purpose;
- (5) Inasmuch as the Gorge transmission line (except that part of the line under license as Project No. 1215) and the Gorge plant, for which the line is apparently a necessary facility, are operating under permit from the Secretary of Agriculture, approval of the existing right-of-way location of the said transmission line is neither necessary nor appropriate;
- (6) Although the license describes the Diablo transmission line as extending from the Gorge plant to Seattle, exhibits have not as yet been filed showing that part of the line as constructed from Bothwell "Y" switching station to Seattle;

It is ordered that:

- (A) The license for Project No. 553 be amended to include therein the carrier current telephone system installed on the Diablo transmission line;
- (B) The exhibits specified in findings (2) and (3) above as conforming to the Commission's rules and regulations be and they hereby are approved for incorporation in the license and the exhibits specified in finding (4) above be eliminated from the license;
- (C) That part of the November 12, 1940, application requesting approval of the location of the Gorge transmission line as constructed from Gorge plant to Bothwell "Y" switching station be and it hereby is dismissed;
- (D) The licensee shall within 90 days from the date of service of this order submit exhibits prepared in conformity with the Commission's Rules of Practice and Regulations showing the Diablo transmission line as constructed from Bothwell

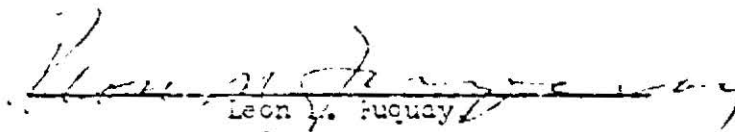
Project No. 156
(Cont'd)

- 4 -

7/27/55

"Y" switching station to South substation in Seattle,
including the Lenton switching station, and such exhibits,
when approved by the Commission, shall become part of the
license for the project.

by the Commission.


Leon J. Fuquay
Secretary.

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Leland Olds, Chairman; Claude L. Draper, Richard Sachse,
Commissioners: Nelson Lee Smith and Harrington Timberly.

May 3, 1946

In the Matter of)
City of Seattle, Washington) Project No. 553

ORDER AUTHORIZING AMENDMENT OF LICENSE (MAJOR)

Upon application filed March 6, 1943, as amended September 20, 1945,
by City of Seattle, Washington, licensee for major project No. 553,
for amendment of license as hereinafter provided; and

It appearing that:

- (a) The licensee's proposed plans for the second step of Ross Dam, designated as Exhibit L - Sheets R-129, -130, -135, and -255, Nos. D-13129, -13130, -13135, and -13255 (FPC 553-99, -100, -101, and -102), show the design for raising the dam from elevation 1380 feet, on the first step structure as a base, to elevation 1551 feet with the crest of the spillway at elevation 1525 feet, a timber wave wall extending 3 feet above the dam, and two power tunnels around the abutment of the dam;
- (b) A roadway along the top of Ross Dam at elevation 1500 feet is required by Article 31 of the license, as amended January 22, 1943, but the ultimate and undetermined elevation of the dam will exceed 1500 feet and the roadway elevation should be eliminated from the license until after a determination of the ultimate elevation of the dam;
- (c) Article 15 of the license requires that the licensee shall clear the bottoms and margins of all reservoirs up to high-water level, but the licensee has made a satisfactory arrangement with the Forest Service whereby the licensee will clear Ross reservoir area between high water level and 30 feet below maximum drawdown;
- (d) The installation and reading of instruments for measuring the strain and behavior of the first and second step structures of Ross Dam will be useful in designing and operating the ultimate structure;

5/3/46

- (e) A shortage of labor during the recent war emergency and the proposed additional construction has delayed the completion of the second step of Ross Dam;
- (f) The spillway at elevation 1525 feet will increase by 932 acres the area of lands of the United States in the Ross reservoir;
- (g) The Chief, Forest Service, under authority delegated by the Acting Secretary, acting for the Secretary of Agriculture, who has supervision over the Mt. Baker National Forest, has reported favorably on the application, subject to the conditions hereinafter provided for;
- (h) The Chief of Engineers and the Secretary of War have approved the plans insofar as they affect navigation;

The Commission, having considered the application and the project record, finds that:

- (1) The license, further amended as hereinafter provided, will not alter any of the basic facts upon which the license was issued nor require public notice;
- (2) The construction of the second step of Ross Dam has been carried on in good faith and with reasonable diligence by licensee, and extension of the time within which to complete the construction, as hereinafter provided, will not be incompatible with the public interest;
- (3) The amount of annual charges to be paid under the license as further amended for recompensing the United States for the use, occupancy and enjoyment of its lands, exclusive of lands used for transmission line purposes, is reasonable as hereinafter fixed;
- (4) Exhibit L, described in paragraph (a) above conforms to the Commission's rules and regulations; and

It is ordered that:

- (A) The license be amended by adding the following article thereto:

"Article 35. The Licensee shall install in the second and subsequent steps of Ross (Ruby) Dam, at locations, approved by the Commission or its authorized representative, all such meters, gages, and other measuring devices as the Commission or its authorized representatives may deem necessary

5/3/46

and adequate for the determination, at the surfaces, and within the dam, buttresses, and foundations of stresses, strains, deflections, accelerations, temperatures, and other similar data; shall provide for the required recording of such measuring devices at such times and under such conditions of load and operation as the Commission may prescribe, and shall make return of such readings at such time and in such form as the Commission may prescribe. The licensee shall cause analysis by competent technical experts to be made of the readings of such measuring devices for the purpose of making such data useful in connection with the safety, maintenance, and operation of Ross Dam and with the design and construction of future steps thereof. Reports of such analysis shall be submitted to the Commission from time to time as requested."

(3) Article 55 of the license be amended to read:

"Article 55. The licensee shall continue all provisions of the Timber Settlement Agreement of November 12, 1936 and the Memorandum of Agreement of February 21, 1940, between the licensee and the United States Forest Service in regard to clearing and fire protection, until the completion of the Ross Dam and Ruby Reservoir."

(C) Article 51 of the license be amended to read:


"Article 51. The licensee shall construct and maintain a roadway along the top of Ross (Ruby) Dam when constructed to an elevation to be determined later by the Commission."

(D) Article 24 of the license be amended to change the annual charge for the purpose of recompensing the United States for the use, occupancy and enjoyment of its lands other than those used for transmission lines only, from \$1,000.57 to \$1,191.46, effective January 1, 1946;

(E) Article 6 of the license be amended to extend the time for completion of the second step of Ross Dam to October 1, 1947;

(F) Exhibit L, as designated in paragraph (a) above, be approved for incorporation in the license.

By the Commission.


John W. Rogers
Secretary.

Amendment 4

FEDERAL POWER COMMISSION

WASHINGTON, D. C.

—0—

Amendment No. 4 of License

Project No. 559-Washington

City of Seattle

THE KING COUNTY OF WASHINGTON
 COUNTY OF KING
 COUNTY OF KING
 COUNTY OF KING
 THE CITY OF SEATTLE

The License for major project No. 552, issued to The City of Seattle on October 28, 1927, as subsequently amended is hereby amended: to authorize construction of the third step of Ross Dam to elevation 1615 feet, spillway crest at elevation 1602 feet; to provide for the installation, maintenance, and operation of certain stream gaging stations; to provide for flood control storage space in Ross Reservoir; to adjust the amount of annual charges; and to incorporate in the license additional exhibits; the amendment being:

PARGAPH I. Article 2 of said license, as amended December 12, 1946, is further amended:

(1) By changing the description of Exhibit K under item 2, Ross Development, of Paragraph A, to read:

Exhibit K: Detail Map of project area, entitled "Topography of Ruby Reservoir", signed June 14, 1937, by W. J. McKeen, Acting Superintendent of Lighting, and H. A. Carlo, City Engineer, and approved by the Commission on April 29, 1947, insofar as it pertains to the operation of Ross Reservoir to elevation 1600 feet, comprising:

Sheets R-1 to 10, inclusive, and R-16 to -18, inclusive (PFC Nos. 552-32 to -50 inclusive);

(2) By changing the description of Ross Development, item 2 of Paragraph A to read:

A concrete arch dam in Sec. 35, T. 38 N., R. 13 E., W.M., known as Ross Dam to be constructed to elevation 1615 feet at the roadway crest, with fixed spillway

erected at elevation 1615. A reservoir created by said dam having a gross capacity of 1,000,000 acre-feet at elevation 1615; two power tunnels on the left side of the dam extending downstream from the dam to the powerhouse at elevations 1615 and 1610; and a powerhouse having a capacity of 10,000 horsepower and a net output of 10,000 kilowatts; the location, plan, and character of the project being more fully shown and described by the exhibits cited in Paragraph A heretofore, and by the following additional exhibits:

(3) By adding to the list of Exhibit I under item 2, Ross Development, of Paragraph C, the following drawings:

Drawings in 2 sheets signed The City of Seattle by E. R. Hollman, Superintendent of Lighting, July 30, 1947, comprising:

Sheet R-303, No. D-19303 (PFS No. 553-108), entitled "Ross Dam, Upstream Elevation Showing 1st, 2nd and 3rd Step Construction - to Elev. 1615";

Sheet R-304, No. D-19304 (PFS No. 553-109), entitled "Ross Dam - 3rd Step, Plan to Elev. 1615 and Key Details";

Sheet R-309, No. D-19309 (PFS No. 553-110), entitled "Ross Dam - 3rd Step Sections at Construction Joints and Miscellaneous Details".

PARAGRAPH II. Item (c) of Article 6 of the license as amended December 12, 1946, is further amended to specify the time for construction of the third step of Ross Dam, so that item (c) shall read as follows:

(c) Begin the construction of Ross Dam and Reservoir on or before October 1, 1937, complete the first step to elevation 1,200, more or less, on or before March 15, 1940, complete the second step to elevation 1551 on or before October 1, 1947, and begin construction of the third step on or before October 1, 1947, and complete such construction, with the exception of installing spillway gates, on or before September 1, 1949.

PARAGRAPH III. Article 8 of the license is hereby amended by designating in the fourth and fifth lines, in lieu of "the present gaging stations on Clagit River near Ruby Creek and at Gorge power camp," six gages and stream gaging stations, so that said article shall read as follows:

shall. For the purpose of determining the stage and flow of the stream or streams into which water is to be diverted for the operation of said project works and of the amount of water held in and drawn from storage, the Licensee shall install and maintain such additional and special gages and stream gaging stations at the following locations:

- (a) Ruby Creek near El Estero;
- (b) Reservoir at La Morilla;
- (c) El Estero Creek near La Morilla;
- (d) La Morilla Reservoir at La Morilla;
- (e) Santa Fe Creek near Morichal;
- (f) San Jose River at Morichal;

and shall install and thereafter maintain and operate such additional gages and gaging stations as and where the Commission may deem necessary and best adapted to the requirements and shall provide for the required ratings of such gages and for the adequate setting of said station or 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 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 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 reimburse the said United States Geological Survey for costs incurred in such supervision or for such part thereof as said District Engineer may deem equitable in the circumstances. 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.

PARAGRAPH IV. Article 24, of the license as amended December 12, 1946, is further amended by striking out paragraph (1), the first three lines of paragraph (2), the last sentence of subparagraph 2(a) and all of subparagraph 2(d); by changing the last two lines of the first sentence of subparagraph 2(a) to read "by the project during the calendar year for which the charge is made"; and by increasing the charge specified in subparagraph 2(b) from \$1,101.46 to \$1,657.32; so that said article as amended shall read as follows:

Article 24. Subject to the provisions of Section 10(b) of the Act, and the rules and regulations of the Commission thereunder, the Licensee shall pay to the United States the following charges:

- (a) For the purpose of reimbursing the United States for the costs of additional power in Part I of the 1930, one (1) cent per kilowatt-hour on the capacity (3,000 horsepower) authorized to be installed by the Licensee, plus two and one-half (2.5) cents per thousand kilowatt-hours of gross output generated by the project during the calendar year for which the charge is made;
- (b) For the purpose of reimbursing the United States for the use, occupancy and enjoyment of its lands other than those used for transmission lines only \$1,650.38; and
- (c) For the purpose of reimbursing the United States for the use, occupancy and enjoyment of its lands used for transmission lines only, \$215.36.

PARAGRAPH V. The license is further amended by adding thereto Article

36 reading as follows:

Article 36. Upon installation of the spillway gates 200,000 acre-feet of storage space in Ross Reservoir shall be reserved by the Licensee during the period November 1 to April 1 for flood control and utilized as prescribed herein. The reservoir level will be drawn down to elevation 1,582.5 by November 1 of each year. When the flow of the Skagit River at the gaging station below Concrete exceeds 25,000 second-feet (gauge reading 21.0) on the rising stage of a flood, the Licensee shall release only such flows from the Ross Dam as are necessary to the normal production of electric energy at the Ross, Diablo, and Gorge plants. Storing of flood waters shall continue until the water level of the reservoir approaches the top of the gates (elevation 1,600) at which time the spillway gates will be opened gradually so as to hold the reservoir surface at that level or until all/are completely opened. If all gates are opened fully during the storage period, the discharge shall be uncontrolled until the receiving pool level approaches elevation 1,600 at which time the spillway gates shall be closed gradually so that the pool level will be approximately elevation 1,600 by the time the inflow and discharge decreases to 10,000 second-feet. When the flow of the Skagit River at Concrete is 50,000 second-feet (gauge reading 26.0) or less on receding flood stages and the pool level is at or below elevation 1,600, the stored flood waters in Ross Reservoir shall be released at a rate not to exceed 10,000 second-feet until the level drops to elevation 1,582.5 feet.

PARAGRAPH III. This amendment of said license in the manner set out above shall not operate to alter or amend said license in any other respect, and shall not in any way constitute a waiver of any other party, provision, or condition of said license.

IN WITNESS WHEREOF, the Commission has caused its name to be signed hereto by _____, its _____ Chairman, and its seal to be affixed hereto and attested by _____, its _____ Secretary, this _____ day of _____, 1949, pursuant to its orders dated April 28, 1947, and September 9, 1949, attached hereto.

FEDERAL POWER COMMISSION

By _____
Chairman.

Attest:

Secretary.

JAS:ca
10-25-49

Copy 11/23/49 air

In testimony of its agreement to the foregoing amendment,

The City of Seattle, this ____ day of _____, 19____,
has caused its corporate name to be signed hereto by _____,
its _____ Superintendent of Lighting, and its corporate seal to be
affixed hereto and attested by _____,
its _____ City Clerk, pursuant to an ordinance of its City Council,
 duly passed on the ____ day of _____, 19____, and approved
by its Mayor on the ____ day of _____, 19____, a certified
copy of the record of which is attached hereto.

THE CITY OF SEATTLE

By _____

Superintendent of Lighting.

Attest:

City Clerk.

(Executed in triplicate)

UNITED STATES OF AMERICA.
FEDERAL POWER COMMISSION

C O P Y

Before Nelson Lee Smith, Chairman; Leland Olds and Harrington Wimberly.
Commissioners:

April 29, 1947

In the Matter of)
City of Seattle, Washington)

Project No. 553

ORDER AUTHORIZING AMENDMENT OF LICENSE (MAJOR)

- (1) An application was filed June 6, 1946, and later supplemented, by the City of Seattle, Washington, licensee for major Project No. 553, requesting amendment of license as hereinafter specified.
- (2) This application contemplates construction of the third step of Ross Dam to raise the dam from elevation 1550 feet to elevation 1620 feet, plus or minus, at the roadway crest with the normal high water level in the reservoir at 1600 feet (top of spillway gates), creating a reservoir with a gross capacity of 1,400,000 acre-feet. The plans provide for two spillway sections near the abutments with fixed spillway crests at elevation 1582 feet, and such accessory or additional facilities as may be necessary.
- (3) The licensee proposes to complete the third step of Ross Dam, with the exception of installing spillway gates, by October 1948.
- (4) With normal high water level in the reservoir at 1600 feet the area of lands of the United States within the Ross Reservoir will be increased by 3,790 acres.
- (5) The acting Director, U. S. Geological Survey, has recommended that gages and stream gaging stations be constructed, maintained and operated at the following locations:
 - Lightning Creek near Newhalem
 - Beaver Creek near Newhalem
 - Ruby Creek near Newhalem
 - Ross Dam, records of storage and waste
 - Thunder Creek near Newhalem
 - Diablo Dam, records of storage and waste
 - Stettattle Creek near Newhalem
 - Skagit River at Newhalem
- (6) The Chief, Forest Service, who has supervision over the Mount Baker National Forest, has reported favorably on the application.
- (7) The Chief of Engineers and the Secretary of War have approved the plans insofar as they affect navigation, and have recommended that during the period November 1 to April 1 200,000 acre-feet of storage be reserved in Ross Reservoir for the purpose of flood control and that methods of operating the reservoir in the interests of flood control be required as hereinafter provided.
- (8) The Assistant Secretary of the Interior has recommended that continued responsibility for the protection of fisheries resources in the Skagit River remain with the State Department of Fisheries.

4/29/47

- (9) The construction of the third step of Ross Dam with normal high water level in the reservoir at 1600 feet will cause the reservoir to extend into Canada. The International Joint Commission has authorized the licensee to raise the Ross Dam by stages to elevation 1725 feet on condition that satisfactory arrangements be made with the Province of British Columbia to provide for proper and adequate compensation to the Province for use of Crown lands. However, construction of the third step will affect only privately owned Canadian lands already acquired by the licensee. The Chairman, United States Section, International Joint Commission, has reported that his office has no objection to the granting of the pending application.

The Commission, having considered the application and the project record, finds that:

- (10) The license, further amended as hereinafter provided, will not interfere or be inconsistent with the purposes for which the Mount Baker National Forest or any reservation of public lands of the United States were created or acquired.
- (11) Although not required by the Act, public notice has been given.
- (12) Under present circumstances and conditions, and upon the terms heretofore and hereinafter imposed, the Ross Dam and Reservoir constructed to elevation 1620 feet with the normal high water level at 1600 feet constitutes a part of a comprehensive plan for the development of the Skagit River and will be best adapted to a comprehensive plan for improving and developing the Skagit River for the use and benefit of interstate or foreign commerce, for the improvement and utilization of water power development, and for other beneficial public uses, including recreational purposes.
- (13) As a measure for the protection of life, health and property, it is in the public interest to require the licensee to operate Ross Reservoir for the purpose of flood control as hereinafter provided.
- (14) The amount of the annual charge to be paid under the license, as further amended, for recompensing the United States for the use, occupancy and enjoyment of its lands, exclusive of lands used for transmission line purposes, is reasonable as hereinafter fixed.
- (15) Exhibit L, Sheets R-284 to-286, inclusive, (FPC Nos. 553-105 to-107, inclusive) and Exhibit K, Sheets R1 to-10, inclusive, and R-16 to-18, inclusive (FPC Nos. 553-38 to-50, inclusive) insofar as it pertains to the operation of Ross Reservoir to elevation 1600 feet, conform to the Commission's rules and regulations.
- (16) The licensee should file for approval before starting construction of the third step of Ross Dam Exhibit L drawings showing design details for the control of ice and debris on the Ross Dam.
- (17) The licensee should be required to construct, maintain and operate gages and stream gaging stations at the locations specified in paragraph (5).

It is ordered that:

- (18) The license be amended to authorize construction of the third step

of Ross Dam to elevation 1620 feet, spillway crest at elevation 1582 feet, and the operation and maintenance of the project so constructed, subject to the following special conditions:

- (a) The licensee shall begin construction of the third step on or before October 1, 1947, and shall complete such construction, with the exception of installing spillway gates, on or before October 1, 1948. The spillway gates shall be installed at such future date as the Commission may direct.
 - (b) The licensee shall file for approval before starting construction of the third step of Ross Dam the Exhibit L drawings described in paragraph (16).
 - (c) The licensee shall construct, maintain and operate gages and stream gaging stations at the locations specified in paragraph (5).
 - (d) Upon installation of the spillway gates it is provided that during the period November 1 to April 1 200,000 acre-feet of storage space in Ross Reservoir shall be reserved by the licensee for flood control and utilized as prescribed herein. The reservoir level will be drawn down to elevation 1,582.5 by November 1 of each year. When the flow of the Skagit River at the gaging station below Concrete exceeds 25,000 second-feet (gage reading 21.0) on the rising stage of a flood, the licensee shall release only such flows from the Ross Dam as are necessary to the normal production of electric energy at the Ross, Diablo, and Gorge plants. Storing of flood waters shall continue until the water level of the reservoir approaches the top of the gates (elevation 1,600) at which time the spillway gates will be opened gradually so as to hold the reservoir surface at that level or until all gates are completely opened. If all gates are opened fully during the storage period, the discharge shall be uncontrolled until the receding pool level approaches elevation 1,600 at which time the spillway gates shall be closed gradually so that the pool level will be approximately elevation 1,600 by the time the inflow and discharge decrease to 10,000 second-feet. When the flow of the Skagit River at Concrete is 50,000 second-feet (gage reading 26.0) or less on receding flood stages and the pool level is at or below elevation 1,600, the stored flood waters in Ross Reservoir shall be released at a rate not to exceed 10,000 second-feet until the level drops to elevation 1582.5 feet.
- (19) Article 24 of the license be amended to change the annual charge for the purpose of recompensing the United States for the use, occupancy and enjoyment of its lands, other than those used for transmission lines only, from ~~\$1,917.46~~ to \$1,699.32.
\$1,881.46
- (20) The maps, plans and specifications, specified in paragraph (15) as conforming to the Commission's rules and regulations are hereby approved as part of the license for the project, except that Exhibit X is approved only insofar as it pertains to the operation of Ross Reservoir to elevation 1600 feet.

By the Commission . (Seal)

/s/ Leon M Fuquay
Secretary

Date of Issuance: May 2, 1947

UNITED STATES OF AMERICA
FEDERAL BUREAU OF INVESTIGATION

September 9, 1949

In the Matter of)
City of Seattle, Washington) Project No. 553

Pursuant to application filed June 6, 1946, by the City of Seattle, Washington, license for Project No. 553, the Commission, by order dated April 29, 1947, authorized amendment of license for the project to provide, among other things, for: (1) the third-step construction of Ross Dam and fixed the completion date of such construction as October 1, 1948; (2) approval of project exhibits; and (3) construction, operation and maintenance of gages and stream gaging stations at certain locations.

Subsequent to issuance of the aforementioned order but prior to acceptance of the draft of instrument of proposed amendment, the licensee on January 3, 1949, filed an application for amendment of license to extend the time for completion of construction of the third step of Ross Dam from October 1, 1948 to June 1, 1949. The reason given by the licensee for requesting the extension of time was that as of October 1, 1948, a number of work items on the dam remained to be completed and winter weather conditions were such that it appeared that the work could not be completed before June 1, 1949.

According to the Commission's records on the project, severe weather conditions have retarded completion of the third-step construction of Ross Dam and it now appears that the revised date of completion cannot be met. Commission records further show that the licensee has been proceeding with due diligence in the performance of the work on third-step construction of Ross Dam. In the circumstances, it would appear desirable to extend the time specified in the Commission's April 29, 1947 order for completion of third-step construction on Ross Dam by appropriate modification of that order.

On August 12, 1947, the licensee filed the following described revised Exhibit L drawings with the request that they be accepted as substitutes for certain Exhibit L drawings submitted as part of the application for amendment of license filed June 6, 1946, which Exhibit L drawings were approved by the Commission in its April 29, 1947 order:

9/6/49

Exhibit L: Sheet R-303, 304 and 309
(FPG Nos. 553-103, 104 and 110)

The Commission approved by its order of April 29, 1947, order show plans for construction of the Ross Dam at elevation 1500 feet plus or minus at the tailings; whereas the revised drawings show plans for construction of the dam to elevation 1505 feet at the tailings. The only pertinent changes to Exhibit L ordered by the Commission consist of a lowering of the elevation of Ross Dam by 5 feet, changing the shape of the spillway gates and the direction of the spillway which they reach; changing the type of spillway gates, to be installed as a later gate, from the Montecue type to the conventional Tainter gate type; changing the shape of the spillway deflector head, and slightly thickening the dam at its abutment in the vicinity of elevation 1570 feet. With all construction of the revised drawings, it does not appear that the effect of the changes would be material insofar as the operation of the dam is concerned. The dam will still be sufficiently high to provide about 6 feet of freeboard during time at passing the computed design flood. The choice of the particular design of gates, shape of deflector head, and slight thickening of the abutment of the dam are details which cannot affect appreciably the basic design of the dam. In the circumstances, it would seem desirable to modify the Commission's April 29, 1947 order so as to approve the revised Exhibit L drawings in lieu of the drawings already approved by the Commission.

Upon recommendation of the United States Geological Survey, the aforementioned April 29, 1947, order authorized the construction, maintenance and operation of gages and stream gaging stations at certain named locations. As a result of flood occurrences and studies of flow computations, the Geological Survey has concluded that the list of gaging stations should be modified and has recommended a revised list for inclusion in the license. In the circumstances, it would appear desirable to modify the Commission's order accordingly.

The Commission orders:

The Commission's April 29, 1947 order be modified as follows:

- (1) Paragraphs (3) and (13) (a) of the order be modified to provide for the extension of time for completion of construction of the third-step of Ross Dam to September 1, 1949.
- (2) Paragraph (15) of the order be modified to read as follows:

(15) Exhibit L, Sheets R-303, 304 and 309 (FPG Nos. 553-103, 104 and 110) and Exhibit N, Sheets R-1 to - 10, inclusive, and R-15 to - 18, inclusive (FPG Nos. 553-26 to -50, inclusive) insofar as it pertains to the operation of Ross Reservoir to elevation 1,600 feet, conform to the Commission's rules and regulations.

9/9/49

- (3) Paragraphs (2), (12), and (13) of the order be modified by changing "1300" to "1315" therein.
- (4) Paragraph (5) of the order be modified to read as follows:
- (5) The Acting Director, U. S. Geological Survey, has recommended that gages and stream gaging stations be constructed, maintained and operated at the following locations:

Ruby Creek near Natchalem
Thunder Creek near Natchalem
Stettinville Creek near Natchalem
Skagit River at Natchalem
Ross Reservoir near Natchalem
Diablo Reservoir at Diablo

By the Commission.

SEAL

/s/ Leon M. Fuquay
Leon M. Fuquay
Secretary.

Date of Issuance: September 13, 1949

Copy 11/23/49 gdr

UNITED STATES DEPARTMENT OF AGRICULTURE

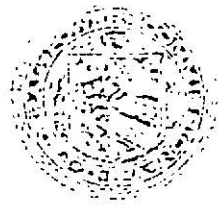
WASHINGTON, D. C.



OFFICE OF THE SECRETARY

WASHINGTON, D. C.

DEPARTMENT OF AGRICULTURE



These two paragraphs are identical.

These two paragraphs are identical.

These two paragraphs are identical.

These two paragraphs are identical.

These two paragraphs are identical.

[illegible]

1945-1946, 2045

Re: City of Seattle, Washington
Project No. 553

Enclosed is the order entered by the Commission on September 21, 1949, in the above entitled matter which has been designated as Instrument No. 7.

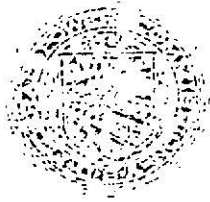
/s/ Leon H. Fugate
LEON H. FUGATE
Secretary

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U. S. DEPARTMENT OF AGRICULTURE

WASHINGTON, D. C.



C
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Y

FEDERAL POWER COMMISSION
WASHINGTON 25

Project No. 553-Washington

May 3, 1948

The City of Seattle
Department of Lighting
1015 3rd Avenue
Seattle 4, Washington

Attention Mr. E. R. Hoffman, Superintendent of Lighting

Gentlemen:

Reference is made to your letter of March 29, 1948, addressed to the Commission's regional engineer at San Francisco, California, submitting a plan for the control of floating debris from clogging the spillways and for the prevention of ice pressure against the upper portion of Ross Dam.

The Commission staff is of the opinion that the plan as outlined in your letter of March 29, which includes a drawing showing the location of booms, is satisfactory for the control of ice and debris on the Ross Dam. However, it is requested that appropriate Exhibit L drawings be submitted for approval in accordance with paragraph (18)(b) of the commission's order issued on May 2, 1947, showing the design details for the log booms.

Very truly yours,

/s/ Leon M. Fuquay
Secretary

Copied: 5/10/48 - p.d.

c: Mr. Savage
Holtendale
x-file

March 29, 1948

Mr. Taylor S. King
National Highway
Department, Federal Commission
600 F Street
500 F Street
San Francisco 11, California

Dear Sir:

Reference is made to your letter dated August 8, 1947, requesting information regarding the method of preventing floating debris from clogging the spillways and the method of preventing ice pressure against the upper portion of Ross Dam.

The following plan for the control of floating debris is proposed:

It is contemplated that four booms will be installed across Ross Lake: one approximately 3,000 feet above the junction of Ruby Creek with the Shaglit River (Boom No. 1); one across the arm extending up Ruby Creek approximately 3,000 feet above the junction with the Shaglit River (Boom No. 2); one approximately 1,000 feet below the junction of Ruby Creek; and approximately 3,500 feet above Ross Dam (Boom No. 3); and one approximately 300 feet above Ross Dam (Boom No. 4).

Inflowing winds are from the south and therefore debris will be at the upper end of the lake where it will be boomed off. However, as water is withdrawn from August on, until the following May, the debris will be grounded since the upper end of the lake will be of but little depth. The lake will not be full when floods could or do occur, and therefore neither the winds nor flood waters can carry debris to the dam. This is evidenced by the fact that very little floating debris has reached or passed one log boom installed several years ago about 300 feet above Ross Dam.

Three marked prints of Drawing S-1001 showing the locations of the log booms are enclosed herewith.

Regarding the prevention of ice pressure against Ross Dam, we are advised by Mr. J. L. Savage, our consulting engineer, that a practical and certain method adopted on other projects is to use the regular maintenance crew to keep the ice away from the upstream face during freezing weather which occurs for only short periods at Ross Dam, if at all.

For copy print, see file "F.P.C. Drawings to"

*J.P.C.
H.S. [unclear]*

Mr. Taylor S. Wang

-2-

March 29, 1946

The lake will not be full when cold weather occurs. The lake will fill to its normal level by July, and thereafter being part of a power project, the water will be withdrawn for power projects. Cold weather comes in January and February, at all. No compact little, at any, ice at the dam. This part of the lake was colder than usual last winter ice on the upper lake and temperatures as low as 10°F, there was no ice within 2500 feet of the upstream end of Ross Dam.

We intend using a 40-foot or 50-foot steel barge to patrol the upper end of the dam during freezing weather and prevent the formation of ice or break up any ice which may have formed near the dam. A sufficient number of men will be maintained to satisfactorily perform the work.

Approval of the above plan for control of floating debris and ice protection is respectfully requested.

Yours very truly,



Superintendent of Lighting

RMG:pf
1 Encl. (In trip.)

J-1001

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Nelson Lee Smith, Chairman; Claude L. Draper, Leland Olds
Commissioners: and Harrington Wimberly.

January 13, 1948

In the Matter of)
)
City of Seattle, Washington) Project No. 553

ORDER EXTENDING TIME FOR ACCEPTANCE OF AMENDMENT OF LICENSE (MAJOR)

- (1) On October 21, 1947, triplicate copies of draft of Amendment No. 4 of license for Project No. 553 were sent to the City of Seattle, Washington, licensee, for acceptance within 60 days after receipt thereof.
- (2) By letter received November 12, 1947, the licensee requested permission to defer action on the matter for an additional 90 days for the purpose of allowing the licensee to present for the Commission's consideration the results of a study being made of the effects of newly added Article 36 of the proposed draft of amendment pertaining to flood control operation of the reservoir created by the construction of the third step of Ross Dam.

The Commission finds that extension of the time for acceptance is appropriate.

It is ordered that:

- (3) The time for acceptance of Amendment No. 4 of license for Project No. 553 be and it is hereby extended for the additional 90-day period requested.

By the Commission.

J. H. Gutride,
Acting Secretary.

Date of Issuance: January 14, 1948

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Amendment 5

REGIONAL FLOOD COMMISSION
AMENDMENT NO. 5 OF LICENSE
PROJECT NO. 553-WASHINGTON
THE CITY OF SEATTLE

The license for major Project No. 553, issued to The City of Seattle on October 28, 1927, as subsequently amended is hereby further amended effective June 1, 1943: to provide for the proposed enlargement and modernization of the Gorge development and for the maintenance and operation of the enlarged and modernized development as a part of the project; the amendment being:

PARAGRAPH I. Article 2 of the license, as amended on December 12, 1946 and subsequently thereto, is further amended:

(1) By adding at the end of Paragraph A the following item:

3. Gorge Development

Exhibit K: Sheet G-2, Dwg. No. D-14027 (FFC No. 553-113), entitled "Vicinity Map of Gorge Powerhouse and Switching Station", signed City of Seattle, Washington by E. R. Hoffman, Sup't. of Lighting on July 23, 1943.

(2) By adding at the end of Paragraph C the following item:

3. Gorge Development (enlarged and modernized)

A new concrete diversion dam with flashboards, raising the elevation of the forebay 8 feet to elevation 736 feet; an intake (to be streamlined); a tunnel about 2 miles long connecting the intake with penstock tunnels in the vicinity of the powerhouse; a surge tank; a powerhouse consisting of the existing powerhouse (to be modernized) and a proposed addition thereto, with total installation in the enlarged structure of approximately 165,000 horsepower at 275 feet effective head, of which 82,500 horsepower (3 units) is already installed; a switching station (to be rebuilt); and appurtenant facilities; the location and character of the project works being more fully shown and described by the exhibits cited in Paragraph A hereof, and by the following additional exhibits:

Exhibit A: Drawings in 12 sheets signed City of Seattle, Washington, by H. R. Hoffman, Sup't. of Lighting on July 23, 1948, comprising:

Sheet G-1, Dwg. No. D-26006 (FPC No. 553-112), entitled "Gorge Diversion Dam and Existing Gorge Intake Plant and Sections";

Sheet G-2, Dwg. No. D-11634 (FPC No. 553-123), entitled "Gorge Diversion Dam Spillway - Flashboards";

Sheet G-3, Dwg. No. D-12100 (FPC No. 553-115), entitled "Intake For Gorge Plant - Layout and Foundation Details";

Sheet G-4, Dwg. No. D-15003 (FPC No. 553-116), entitled "General Plan and Profile Gorge Tunnel";

Sheet G-5, Dwg. No. D-15040 (FPC No. 553-117), entitled "General Arrangement Plan of Generator Floor";

Sheet G-6, Dwg. No. D-15043 (FPC No. 553-118), entitled "General Arrangement Longitudinal Section Through Units";

Sheet G-8, Dwg. No. D-11636 (FPC No. 553-119), entitled "Gorge Diversion Dam - Sluice Structures - Plan and Sections";

Sheet G-9, Dwg. No. D-11659 (FPC No. 553-120), entitled "Gorge Diversion Dam Power Tunnel Intake Sluice Channel";

Sheet G-10, Dwg. No. D-15004 (FPC No. 553-121), entitled "General Layout of Powerhouse Extension 92,500 Horsepower Unit";

Sheet G-11, Dwg. No. D-15005 (FPC No. 553-122), entitled "General Arrangement 92,500 Horsepower Unit";

Sheet G-12, Dwg. No. D-14029 (FPC No. 553-123), entitled "Switching Station Plan";

Sheet G-13, Dwg. No. D-14030 (FPC No. 553-124), entitled "Switching Station Elevations."

EXHIBIT A: Statement in Chinese check, entitled "General Descriptions and Specifications of Mechanical, Electrical and Transmission Equipment", signed The City of Seattle, Washington, by E. B. Hoffman, Sup't. of Lighting on July 23, 1948.

PARAGRAPH III. Article 3 of the license as amended January 22, 1943, is further amended by adding thereto the following sentence:

The Licensee shall within one year from the date of issuance of this amendment of license, file with the Commission Exhibit F and Exhibit H, to show and describe the project boundary by notes and bounds for the Gorge development, prepared in accordance with the Commission's rules and regulations.

PARAGRAPH III. Article 6 of the license as amended December 12, 1946, and February 20, 1950, is further amended by adding subparagraph (d), reading as follows:

- (d) Begin the construction on the enlargement of the Gorge development on or before September 1, 1948, and complete the work on or before October 1, 1954, including the modernization of the equipment of the original plant, and at such time as the Commission may direct and to the extent that it is economically sound and in the public interest to do so, after notice and opportunity for hearing, the Licensee shall at the Gorge project construct the ultimate dam, raising the headwater pool to about elevation 875 feet, and, in the event of construction of Diablo project to its ultimate capacity of 240,000 kilowatts, as provided in subparagraph (a) of this article, construct an additional tunnel and install appropriate additional generating capacity.

PARAGRAPH IV. Article 24 of the License as amended February 20, 1950, is further amended by increasing the authorized installed capacity of the project specified in the third line of subparagraph (a) from 320,000 horsepower to 455,000 horsepower, so that said article as amended shall read as follows:

Article 24. Subject to the provisions of Section 10(c) of the Act, and the rules and regulations of the Commission thereunder, the Licensee shall pay to the United States the following charges:

- (a) For the purpose of reimbursing the United States for the costs of administration of Part I of the Act, one (1) cent per kilowatt on the capacity (455,000 horsepower) authorized to be installed by the license, plus two and one-half (2½) cents per thousand kilowatt-hours of gross energy generated by the project during the calendar year for which the charge is made;
- (b) For the purpose of reimbursing the United States for the use, occupancy, and enjoyment of its lands, other than those used for transmission lines only, \$1,699.32; and
- (c) For the purpose of reimbursing the United States for the use, occupancy, and enjoyment of its lands for transmission lines only, \$215.36.

PARAGRAPH V. Article 25 of the license as amended January 22, 1943, is hereby further amended by designating the present contents of Article 25 as Paragraph (A) and by adding a new paragraph designated (B) so that said article as amended shall read:

Article 25.

- (A) After the first twenty (20) years of operation of the project, six percent per annum is a reasonable rate of return upon the net investment in the project under license for determining surplus earnings to be held in amortization reserves until the termination of the license, or, in the discretion of the Commission, to be applied from time to time in reduction of the net investment, and that a reasonable portion of any surplus earnings in excess of such six percent per annum received for any calendar year to be paid into such reserves will be one-half of such excess.
- (B) The actual legitimate original cost, estimated where not known, and the accrued depreciation of the Gorge development as of the effective date of its inclusion under the license, namely, June 1, 1943, shall be determined by the Commission in accordance with the Act and the rules and regulations of the Commission, and such original cost less such accrued depreciation, so determined, shall be the net investment in said Gorge development as of such effective date.

PARAGRAPH VI. The license is further amended by adding thereto

Article 37 reading as follows:

Article 37. The Licensee shall in connection with the Gorge development, construct, maintain, and operate such protective devices and comply with such reasonable modifications of the project structure and operation in the interests of fish and wildlife resources as may be hereafter prescribed by the Commission upon the recommendation of the Secretary of the Interior.

PARAGRAPH VII. This amendment of the license in the manner set out above shall not operate to alter or amend the license as heretofore amended in any other respect, and shall not in any way constitute a waiver of any other part, provision, or condition of said license.

IN WITNESS WHEREOF, THE Commission has caused its name to be signed
hereto by THOMAS C. BUCHANAN, its Chairman,
and its seal to be affixed hereto and attested by LEON M. FUCHAY,
its Secretary, this 12th day of October, 1950,
pursuant to its orders dated September 9, 1949, and October 18, 1949, at-
tached hereto.

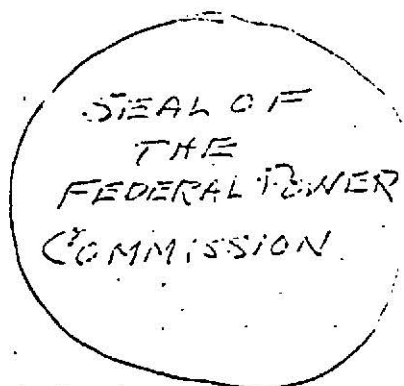
FEDERAL POWER COMMISSION

By S/THOMAS C. BUCHANAN
Chairman.

Attest:

S/LEON M. FUCHAY
Secretary.

JAS:art
8-11-50



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IN TESTIMONY of its agreement to the foregoing amendment The City of Seattle, this 15th day of October, 1950, has caused its corporate name to be signed hereto by N. R. HOFFMAN, its _____ Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by W. G. THOMAS, its City Comptroller and City Clerk, pursuant to an ordinance of its City Council, duly passed on the 25th day of September, 1950, and approved by its Mayor on the 26th day of September, 1950, a certified copy of the record of which is attached hereto.

THE CITY OF SEATTLE

By

N. R. Hoffman

Superintendent of Lighting.

Attest:

W. G. THOMAS
City Comptroller and City Clerk.

(Executed in triplicate)



C
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Y
UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Commissioners: Gladys L. Dwyer, Acting Chairman; Thomas C. Buchanan
and Harrington Wimberly.

September 9, 1949

In the Matter of)
City of Seattle, Washington) Project No. 553

ORDER AUTHORIZING AMENDMENT OF LICENSE (MAJOR)

An application was filed August 9, 1948, by the City of Seattle, Washington, licensee for major Project No. 553, for amendment of license for the project, to include therein its Gorge power development, located below the Diablo development on Skagit River in Whatcom County, Washington, affecting lands of the United States within Mount Baker National Forest.

Specifically, the application requests inclusion under the license of the existing Gorge power development with certain alterations and additions to the existing project works so that the improved development would consist of a new concrete diversion dam with flashboards, located just downstream from the existing timber-crib dam and raising the elevation of the forebay 8 feet to elevation 736 feet; an intake (to be streamlined); a tunnel about 2 miles long connecting with penstock tunnels in the vicinity of the powerhouse; a surge tank; a powerhouse consisting of the existing powerhouse (to be modernized) and a proposed addition thereto, with total installation in the enlarged structure of approximately 165,000 horsepower at 275 foot effective head, of which 82,500 horsepower is already installed; a switching station (to be rebuilt); and appurtenant facilities. The licensee also desires that provision be made in the license for construction in the future of a new concrete dam which would create approximately 100 feet of additional head for the operation of the Gorge plant and increase the installed capacity to 203,000 horsepower.

The licensee states that the construction of the proposed additional generating facilities are necessary in order to make the fullest utilization of the water discharged from the Diablo plant, which is a part of the facilities licensed under Project No. 553. Under present conditions, the licensee adds, approximately 45 percent of the water discharged at the Diablo plant under full load must be wasted at the Gorge plant, and the proposed additional generating capacity at the Diablo plant will utilize this unused water and produce about 19,000 kilowatts of additional power without increasing the draft on storage. The licensee desires to enlarge the capacity of the plant in order to meet the increasing demands of the customers.

9/9/49

The effect of the amendment will be to increase the authorized installed capacity of the project from 320,000 horsepower to 435,000 horsepower.

A determination of the area of Government lands occupied by the Gorge project cannot be made until Exhibit K maps showing the project boundary are filed by the licensee.

The Assistant Secretary of the Interior has reported favorably on the application as hereinafter provided.

The Chief, Forest Service, acting for the Secretary of Agriculture, who has supervision over the Mount Wilson National Forest, has reported favorably on the application, and the Chief of Engineers and the Secretary of the Army have approved the exhibits filed with the application for amendment, insofar as the interests of navigation and flood control are affected.

The Governor of the State of Washington and the Department of Fisheries of that State were notified of the filing of the application.

The Commission finds:

- (1) The license, amended as hereinafter provided, will not interfere or be inconsistent with the purposes for which the Mount Wilson National Forest was created or acquired nor will it alter any of the basic facts upon which the license was issued.
- (2) Public notice has been given as required by the Federal Power Act.
- (3) The authorized installed capacity of the project as increased under the amendment of license is 435,000 horsepower, and the annual charge for reimbursing the United States for the costs of administration of Part I of the Act, based on such capacity, as hereinafter provided, is reasonable.
- (4) The following described exhibits filed as part of the application for license conform to the Commission's rules and regulations and should be approved as part of the license as amended:

9/9/42

Exhibit K - Sheet G-2 (FPC No. 553-113);
Exhibit L - Sheets G-1 to G-6 incl. (FPC
Nos. 553-114, -125, -115, -116, -
117, -118);
Sheets G-8 to G-13 incl. (FPC
Nos. 553-119 to -124 incl.);

Exhibit M - Statement in thirteen sheets,
entitled "General Descriptions
and Specifications of Mechanical,
Electrical and Transmission Equip-
ment" signed the City of Seattle,
Washington by E. R. Hoffman, Super-
intendent of Lighting on July 23, 1948.

The Commission orders:

- (A) The license for major Project No. 553 be amended effective June 1, 1943, to provide for the proposed enlargement and modernization of the Gorge development and for the maintenance and operation of the enlarged development as a part of the project subject to the following conditions:
- (i) Licensee shall begin construction on the enlargement of the Gorge development on or before September 1, 1948, and complete the work on or before October 1, 1954, including the modernization of the equipment of the original plant, and at such time as the Commission may direct and to the extent that it is economically sound and in the public interest to do so, after notice and opportunity for hearing, the licensee shall at the Gorge project construct the ultimate dam, raising the headwater pool to about elevation 875 feet, and, in the event of construction of Diablo project to its ultimate capacity of 240,000 kilowatts as provided in subparagraph (a) of Article 6 of the license, construct an additional tunnel, and install appropriate additional generating capacity.
 - (ii) Licensee shall in connection with the Gorge development, construct, maintain, and operate such protective devices and comply with such reasonable modifications of the project structure and operation in the interests of fish and wildlife resources as may be hereafter prescribed by the Commission upon the recommendation of the Secretary of the Interior.

9/9/49

- (iii) Licensee shall within one year from the date of issuance of the amendment of license, file with the Commission Exhibit P and Exhibit K, to show and describe the project boundary by notes and bounds for the Gorge development in accordance with the Commission rules and regulations.
- (B) The authorized installed capacity of the project for the purpose of annual charges shall be 485,000 horsepower.
- (C) The exhibits specified in finding (i) above are hereby approved as part of the license for the project.

By the Commission

SEAL

/s/ Leon M. Fuquay
Leon M. Fuquay,
Secretary.

Date of Issuance: September 13, 1949

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UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Nelson Lee Smith, Chairman; Thomas C. Buchanan and
Commissioners: Claude I. Draper.

October 18, 1949

In the Matter of }
City of Seattle, Washington } Project No. 553

ORDER MODIFYING ORDER AUTHORIZING
AMENDMENT OF LICENSE (MAJOR)

Through inadvertence, the word "Diablo" rather than the word "Gorge" appears in line 7 of the third paragraph of the Commission's September 9, 1949, order authorizing amendment of license for Project No. 553 of the City of Seattle, Washington, and the word "Wilson" rather than the word "Baker" appears in line 2 of the seventh paragraph and in line 3 of finding (1) of the order. The order should be modified so as to make the corrections noted.

The Commission orders:

The above-mentioned order dated September 9, 1949, is hereby modified by inserting the word "Gorge" in lieu of the word "Diablo" appearing in line 7 of the third paragraph of the order, and by inserting the word "Baker" in lieu of the word "Wilson" appearing in line 2 of the seventh paragraph and in line 3 of finding (1) of the order.

By the Commission.

SEAL

/s/ Leon M. Fuquay.
Leon M. Fuquay,
Secretary.

Date of Issuance: October 19, 1949

Amendment 6

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Thomas C. Buchanan, Acting Chairman; Claude L. Draper,
Commissioners: Nelson Lee Smith and Harrington Wimberly.

September 12, 1950

In the Matter of)
)
The City of Seattle, Washington) Project No. 553

ORDER AUTHORIZING AMENDMENT OF LICENSE (MAJOR)

Application was filed January 3, 1950, as supplemented April 11, 1950, by The City of Seattle, Washington, for amendment of license for major Project No. 553 located on Skagit River in Whatcom County, Washington.

The amendment would authorize construction of a power plant at Ross dam with initial installation of three 90,000-kilowatt generating units and provision for ultimate installation of a fourth 90,000 kilowatt unit and, in connection therewith, the completion of power tunnels and intake structure and the installation of control gates in the spillway sections of Ross Dam to raise the water level in the reservoir to elevation 1,600 feet.

The application for amendment sets forth the following reasons for the proposed changes:

- (a) Construction of the power plant is necessary in order to utilize the power head created by the construction of Ross Dam.
- (b) Completion of the power tunnels are a necessary part of the construction of the power plant.
- (c) Installation of control gates in the spillways is necessary in order to raise the water level in the reservoir to a maximum of elevation 1,600 feet.
- (d) Construction of the proposed additional generating facilities is necessary in order to make the fullest utilization of the water discharged from the Ross reservoir which otherwise would constitute a waste of potential power.

The Ross dam development of Project No. 553 as now built under the license, as amended, consists of a concrete arch dam constructed to elevation 1,615 feet at the roadway crest, with fixed spillway crests at elevation 1,582 feet; a reservoir created by Ross dam having a gross storage capacity of 1,200,000 acre-feet at elevation 1,582; two partially completed power tunnels around the left abutment of the dam, one about 1,000 feet and the other about 1,100 feet; and other appurtenant facilities.

9/12/50

The effect of the amendment, among other things, will be to increase the authorized installed capacity of the project from 485,000 horsepower to 860,000 horsepower.

Pursuant to request therefor, the applicant was advised by letter dated November 9, 1949, that the Commission would have no objection to the placing of orders for the turbines and generators for Ross power plant, at applicant's own risk, provided application for amendment were filed within 90 days therefrom to include Ross power plant under the license for Project No. 553. According to Exhibit "O" of the application for amendment, it was anticipated that construction of the Ross plant would get underway in January, 1950, and would continue through to the scheduled completion date of December, 1953.

The Chief, Forest Service, acting for the Secretary of Agriculture, the Assistant Secretary of the Interior, and the Chief of Engineers, Department of the Army, have reported favorably on the application.

The Departments of Fisheries and Game, respectively, of the State of Washington, have reported favorably on the application.

The Commission finds:

- (1) The license, amended as hereinafter provided, will not interfere or be inconsistent with the purposes for which the Mount Baker National Forest was created or acquired nor will it alter any of the basic facts upon which the license was issued.
- (2) Public notice has been given of the filing of the application.
- (3) The authorized installed capacity of the project as increased under the amendment of license is 860,000 horsepower, and the annual charge for reimbursing the United States for the costs of administration of Part I of the Act, based on such capacity as hereinafter provided, is reasonable.
- (4) The following described exhibits filed as part of the application for amendment, as supplemented, conform to the Commission's rules and regulations and should be approved as part of the license as further amended:

Exhibit L - Sheets R-378, R-010, R-011, R-012, (FPC Nos. 553-127, - 129, -130, -131); and

Exhibit M - Statement in three sheets, entitled "General Descriptions and Specifications of Mechanical, Electrical and Transmission Equipment" signed The City of Seattle, Washington, by E. R. Hoffman, Superintendent of Lighting on December 22, 1949.

9/12/50

The Commission orders:

- (A) The license for major Project No. 553 be amended, effective March 1, 1950, to provide for construction, operation and maintenance of a power plant and related facilities at Ross Dam as part of the project.
- (B) The licensee shall commence construction of Ross Dam power plant on or before May 1, 1950, and shall complete the work on or before December 31, 1953, including installation of three - 90,000-kilowatt generating units; completion of power tunnels and intake structure and the installation of control gates (Tainter) in the spillway sections of Ross Dam.
- (C) The authorized installed capacity of the project for the purpose of annual charges shall be 860,000 horsepower.
- (D) The exhibits specified in finding (4) above hereby are approved as part of the license for the project.

By the Commission.

/s/ Leon M. Fuquay,
Leon M. Fuquay,
Secretary

S E A L

Date of Issuance: September 15, 1950

Amendment 7

WITNESSETH THAT I, J. H. ...
Federal Power Commission

Before me, Messrs G. B. ...
Commissioners of the Federal Power Commission

September 3, 1952

In the Matter of

The City of Seattle,
Washington

Project No. 553

ORDER FURTHER AMENDING LICENSE (MAJOR)

Application was filed November 24, 1950 by The City of Seattle, Washington, licensee for a part of Project No. 553, for amendment of license for the project located on Skagit River, in Whatcom County, Washington.

The application, which seeks to reduce the authorized installed capacity of the Diablo portion of the project from 320,000 horsepower to the present installation of 160,000 horsepower, states, for reasons set forth therein but which would serve no useful purpose to recite herein, that further installation of generating capacity at the Diablo plant cannot be economically justified.

The effect of the amendment would be to decrease the authorized installed capacity of the entire project upon which the capacity portion of the annual charge for administration of Part I of the Federal Power Act is based from 360,000 horsepower to 251,000 horsepower.

The Commission finds:

The license, further amended as hereinafter provided, will not alter any of the basic facts upon which the license was issued.

The Commission orders:

- (1) The license for The City of Seattle's major Project No. 553 is hereby further amended, effective as of January 1, 1951, to provide for the reduction in the authorized installed capacity of the entire project from 360,000 horsepower to 251,000 horsepower, so that Article 24 (a) thereof shall read as follows:

9/8/58

Article 1

- (A) For the purpose of reimbursing the United States for the costs of administration of Part 1 of the Act, one (1) cent per horsepower or the capacity (653,000 horsepower) plus two and one-half (2-1/2) cents per thousand kilowatt-hours of gross energy generated by the project during the calendar year for which the charge is made.
- (B) This order shall become final thirty (30) days from the date of its issuance unless application for rehearing shall be filed as provided by Section 313 (a) of the Act, and failure to file such an application shall constitute acceptance of the amendment. In acknowledgment of the acceptance of this amendment, it shall be signed for the licensee and returned to the Commission within sixty (60) days from the date of issuance of this order.

By the Commission.

LEON M. FAHEY,
Secretary.

Date of Issuance: September 1, 1958

Project No. 553
(Cont'd)

-3-

9/3/52

IN TESTIMONY OF ACCEPTANCE of all the provisions, terms and conditions of this amendment of major-part license, The City of Seattle, Washington, this 3rd day of November, 1952, has caused its corporate name to be signed hereto by E. R. HOFFMAN, its Superintendent of Lighting, and its corporate seal to be affixed hereto and, attested by W. C. THOMAS its City Controller and City Clerk, pursuant to an ordinance of its City Council, duly passed on the 30th day of September, 1952, a certified copy of the record of which is attached hereto.

THE CITY OF SEATTLE, WASHINGTON

E. R. Hoffman
Superintendent of Lighting

Attest:

W. C. Thomas
City Clerk

(Executed in quadruplicate)

ORDINANCE NO. 81385

AN ORDINANCE relating to the Department of Lighting accepting Amendment No. 7 of Federal Power Commission License Project No. 553-Washington for the Skagit River Project.

WHEREAS, the Federal Power Commission under date October 28, 1927, issued its license for Project No. 553-Washington (Comptroller's File No. 11351) for the City's Skagit River Project; and

WHEREAS, upon application dated November 24, 1950, filed by the City, the Commission under date of September 5, 1952, issued its order authorizing Amendment No. 7 of said License; and

WHEREAS, said Commission has submitted to the City for acceptance the formal Amendment of said License styled "Amendment No. 7 of License Project No. 553-Washington;" Now, therefore,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. That the City of Seattle hereby accepts Federal Power Commission Amendment No. 7 of License Project No. 553-Washington, and in order to effectuate such purpose the Superintendent of Lighting and City Clerk are authorized and directed for and on behalf of the City of Seattle to execute and deliver in quadruplicate an acceptance of said Amendment of License in words and figures as follows, to-wit:

"In Testimony of its agreement to all the provisions, terms and conditions of this Amendment of major project license the City of Seattle, Washington, this _____ day of _____, 1952, has caused its corporate name to be signed hereto by _____

_____, its _____ Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by _____, its _____ City Clerk, pursuant to an ordinance of its City Council, duly passed on the _____ day of _____, 1952, and approved by its Mayor on the _____ day of _____, 1952, a certified copy of the record of which is attached hereto.

CITY OF SEATTLE

BY _____
Superintendent of Lighting

Attest:

City Comptroller and Clerk

Section 2. That the City Comptroller is authorized and directed to duly certify and transmit with said Acceptance of Amendment four (4)

Amendment 8

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

EXHIBIT NO. 6
TESTIMONY NO. 12

Before Thomas C. Buchanan, Chairman; Dale E. Doty, Claude L.
Commissioners: Draper and Nelson Lee Smith.

November 18, 1952

In the Matter of)
)
The City of Seattle.)

Project No. 553

ORDER FURTHER AMENDING LICENSE (MAJOR)

Application was filed October 23, 1950 by The City of Seattle, Washington, licensee for major Project No. 553 for further amendment of license for the project located on Skagit River, in Whatcom County, Washington.

The application seeks to authorize a major program of maintenance and additions at Diablo Dam to consist of: (a) paving spillways on north and south banks, and drilling and pressure grouting spillway areas; (b) constructing additional spillway training walls and extending existing ones; (c) drilling and pressure grouting foundations and grouting contraction joints; (d) placing additional concrete on the left bank thrust block; and (e) installing concrete plug in tunnel outlet at bottom of dam and grouting same: all as shown on certain revised project exhibit drawings, the approval of which is also sought.

The Commission finds:

- (1) The license, further amended as hereinafter provided, will not alter any of the basic facts upon which the license was issued.
- (2) The hereinafter described Exhibit L drawings filed as part of the application conform to the Commission's rules and regulations and should be approved as part of the license for the project.

The Commission orders:

- (A) The Exhibit L drawings referred to in paragraph (2) above are approved as part of the license for the project.
- (B) The license for project No. 553 is hereby further amended, effective as of January 1, 1952 to authorize the program of maintenance and additions described in the second paragraph of this order, as shown on the Exhibit L drawings hereinabove approved.

Project No. 553
(Cont'd)

- (C) Article 2 of the license is further amended by adding to the list of exhibits under Item 1 "Diablo Development," of Paragraph C, the following exhibits:

Sheet 21, Dwg. No. D-16043 (FPC No. 553-132), entitled "Diablo Dam-Concrete Plug for Temporary Tunnel at Elevation 4050";

Sheet 22, Dwg. No. D-16078-1 (FPC No. 553-133), entitled "Diablo Dam Spillway Paving-North Bank";

Sheet 23, Dwg. No. D-16078-2 (FPC No. 553-134), entitled "Diablo Dam-Spillway Paving-South Bank."

- (D) This order shall become final within thirty (30) days from the date of its issuance unless application for rehearing shall be filed as provided by Section 515 (a) of the Federal Power Act, and failure to file such an application shall constitute acceptance of this license amendment. In acknowledgement of the acceptance of this license amendment, it shall be signed for the licensee and returned to the Commission within sixty (60) days from the date of issuance of this order.

By the Commission.

Leon M. Fuquay
Secretary

Date of issuance: November 27, 1954

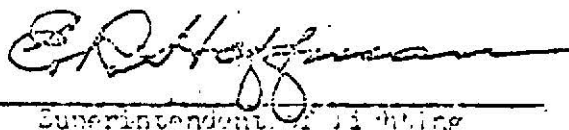
Project No. 553
(Cont'd)

-3-

11/12/52

IN TESTIMONY OF ACCEPTANCE of all the provisions, terms and conditions of this amendment of major-part license, The City of Seattle, Washington, this 22nd day of January, 1953, has caused its corporate name to be signed hereto by E. R. Hoffman, its Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by W. C. Thomas, its City Comptroller and City Clerk, pursuant to an ordinance of its City Council, duly passed on the 31st day of December, 1952, a certified copy of the record of which is attached hereto.

THE CITY OF SEATTLE, WASHINGTON


Superintendent of Lighting

Attest:

/s/ W. C. Thomas

City Clerk

(Executed in quadruplicate)

1. What is the purpose of the study?
2. What are the research questions?
3. What are the hypotheses?

1. The first step is to identify the problem. This involves understanding the situation and the goals that need to be achieved. It is important to gather all relevant information and to define the problem clearly.

and 10. The second order of the series is the 10th order, which is the 10th order of the series.

INTERNAL SECURITY - RACIAL MATTERS; DEPT. OF JUSTICE ACCUSED THE
NATIONAL ASSOCIATE OF VIOLENCE AGAINST WOMEN A NATIONAL NO. 8 OF INTEREST
PROJECT NO. 999-INTERNAL SECURITY; NEW YORK, NEW YORK.

THE UNITED STATES OF AMERICA

Section 1. That the City of Seattle hereby accepts Federal Power Commission Amendment No. 3 of License Project No. 553-Washington, and in order to effectuate such purpose the Superintendent of Lighting and City Clerk are authorized and directed for and on behalf of the City of Seattle to execute and deliver in quadruplicate an acceptance of said Amendment of License in words and figures as follows, to-wit:

"In testimony of its agreement to all the provisions, terms and conditions of this amendment of major project license the City of Seattle, Washington, this _____ day of _____, 1952, has caused its corporate seal to be signed hereto by _____, its _____ Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by _____, its _____ City Clerk, pursuant to an ordinance of its City Council, duly passed on the _____ day of _____, 1952, and approved by its Mayor on the _____ day of _____, 1952, a certified copy of the record of which is attached hereto.

THE CITY OF BIRMINGHAM

507
SPECIAL AGENTS OF LIGHTING

● 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840.

cc: LHM
Cortez
F. Garcia
G. Martinez
Gonzalez-Jones
L. Lopez
M. S. (M. S.)
M. S. (M. S.)
M. S. (M. S.)
M. S. (M. S.)
M. S. (M. S.)
M. S. (M. S.)

Chief Administrative and Fiscal

Section 2. That the City Commission is authorized and directed to enter into and execute with such acceptance of Amendment No. (1) to the said ordinance.

Section 3. (30 day ending.)

Approved: Dec. 31, 1932

(continued on next page)

Amendment 9

FP-179
UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

AMENDMENT NO. 9
INSTRUMENT NO. 13

Before Jerome A. Suykendall, Chairman; Claude L. Draper,
Commissioners: Nelson Lee Smith, Seaborn L. Digby and Frederick Stueck.

In the Matter of)
The City of Seattle) Project No. 553

ORDER REVISING ARTICLE 36 OF LICENSE (MAJOR)

Request was filed April 13, 1954 by The City of Seattle, Washington, licensee for major Project No. 553, for revision of Article 36 of the license for the project pertaining to flood control operation of Ross Reservoir so as to reflect therein revised detail regulations for use of flood control storage prepared by the United States Corps of Engineers.

The Corps of Engineers has reported that the revision is the result of studies made by its Seattle District in the State of Washington and has been mutually agreed to by the licensee and the Corps.

The Commission finds:

It is in the public interest to revise Article 36 of the license for Project No. 553 in conformity with the above-mentioned detail regulations.

The Commission orders:

- (A) Article 36 of The City of Seattle's license for Project No. 553 is hereby revised to read as follows:

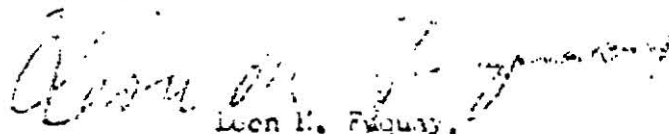
Ross only

Article 36: The Licensee shall reserve a maximum of 120,000 acre-feet of storage space in Ross Reservoir for flood control during the period October 1 to March 15. The required storage space, if not previously obtained through power withdrawals, shall be provided by drawing down the reservoir at a rate equalling or exceeding a uniform draw-down rate from zero on October 1 to 60,000 acre-feet on November 15 and similarly drawing down, but at a more rapid rate to provide the full 120,000 acre-feet on December 1, with the reservoir level at elevation 1,589.4 feet. Whenever the United States Weather Bureau forecasts that the discharge at the gaging station near Concrete will equal or exceed 90,000 second-feet in eight hours on a rising stage of a flood, the Licensee shall, as a maximum, release only such flows from Ross Dam as are necessary to the normal production of electric energy at the Ross, Diablo and Gorge plants, but not more than a mean daily

discharge of 5,000 second-feet, plus or minus 20 percent allowance for operational latitude. If the reservoir pool should reach the elevation of 1,600 feet before the flood recession occurs, the gates shall be operated to induce maximum surcharge storage to effect maximum reduction of discharge downstream. If surcharge storage is induced, it shall be maintained as long as possible, or until flood recession occurs. After flood recession starts, releases from Ross Reservoir shall be increased until discharge equals inflow. Storage shall be evacuated as rapidly as possible without endangering downstream installations as soon as the discharge at Concrete recedes to 90,000 second-feet and a falling trend is forecast. "Details of Regulation for Use of Storage Allocated for Flood Control in Ross Reservoir, Skagit River, Washington (Revised March 15, 1954)" is incorporated by reference as a part of this article.]

- (3) This order shall become final within thirty (30) days from the date of its issuance unless application for rehearing shall be filed as provided by Section 313 (a) of the Federal Power Act, and failure to file such an application shall constitute acceptance of this instrument. In acknowledgment of the acceptance of this instrument, it shall be signed for the licensee and returned to the Commission within sixty (60) days from the date of issuance of this order.

By the Commission.


Leon E. Faquay,
Secretary.

Adopted: September 17, 1954

Issued: September 22, 1954

IN TESTIMONY OF ACCEPTANCE of all the provisions, terms and conditions of this instrument, The City of Seattle, Washington, this 15th day of October, 1954, has caused its corporate name to be signed hereto by PAUL J. RAVEN, its Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by W. C. THOMAS, its City Clerk ~~Secretary~~, pursuant to a resolution of its Board of Public Works duly adopted on the 6th day of October, 1954, a certified copy of the record of which is attached hereto.

THE CITY OF SEATTLE

Superintendent of Lighting

Attest:

City Clerk

~~Secretary~~

Amendment 10

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before: Jerome K. Kuykendall, Chairman; Claude L. Draper,
Commissioners: Nelson Lee Smith, Osborn L. Digby and Frederick Muech.

In the Matter of)
The City of Seattle, Washington) Project No. 553

ORDER APPROVING INSTALLATION OF
FOURTH GENERATING UNIT.

Application was filed September 20, 1954 by The City of Seattle, Washington, licensee for major Project No. 553, for Commission approval of the installation of the fourth generating unit of 90,000 kilowatts capacity at Ross power plant, located on the Skagit River, in Whatcom County, Washington, affecting lands of the United States in the Mount Baker National Forest.

It appears that Ross power plant as initially constructed with three units, provided for a fourth unit having power tunnel facilities, penstock, turbine pit and powerhouse space, all of which was authorized by the Commission for construction as a part of the plans as evidenced by exhibits made a part of the license under Amendment No. 3.

The fourth unit will provide additional peaking capacity as well as a substantial block of reserve generating capacity, and will permit the full utilization of the potential power available in the Skagit River, at the project site.

Installation of the fourth generating unit will increase the authorized installed capacity of the project from 653,000 horsepower to 773,000 horsepower with a resultant increase in the amount of annual administrative charges as hereinafter provided for.

The Commission finds:

- (1) Public notice has been given as required by the Federal Power Act. No protests have been received.
- (2) The installation and continued operation of the fourth generating unit of 120,000 horsepower capacity with appurtenant equipment at Ross power plant, which installation is scheduled for completion by October 1, 1955, is desirable in the public interest to supply adequately the reasonable market demands for power.

- (3) The installed horsepower capacity of the project hereinafter authorized for the purpose of computing the capacity component of the administrative annual charges is increased from 553,000 horsepower to 773,000 horsepower.
- (4) Exhibit M, filed as part of the application for approval of the installation of the fourth generating unit, and which supplements Exhibit M now part of the license, conforms with the Commission's rules and regulations and should be approved as part of the license for the project.

The Commission orders:

- (A) Supplemental Exhibit M referred to in finding (4) above is approved as part of the license for Project No. 553.
- (B) The installation of the fourth generating unit, increasing the authorized installed capacity of the project to 773,000 horsepower is approved, effective as of October 1, 1954 and the license for the project, as heretofore amended, is further amended as follows:

Paragraph I. Item 2 of Paragraph C of Article 2 of the license is amended to read as follows:

2. Ross Development

A concrete arch dam in Section 35, T. 33 N., R. 13 E., W.M., known as Ross Dam constructed to elevation 1615 feet at the roadway crest, with fixed spillway crests at elevation 1582 feet; a reservoir created by said dam having a gross capacity of 1,200,000 acre-feet at elevation 1,582 feet; control gates in the spillway sections of the Ross Dam to raise the water level in the reservoir to elevation 1,600 feet with a gross capacity of 1,400,000 acre-feet; two power tunnels around the left abutment of the dam extending downstream from the intake works to a power plant; a powerhouse with installation of four units each consisting of a 125,000 horsepower turbine connected to a 90,000 kilowatt (0.9 P.F.) generator; a transmission line extending from the dam to Diablo plant; and other appurtenant facilities; the location and character of the project works being more fully shown and described by the exhibits cited in Paragraph A hereof, and by the following additional exhibits:

Paragraph II. Item 2 of Paragraph C of Article 2 of the license is amended by adding thereto the following:

Exhibit M: Statement in one sheet entitled "General Description and Specifications of Mechanical, Electrical and Transmission Equipment, signed The City of Seattle, Washington, by Paul J. Raver, Superintendent of Lighting, on August 30, 1954.

Paragraph III. Paragraph (C) of Article 6 of the license is amended by adding thereto the following:

Begin the construction and installation of the fourth turbine and generator unit at Ross powerhouse on or before October 1, 1954, and complete the work on or before October 1, 1955;

Paragraph IV. Article 24(a) of the license is amended to read:

- (a) For the purpose of reimbursing the United States for the costs of administration of Part I of the Act, one (1) cent per horsepower on the authorized installed capacity (773,000 horsepower) plus two and one-half (2-1/2) cents per thousand kilowatt-hours of gross energy generated by the project during the calendar year for which the charge is made.
- (c) This order shall become final thirty (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 instrument amending the license. In acknowledgment of the acceptance of this instrument, it shall be signed for the licensee and returned to the Commission within sixty (60) days from the date of issuance of this order.

By the Commission.

Adopted: March 16, 1955

Issued: March 21, 1955

Project No. 553
(Cont'd)

- 4 -

IN TESTIMONY of its agreement to the foregoing instrument,
The City of Seattle, this 21st day of April, 1918,
has caused its corporate name to be signed hereto by John J. ...
..., its Superintendent of Lighting, and its
corporate seal to be affixed hereto and attested by ...,
its City Comptroller and City Clerk, pursuant to an ordinance of its
City Council duly passed on the 11th day of April, 1918, and
approved by its Mayor on the 10th day of April, 1918, a
certified copy of the record of which is attached hereto.

THE CITY OF SEATTLE

By John J. ...
Superintendent of Lighting

Attested:

John J. ...
City Clerk

(Executed in quadruplicate)

ORDINANCE NO. 94222

AN ORDINANCE relating to the Department of Lighting and accepting Amendment No. 10 of Federal Power Commission License Project No. 553-Washington for the Skagit River Project.

WHEREAS, the Federal Power Commission under date October 28, 1927, issued its License for Project No. 553-Washington (Comptroller's File No. 113817) for the City's Skagit River Project; and

WHEREAS, upon application dated August 30, 1954, filed by the City, The Commission under date of September 20, 1954, issued its order authorizing Amendment No. 10 of said License; and

WHEREAS, said Commission has submitted to the City for acceptance the formal Amendment of said License styled "Amendment No. 10 of License Project No. 553-Washington", referred to in C. F. 226623; Now, Therefore,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. That the City of Seattle hereby accepts Federal Power Commission Amendment No. 10 of License Project No. 553-Washington, copy of which is attached to C.F. 226623, and in order to affectuate such purpose the Superintendent of Lighting and City Clerk are authorized and directed for and on behalf of the City of Seattle to execute and deliver in quadruplicate an acceptance of said Amendment of License in words and figures as follows, to-wit:

"In Testimony of its agreement to the foregoing instrument, the City of Seattle, this _____ day of _____, 1955, has caused its corporate name to be signed hereto by _____, its Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by _____, its _____ City Clerk, pursuant to an ordinance of _____

Section 3 This ordinance shall take effect and be in force thirty days from and after its passage and approval, if approved by the Mayor; otherwise it shall take effect at the time it shall become a law under the provisions of the city charter.

Passed by the City Council the 13 day of April, 195 5
and signed by me in open session in authentication of its passage this 13 day of April, 195 5
W. G. Mitchell

President.....of the City Council.

Approved by me this 19 day of April, 195 5
Allen Ramsey

Filed by me this 29 day of April, 195 5 Mayor.

Attest: D. C. Thoms
City Comptroller and City Clerk.

(SEAL)

By W. A. Perine
Deputy Clerk.

Published.....

STATE OF WASHINGTON)
COUNTY OF KING) SS
CITY OF SEATTLE)

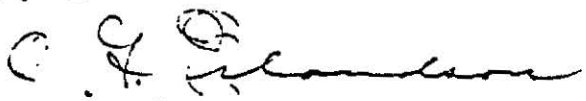
I, W. C. THOMAS, Comptroller and City Clerk of
the City of Seattle, do hereby certify that the within
and foregoing is a true and correct copy of Ordinance No.
24022 of the City of Seattle, being
AN ORDINANCE relating to the Department of Lighting and
accepting Amendment No. 10 of Federal Power Commission
License Project No. 553-Washington for the Skagit River
Project _____

as the same appears on file, and of record in this
Department.

IN WITNESS WHEREOF, I have hereunto set my hand
and affixed the seal of The City of Seattle, this 22nd
day of April, 1955

W. C. THOMAS
Comptroller and
City Clerk

BY:


Chief Deputy

(SEAL)

ORDINANCE NO. 34022

AN ORDINANCE relating to the Department of Lighting and accepting Amendment No. 10 of Federal Power Commission License Project No. 553-Washington for the Skagit River Project.

WHEREAS, the Federal Power Commission under date October 28, 1937, issued its License for Project No. 553-Washington (Comptroller's File No. 113614) for the City's Skagit River Project; and

WHEREAS, upon application dated August 30, 1954, filed by the City, The Commission under date of September 20, 1954, issued its order authorizing Amendment No. 10 of said License; and

WHEREAS, said Commission has submitted to the City for acceptance the Formal Amendment of said License styled "Amendment No. 10 of License Project No. 553-Washington", referred to in C. F. 226623; Now, Therefore,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. That the City of Seattle hereby accepts Federal Power Commission Amendment No. 10 of License Project No. 553-Washington, copy of which is attached to C.F. 226623, and in order to effectuate such purpose the Superintendent of Lighting and City Clerk are authorized and directed for and on behalf of the City of Seattle to execute and deliver in quadruplicate an acceptance of said Amendment of License in words and figures as follows, to-wit:

"In Testimony of its agreement to the foregoing instrument, the City of Seattle, this _____ day of _____, 1955, has caused its corporate name to be signed hereto by _____, its Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by _____, its _____ City Clerk, pursuant to an ordinance of its City Council, duly passed on the _____ day of _____, 1955, and approved by its Mayor on the _____ day of _____, 1955, a certified copy of the record of which is attached hereto.

THE CITY OF SEATTLE

BY

Superintendent of Lighting

Attest:

City Comptroller and Clerk"

Section 2. That the City Comptroller is authorized and directed to duly certify and transmit with said Acceptance of Amendment four (4) copies of this ordinance.

Section 3. (30 day ending)

Approved: Apr. 19, 1955

cc: Nelson
Cotton
Spowart
Strandberg
Brunlage
Reichert
Anderson, H.
Olsen, A.
x-file

Amendment 11

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Jerome H. Kuykendall, Chairman; Claude L. Draper,
Commissioners: Leaborn L. Digby, Frederick Stueck and William R. Connoles.

In the Matter of

The City of Seattle

Project No. 553

ORDER MODIFYING ORDER AMENDING LICENSE (MAJOR)

(Issued April 17, 1956)

On March 19, 1956, The City of Seattle, Washington, licensee for major Project No. 553, filed application for modification of the Commission's order issued March 6, 1956 further amending the license for the project.

The application requests that the time specified in Paragraph III of the aforementioned order for completion of construction of High Gorge Dam authorized by the amendment be changed from February 1, 1958 to February 4, 1959, and states as a reason therefor that further investigations in connection with the handling of water during the construction period delayed issuance of contract specifications and the awarding of the construction contract.

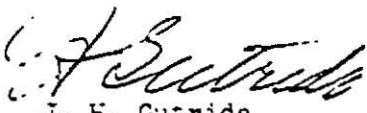
The Commission finds:

In the circumstances recited herein, modification of our order issued March 6, 1956 in this matter as hereinafter provided is necessary and appropriate in carrying out the provisions of the Federal Power Act.

The Commission orders:

- (A) Paragraph III of our order issued March 6, 1956 further amending the license for Project No. 553 is modified by changing the date specified therein for completing construction of the High Gorge Dam from February 1, 1958 to March 1, 1959.
- (B) This order shall become final thirty (30) days from the date of its issuance unless application for rehearing shall be filed as provided in Section 313 (a) of the Federal Power Act, and failure to file such an application shall constitute acceptance of this order.

By the Commission.


J. H. Gutride,
Acting Secretary.

FD-179
UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Jerome K. Kaykendall, Chairman; Claude L. Draper,
Commissioners: Seaborn L. Digby, Frederick Stueck and William R. Connors.

In the Matter of

The City of Seattle, Washington }

Project No. 553

ORDER FURTHER AMENDING LICENSE (MAJOR)

Adopted: February 29, 1956

Issued: March 6, 1956

Application for amendment of license was filed May 10, 1954 and supplemented on July 18, 1955 and December 5, 1955 by the City of Seattle, Washington, licensee for major Project No. 553, situated on the Skagit River in Whatcom County, Washington, and affecting lands of the United States within Mount Baker National Forest.

The application seeks authorization to construct a high dam at the intake of the Gorge power plant, which would replace an existing low diversion dam, and other improvements consisting of:

A concrete arch and gravity section dam to elevation 800 feet above sea level at roadway crest with a gravity spillway section equipped with two gates with crests at elevation 875 feet in closed position; a reservoir created by the dam having a storage capacity of about 8,000 acre-feet at normal surface elevation 875 feet, and extending to the tailrace of the Diablo power house; modification of existing turbines in Gorge powerhouse resulting in a total installed capacity of 192,000 horsepower operating under a gross head of 380 feet; and a new intake structure with some modification of the existing power tunnel.

The principal effects of the amendment will be to increase the authorized installed capacity of the project from 773,000 horsepower to 832,000 horsepower; to increase the amount of annual charges for the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands, other than those used for transmission lines only, from \$1,699.32 to \$1,792.05; and to decrease the annual charges for the use, occupancy, and enjoyment of lands of the United States for transmission line right-of-way only from \$215.36 to \$134.72.

The Chief of Engineers, Department of the Army, has approved the plans of the project structure insofar as the interests of navigation are concerned.

An Assistant Secretary of the Interior, in reporting favorably on the application, has recommended for inclusion in the amended license certain special conditions hereinafter substantially provided.

An Assistant Secretary of Agriculture, in reporting on the application, has recommended for inclusion in the amended license certain special conditions hereinafter substantially provided.

The Director of the Department of Fisheries and the Director of the Department of Game, both of the State of Washington, have reported that they have no objection to the construction of a higher dam at the Gorge site, but that the licensee should be required to supply facts relating to expected regulation of the stream flow in order to determine whether there is a need for readjustment of low flows downstream from the existing Gorge powerhouse in the interests of fish life.

The application filed on May 10, 1954 stated that construction work on the new gorge dam would begin about August 1, 1954 with completion scheduled for February 1, 1958.

The Commission finds:

- (1) The license, further amended, as hereinafter provided, will not interfere or be inconsistent with the purposes for which the Mount Baker National Forest was created or acquired and will not alter any of the basic facts upon which the license was issued.
- (2) The authorized installed capacity of the project, as increased under this amendment, is 832,000 horsepower and the amount of annual charges for reimbursing the United States for the costs of administration of Part I of the Act, based on such capacity, and for recompensing it for the use, occupancy, and enjoyment of its lands is reasonable as hereinafter fixed and specified.
- (3) The following described exhibits, filed as part of the application for amendment:

Exhibit K:

<u>Dwg. No.</u>	<u>Sheet No.</u>	<u>FPC No.</u>	<u>Showing</u>
D-16414	G-3	553-180	Map of Gorge Project
D-16415	G-4	553-181	do
D-16416	G-5	553-182	do
D-16417	G-6	553-183	do
D-16418	G-7	553-184	do
D-16419	G-8	553-185	do
D-16420	G-9	553-186	do
D-16421	G-10	553-187	do

Exhibit L:

<u>Dwg. No.</u>	<u>Sheet No.</u>	<u>FPC No.</u>	<u>Showing</u>
D-18473	G-4 (Revised)	553-189	General Layout, Plan and Profile
D-18506	G-15	553-190	Plan, Elevation, and Sections
D-18507	G-16	553-176	Galleries, Shafts, Foundation Grouting and Drainage
D-18514	G-18	553-178	Spillway, Gates and Hoists
D-18519	G-19	553-179	Details of Intake Tunnel

and:

Exhibit M: Statement in 8 typewritten sheets, entitled "General Description and Specifications of Mechanical, Electrical, and Transmission Equipment", as revised November 25, 1955 and received in the Commission December 5, 1955,

conform to the Commission's rules and regulations and should be approved as part of the license for the project, and the following superseded exhibit drawings should be eliminated from the license:

Exhibit L:

<u>Dwg. No.</u>	<u>Sheet No.</u>	<u>FPC No.</u>
D-16006	G-1	553-114
D-11634	G-2	553-125
D-12100	G-3	553-115
D-15003	G-4	553-116
D-11636	G-8	553-119
D-11659	G-9	553-120

The Commission orders:

- (A) The exhibits described in finding (3) above as conforming to the Commission's rules and regulations are approved as part of the license for Project No. 553, and the exhibits described in the same finding as being superseded are eliminated from the license.
- (3) The license for Project No. 553 is further amended, effective as of February 1, 1955, as follows:

PARAGRAPH I. Article 2 of the license is further amended:

- (1) By changing the description of Gorge Development, item 3 of paragraph C to read:

3. Gorge High Dam Development

A concrete arch and gravity section dam to elevation 880 feet above sea level at roadway crest with a gravity spillway section equipped with two gates with crests at elevation 875 feet in closed position; a reservoir created by the dam having a storage capacity of about 3,000 acre-feet at normal surface elevation 875 feet and extending to the tailrace of Diablo powerhouse; a new intake structure with some modification of the existing power tunnel; a tunnel about 2 miles long connecting the intake with three penstocks and a penstock tunnel in the vicinity of the powerhouse; a surge tank; a powerhouse containing four turbines, three units each rated at 38,500 horsepower and one unit rated at 92,500 horsepower, all units with modified runners for operation under a gross head of 380 feet; a switching station; and appurtenant facilities; the location and character of the project works being more fully shown and described by the exhibits cited in Paragraph A hereof, and by the following additional exhibits:

- (2) By adding to the list of exhibits under item 3 of paragraph C the exhibits described in paragraph (A) above as being approved as part of the license for Project No. 553; and
- (3) By eliminating from item 3 of paragraph C the exhibits described in paragraph (A) above as being superseded.

PARAGRAPH II. Article 3 of the license is further amended by substituting for the statement added to the Article by amendment order issued October 18, 1950 the following statement:

The licensee shall within one year from date of issuance of this amendment of license, file with the Commission Exhibit F for the Gorge development in accordance with the Commission's rules and regulations.

PARAGRAPH III. Subparagraph (d) of Article 6 of the license is amended to read:

- (d) Begin the construction on the enlargement of the Gorge Development on or before September 1, 1948, including the modernization of the equipment of the original plant and begin construction of the high Gorge dam on or before February 1, 1955, raising the headwater pool to elevation 875 feet and related improvements and complete the work on or before February 1, 1958; and, in event of construction of Diablo project to its ultimate capacity of 240,000 kilowatts, as provided in subparagraph (a) of this article, construct an additional tunnel and install appropriate additional generating capacity.

PARAGRAPH IV. Article 24 of the license is further amended to read:

Article 24. The Licensee shall pay the following annual charges:

- (a) Effective February 1, 1955, for the purpose of reimbursing the United States for the costs of administration of Part I of the Act, one (1) cent per horsepower on the authorized installed capacity (832,000 horsepower) plus two and one-half ($2\frac{1}{2}$) cents per thousand kilowatt-hours of gross energy generated by the project during the calendar year for which the charge is made.
- (b) Effective June 1, 1948, for the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands, other than those used for transmission lines only, \$1,792.05; and
- (c) Effective June 1, 1948, for the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands for transmission lines only \$134.72.

PARAGRAPH V. Article 37 of the license is amended by deleting the period at the end thereof and by adding thereto "the Washington Department of Fisheries or the Washington Department of Game."

- (C) This order shall become final thirty (30) days from the date of its issuance unless application for rehearing shall be filed as provided in Section 313 (a) of the Federal Power Act. In acknowledgment of the acceptance of this amendment

Project No. 553
(Cont'd)

- 6 -

of license, it shall be signed for the Licensee and returned to the Commission within sixty (60) days from the date of issuance of this order.

By the Commission.

Alonzo E. Baquay
Alonzo E. Baquay,
Secretary.

Ordinance No. 11, 1956

AN ORDINANCE relating to the Department of Lighting accepting Amendment No. 11 of Federal Power Commission License Project No. 553-Washington for the Skagit River Project.

WHEREAS, the Federal Power Commission under date October 23, 1927, issued its License for Project No. 553-Washington (Comptroller's File 113617) for the City's Skagit River Project; and

WHEREAS, upon the City's application dated April 30, 1954, said Commission under date of May 10, 1954, issued its order authorizing Amendment No. 11 of said License; and

WHEREAS, said Commission has submitted to the City for acceptance the formal Amendment of said License styled "Amendment No. 11 of License Project No. 553-Washington;" Now, Therefore,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. That the City of Seattle hereby accepts Federal Power Commission Amendment No. 11 of License Project No. 553-Washington, as recommended in C. F. 229203, and to effectuate such purpose the Superintendent of Lighting and City Clerk are authorized and directed for and on behalf of the City of Seattle to execute and deliver in quadruplicate an acceptance of said Amendment of License in words and figures as follows, to-wit:

"IN TESTIMONY of its agreement to the foregoing amendment, The City of Seattle, this _____ day of _____, 1956, has caused its corporate name to be signed hereto by _____, its _____ Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by _____, its _____ City Comptroller and City Clerk, pursuant to a resolution of its City Council duly passed on the _____ day of _____, 1956, and approved by its Mayor on the _____ day of _____, 1956, a certified copy of the record of which is attached hereto.

THE CITY OF SEATTLE

By _____
Superintendent of Lighting

Attest:

City Clerk

Section 2. That the City Comptroller is authorized and directed to duly certify and transmit with said Acceptance of Amendment four (4) copies of this ordinance.

Section 3. (30 day ending.)

APPROVED: May 15, 1956

(copied 5-22-56 pjs)

cc: Nelson, J.
Sporn
Cotton
Stranberg
Larson
Rosen
Rosen

Sealed
May 22, 1956
City of Seattle

Amendment 12

FP - 179

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Sebastian L. Digby, Acting Chairman; Frederick Stueck
Commissioners; and Arthur Kline.

In the Matter of)
The City of Seattle, Washington) Project No. 553

ORDER FURTHER AMENDING LICENSE (MAJOR)

(Issued August 20, 1956)

Application was filed on January 3, 1950, and supplemented in December 1953 and August 1955, by The City of Seattle, Washington, licensee for major Project No. 553, for further amendment of its license to authorize, among other things, construction, operation and maintenance of a 230-kilovolt transmission line extending from the Ross power plant to Bothell Wye switching station, and of additional switching station facilities at the Diablo power plant. Project No. 553 is located on the Skagit River in Whatcom, Skagit and Snohomish Counties, Washington, and affects lands of the United States within the Mount Baker National Forest.

Pursuant to request therefor, the Commission by letter dated November 6, 1951, advised the licensee that it would interpose no objection to pre-amendment construction of the transmission line at applicant's risk subject to the requirements of the government agency having supervision of the lands involved. The line was completed and placed in operation prior to December 31, 1952. Exhibit K maps showing the transmission line right-of-way as finally located were filed in December 1953 and supplemented in August 1955.

Applicant states that the amendment is desirable in order to provide transmission facilities from the licensed Ross plant to Bothell Wye, so that the power produced by the Ross plant may be delivered to the applicant's load area. The principal effects of the amendment will be to increase the area of lands of the United States encompassed by the project by the inclusion of the transmission line right-of-way, with a consequent increase in the amount of annual charges to be assessed.

The Chief, Forest Service, has reported favorably on the application and advised that the standard provisions of the license would be adequate for the protection and utilization of the national forest land and resources.

The Commission finds:

- (1) The license, amended as hereinafter provided, will not interfere or be inconsistent with the purposes for which the Mount Baker National Forest was created or acquired and will not alter any of the basic facts upon which the license was issued.
- (2) The increased amount of annual charges to be paid under the license as further amended for the purposes of recompensing the United States for the use, occupancy, and enjoyment of its lands for transmission line purposes only, amounting to \$320.40, is reasonable.
- (3) Exhibit K, Sheet Nos. T-11, T-12 through T-46, T-47 and T-48 (F.P.C. Nos. 553-137, 553-138 through 553-172, 553-173 and 553-174) showing the location of the transmission line between Ross power plant and the Bothell Wye switching station, and Exhibit H, filed January 3, 1950, conform to the Commission's Rules and Regulations and should be approved as part of the license for the project.
- (4) Exhibit K, Sheet Nos. T-1 through T-8 (F.P.C. Nos. 553-91 through 553-93) have been superseded and should be eliminated from the license.

The Commission orders:

- (A) The exhibits described in finding (3) above are approved as part of the license for Project No. 553, and the exhibits described in finding (4) are eliminated from the license.
- (B) The license for Project No. 553, as amended, is further amended, effective as of January 1, 1952, as follows:

PARAGRAPH I. Item 2 of Paragraph C of Article 2 of the license is amended to read as follows:

2. Ross Development.

A concrete arch dam in Section 35, T. 38 N., R. 13 E., W.M., known as Ross Dam constructed to elevation 1615 feet at the roadway crest, with fixed spillway crests at elevation 1532 feet; a reservoir created by said dam having a gross capacity of 1,200,000 acre-feet at elevation 1,532 feet; control gates in the spillway sections of the Ross Dam to raise the

water level in the reservoir to elevation 1,600 feet with a gross capacity of 1,400,000 acre-feet; two power tunnels around the left abutment of the dam extending downstream from the intake works to a power plant; a powerhouse with installation of four units each consisting of a 125,000 horsepower turbine connected to a 90,000 kilowatt (0.9 P.F.) generator; a 230 kv double-circuit transmission line extending from Ross power plant to the Bothell Wyo switching station; a transmission line extending from the dam to Diablo plant; and other appurtenant facilities; the location and character of the project works being more fully shown and described by the exhibits cited in Paragraph A hereof, and by the following additional exhibits:


PARAGRAPH II. Paragraph (C) of Article 6 of the license is amended by adding thereto the following:

Begin the construction of the 230-kilovolt double-circuit transmission line extending from the Ross power plant to Bothell Wyo switching station on or before December 1, 1951, and complete the same on or before December 31, 1952.

PARAGRAPH III. Subparagraph (c) of Article 24 of the license is amended to read as follows:

- (c) Effective January 1, 1952, for the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands for transmission lines only, \$320,40.
- (C) This order shall become final thirty (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 instrument amending the license. In acknowledgment of the acceptance of this instrument, it shall be signed for the licensee and returned to the Commission within sixty (60) days from the date of issuance of this order.

By the Commission.


J. H. Garbide,
Acting Secretary

IN TESTIMONY of its agreement to the foregoing instrument, The City of Seattle, this ____ day of _____, 19____, has caused its corporate name to be signed hereto by _____, its Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by _____, its City Comptroller and City Clerk, pursuant to an ordinance of its City Council duly passed on the ____ day of _____, 19____, and approved by its Mayor on the ____ day of _____, 19____, a certified copy of the record of which is attached hereto.

THE CITY OF SEATTLE

By

Superintendent of Lighting

Attest:

City Clerk

(Executed in quadruplicate)

Amendment 13

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Commissioners: Jerome K. Kuykendall, Chairman; Seaborn L. Digby,
Frederick Stueck, William R. Connole and Arthur Kline.

In the Matter of

Amendment to Part 11 of Subchapter B of
the Regulations Relating to Annual Charges
Prescribed for Licensees Under the Pro-
visions of the Federal Power Act

}
}
}
}
} Docket No. R-129

ORDER NO. 205

AMENDING SECTION 11.20 OF REGULATIONS UNDER THE
FEDERAL POWER ACT

(Issued June 6, 1958)

The Commission has under consideration in this proceeding the amend-
ment of its regulations under the Federal Power Act with respect to annual
charges prescribed for State and municipal licensees for the purpose of
reimbursing the United States for the costs of the administration of
Part I of the Act.

The purpose of the amendments herein adopted is to base the assess-
ment of such annual charges upon the actual costs of administering Part I
of the Act.

General public notice of the proposed rulemaking was given by pub-
lication in the Federal Register on November 25, 1953 (18 F. R. 7826).
In response to the notice, comments and views were received from several
interested parties and the matter was subsequently set down for hearing
before one of the Commission's presiding examiners who, following the
conclusion of the hearing and the submission of briefs, issued his deci-
sion on May 6, 1958. No exceptions to that decision have been filed.
The Commission, upon consideration of the entire record in this proceed-
ing, is in complete agreement with the conclusions of the presiding
examiner including his order which would amend section 11.20 of the Regu-
lations; and therefore finds:

(1) The amendments herein adopted are necessary and appropriate in order to carry out the provisions of the Federal Power Act.

(2) The Commission's Orders No. 172, issued April 28, 1954, and No. 172-A, issued January 31, 1957, (as more fully described in the presiding examiner's decision) should, with respect to future applicability and effect, be terminated and rescinded.

The Commission, acting pursuant to the provisions of the Administrative Procedure Act and the authority granted by the Federal Power Act, particularly sections 10 (e) and 309 thereof (16 U.S.C. 803 (e), 825h) orders:

- (A) The decision of the presiding examiner issued herein on May 6, 1958, is hereby adopted.
- (B) Part 11, entitled "Annual Charges," of Subchapter B, Regulations under the Federal Power Act, Chapter I of Title 18, Code of Federal Regulations, is amended by amending section 11.20 to read as follows:

Reasonable annual charges will be assessed by the Commission against individual licensees for reimbursing the United States for the costs of administration of Part I of the Federal Power Act as follows unless otherwise specifically provided in the license:

- (a) For licensees, other than State or municipal, of projects of more than 100 horsepower of installed capacity:
 - (1) A charge of one cent per horsepower of the horsepower capacity authorized to be installed by the license; and
 - (2) A charge of 2½ cents per thousand kilowatt-hours of power generated by each project during the calendar year for which the charge is made.
 - (3) To enable the Commission to determine such charges annually, each such licensee shall file with the Commission, on or before February 1 of each year, a statement under oath showing the gross amount of power generated (or produced by non-electrical equipment) by the project during the preceding calendar year, expressed in kilowatt-hours.

- (b) For State or municipal licensees of projects of more than 100 horsepower of installed capacity:
- (1) A determination shall be made for each fiscal year of the cost of administration under Part I of the Federal Power Act chargeable to such licensees from which shall be deducted the total amount assessed against State and municipal licensees holding minor and minor-part licenses.
 - (2) For each calendar year such total actual cost of administration as determined under (b) (1) above shall be assessed against each such licensee in the proportion that the authorized horsepower installed capacity of each such project bears to the total such capacity under all such outstanding licenses.
 - (3) After such assessment each calendar year, exemption will be granted such licensees to the extent, if any, to which they may be entitled under section 10 (e) of the Act provided the data is submitted as requested in paragraphs (4) and (5) of this subsection.
 - (4) To enable the Commission to compute on the bill for annual charges the exemption to which such licensee is entitled because of the use of power by the licensee for State or municipal purposes, each such licensee shall file with the Commission, on or before February 1 of each year, a statement under oath showing the following information with respect to the power generated by the project and the disposition thereof during the preceding calendar year, expressed in kilowatt-hours:

- (1) Gross amount of power generated by the project.
- (ii) Amount of power used for station purposes and lost in transmission, etc.
- (iii) Net amount of power available for sale or use by licensee, classified as follows:
 - (a) Used by licensee,
 - (b) Sold by licensee.
- (5) When the power from a licensed project owned by a State or municipality enters into its electric system, making it impracticable to meet the requirements of paragraph (4) of this subsection with respect to the disposition of project power, such licensee may, in lieu thereof, furnish similar information with respect to the disposition of the available power of the entire electric system of the licensee.
- (6) All licenses held by State or municipal licensees of projects of more than 100 horsepower of installed capacity and which specifically provide for assessment of administrative annual charges in a manner other than is provided by paragraphs (1) through (5) above may be amended to provide for assessment of such annual charges pursuant to paragraphs (1) through (5) herein:
 - (1) By the filing by such a licensee within 60 days from the date of the order prescribing this amendment to section 11.20 of an acceptance of the provisions and conditions of said paragraphs (1) through (5), such amendment to be effective as of January 1, 1957; or
 - (ii) By the filing by such a licensee of an application for amendment of license pursuant to section 6 of the Federal Power Act.

- (c) For projects of 100 horsepower or less of installed capacity the charge shall be \$5 per annum, subject to the provisions of section 11.23.
 - (d) For projects involving transmission lines only the administration charge shall be a minimum of \$5 per annum.
 - (e) For projects not covered by the above subsections, reasonable annual charges will be fixed by the Commission after consideration of the facts in each case.
- (C) The amendment herein prescribed is effective on and after January 1, 1957.
- (D) Orders No. 172 issued April 26, 1954, and No. 172-A issued January 31, 1957, are terminated and rescinded with respect to future applicability and effect.

By the Commission.



A handwritten signature in cursive script, reading "J. H. Gutride".

Joseph H. Gutride,
Secretary.

Order No. 205

IN TESTIMONY OF AGREEMENT to the Amendment prescribed by
Order No. 205 issued June 6, 1958, amending Section 11.20 (b)
of the Commission's Regulations under the Federal Power Act
relating to Annual Charges Prescribed for Licensees under the
Provisions of the Federal Power Act City of Seattle,
Department of Lighting, Licensee for Project No. 553, this
29th day of July, 1958, has caused its corporate name
to be signed hereto by Gordon S. Clinton, its
Mayor, and its corporate seal to be affixed hereto and
attested by C. G. Erlandson, its
Comptroller, pursuant to a resolution of its City Council,
duly adopted on the 21 day of July, 1958 & certified
copy of the record of which is attached hereto.



THE CITY OF SEATTLE, WASHINGTON

By Gordon S. Clinton
Mayor

Attest:

C. G. Erlandson
Comptroller and City Clerk

ORDINANCE 87366

AN ORDINANCE authorizing acceptance of an amendment by the Federal Power Commission of Section 11.20 (b) of its Regulations under the Federal Power Act relating to Annual Charges to Licenses.

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. That the Mayor and City Comptroller are hereby authorized to execute, for and on behalf of the City of Seattle, an agreement substantially in the form contemplated by C.F. 234929, accepting an amendment by Order No. 205 of the Federal Power Commission of Section 11.20(b) of said Commission's Regulations under the Federal Power Act, relating to Annual Charges for Licenses under said Act.

Section 2. This ordinance shall take effect and be in force thirty days from and after its passage and approval, if approved by the Mayor; otherwise it shall take effect at the time it shall become a law under the provisions of the city charter.

Passed by the City Council on the 21st day of July, 1958, and signed by me in open session in authentication of its passage this 21st day of July, 1958.

/s/ David Levine
President of the City Council

Approved by me this 21st day of July, 1958.

/s/ Gordon S. Clinton
Mayor

Filed by me this 21st day of July, 1958.

Attest: C. G. Erlandson
City Comptroller & City Clerk

By: /s/ W. A. Perine
Deputy Clerk

S E A L

STATE OF WASHINGTON)
COUNTY OF KING) ss
CITY OF SEATTLE)

I, C. G. ERLANDSON, Comptroller and City Clerk of the City of Seattle, do hereby certify that the within and foregoing is a true and correct copy of Ordinance 87366 of the City of Seattle, being

AN ORDINANCE authorizing acceptance of an amendment by the Federal Power Commission of Section 11.20 (b) of its Regulations under the Federal Power Act relating to Annual Charges to Licenses.

as the same appears on file, and of record in this Department.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of The City of Seattle, this 29th day of July, 1958.

C. G. Erlandson
Comptroller and City Clerk

(SEAL)

FEDERAL POWER COMMISSION

WASHINGTON 25

Project No. 553

Docket No. R-129
Order No. 205

CERTIFIED

The City of Seattle
Department of Lighting
1015 Third Avenue
Seattle 4, Washington

Attention: Paul J. Raver, Superintendent of Lighting

Gentlemen:

Enclosed are four copies of the Commission's Order No. 205 amending Section 11.20 of the Commission's Regulations under the Federal Power Act.

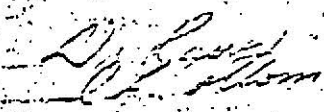
The State or municipal licensees desiring to do so may amend their outstanding licenses so as to provide for assessment of the administrative charges specified therein, in the manner provided for by amended Section 11.20 (b) paragraphs (1) through (5) as prescribed by Order No. 205, by executing and filing in triplicate the suggested form of acceptance enclosed herewith. Such acceptance together with three certified copies of the resolution authorizing it should be filed for each licensed project within the time specified by the amended regulations.

Very truly yours,


Secretary

Enclosures

JUN 10 1 31 PM '50



Amendment 14

In the Matter of)
)
The City of Seattle, Washington) Project No. 553

(Issued January 27, 1959)

The application provides for:

- The effect of the amendment will not alter the authorized installed capacity of the project since this capacity for annual charge purposes is based on the nameplate ratings of the generators increased by one-third. However, the project description in the license for the Diablo Development should be changed to reflect the actual installed capacity.

According to the application, the project changes covered a four-month period commencing May 15, 1958 through September 15, 1958. By letter dated December 4, 1958, the licensee advised that the tunnel work was completed and made available for service on July 6; modification of one of the main generating units was completed and placed into service on July 28; and the second generating unit was placed in operation on October 13, but a thrust bearing having failed, the unit was restarted on November 7 and has been operating satisfactorily ever since.

The Commission finds:

(1) The license, further amended as hereinafter provided, will not interfere or be inconsistent with the purposes for which the Mount Baker National Forest was created or acquired, and will not alter any of the basic facts upon which the license was issued.

(2) Public notice of the filing of the application has been given. No protests have been received.

(3) The following described exhibit filed as part of the application conforms to the Commission's rules and regulations and should be approved as part of the license for the project as hereinafter provided:

Exhibit M: received August 8, 1958 - a statement in five sheets entitled "General Description and Specifications of Mechanical, Electrical and Transmission Equipment" together with attached prototype performance curve - superseding part of page 9 of Exhibit M now part of the license.

(4) Page 9 of Exhibit M, now part of the license, should be eliminated from the license to the extent that it has been superseded by the Exhibit M received August 8, 1958.

The Commission orders:

(A) The license for Project No. 553 is further amended, effective as of January 1, 1959, as follows:

PARAGRAPH I. Item 1 of paragraph C of Article 2 of the license is amended to read as follows:

Diablo Development

A concrete arch dam in sec. 5, T. 37 N., R. 13 E., W.M., 389 feet high; a spillway section at each end of the dam surmounted by Tainter gates; a reservoir created by said dam extending about 4 miles upstream to Ross Dam and having a capacity of 90,000 acre-feet, of which 60,000 acre-feet is usable; an intake structure; a concrete lined tunnel about 2,200 feet long directly connected to two steel penstocks, extending from the dam to the powerhouse;

a differential type surge tank at the lower end of the tunnel; a powerhouse containing two generator units each having a capacity of 60,000 kilowatts connected to turbines each rated at 115,000 horsepower with modified runners operating under a net effective head of 318 feet; a transmission line extending from the powerhouse to the Gorge plant; a transmission line known as the Diablo transmission line with carrier current telephone system installed thereon extending from the Gorge plant to Bothell "Y"; and other appurtenant facilities used in operating the project; the location and character of the project works being more fully shown and described by the exhibits cited in Paragraph A hereof, and by the following additional exhibits:

PARAGRAPH II. Item 1 of paragraph C of Article 2 of the license is amended by adding thereto the following:

Exhibit M: Statement in five sheets entitled "General Description and Specifications of Mechanical, Electrical and Transmission Equipment," together with attached prototype performance curve, received August 8, 1958, superseding part of page 9 of Exhibit M now a part of the license.

PARAGRAPH III. Paragraph (a) of Article 6 of the license is amended by adding thereto the following:

Begin the modification of the Diablo power plant turbines and accessory work on power tunnel, surge tower and intake structure on or before May 15, 1958, and complete on or before November 15, 1958.

(B) The Exhibit M described in finding (3) above is approved as part of the license as further amended, and page 9 of Exhibit M now part of the license is eliminated from the license to the extent it has been superseded by the Exhibit M herein approved.

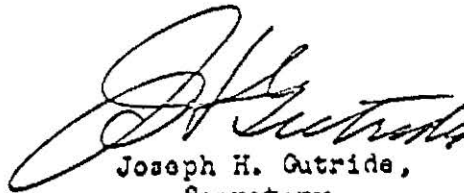
(C) This amendment in the manner set out above shall not operate to alter or amend the license for Project No. 553 in any other respect, and shall not in any way constitute a waiver of any other part, provision or condition of the license as heretofore amended.

Project No. 553

- 4 -

(D) 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 Federal Power Act, and failure to file such an application shall constitute acceptance of this amendment of the license. In acknowledgment of the acceptance of this amendment of the license, this instrument 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.

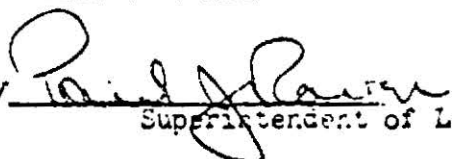


Joseph H. Outride,
Secretary.

IN TESTIMONY of its agreement to the foregoing amendment, The City of Seattle, this 9 day of March, 1959, has caused its corporate name to be signed hereto by Paul J. Raver, its Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by C. G. Erlandson, its City Comptroller and City Clerk, pursuant to an ordinance of its City Council duly passed on the 24th day of February, 1959, and approved by its Mayor on the 25th day of February, 1959 a certified copy of the record of which is attached hereto.

THE CITY OF SEATTLE

By


Superintendent of L

Attest:


City Clerk

(Executed in quadruplicate)

Amendment 15

Stacy
FEDERAL POWER COMMISSION
WASHINGTON 25, D.C.

FP-179

Project No. 553
The City of Seattle, Washington

MAY 19 1914

The City of Seattle
City Light Building
1015 Third Avenue
Seattle, Washington 98104

Attention: John M. Nelson, Acting Superintendent
of Lighting

Gentlemen:

Enclosed are four copies of the order designated
Amendment No. 15, Instrument No. 22, issued in the above en-
titled matter.

Please execute the acknowledgement of acceptance (page 12)
attached to the order and return three copies of the order, the
acceptance, and resolution of your Board of Directors within
the time prescribed by said order.

Very truly yours,

Gordon M. Grant
Gordon M. Grant
Acting Secretary

✓
CITY OF SEATTLE
LIGHTING DEPT.
RECEIVED

MAY 25 10 02 AM '14

Discharge

Enc-

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Commissioners: Harold C. Woodward, Acting Chairman;
L. J. O'Connor, Jr., Charles R. Ross,
and David S. Black

City of Seattle, Washington

) Project No. 553

ORDER APPROVING REVISED PROJECT EXHIBITS
AND ADJUSTING ANNUAL CHARGES

(Issued May 19, 1964)

On March 25, 1963, the City of Seattle, Washington, Project No. 553, filed for Commission approval certain revised Exhibit K tracings. By letter of September 10, 1963, the staff to make certain changes on Exhibit L (FPC No. 553) with the Commission. The project is situated on the Sika County, Washington, and affects lands of the United States Baker National Forest.

The revisions to the Exhibit K tracings show the revised boundary as occupied by the constructed project works. The staff on the Exhibit L shows the removal of the line which should not have been shown on that exhibit and depicts the Happy-Creek-Ross Lake Diversion Tunnel as constructed.

Commission approval of the revised exhibits will result in an adjusted increase in the lands of the United States occupied by the project of 14.93 acres and an increase in the annual charges for such occupancy in the amount of \$30.84.

The entire project is now complete except for possible raising of Ross dam to the ultimate height originally contemplated which would extend the pool in British Columbia. There have been several license amendments and Commission orders approving changes in the project works. For convenience, we are herein setting forth a new Article 2 describing the project as it now exists, together with the project exhibits relating thereto.

The Commission finds:

(1) Revised Exhibit K (FPC Nos. 553-196 through -199, and -201) and revised Exhibit L (FPC No. 553-200) conform to the Commission's rules and regulations and should be approved as part of the license for the project.

(2) Exhibit K (FPC Nos. 553-79, -80, -81 and -174) and Exhibit L (FPC No. 553-195), now part of the license and which has been superseded, should be eliminated from the license for the project.

(3) The increased amount of annual charges for recompensing the United States for the occupancy of its lands by the project is reasonable as hereinafter fixed and specified.

The Commission orders:

(A) The revised exhibits described in finding (1) above are hereby approved as part of the license for Project No. 553, and the exhibits described in finding (2) above are hereby eliminated from the license for the project.

(B) Article 2 of the license as revised is hereby further revised to read as follows:

Article 2. The project covered by and subject to this license is located in and along Skagit River and on lands of the United States in Mt. Baker National Forest and consists of:

A. All lands constituting the project area and enclosed by the project boundary, and/or interests in such lands necessary or useful for the purposes of the project, whether such lands or interests therein are owned or held by the Licensee or by the United States; such project area and project boundary being more fully shown and described by certain exhibits which accompanied the applications for license and amendments thereof and which are designated and described as follows:

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
J (t)	553-30	General location of transmission line from Diablo Plant to Seattle
J-2	553-37	General Project Map
	<u>1. Diabale Development</u>	
K	553-196	"Diablo Reservoir and Diablo-Ross Transmission Line"
	553-197	"Map of Diablo Project General Arrangement and Project Boundary - Sheet A"

ExhibitFPC No.Showing

553-198

"Map of Diablo Project General
Arrangement and Project Boundary
Sheet B"

2. Ross Development

K

553-38

"Topography of Ruby Reservoir"

553-39

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553-40

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553-41

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553-42

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553-43

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553-44

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553-45

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553-46

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553-47

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553-48

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553-49

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553-50

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553-137

"Transmission System Right-of-
Way - Ross Powerhouse to Bothell
Substation"

553-138

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553-139

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553-140

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553-141

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553-160

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553-161

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553-162

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553-163

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553-164

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<u>Exhibit</u>	<u>FTC No.</u>	<u>Showing</u>
K	553-165	"Transmission System Right-of Way - Ross Powerhouse to Bothell Substation"
	553-166	"
	553-167	"
	553-168	"
	553-169	"
	553-170	"
	553-171	"
	553-172	"
	553-173	"
	553-199	"Map of Ross Project General Arrangement and Project Boundary"
	553-201	"

3. Gorge Development

K	553-113	"Vicinity Map of Gorge Powerhouse and Switching Station"
	553-180	"Map of Gorge Project Boundaries and Areas"
	553-181	"
	553-182	"
	553-183	"
	553-184	"
	553-185	"
	553-186	"
	553-187	"

B. All water rights, the use and possession of which are necessary in the operation of the project or appurtenant thereto, such as are described in Exhibit D of the applications for license and amendment thereof.

C. All project works consisting principally of:

1. Diablo Development - A concrete arch dam in Section 5, T. 37 N., R. 13 E., W.M., 389 feet high; a spillway section at each end of the dam surmounted by tainter gates; a reservoir created by said dam extending about 4 miles upstream to Ross Dam and having a capacity of 90,000 acre-feet, of which 60,000 acre-feet is usable; an intake structure; a concrete lined tunnel about 2,200 feet long; directly connected to two steel penstocks, extending

from the dam to the powerhouse; a differential type surge tank at the lower end of the tunnel; a powerhouse containing two generator units each having a capacity of 60,000 kilowatts connected to two turbines each rated at 115,000 horsepower with modified runners operating under a net effective head of 118 feet; a transmission line extending from the powerhouse to the Gorge plant; a transmission line known as the Diablo transmission line with carrier current telephone system installed thereon extending from the Gorge plant to Bothell "Y"; and other appurtenant facilities; the location and character of the project works being more fully shown and described by the exhibits hereinbefore cited and other exhibits which are designated and described as follows:

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
L	553-16	"Log of Diamond Drillings, Diablo Dam Site"
	553-17	"Log of Diamond Drillings, Diablo Dam Site"
	553-18	"Log of Diamond Drillings, Diablo Dam Site"
	553-29	"Map showing general design of tower structure for transmission line from Diablo Plant to Seattle"
	553-82	"Diablo Dam and Intake, General Plan"
	553-83	"Diablo Dam, Elevation and Sections"
	553-84	"Plans and Sections of Intake, Tunnel and Powerhouse"
	553-85	"Apparatus Layout, Main Floor of Powerhouse"
	553-86	"Apparatus Layout, Main Floor of Powerhouse"
	553-87	"Powerhouse Sections"
	553-88	"Section through Generator"
	553-89	"Plan and Elevation of Switchyard"
	553-90	"Plan and Section of Tailrace"
	553-132	"Diablo Dam - Concrete Plug for Temporary Tunnel at Elevation 885.0"
	553-133	"Diablo Dam - Spillway Paving - North Bank"
	553-134	"Diablo Dam - Spillway Paving - South Bank"

M

Sheets 6 to 10, inclusive, of a printed document entitled "The Skagit Power Development", approved by the Commission on June 9, 1942.

ExhibitFPC No.Showing

M (t)

Typed sheet "Proposed Skagit - Seattle Transmission Line", approved by the Commission on March 15, 1930.

Statement in five sheets entitled "General Description and Specifications of Mechanical, Electrical, and Transmission Equipment" together with attached prototype performance curve, received August 8, 1958, superseding part of page 9 of Exhibit M, now a part of the license.

2. Ross Development - A concrete arch dam in Section 35, T. 38 N., R. 13 E., W.M., known as Ross Dam, constructed to elevation 1,615 feet at the roadway crest, with fixed spillway crests at elevation 1,582 feet; a reservoir created by said dam having a gross capacity of 1,200,000 acre-feet at elevation 1,582 feet; control gates in the spillway sections of the Ross Dam to raise the water level in the reservoir to elevation 1,600 feet with a gross capacity of 1,400,000 acre-feet; two power tunnels around the left abutment of the dam extending downstream from the intake works to a power plant; a powerhouse with installation of four units each consisting of a 125,000 horsepower turbine connected to a 90,000 kilowatt (0.9 P.F.) generator; a 230 kv double circuit transmission line extending from Ross power plant to the Pothell Wye switching station; a transmission line extending from the dam to Diablo plant; and other appurtenant facilities; the location and character of the project works being more fully shown and described by the exhibits hereinbefore cited and other exhibits which are designated and described as follows:

ExhibitFPC No.Showing

L

553-51

"General Location Map of Ruby Dam and Test Pits at Roland Bar"

553-52

"Sand and Gravel Test Pits at Roland Bar"

553-53

"Hydrograph of Skagit River at Ruby Dam Site, 1919 to 1932, inclusive"

553-54

"Hydrograph of Skagit River at Ruby Dam Site, 1933 - 1936, inclusive"

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
L	553-55	"Location of Diamond Drill Holes and Electrical Soundings at Ruby Dam Site"
	553-56	"Profile and Log of Diamond Drill Holes at Ruby Dam Site"
	553-57	"Profile and Log of Diamond Drill Holes at Ruby Dam Site"
	553-58	"General Vicinity Map of Ruby Dam and Diablo Lake"
	553-62	"Soundings in Skagit River from Ruby Dam Site to Duster Brown Flats"
	553-67	"Miscellaneous details for Ruby Dam"
	553-69	"Sections at Contraction Joints, Ruby Dam"
	553-70	"Plan of Ross Dam to Elev. 1380 as constructed"
	553-71	"River Diversion & By-pass Tunnel for Ross Dam as Constructed"
	553-72	"General Layout of By-Pass Inlet Structure Ross Dam as Constructed"
	553-73	"Foundation Grout & Drainage Holes, Cont'r. Jt's. & Keys - Ross Dam as Constructed"
	553-74	"Elevation and Details of Ross Dam as Constructed"
	553-75	"Plan and Profile of Inspection Gallery, Typical Grout Piping at Joints, & Typical Top Keys - Ross Dam, as Constructed"
	553-76	"Sections at Construction Joints Ross Dam as Constructed"
	553-77	"Concrete Wing Walls Right & Left Abutments as Constructed"
	553-78	"Location & Details of Timber Crib Dam & Abutments as Constructed"
	553-99	"Ross Dam - 2nd Step, Plan to Elev. 1550 and Key Details"
	553-100	"Ross Dam - 2nd Step, from Exist. Concrete to Elev. 1550"
	553-101	"Ross Dam - 2nd Step, Sections at Contraction Joints & Miscellaneous Details"
	553-102	"Ross Dam - 2nd Step, Power Tunnels & Intake Structures, Plan and Elevation"

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
L	553-108	"Ross Dam, Upstream Elevation Showing 1st, 2nd & 3rd Step Construction - to Elevation 1615"
	553-109	"Ross Dam - 3rd Step, Plan to Elev. 1615 and Key Details"
	553-110	"Ross Dam - 3rd Step Sections at Contraction Joints & Miscellaneous Details"
	553-112	"Ross Dam - 3rd Step, Two (2) inch Hollow Jet By-Pass Valves Titled 50 - General Layout Scheme B"
	553-126	"Ross Reservoir Floating Debris Control Boom Locations and Details"
	553-127	"Ross Dam - 3rd Step - Intake Tunnels & Powerhouse - Plan & Profiles"
	553-129	"Preliminary Transverse Sections Thru Plant"
	553-130	"Preliminary Longitudinal Section Thru Units"
	553-131	"Preliminary Plan of Generator Floor"
	553-200	"Happy Creek - Ross Lake Diversion Tunnel"

M

Sheets 6 to 10, inclusive, of a printed document entitled "The Skagit Power Development", approved by the Commission on June 9, 1942.

Statement in three sheets entitled, "General Descriptions and Specifications of Mechanical, Electrical, and Transmission Equipment" - signed by Hoffman 12/22/49.

Statement in one sheet entitled, "General Description and Specifications of Mechanical, Electrical, and Transmission Equipment" - signed by Raver 8/30/54.

Statement in two sheets entitled, "General Descriptions and Specifications of Mechanical, Electrical and Transmission Equipment" - Signed by Hoffman 12/22/49

3. Gorge High Dam Development - A concrete arch and gravity section dam to elevation 880 feet above sea level at roadway crest with a gravity spillway section equipped with two gates with crests at elevation 875 feet in closed position; a reservoir

created by the dam having a storage capacity of about 8,000 acre-feet at normal surface elevation of 875 feet and extending to the tailrace of the powerhouse; a new intake structure with some modification of the existing power tunnel; a tunnel about 2 miles long connecting the intake with three penstocks and a penstock tunnel in the vicinity of the powerhouse; a surge tank; a powerhouse containing four turbines, three units each rated at 38,500 horsepower and one unit rated at 92,500 horsepower, all units with modified runners for operation under a gross head of 380 feet; a switching station; and other appurtenant facilities; the location and character of the project works being more fully shown and described by the exhibits hereinbefore cited and other exhibits which are designated and described as follows:

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
L	553-117	"General Arrangement Plan of Generator Floor"
	553-118	"General Arrangement Longitudinal Section Through Units"
	553-121	"General Layout of Powerhouse Extension 92,500 Horsepower Unit"
	553-122	"General Arrangement 92,500 Horsepower Unit"
	553-123	"Switching Station Plan"
	553-124	"Switching Station Elevations"
	553-189	"General Layout, Plan & Profile"
	553-191	"Plan, Elevation, and Sections"
	553-192	"Galleries, Shafts, Foundation Grouting, and Drainage"
	553-193	"Spillway 47' x 50.32' Fixed Wheel Gates and Hoists"
	553-194	"Alignment and Typical Details for Intake Tunnel"
M		Statement in thirteen sheets entitled, "General Descriptions and Specifications of Mechanical, Electrical, and Transmission Equipment" signed by Hoffman 7/23/48.
		Statement in eight typewritten sheets entitled, "General Description and Specifications of Mechanical, Electrical, and

ExhibitFPC No.Showing

M

Transmission Equipment" as received November 25, 1955, and received in the Commission December 5, 1955.

D. All other structures, fixtures, equipment, or facilities used or useful in the maintenance and operation of the project and located within the project area, including such portable property as may be used and useful in connection with the project or any part thereof, whether located on or off the project area, if and to the extent that inclusion of such property as a part of the project works is approved or acquiesced in by the Commission; also, all other rights, easements, or interests, the ownership, use, occupancy or possession of which is necessary or appropriate in the maintenance and operation of the project or appurtenant to the project area.

(C) Article 24 of the license is hereby revised to read as follows:

Article 24. The Licensee shall pay to the United States the following annual charges:

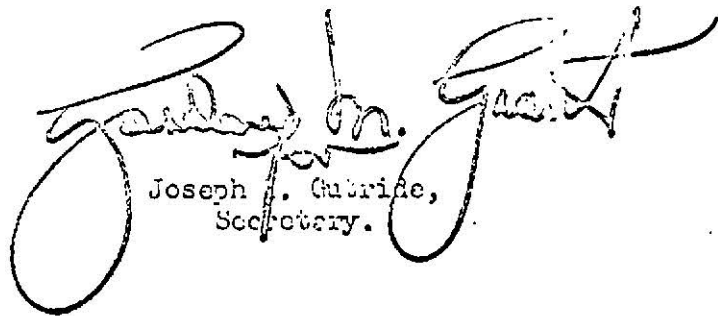
(a) For the purpose of reimbursing the United States for the cost of administration of Part 1 of the Act, a reasonable annual charge in accordance with the provisions of Part 11 of the Commission's regulations, in effect from time to time. The authorized installed capacity for such purposes is 832,000 horsepower.

(b) Effective January 1, 1964 for the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands, other than those used for transmission lines only, \$1,830.89, and

(c) Effective January 1, 1952, for the purpose of recompensing the United States for the use, occupancy and enjoyment of its lands for transmission lines only, \$320.40.

(D) 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 order. In acknowledgment of the acceptance of this order, 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.



Joseph F. Gutridge,
Secretary.

IN TESTIMONY of its acknowledgment of acceptance of all the provisions, terms and conditions of the foregoing order, City of Seattle, Washington, this 13 day of July, 1964, has caused its corporate name to be signed hereto by JOHN M. NELSON, its Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by C. G. ERLANDSON, its Comptroller and City Clerk, pursuant to a resolution of its Board of Directors duly adopted on the 6 day of July, 1964, a certified copy of the record of which is attached hereto.

CITY OF SEATTLE, WASHINGTON

By _____
Superintendent of Lighting

Attest:

Comptroller and City Clerk

(Executed in quadruplicate)

ORDINANCE 98087

AN ORDINANCE accepting an order of the Federal Power Commission relating to the Skagit River hydroelectric development (Project No. 553).

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. The order designated Amendment No. 15, Instrument No. 22, and identified as "Order Approving Revised Project Exhibits and Adjusting Annual Charges", a copy of which is contained in C. F. 251025, issued May 19, 1964 by the Federal Power Commission to The City of Seattle in connection with the hydroelectric development on the Skagit River (Project No. 553), approving certain revised exhibits and amending Article 2 of the license to describe the project as it now exists and Article 24 of the license to provide for certain changes in annual charges for the project, is hereby accepted by The City of Seattle, and in acknowledgment thereof the Superintendent of Lighting and City Comptroller upon approval of this ordinance by the Mayor are hereby authorized to execute the same, as recommended by the Superintendent of Lighting in said C. F.

Section 2. That such acknowledgment of acceptance shall be executed in quadruplicate and forwarded to the Federal Power Commission with the necessary certified copies of this ordinance.

Section 3. This ordinance shall take effect and be in force thirty days from and after its passage and approval, if approved by the Mayor; otherwise it shall take effect at the time it shall become a law under the provisions of the city charter.

Passed by the City Council the 6 day of July, 1904,
and signed by me in open session in authentication of its passage this 6 day of
July, 1904. Clarence F. Massart

President..... of the City Council.

Approved by me this 7 day of July, 1904.

J. J. Brown
Mayor.

Filed by me this 7 day of July, 1904.

C. H. Glendonson

Attest: C. H. Glendonson
City Comptroller and City Clerk.

By W. A. Perkins
Deputy Clerk.

(SEAL)

Published

The City of Seattle--Legislative Department

MR. PRESIDENT:

Date Reported
and Adopted

Your Committee on City Utilities
to which was referred C.B. 84538,

JUL 6 1964

accepting an order of the Federal Power Commission
relating to the Skagit River hydroelectric development (Project
No. 553),

RECOMMENDS THAT THE SAME DO PASS.

C. Alexander

Chairman

Chairman

Committee

Committee

STATE OF WASHINGTON)
COUNTY OF KING) SS
CITY OF SEATTLE)

I, C. G. ERLANDSON, Comptroller and City Clerk
of the City of Seattle, do hereby certify that
the within and foregoing is a true and correct copy
of the original instrument as the same appears on
file, and of record in this Department.

IN WITNESS WHEREOF, I have hereunto set my hand
and affixed the seal of The City of Seattle, this

C. G. ERLANDSON
Comptroller and City Clerk

By: Chief Deputy

66

FEDERAL POWER COMMISSION
WASHINGTON 25

120701

Project No. 553
City of Seattle, Washington

MAY 24 1962

The City of Seattle
Department of Lighting
City Light Building
1015 Third Avenue
Seattle 4, Washington

Attention: Paul J. Raver, Superintendent

Gentlemen:

Enclosed is the order issued by the Commission today
in the above-entitled matter, which has been designated
Instrument No. 21.

Very truly yours,

Joseph H. Gutridge
Joseph H. Gutridge
Secretary

Enclosure

ECB. This was discussed with C.R.H.
+ E.J.D. with the result that a
Ross vicinity drawing will be made
to show up to date facilities on
one drawing. No other revision of
boundaries will be initiated at
this time.

for

Strandberg

cc: Secretary

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Commissioners: Joseph C. Swidler, Chairman; Howard Morgan,
L. J. O'Connor, Jr., Charles R. Ross and
Harold C. Woodward.

City of Seattle, Washington) Project No. 553

ORDER APPROVING EXHIBIT L DRAWING

(Issued May 24, 1962)

On April 16, 1962, City of Seattle, Washington, licensee for major Project No. 553, filed for Commission approval an Exhibit L drawing which, if approved, would authorize the construction of a minor diversion tunnel extending from Happy Creek to the project reservoir, known as Ross Lake.

The project is situated on Skagit River, County of Whatcom, State of Washington, and affects lands of the United States within the Mt. Baker National Forest. The proposed diversion is within the Mt. Baker National Forest.

Happy Creek now discharges its flow into the Skagit River below the Ross Dam and reservoir. The plan for diversion of Happy Creek consists of a small unlined tunnel about 500 feet long, about 4 feet wide and 7 feet high, extending from Happy Creek to a ditch about 60 feet long and 10 feet wide, discharging into Ross Lake. According to the licensee's April 12, 1962 letter transmitting the drawing, the licensee estimates the diversion will result in an increase in the average annual energy generated at the Ross power plant of 1,540,000 kWh with an annual value of approximately \$3,800. The cost of the diversion based on bids will be \$37,760. The licensee further estimates that the diversion will pay out in 16 years based on a cost of money of 4 percent.

The proposed diversion will act also as a means of diverting Happy Creek during the raising of Ross Dam in the future, and constitutes a further step in the comprehensive development of Skagit River.

The Chief, Forest Service, by letter dated May 3, 1962, has stated that the proposed diversion is not incompatible with the purpose for which Mt. Baker National Forest was created or acquired and that the present terms and conditions of the license for the project are adequate.

Project No. 553

- 2 -

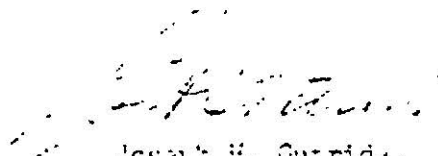
The Commission finds:

The above-mentioned Exhibit L drawing described as Exhibit L, Sheet 2-399 (NFC No. 553-195) entitled "Happy Creek-Ross Lake Diversion Tunnel" conforms to the Commission's rules and regulations and should be approved as part of the license for the project.

The Commission orders:

The Exhibit L drawing described in the above finding is approved as part of the license for Project No. 553.

By the Commission.


Joseph H. Gutzke,
Secretary.

Amendment 16

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Commissioners: Lee C. White, Chairman; L. J. O'Connor, Jr.,
Charles R. Ross, and Carl E. Bagge.

City of Seattle, Washington) Project No. 553

ORDER FURTHER AMENDING LICENSE (MAJOR)
AND APPROVING PROJECT EXHIBIT

(Issued July 14, 1967)

On February 6, 1967, the City of Seattle filed an application for further amendment to its license for Project No. 553, located on the Skagit River in Whatcom, Skagit and Snohomish Counties, Washington. The project affects lands of the United States within the Mount Baker National Forest.

The application seeks Commission authorization to raise the top of the radial-type spillway crest gates on the Ross Dam from the existing elevation of 1601.13 feet to elevation 1602.50 and to raise the normal level of Ross Reservoir 2.5 feet, from elevation 1600.0 feet to elevation 1602.5. Studies by staff indicate that raising the normal full reservoir level by 2.5 feet will not adversely affect the safety of the project.

The estimated cost of extension of the taintor gates is \$18,000, resulting in an annual cost estimated at \$1,260. The additional annual payment to Canada for flooding Canadian lands above elevation 1600.0 feet is \$29,566, giving a total annual cost to the licensee of \$30,826. Raising the reservoir level 2.5 feet provides about 29,000 acre-feet of additional storage space and will provide about 5,400 kw of firm power, resulting in an annual benefit of about \$100,000 per year. Thus the annual benefits exceed the annual costs by about \$70,000.

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Project #

Project No. 553

- 2 -

Licensee has executed an agreement with the Province of British Columbia, dated January 10, 1967, allowing the flooding of Canadian lands up to elevation 1725 feet, and providing for the compensation to Canada referred to previously. This agreement has been executed under the provisions of an order by the International Joint Commission issued January 27, 1942. By letter of April 26, 1967, the International Joint Commission stated that it had no objection to the modification of the project.

The Corps of Engineers commented that it had no objection to the proposed reservoir level, provided the total storage reserved for flood control remains unchanged, and the present Article 36 and the flood regulation schedule included therein are modified to reflect the new operating levels. By this order we are providing for the continued cooperation by the licensee in studies leading to the revision of Article 36.

The U.S. Forest Service requested two special provisions. The first, providing for the payment of \$360 to the Forest Service for the relocation of existing recreation facilities, is provided for by Article 40. The second requested the clearing of all brush and trees from the area to be flooded to the satisfaction of the Forest Service. Article 15 provides for clearing of the margins of reservoirs up to high water level satisfactory to the Commission representative, which in this instance is the Commission's San Francisco Regional Engineer, who cooperates with the Forest Service regarding such clearing requirements.

On May 15, 1967, the State of Washington, through its Department of Fisheries, filed a petition to intervene, alleging the additional storage in Ross Lake could alter the present diurnal and flood fluctuations experienced below the Gorge development to the increased detriment of the fishery resources of the Skagit River downstream from the project. License Article 37 provides for reasonable modification of project operations in the interests of fish and wildlife resources. In conjunction with Article 37, by Article 39

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we are providing for cooperation with State and Federal fish and wildlife agencies, including the Washington Department of Fisheries, in studies to determine flow release schedules in the interest of protecting fishery resources.

By letter filed June 20, 1967, the Washington Department of Fisheries has indicated that increased storage in the Ross Reservoir "may be valuable in alleviating conditions in the Lower Skagit River" and that in light of the licensee's willingness to cooperate in tests and studies, the Department is "in support of the applicant's proposal to raise the reservoir normal high-water elevation." We are construing this letter from the Department as effecting a withdrawal of the Department's petition to intervene.

As provided for by Commission Order No. 313 of December 27, 1965 (34 FPC 1546, 1549-50), we are by Article 38 providing for the filing by licensee, within one year from the issuance of this order, an Exhibit R, being a proposed plan for full public utilization of project waters and adjacent lands for recreational purposes.

The Commission finds:

(1) Public notice of the application has been given. Except for the aforementioned withdrawn petition to intervene, no protests or petitions to intervene have been received.

(2) Raising of the normal level of Ross Reservoir 2.5 feet is safe, economically sound and in the public interest.

(3) The Exhibit L drawing submitted (FPC No. 553-202), consisting of one page showing details of one of the 12 identical taintor gates and hoists comprising the spillway of the Ross dam, has been examined and found to conform to the Commission's rules and regulations and should be approved and made part of the license, supplementing Exhibit L, Sheet No. R-309 (FPC No. 553-110) now a part of the license.

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Project No. 553

- 4 -

Proje

The Commission orders:

(A) The exhibit designated and described in finding (3) above is hereby approved as part of the license for Project No. 553.

(B) Paragraph C.2 of Article 2 is hereby amended in part to read:

2. Ross Development - * * * control gates in the spillway sections of the Ross Dam to raise the water level in the reservoir to elevation 1602.5 feet with a gross capacity of 1,430,000 acre-feet;

(C) Licensee shall cooperate with the District Engineer, Seattle District, Corps of Engineers, in studies to determine the necessary revisions of Article 36 and shall, within six months after issuance of this order, submit a revised schedule, for Commission approval, to reflect any change in reservoir operating levels.

(D) The following additional articles are hereby added to the license:

Article 38. Licensee shall, within one year from the date of issuance of this order, file with the Commission for approval its proposed recreational use plan for the project. The plan shall be prepared in conformance with Section 4.41 of the Commission's Regulations under the Federal Power Act.

HVS.

Article 39. Licensee shall cooperate with the Washington State Department of Fisheries, the Washington State Department of Game, and the U.S. Fish and Wildlife Service in studies needed to determine flow release schedules below the Gorge development in the interest of protecting the fishery resources of the Skagit River in furtherance of the provisions of Article 37 of the license.

HVS.

Article 40. Licensee shall deposit \$360.00 with the Regional Fiscal Agent, U.S. Forest Service, Portland, Oregon, to be used for the relocation of existing recreation facilities.

LKA.

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(E) This amendment in the manner set out above shall not operate to alter or amend the license in any other respect, and shall not in any way constitute a waiver of any other part, provision or condition of the license. ✓

(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 amendment. In acknowledgment of the acceptance of this license amendment, it shall be signed for the licensee and returned to the Commission within 60 days from the date of issuance of this order. HKA

By the Commission.

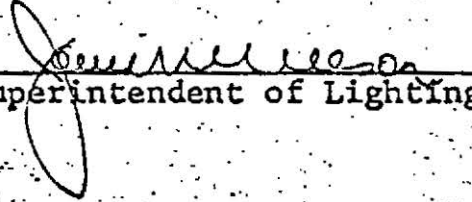
Gordon M. Grant,
Secretary.

200DV


JUL 17 1967

IN TESTIMONY of its acknowledgment of acceptance of all the provisions, terms and conditions of this license amendment, the City of Seattle, Washington, this 1 day of September, 1967, has caused its corporate name to be signed hereto by John M. Nelson, its Superintendent of Lighting, and its corporate seal to be affixed hereto and attested by John B. Kellum, its Acting Comptroller and City Clerk, pursuant to a resolution of its Board of Directors duly adopted on the 23 day of August, 1967, a certified copy of the record of which is attached hereto.

CITY OF SEATTLE, WASHINGTON

By 
Superintendent of Lighting

Attest:


Acting Comptroller and City Clerk

(Executed in quadruplicate)

STATE OF WASHINGTON)
COUNTY OF KING) SS
CITY OF SEATTLE)

I, C. G. ERLANDSON, Comptroller and City Clerk of the City of Seattle, do hereby certify that the within and foregoing is a true and correct copy of Ordinance No. 96040 accepting an order of the Federal Power Commission relating to the Skagit River hydroelectric development (Project No. 553).

as the same appears on file, and of record in this Department.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of The City of Seattle, this

C. G. ERLANDSON
Comptroller and City Clerk

By

John B. Tallum
Chief Deputy

(SEAL)

ORDINANCE 98040

AN ORDINANCE accepting an order of the Federal Power Commission relating to the Skagit River hydroelectric development (Project No. 553).

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. That the order designated Amendment No. 16, Instrument No. 23, and identified as "Order Further Amending License (Major) and Approving Project Exhibit," a copy of which is contained in C. F. 258678, issued July 14, 1967, by the Federal Power Commission to The City of Seattle in connection with the hydroelectric development on the Skagit River (Project No. 553), and amending Article 2 of the license to authorize raising the water level in the Ross Dam Reservoir to elevation 1602.5 feet, and adding Articles 38, 39 and 40 providing for cooperation with recreational and fisheries interests in connection therewith together with approval of an additional Exhibit L drawing, is hereby accepted by The City of Seattle and in acknowledgment thereof the Superintendent of Lighting and City Comptroller upon approval of this ordinance by the Mayor are hereby authorized to execute the same as recommended by the Superintendent of Lighting in said C.F.

Section 2. That such acknowledgment of acceptance shall be executed in such numbers as may be necessary and forwarded to the Federal Power Commission with the necessary certified copies of this ordinance.

Section 3. This ordinance shall take effect and be in force thirty days from and after its passage and approval, if approved by the Mayor; otherwise it shall take effect at the time it shall become a law under the provisions of the city charter.

Passed by the City Council the 21 day of August, 1967,
and signed by me in open session in authentication of its passage this 21 day of August, 1967.. Clarence F. Marshall

President of the City Council.

Approved by me this 23 day of August, 1967. J. B. Brame

Mayor.

Filed by me this 23 day of August, 1967.

Attest: C. H. Glendonson
City Comptroller and City Clerk.

By M. A. Prine
Deputy Clerk.



UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

[18 CFR 8.2, 8.3]

Prohibition of Discrimination)
at Recreational Facilities) Docket No. R-304
at Licensed Hydroelectric Projects)

ERRATUM NOTICE

(June 22, 1967)

ORDER NO. 341

AMENDING REGULATIONS UNDER
THE FEDERAL POWER ACT

(Issued April 19, 1967)

Page 4: In § 8.2(a), change the words "by the license",
appearing within the parentheses, to read "by
the licensee".

[In F.R. Doc. 67-4623, published 4/27/67,
32 F.R. 6487 at 6488, col. 1]

Gordon M. Grant,
Secretary.

DC 56

cc: Whaley
Strindberg
Scarce

100-1000
A

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION
[18 CFR 8.2, 8.3]

Before Commissioners: Lee C. White, Chairman; L. J. O'Connor, Jr.
Charles R. Ross, Carl E. Bagge, and
John A. Carver, Jr.

Prohibition of Discrimi-)
nation at Recreational)
Facilities at Licensed) Docket No. R-304
Hydroelectric Projects)

ORDER NO. 341

AMENDING REGULATIONS UNDER
THE FEDERAL POWER ACT

(Issued April 19, 1967)

On June 8, 1966 the Commission gave notice (31 F.R. 8376, June 15, 1966) that it proposed to issue a rule prohibiting discrimination on account of race, creed, color, or national origin in connection with recreation facilities at licensed projects. The notice proposed, in addition to this prohibition, a requirement that employees of the licensee and any persons who lease or manage its recreation facilities be instructed to comply with it and that the licensee post signs informing the public that the facilities would be operated on a nondiscriminatory basis.

Five comments were received on the proposed rule. 1/ All agreed with the basic objective of eliminating discrimination at licensed projects, but one expressed doubt as to the propriety of utilizing the Federal Power Act

1/ Central Nebraska Public Power & Irrigation District,
The Commonwealth of Pennsylvania, Philadelphia Electric
Co., Rives and Rodgers, Attorneys-at-Law, Portland, Ore.,
and The Commonwealth of Virginia.

cc:Whaley
Strandberg
Scarvie

DC 56

(and particularly its sanctions, such as forfeiture of the license) to promote an anti-discrimination policy. Three of the comments suggested modifications in the posting requirement and while the suggested changes were in part mutually inconsistent we have taken account of these suggestions in the rule as adopted by this order.

The respondent who objected to "the use of federal power in this manner to enforce an unrelated law * * * however admirable we may regard the law and the policy it embodies" misconceives the basis on which the Commission proposed to issue the rule. We would not be enforcing an unrelated law (such as the Civil Rights Act of 1964), but carrying out the logic and policy of section 10(a) of the Federal Power Act, which gives the Commission responsibility for insuring the fullest practicable use of the nation's waterway resources for recreational as well as electric energy and navigation purposes. It cannot seriously be argued that a limitation of availability based on race, creed, color, or national origin is consistent with such use of project lands and waters for recreation.

The same respondent argued that it would be bad policy "to draft regulations that are open to the imposition of draconic penalties for minor or accidental infractions." The Commission has always conducted its enforcement activities in the belief that sanctions should be appropriate to the infraction, and expects to observe the same policy in this area.

With respect to the posting requirement, three of the comments suggested changes. Two suggested that no reference need be made to the issues of race, creed, color or national origin; one suggested that no signs at all were necessary, but that if required they should not exclude (in the respondent's language) "non-discriminatory rules and regulations * * * covering payment of rent or assessments by sub-leases, keeping properties neat and free from weeds and debris, the misuse of liquors, creating unnecessary disturbances, disobeying the laws of the area, the county, or the state, etc."

We agree that the direct reference to "race, creed, color, or national origin" should be replaced by a general reference to discrimination, which will cover these as well as any other possible ground of discriminatory exclusion. Posting, however, is necessary in order that members of the community who have in the past thought (perhaps wrongly) that they were not welcome to use the facilities will be apprised of their right to do so. We are altering the regulation amending §8.2(a) so that it will require posting of notice that the recreation facilities are open "to all members of the public without discrimination". The point raised by one respondent regarding compliance with non-discriminatory rules of the licensee and state or local laws is sufficiently covered by the existing language of §8.2(a) which directs the posting of "permissible times and activities, and other regulations regarding such use". To state specifically that state and local laws are applicable is, therefore, quite unnecessary, and might even raise problems of interpretation where old ordinances requiring segregation are still on the books.

Since the proposed change in the title of Part 8 has been accomplished by Order No. 330 in Docket No. R-276 issued December 12, 1966, 36 FPC___, 31 F.R. 16201, no further action thereon is necessary.

The Commission finds:

(1) The amendments to the regulations, herein prescribed, are necessary and appropriate for the administration of the Federal Power Act.

(2) The revision made in the amendment originally proposed results from suggestions made by respondents to the Notice of Proposed Rulemaking herein and since it neither amounts to a substantial change in the original proposal nor imposes a further burden on persons subject to the regulation, no further notice prior to its adoption is necessary.

The Commission, acting pursuant to the provisions of the Federal Power Act, as amended, and particularly sections 10(a) and 309 thereof (41 Stat. 1068, 49 Stat. 858; 16 U.S.C. 803, 825h), orders:

(A) Part 8 of Subchapter B, Chapter I of Title 18 of the Code of Federal Regulations is amended as follows:

1. In §8.2, paragraph (a) is revised by adding a new sentence. As amended, §8.2(a) reads as follows:

§8.2 Posting of project lands as to recreational use and availability of information.

(a) Following the issuance or amendment of a license, the licensee shall post and shall maintain at all points of public access which are required by the license (or at such access points as are specifically designated for this purpose by the license) and at such other points as are subsequently prescribed by the Commission on its own motion or upon the recommendation of a public recreation agency operating in the area in which the project is located, a conspicuous sign giving the name of the project and the owner of the project, a statement that it is licensed by the Commission and the project number, directions to the areas of the project which are available for public recreation use, permissible times and activities, and other regulations regarding such use, and advising that further information may be obtained at local offices of the licensee in the vicinity of the project. In addition, the licensee shall post at such locations conspicuous notice that the recreation facilities are open to all members of the public without discrimination.

*Changed, 967
June 22,
order 341
AK*

2. A new §8.3 is added, as follows:

§8.3 Discrimination prohibited.

Every licensee maintaining recreation facilities for the use of the public at a licensed project, or employing or permitting any other person to maintain such facilities, shall permit, or require such other person to permit, equal and unobstructed use of such facilities to all members of the public without regard to race, color, religious creed or national origin.

(Secs. 10(a), 309; 41 Stat. 1068, 49 Stat. 858;
16 U.S.C. 803, 825h)

- (B) The caption of this proceeding is amended to read as set out above. These amendments shall be effective May 22, 1967.
- (C) The Secretary shall cause prompt publication of this Order to be made in the Federal Register.

By the Commission.

(SEAL)

Joseph H. Gutride,
Secretary.

**PART 8—RECREATIONAL OPPORTUNITIES AND DEVELOPMENT AT
LICENSED PROJECTS**

Sec.

- 8.1** Publication of license conditions relating to recreation.
- 8.2** Posting of project lands as to recreational use and availability of information.
- 8.11** Information respecting use and development of public recreational opportunities.

AUTHORITY: The provisions of this Part 8 issued under secs. 4, 10, 309, 41 Stat. 1045, 1068; 40 Stat. 839, 842, 858; 16 U.S.C. 797, 803, 825h.

§ 8.1 Publication of license conditions relating to recreation.

Following the issuance or amendment of a license, the licensee shall make reasonable efforts to keep the public informed of the availability of project lands and waters for recreational purposes, and of the license conditions of interest to persons who may be interested in the recreational aspects of the project or who may wish to acquire lands in its vicinity. Such efforts shall include but not be limited to: the publication of notice in a local newspaper once each week for 4 weeks of the project's license conditions which relate to public access to and the use of the project waters and lands for recreational purposes, recreational plans, installation of recreation and fish and wildlife facilities, reservoir water surface elevations, minimum water releases or rates of change of water releases and such other conditions of general public interest as the Commission may designate in the order issuing or amending the license.

[Order 299, 30 F.R. 7313, June 3, 1965]

§ 8.2 Posting of project lands as to recreational use and availability of information.

(a) Following the issuance or amendment of a license, the licensee shall post and shall maintain at all points of public access which are required by the license (or at such access points as are specifically designated for this purpose by the licensee) and at such other points as are subsequently prescribed by the Commission on its own motion or upon

(F.S. 4)

the recommendation of a public recreation agency operating in the area in which the project is located, a conspicuous sign giving the name of the project and the owner of the project, a statement that it is licensed by the Commission and the project number, directions to the areas of the project which are available for public recreational use, permissible times and activities, and other regulations regarding such use, and advising that further information may be obtained at local offices of the licensee in the vicinity of the project.

(b) The licensee shall make available for inspection at its local offices in the vicinity of the project the recreation plan approved by the Commission and the entire license instrument, properly indexed for easy reference to the license conditions designated for publications in § 8.1.

[Order 299, 30 F.R. 7313, June 3, 1965]

§ 8.11 Information respecting use and development of public recreational opportunities.

(a) Except as provided in paragraph (b) of this section, each licensee of a project under major or minor Commission license shall prepare with respect to each such project owned and file by June 30, 1967, and biennially thereafter, an original and two conformed copies of FPC Form No. 80 prescribed by § 141.14 of this chapter for use by licensees of projects under major and minor license. Forms filed subsequently to the 1967 filing need be completed only to the extent necessary to correct, supplement, update or add to the information supplied in a previously filed form. One copy of the report should be retained by the correspondent in its file.

(b) A licensee or applicant who submits a statement that it has previously filed an acceptable recreational use plan pursuant to a special license condition or § 4.41 Exhibit R, of this chapter will not be required to file Form 80 until December 31, 1968, or at such time as may be required by a special license condition. Such statement shall indicate

FEDERAL POWER COMMISSION

the document previously so filed and its status, i.e., whether approved as being an accepted recreational use plan submitted pursuant to a special license condition, or as an Exhibit R in a pending license application, or as the case may be.

[Order 330, 31 F.R. 16201, Dec. 17, 1966;
32 F.R. 664, Jan. 20, 1967]

Amendment 17

FEDERAL POWER COMMISSION
WASHINGTON, D.C. 20426

IN REPLY REFER TO

Project No. 553
City of Seattle, Washington

City of Seattle, Washington
Attn: Gordon Vickery, Supt.
Dept. of Lighting
City Light Building
1015 Third Avenue
Seattle, Washington 98104

JAN 6 1975

Gentlemen:

Enclosed is the order, designated Amendment No. 17, Instrument
No. 24, in the above-entitled matter.

Very truly yours

Kenneth F. Plumb

Kenneth F. Plumb
Secretary

original signed
Recd: ~~Copy~~ "Order Approving Amendment of
"Major License" issued by FPC 1/6/75" JUN 9 1975

RECEIVED
JAN 9 - 1975

Chief Engineer's Office

FP-179
UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

AMENDMENT NO. 17
INSTRUMENT NO. 24



Before Commissioners: John N. Nassikas, Chairman;
Albert B. Brooke, Jr., Rush Moody, Jr.,
William L. Springer, and Don S. Smith.
City of Seattle) Project No. 553

ORDER APPROVING AMENDMENT OF MAJOR
LICENSE

(Issued January 6, 1975)

Application was filed on March 29, 1973, by the City of Seattle, Department of Lighting (City Light), licensee for the Skagit River Project No. 553, located on the Skagit River in Whatcom County, Washington, for approval of plans to construct a tourist visitor center on Diablo Lake, 1,500 feet downstream from Ross Dam and adjacent to the Ross powerhouse.

The proposed tourist center would replace an existing dock and boat shelter which is constructed of lumber and corrugated aluminum and floats on large cedar logs. The new facility would consist of a permanent precast concrete structure, designed to be architecturally compatible with the Ross powerhouse. It would be set on concrete foundation piers on an existing but unutilized embankment, and would have a boat landing area projecting over the water. The facility would provide docking for work and tour boats, an assembly room, pedestrian walkways, an observation deck, a concession area, sanitation facilities, and space for educational and historic exhibits.

The proposal includes plans for a new septic tank system adequate to process the expected increased liquid wastes. A water quality certificate is not required, as there will be no discharge into project waters.

Ross Dam and powerhouse are located in a deep and narrow valley with a large exposure of vertical cliffs and rock. Because of a heavy annual rainfall, the hills are well covered with trees, predominantly evergreen, and brush. The surrounding mountains reach to elevations averaging about 5,000 feet, with some peaks as high as 9,000 feet. Diablo Lake is at elevation 1205 msl.

DC-23

There is presently no access by road to Ross Dam or powerhouse. City Light operation and maintenance personnel and visitors to the Ross Dam and powerhouse travel four miles via City Light boats from a parking area near Diablo Dam, connected by road to a state highway. The City sponsors a tour of the area which originates at Newhalem, Washington and includes an introductory meeting, a seven-mile bus ride to Diablo Dam, a trip on an inclined railway, a four-mile boat ride to Ross Dam, a tour through Ross powerhouse, and return by boat and bus to Newhalem.

The project area is within the Ross Lake National Recreation Area, administered by the National Park Service. The establishment by Congress of this National Recreation Area and the adjacent North Cascades National Park, coupled with the opening of the new North Cascades Highway in 1972, is expected to create an influx of recreational tourists in the immediate future far beyond the carrying capability of existing facilities at the project. Applicant estimates projected visitor use at the facility will increase to approximately 60,000 persons per season (mid-May to Labor Day), from the present 40,000 visitors per season.

Reporting on June 13, 1973, the State of Washington, Department of Ecology had no objection to the proposed facility.

The Board of Supervisors, Whatcom County, Washington was invited to comment on the application, but did not reply.

By letter dated March 20, 1973, submitted with the application, the National Park Service approved of the facility, subject to the conditions that interpretive planning be done in cooperation with the Service, that an environmental assessment of the proposed project be made, and that the Service be allowed to review detailed plans for the proposed project as they are developed.

The Department of the Interior, in a letter dated July 26, 1973, suggested that the Applicant consider an alternative over-land location for the basic structures of the visitor center, in order to keep non-water dependent over-water structures to a minimum.

A major portion of the visitor center is located over land,

with the boat landing area projecting over the water. Study of the plans for the facility indicated that the design fits the character of the project terrain and meets the intended public use. We have adopted the recommendation that the Applicant be required to cooperate with the National Park Service in determining the final design and in the construction of the visitor center, in order to ensure cooperation with regard to minor design details.

Public notice of the application was made, with July 17, 1973 given as the last day for filing protests, notices of intervention, or petitions to intervene. None were received.

We have reviewed the application and believe that construction of the visitor center would add significantly to the public use and enjoyment of the project area.

The proposal will have no impact on project generating capacity, stream flows, or reservoir levels. Applicant has prepared and circulated an environmental report in compliance with State statutes, which included a discussion of alternative actions. We believe that construction of the proposed facility will not significantly affect the human environment and that preparation of an environmental impact statement will not be required, since the adverse impacts will be minor, short term, and exceeded by the long-term beneficial effects.

The Commission finds:

(1) The construction of the visitor center as described in the application filed on March 29, 1973 by the Applicant will constitute a significant addition to the public use and enjoyment of the project area.

(2) The proposed visitor center will have no impact on the generating capacity, stream flows, or reservoir levels of the projects

(3) The construction of the proposed facility is not the type of action which will require the preparation of an environmental impact statement pursuant to the National Environmental Policy Act of 1969 and Commission Order 415-C.

(4) The planned design of the visitor center fits the character of the project site terrain and promotes the public use intended for the facility.

The Commission orders:

(A) The construction of the visitor center as described in the application filed on March 29, 1973, by the Applicant is hereby approved.

(B) Applicant shall cooperate with the U.S. Department of the Interior, National Park Service, in finalizing the design of the proposed facility, in constructing the facility so as to minimize damage to the environment, and in formulating any interpretive programs regarding the facility.

(c) Applicant shall file for Commission approval an "as constructed" Exhibit R drawing within 60 days following completion of the facility.

By the Commission.

(S E A L)

Kenneth F. Plumb

Kenneth F. Plumb,
Secretary.

Amendment 18

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

OPINION NO. 808

City of Seattle, Department of)
Lighting)

Project No. 553

OPINION AND ORDER AFFIRMING AND
ADOPTING INITIAL DECISION AUTHORIZING
AMENDMENT OF LICENSE TO INCREASE HEIGHT OF ROSS DAM

*Issued: July 5, 1977

DC-A-1

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

City of Seattle, Department of)
Lighting)

Project No. 553

OPINION NO. 808

APPEARANCES

Robert L. McCarty, John P. Harris, Arthur T. Lane, Richard S. White and Harold T. Johnson for the City of Seattle

Roger M. Leed and Ken Farquharson for ROSS Committee

Roger M. Leed and Kristen Johnson for Canadian Intervenors,
ROSS Committee and David M. Brusson

John M. Stone for Washington State Sportsmen Council

Ron Johnson for British Columbia Federation of Labour

J. Richard Aramburu and Thomas H.S. Brucker for American Intervenors
North Cascades Conservation Council, Wilderness Society, et al.

Slade Gorton and James E. Johnson for Washington State Department
of Fisheries and Department of Game

Slade Gorton, Charles B. Roe and Wick Dufford for State of
Washington, Department of Ecology

Jean P. Lowman for the Department of Interior, State of Oregon

Donald A. Sander, David Boegers and Peter C. Lesch for the Federal
Power Commission

LICENSE AMENDMENT (Major): NATIONAL ENVIRONMENTAL POLICY ACT; CONSERVATION OF FISH AND WILDLIFE RESOURCES; COSTS (Project Costs); FISH, WILDLIFE AND RECREATION; CONSERVATION; LICENSE (Major); NAVIGABLE WATERS; RECREATION; WATER QUALITY; WILDLIFE; JURISDICTION (License); DESIGN (Dam); LICENSED PROJECT, (Alternatives)

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Commissioners: Richard L. Dunham, Chairman;
Don S. Smith, and John H. Holloman III.

City of Seattle, Department of) Project No. 553
Lighting)

OPINION NO. 808

OPINION AND ORDER AFFIRMING AND
ADOPTING INITIAL DECISION AUTHORIZING
AMENDMENT OF LICENSE TO INCREASE HEIGHT OF ROSS DAM

(Issued July 5, 1977)

This proceeding arose from an application filed on December 17, 1970, for an amendment of the license for the Skagit River Project No. 553 by the Licensee, the Department of Lighting of the City of Seattle, Washington (City). The City seeks Commission approval to raise the height of the present Ross Dam by 121 feet, increasing the output of the Ross Power Plant. By order of July 29, 1971, the Commission allowed the intervention, among others, of the Wilderness Society, et al., the North Cascades Conservation Council (N3C), the State of Washington Department of Ecology (DOE), Department of Fisheries (DOF) and Department of Game (DOG), and a Canadian Group called the R.O.S.S. Committee with David M. Brousson, (ROSS--Run Out Skagit Spoilers).

A number of procedural orders followed relating to the setting of the hearing and the postponement of dates. In an order of February 4, 1974, (51 FPC 504) the Commission denied a motion by N3C that the Commission direct the staff to prepare evidence pertaining to the environmental consequences in Canada of raising the Ross Dam and include this evidence

in a new draft environmental impact statement (DEIS). The Commission noted that the staff had attached to the DEIS a report prepared by the International Joint Commission (IJC) entitled "Environmental and Ecological Consequences of Raising Ross Lake in the Skagit Valley to Elevation 1725", and had considered other materials. Further, the Commission said it had no authority to send its staff to a foreign country to conduct an investigation.

On October 4, 1976, the Swinomish Tribal Community, the Upper Skagit Tribe and Sauk-Suiattle Tribe (Tribes) filed a petition to intervene for the purpose of filing a brief and participation in all future aspects of this proceeding. There were filed answers by the City and the Staff on October 19, 1976, a response in support of the Tribes by N3C on October 27, 1976, amendments to the application to intervene and a reply by the Tribes on November 8, 1976, an opposition by the City to the amendments on November 23, 1976, and a reply to the opposition by the City on December 6, 1976.

In support of their intervention the Tribes allege their treaty rights in fishing in the Skagit River 1/ and state they did not become aware of the proceeding until May, 1976. The City and the Staff point out that the application for the amendment of the license was published in the Federal Register

1/ The Tribes cite United States v. Washington, 384 F. Supp. 312 (District Court, W.D. Washington-1974), affirmed, 520 F.2d 676 (CA9-1975) cert. denied 423 U.S. 1086 (1976) holding that the usual and accustomed fishing places of the Upper Skagit Tribe included numerous areas along the River extending from Mt. Vernon upstream to Gorge (384 F. Supp. at p. 379). However, the same decision does not list the River as an usual and accustomed fishing place for the Sauk-Suiattle Tribe (384 F. Supp. at pp. 375-376). The order of the District Court of December 5, 1974, given as a reference with respect to the Swinomish Tribe states that nothing in the order constitutes a determination as to the location of any specific usual and accustomed fishing places of any tribes involved. The Tribes contend that the Swinomish use the river, but the court was unwilling to adjudicate specific locations. In any case, since the Upper Skagit tribes are said to have fishing places on the Skagit River we shall treat the Tribes as having a proper interest in the proceedings.

on May 6, 1971, and later in newspapers in the vicinity of the project. Furthermore, numerous orders and other notices have been issued and hearings held in Bellingham and Seattle, Washington, with widespread publicity. Nevertheless, because of the status of the Tribes and their claim of fundamental rights involved it is in the public interest to permit intervention where it might not otherwise be permissible. The Tribes do not seek to reopen the record at this time. We shall not reopen the record and shall provide that the Tribes take the record as they find it.

The hearing commenced on April 23, 1974, at Bellingham, Washington; sessions were also held in Seattle, Washington, and the hearing terminated on March 5, 1975, in Washington, after 9827 pages of transcript and 303 exhibits. An initial decision amending the license by Presiding Administrative Law Judge Allen C. Lande was issued on February 4, 1976. On February 17, 1976, and supplemented on April 2, 1976, American Intervenor, N3C et al. and Canadian Intervenor ROSS et al. asked for reopening of the record to receive more recent materials on power resources, and for oral argument before the Commission. Staff and City filed responses to these motions. Briefs on exceptions were filed by City, American Intervenor including N3C, DOE, and ROSS and briefs opposing exceptions by City, American Intervenor and Staff.

On its own motion the Commission on December 27, 1976, issued an order requesting briefs and inviting statements on its authority to authorize an increase in the height of the Ross Dam that will flood additional lands in Canada. In early March 1977, briefs were filed by City, ROSS, N3C, Tribes, and Staff; in early April reply briefs were filed by City, ROSS, N3C, and Staff. On March 2, 1977, the United States Department of State (State) through Richard D. Vine, Deputy Assistant Secretary of State for Canadian affairs, by letter to Chairman Dunham transmitted the comments of the International Joint Commission (IJC) and commented that it could see no reason why the FPC should not proceed expeditiously to discharge its domestic regulatory responsibilities in this case. On March 31, 1977, State transmitted further documents and said that it continues to encourage early resolution of this matter.

THE PROPOSED PROJECT

Project No. 533 is located in Whatcom County, Northwest Washington, on the Skagit River, which rises in Canada, flows south across the border and then west to Puget Sound. It consists of the Gorge, Diablo and Ross Dams and their associated reservoirs and power plants. Gorge was already constructed under a Department of Agriculture permit when the Commission issued a license to Seattle by order of October 28, 1927. The Gorge development is furthest downstream and consists of a concrete arch dam 270 feet high and a powerhouse containing four generating units with a dependable capacity of 175 MW; Diablo is next upstream and consists of a concrete dam approximately 386 feet high and a powerhouse containing four units with a dependable capacity of 159 MW.

The Commission authorized construction of Ross Dam on July 23, 1937, by amendment of the license. It is also a concrete arch dam and, by authority of subsequent license amendments, it is now 540 feet high reaching an elevation of 1,615 feet. The powerhouse contains four generating units with a dependable capacity of 252 MW (Ex. 169, 1-1).

The normal level for the Ross Reservoir is 1,602.5 feet with a maximum surface area of 11,700 acres and a drawdown of 127.5 feet. It extends into the Province of British Columbia, Canada, where it covers some 480 acres.

As proposed, the Ross Dam would be raised 121 feet to a total height of 661 feet at a crest-roadway elevation of 1,736 feet. The existing power intake structure would be modified and the spillway would be reconstructed at a higher elevation. The general arch geometry of the existing structure would be maintained. The new dependable capacity would be 525 MW (an increase of 273 MW in accordance with the staff's computation) due entirely to an increase in the head. The Ross Reservoir would extend an additional 7 miles up the Skagit in Canada and also up Big Beaver Creek, which is a tributary of the Skagit in the United States and is much in issue here. The new reservoir would have a maximum surface of 20,000 acres at a level of 1725 feet, while the drawdown would be 56.2 feet. It would inundate an additional 8,320 acres of land, 4,720 in Canada and 3,600 in the United States, mostly in the Big Beaver Valley (Ex. 169, 1-20, figure 2-15).

JURISDICTIONAL ISSUES

There is no issue here as to whether this Commission has jurisdiction to authorize an amendment of City's license under the Federal Power Act, particularly Sections 4(e), 10(a) and 23(b), with respect to the Project and its impact in the United States. Issues arise however, because Ross Lake will be extended in Canada. The question of authority to flood lands in Canada is governed by the IJC established by The Boundary Waters Treaty of 1909 between Canada and the United States, 36 Stat. 2448.

That Treaty provides in Article IV that the High Contracting Parties agree that except in case of agreement between them they will not permit the construction or maintenance on their respective sides of the boundary of any dams "at a lower level than the boundary in rivers flowing across the boundary, the effect of which is to raise the natural level of waters on the other side of the boundary unless the construction or maintenance thereof is approved by the aforesaid International Joint Commission." In Article VIII the Treaty provides that in cases involving elevating the natural level of waters as a result of dams in rivers flowing across the boundary the Commission shall require as a condition of its approval "that suitable and adequate provision, approved by it, be made for the protection and indemnity of all interests on the other side of the line which may be injured thereby".

In 1942 the IJC issued an order approving an application of the City for authority to raise the level of the Skagit River at the international boundary to elevation 1725 feet above mean sea level. The City was required to compensate the Province of British Columbia (Province or British Columbia) and Canadian private interests for damage caused. The Ross Dam was not to be raised until a binding agreement had been made between the City and British Columbia providing for indemnification. The IJC also reserved its powers to exercise jurisdiction over effects on the natural water levels at and above the international boundary and to amend its order City of Seattle, Washington, Docket No. 46 (1942). (Ex. 42).

In 1947 the Skagit Valley Lands Act was enacted by and with the advice and consent of the Legislative assembly of the Province of British Columbia authorizing the City to flood Crown lands in the Skagit Valley (Ex. 43). The authorization was made subject to the City paying the Province such sum of money as compensation for damages as may be agreed upon between the City and the Lieutenant-Governor in Council.

Annual agreements between the City and British Columbia were concluded from 1954 to 1966 permitting flooding across the Boundary to elevation 1600 during those years. On January 10, 1967, the Province and the City made an agreement providing for an annual rental of \$34,566 with provision to take it in electric energy (Ex. 44). The agreement allowed flooding up to the 1725 foot level and, in addition, up to 1740 feet as the Province may consider necessary to properly contain the reservoir. On two occasions in 1967, the IJC noted in its minutes that the conditions of the 1942 order of the JIC had been met by the 1967 Agreement.

In June of 1971 the IJC acting upon a joint request from the governments of the United States and Canada held hearings on the environmental consequences in Canada of raising the dam and in December 1971 issued a report on the overall impact of changes in the total environment, and this report was attached to the FEIS (Ex. 169, App. F, pp. 28-30). The IJC said in its assessment of the consequences:

The present characteristics of the environment would be changed, but the new environment would retain many of the former characteristics. Those who appreciate and use the Valley in its present state would inevitably suffer somewhat, although other people would find the new environment at least as pleasant. Measured either by the amount of use, or weighted by dollar values, the overall impact of changes in the total environment is not significantly large.

This balance does not appear to be greatly changed by supplementing the assessment to take account of education, research and the option

values of individuals. These undoubtedly favour preservation, despite the fact that the imbalance is not great.

Furthermore, the Commission is of the opinion that the social preservation values are significant and should be taken into account in the decision-making process.

In light of these considerations the Commission believes that in reviewing the application of the City of Seattle to raise Ross Reservoir to an elevation of 1725 feet above mean sea level (and the Environmental Impact Statement required by Section 102 (c) of P. L. 91-190), the Government of the United States should carefully consider the following questions:

- (a) Is there, in fact, an immediate need for additional power for the City of Seattle?
- (b) If so, are there alternative sources of such additional power to the projected High Ross Dam?
- (c) If such alternative sources do exist, are they more expensive than the projected High Ross Dam?
- (d) If so, will the benefits to the citizens of both countries from not raising Ross Dam more than offset the additional costs to consumers of electricity of such alternate source or sources of power?
- (e) If the additional power from High Ross Dam will meet the forecast needs of the City of Seattle for a limited time, and additional power sources will be added after that, what would be the cost of changing the sequence in

which these projects are constructed, postponing the raising of Ross Dam until a decision on the total merit of the project could be made with greater certainty?

These questions reflect the Commission's belief that, seen in a broad social context, the Skagit Valley is an uncommon and non-restorable area and has important social values.

On November 2, 1973, a resolution was adopted in the Canadian House of Commons that it was "unalterably and unanimously opposed to the flooding of the Canadian Skagit River Valley." However, in commenting by letter of February 15, 1974, State said that it believed that the 1967 agreement between City and the Province was valid, and that it satisfied the requirements laid down in the IJC's 1942 order of approval authorizing the raising of Ross Dam.

On July 24, 1974, the Attorney-General of the Province filed a request with the IJC to declare the 1942 order a nullity, to rescind the 1942 approval, to declare raising the Skagit River to be contrary to the public interest of the people of Canada and the U.S. and to declare the 1967 compensation agreement to be invalid. On November 7, 1974, the Commission in executive session, concluded that the Boundary Waters Treaty does provide it with authority to exercise continuing jurisdiction and noted that the Province and the City were proceeding towards direct negotiation. Believing that such direct talks were the most appropriate means of resolving the issue, the IJC requested that the negotiations continue to a conclusion with all due dispatch but did not at that time communicate its decision on the question of jurisdiction because it believed that such announcement might impede the discussions between the City and Province. 2/ The IJC also related that it had asked the Province whether it wished to proceed with its request. It added that until it takes "further action, the 1942 Order of Approval is valid and in full force." On March 12, 1977, the IJC ordered that the Province's request "be dismissed without prejudice to any future action in this matter by either party or by the Commission." 3/

2/ Letter of February 3, 1977, from William Bullard, Secretary of the U.S. Section of the IJC to Vine, attached to State's comments to Chairman Dunham.

3/ Letter from Bullard to Vine dated March 25, 1977, attached to Vine's supplemental comments to Chairman Dunham by letter of March 31, 1977.

The City, after discussing the above history, contends that the record shows that the FPC has acknowledged and acted upon the 1942 order and the 1967 agreement in connection with past applications by the City, and until the 1942 order is dealt with by the two governments, the FPC is authorized and required to give good faith consideration to the City's application. The City urges that the Commission exercise that jurisdiction to the end that this urgently needed augmentation to the sorely pressed power facilities of the Pacific Northwest be constructed without further delay.

The Staff says it is apparent that the IJC's 1942 authorization is still valid and in full force and that the conditions have been satisfied. It notes that, in spite of the opposition of the governments of the Province and Canada, State is of the opinion that the bilateral question can best be resolved in other fora and the Commission may proceed with a determination. The Staff says the Commission could go forward to fulfill its responsibilities without compromising its recognition of the IJC's continuing jurisdiction. The Staff concludes that the Commission has authority to approve the pending application, thereby permitting the flooding of additional lands in Canada.

The opponents of the Project, ROSS, N3C, and Tribes argue variously that the IJC has accepted jurisdiction, that its jurisdiction is entire and superior to that of the FPC, which is derivative, that the Province and the City are engaged in negotiations, and that the FPC should suspend further proceedings until the IJC has made a determination. They also argue that the Articles in the license issued by the Judge relating to environmental questions in Canada are beyond the jurisdiction of the FPC and the IJC is the only appropriate agency to consider the merits of resources mitigation plans and recreation plans in the Canadian Skagit Valley. The Tribes argue in particular that the IJC failed to approve the compensation agreement as required by the treaty, that the 1942 order is an invalid delegation in that the IJC delegated to the parties the matter of compensation, and that the 1967 binding agreement between the Province and the City cannot be fulfilled under the Compact Clause of the United States Constitution providing that "no state shall, without the consent of Congress...enter into an agreement or compact with another state or with a foreign power...". Art. I, §3, Cl. 10.

In the opinion of this Commission we should go forward and determine this proceeding on the merits. We reject the concept that our jurisdiction is derivative from that of the IJC. We were granted our authority under the Federal Power Act. However, there is no question that, even if we granted a license, land may not be flooded in Canada without the approval of the IJC. In Power Authority of the State of New York, 12 FPC 172, 176 (1953), aff'd Lake Ontario Land Development v. F.P.C., 212 F.2d 227 (CA-DC- 1954), Cert. denied 347 U.S. 1015 (1954) we referred to the IJC "without whose jurisdiction and guidance the facilities cannot be constructed or operated in either country." However, the IJC has granted its approval.

We have already discussed the IJC order of 1942 and the compensation agreement of 1967 under it. The 1942 order is still outstanding. The record shows that the filing of the Province's Request did not nullify that order or in any way hold it in abeyance. In any case, after negotiations between the Province and the City, the IJC on March 12, 1977, dismissed the request of the Province without prejudice to any future action. Previously State in the letter to the Chairman of March 12, 1977, stated that it could see no reason why the FPC should not proceed expeditiously to discharge its domestic regulatory responsibilities in this case and that any continuing bilateral question can best be resolved in other fora, and on March 31, 1977, stated to the Chairman that it continued to encourage an early resolution of this matter.

With respect to the license articles, insofar as they relate to the environment and mitigation of damages in Canada, they lay duties and responsibilities only on the Licensee. They require that it cooperate and take certain actions in Canada, entirely for the benefit of the environment in Canada. Of course, the Commission cannot require the Provincial or Canadian Government to consult or participate in this activity and has no intention of extending its authority into Canada. These articles, however are an appropriate part of a license and should be included as conditions of its issuance.

Article 54 provides that the Licensee shall consult with the appropriate agencies of Canada, the United States, the Province of British Columbia, and the State of Washington with respect to clearing the reservoir area and shall submit a plan

to the Commission. In Article 55 the Licensee is to consult with U.S. agencies and the British Columbia Department of Recreation and Conservation and other appropriate environmental agencies in Canada for the protection and development of the natural resources and values of the project area. In Article 56 the Licensee is to have similar consultations on a study of fisheries resources and file a revised Exhibit S to carry out the recommendations of the study. Similarly Article 57 relates to Commission approval of a plan for mitigating the loss of wildlife habitats.

Article 58 relates to a study of the wildlife resources of the project area carried out in cooperation with U.S. agencies and the British Columbia Department of Recreation and Conservation and the Canadian Wildlife Service. In Article 68 the Licensee is to consult with and prepare a plan in cooperation with the appropriate agencies of British Columbia for the development of recreation facilities in Canada. The license provides for a reservoir that will flood lands in Canada. It is appropriate that the license, which is subject to FPC jurisdiction, be required to mitigate whatever damage may be caused in the United States and Canada. These Articles are therefore appropriate, but insofar as they affect Canada they are subject to actions of the IJC and the Canadian authorities.

Nor do we think the arguments of the Tribes are valid. Although we do not think this is the proper forum to consider the validity of actions taken by the IJC, that body, as noted earlier, did indeed approve on April 4, and July 25, 1967, the 1967 compensation agreement within the literal language of the Boundary Treaty. Further, it does not appear that the IJC has made an invalid delegation of the method of compensation; the IJC called for a binding agreement between the parties and approved it. The fact that the treaty, Article VIII, provides for approval by the IJC indicates that the Province and the City could initially agree on provisions for the protection and indemnity of all interests.

As for the 1967 agreement being in violation of the Compact Clause of the Constitution it would appear that this type of agreement is not subject to the clause. As stated in Virginia v. Tennessee, 148 U.S. 503, 519 (1893), "it is evident that the prohibition is directed to the formation of any combination tending to the increase of political power in the States, which may encroach upon or interfere with the just supremacy of the United States". This particular agreement was not made on the initiative of the Province and the City, but rather to carry out an order of the IJC acting under a treaty. While this Commission is not the proper forum to determine the validity of the 1967 agreement made under the auspices of the IJC, it would not appear to be in violation of the Compact Clause. The State Department noted on March 2, 1977, that the IJC had found that

the 1942 order was subsisting and valid and the 1967 agreement fully satisfied the condition of the order.

ROSS also argues that the Wild and Scenic Rivers Act, 16 U.S.C. §1278(b) is an absolute bar to the licensing of High Ross. It provides that the F.P.C. shall not license the construction of any dam on or directly affecting any river which is listed in Section 1276(a). The latter section lists the Skagit as designated for potential addition to the wild and scenic rivers system but for a segment below the Gorge Dam and outside the recreation area involved here. Further, Section 1278(b) provides that nothing shall preclude licensing below or above a potential wild, scenic or recreational river area which will not diminish the scenic, recreational, and fish and wildlife values present. The only possible way that High Ross could affect the Skagit downstream is with respect to flow and temperature. The record shows, as discussed below that High Ross will not appreciably affect flow and temperature in the downstream area. 4 /

DOE and the American Intervenors argued that the City must procure state permits prior to any federal license being issued. However, DOE on behalf of the State of Washington by notice filed May 27, 1977, states that it has reevaluated City's application and, based upon an evaluation of the needs for power of the Applicant, the additional power produced if the application is approved and the Ross Dam is raised, the environmental impact of such a modified project, and the international relationships, concludes that under conditions as they now exist, the application of the City should be approved. DOE would take steps to resolve the litigation relating to the City for water rights based upon state law and would remove any ambiguity as to the status of DOE's certification under Section 401 of the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq. By letter of May 27, 1977, Governor Ray of Washington, advised that she was in full support of DOE's position because the needs for power in the City (as well as in the rest of the Pacific Northwest) when coupled with the relatively low cost of power which would be produced by the High Ross Dam far outweigh the minor environmental losses involved.

4 / In any case under Section 1278(b)(i) there is a time limit on any restraint of the Commission which expires in October, 1978.

DOE and the American Intervenors had contended that City had not obtained a permit from DOE under Section 402 of the Federal Water Pollution Control Act, as well as an unconditional certification under Section 401. That Act provides that except in compliance with Section 402 and other sections the discharge of any pollutant shall be unlawful. Section 402 provides that the Administrator, or in his place a state, may issue a permit for the discharge of any pollutant, and, under Section 502(6), this could include heat. As will be discussed, High Ross will be so constructed and operated that it will not affect appreciably the temperature of the water, cause it to be supersaturated with nitrogen, or otherwise cause pollution. Inasmuch as there is no pollutant, there is no need for a Section 402 permit.

GEOLOGY OF THE SITE AND DESIGN OF THE DAM

The Judge concluded that City has shown that the site is safe and adequate geologically to raise the Ross Dam, but that a new Board of Consultants should be retained to monitor activities and submit reports to the staff. ROSS, however, contends that the Judge overlooked substantial evidence that the geological investigations were of a perfunctory nature and that the possibility of a foundation failure due to hydrostatic pressure has not by any means been ruled out.

The record shows, as related by City's Witness Coombs, that the Ross Dam is built in an area covered by varying metamorphic rock, known as the Skagit Gneiss (Tr. 1799 et seq, Ex. 169, 2-15). In spite of great differences in mineral composition the rock is strong and, for the most part unweathered. While, as elsewhere, the rocks at the Ross site contain joint systems and shear planes (Ex. 52), the witness was of the opinion that the rock at the dam site was exceptionally strong, and with some treatment, and the utilization of certain design features, there was no doubt that the rock at the site could carry the loads involved.

The two dam abutments, however, pose certain problems. On the left abutment there is a bench, a flattened area, at elevation 1650 which requires construction across the bench to the steep slope (Tr. 2225-26; Exs. 67, 169, 1-19). On the right abutment there is good rock up to elevation 1655, but above this is a rock promontory resting on a shear zone (Tr. 1802), which might yield under loads transferred by the dam (Tr. 1860). This is to be solved, as City's Witness Sarkaria testified, by a concrete gravity wall and a slot in the dam structure down to level 1660 so that stress from the dam will not be transmitted to the possibly unstable rock abutment (Tr. 2288-2290).

ROSS complains that only 7 test cores were drilled in connection with High Ross while 200 cores were drilled in connection with Mossyrock Dam. (Tr. 1866). 5 / This matter appears to have been carefully considered by those responsible (Tr. 1900-1901). In this case a new dam is not involved (Tr. 6775), and the record shows that the rock is exposed and can be examined. While counsel for ROSS cross-examined Mr. Coombs at length as to his knowledge of the strength of the rock below the shear zone in the right abutment, Mr. Coombs explained that the further tests were not necessary since the rock outcrop could be examined on three sides (Tr. 1919-1921).

ROSS argued that it was necessary to consider the structure of the rock under the base of the dam. The record makes clear that the rock underneath the Ross Dam is jointed (Tr. 1923), but witness Coombs doubted whether there was a dam in the country that does not have faults in the abutment and in the foundation (Tr. 1846). The witness had no doubt that the site could carry the load involved (Tr. 1802, 1920). The fault situation was carefully studied on the basis of the original investigation of the site, which included drilling as shown by Exhibit 52 (Tr. 1824-1827). In our opinion the record fully supports the Judge's conclusion that the site is safe and adequate geologically for High Ross Dam.

ROSS also raises questions about the design of the dam, pointing out that it is an arch dam and represents a change in the original design of J. L. Savage who designed an arch dam that could be raised in stages. ROSS contends that the proposed design is novel and that the present structure was not designed for the stresses which will be imposed upon it. In our opinion there is no substance to these allegations.

In 1968 the City retained International Engineering Company (IEC) to investigate the engineering feasibility of raising the Ross Dam, and its witness Sarkaria became chief engineer (Tr. 2218). A board of independent consultants to advise

5 / Two additional holes were drilled where the gravity wall impinged on the right abutment (Tr. 2000).

on the project was selected by the City and approved by the Federal Power Commission. The structural behavior of the present dam has been investigated by means of instruments buried in the concrete and by the drilling of cores. It was determined that the stresses were well within the permissible values and that safe structural behavior of the dam was demonstrated. (Tr. 2222).

G.M. Raphael, a member of the board of consultants proposed an arch dam for High Ross (Tr. 2097). This dam is similar to the Savage design except that the concrete which Savage would have provided in the lower portion of the dam was eliminated. (Tr. 2261). Three methods were used and described at length in the record to determine whether the proposed dam would have stresses within permissible limits (Tr. 2230 et seq.):

(1) Trial Load Method-- This is a computerized analytical technique developed by the U.S. Bureau of Reclamation by which the dam is represented by a series of horizontal arch and vertical cantilever elements. The U.S. Bureau of Reclamation used this method independently (Tr. 7107).

(2) Finite Element Method-- It is a computerized method which assumes that the structure, its foundation and abutments consist of an assemblage of brick-shaped elements. On this basis the stress at the center of each element is computed from the displacement of the interconnecting points.

(3) Structural Model Testing-- This was used and described by Professor Raphael. (Tr. 2098). The model was made of plaster and diatomaceous earth and was designed to show the stresses and deformations of a full structure under various loads applied by air bags. The witness concludes that on the basis of his model High Ross would carry its imposed loads easily, and that provision of the slot would cause only a minor redistribution of stresses (Tr. 2104).

Professor Raphael also carried out an investigation to determine the strength of the existing concrete and to develop a concrete mix for the addition to the dam. Cores drilled from the dam showed, among other things, a compressive strength of around 7000 psi. (Tr. 2105). The witness concluded as a result of various investigations, that the concrete in the existing dam is a high strength, well hydrated material and is among the highest in strength of any dams of his acquaintance. (Tr. 2109). He also concluded that concrete could be produced easily that would match the present concrete in strength and elastic properties. Staff witness Yang

testified that he knew of no other instance where a dam had been so thoroughly analysed as the Ross addition (Tr. 7108). We conclude that ROSS has not shown that the design of the dam departs from accepted engineering principles or raises any question as to its stability.

Finally, ROSS says the Judge has not considered that the dam is in an area of high seismic risk and that large earthquakes, up to a magnitude of 7.5, have occurred. Such an earthquake, it says, would produce a horizontal acceleration in excess of 1.0 g while High Ross is designed to withstand a maximum horizontal acceleration of only 0.4 g. (Tr. 2324-5). However, an earthquake of even magnitude 8, with its epicenter located 20 or 25 miles from the Ross Dam would not exceed a horizontal acceleration of 0.4 g (Tr. 2328). Data from a report of IEC dated October 22, 1971, (Tr. 2328, 2340) shows that Ross Dam is located in an area of widely scattered epicenters, and is classified by the U.S. Coast and Geodetic Survey to be in a broad zone of moderate intensity (Tr. 2340). Less than a half dozen epicenters are within a 50-mile radius of Ross Dam--the nearest over 20 miles distant, and this is in contrast to the higher risk area of Puget Sound. Further, the ultimate seismic resistance of the arch dam is indicated to be in excess of 1.09 g with the arches able to resist 2.0 g with maximum water loading. Actually, the maximum acceleration reported at the dam site was less than 0.1 g. The seismic problem is shown by the record to have been considered by the designers of High Ross, and it is clear that the risks, if any, are very small.

RESERVOIR LEVEL

The Judge provided in ordering clause (G) that the Licensee shall not permit the water level of Ross Lake to rise above 1,725 feet above mean sea level as approved by the IJC unless the higher level should be approved by the IJC (Ex. 42). The City objects saying that the compensation agreement with British Columbia (Ex. 44) covered the possible effect on lands up to elevation 1740.

The IJC's order in 1942 approved the City's application "to raise, by stages, the natural water level of the Skagit River at the international boundary to elevation 1725 feet above mean sea level". The compensation agreement in 1967 allowed the City to flood lands "up to elevation 1725 feet--and, in addition such added vacant and unalienated crown lands up to elevation 1740 feet-- as the Province may consider necessary to properly contain the reservoir, having in mind possible land erosion as a result of wave, ice or other factors inherent in establishment of the reservoir."

The compensation agreement dealt with land to be leased (Tr. 1628-29). It might well be necessary to include land additional to that actually covered by water. In any case the IJC approved a reservoir level at 1725 feet, not higher, and we have no authority to approve the flooding of Canadian lands to a higher level without action by the IJC.

THE NEED FOR HIGH ROSS POWER

The City shows an increase in peaking capacity for High Ross of 292 MW based on an average capability over a four-month period, commencing in January of the fourth year of a critical period (April 16, 1928 to February 29, 1932) and ending in April (Tr. 9628; Ex. 294). The staff determined an increase of 273 MW (Tr. 7293, 7316; Ex. 244), based on the middle of the month reservoir elevation in January 1932. The City also shows an increase in average primary or firm energy of 36.5 MW (Tr. 9536; Exs. 294, 303), while the staff shows an amount of 36 MW (Ex. 244). In each case the energy computations were based on the critical period (Tr. 3189, 7293). In the opinion of the Commission the differences between these figures are not significant in determining the need for High Ross.

American Intervenors argue that the proper evaluation of a critical year can only be under those circumstances during which critical or low water flows occur in combination with low temperatures causing high loads. We agree with the staff's contention that the 42.5 months critical period is long enough to cover these conditions. American Intervenors also contend that High Ross is contrary to the Hydro-Thermal Program under which the responsibility for building hydroelectric peaking plants was assumed by the Bonneville Power Administration (BPA) (Tr. 3332-33). As the Judge says, the peaking capacity of High Ross will be useful to the City and the West Group Area of the Northwest Power Pool independent of the Hydro-Thermal Program.

The need for the additional capacity and energy supplied by High Ross is demonstrated by the City, which shows its electric load and resources as estimated through 1994 on the basis of the peak and average loads (Ex. 115). Without power from BPA it is shown that there will be a deficit in every year. Even with BPA help there will be a deficit on the average basis by 1983-84 amounting to 22 MW and increasing to 47 MW in 1984-85 and 93 MW in 1985-86, and on the peak basis by 1985-86 amounting to 44 MW increasing to 121 MW in 1986-87 and 197 MW in 1987-88. Witness Jones for the City noted that for some time it has been known that

BPA would not be able to meet the load growth of its public agency customers after a date of insufficiency, which he thought would be approximately in the 1981-82 period (Tr. 3241-42).

The staff also shows loads and supply for the West Group Area (Ex. 239). The demand side of this 1974 study was prepared under the direction of staff Witness Bell (Tr. 7265), who directed that the loads of the area be studied in the past and projected into the future on the basis of available information on commercial, residential and industrial sales. The supply side reflects a report of the Pacific Northwest Conference Committee (PNUCC). The result showed a peak and energy deficit from 1978 to 1985. Without High Ross this amounted to 763 MW of demand and 3262 MW of average energy in 1978-79, increasing to 7570 MW of demand and 6080 MW of average energy in 1984-85.

On February 17, 1976, American Intervenors and ROSS filed a petition to reopen the hearing to receive in evidence the 1975 Blue Book of PNUCC and the Energy 1990 study being prepared by the City of Seattle. As a supplement, on April 2, 1976, the Intervenors filed a 1976 West Group forecast of power loads and resources. In their briefs on exceptions they contend that the Commission should examine the 1975 and 1976 updated PNUCC data. According to an attachment to the American Intervenors' brief the 1975 PNUCC report shows that a shortage of peaking power does not appear until 1987-88 (amounting to 1,533 MW and rising to 20,709 MW by 1994-95), but that there is a shortage of energy in every year except from 1983-84 through 1986-87. The 1976 report shows a peak surplus in every year from 1976-77 to 1986-87 but the surplus is down to 86 MW in the last year. There is an energy deficit in all of these years.

We agree with the City and the staff that the proposed updated evidence does not significantly affect the result. The staff made a careful projection based on 1974 data (Ex. 239). The fact that later data shows that the power shortage may be postponed does not do away with the need for High Ross. As they argue, proposed

new generating units are likely to be delayed because of environmental considerations, among others. Furthermore, Federal plants must not only be authorized but money must be appropriated by Congress. It is obvious that in examining the figures for peak loads that a delay in the installing of one large unit such as WPPSS No. 1 (1300 MW) would change many of the peak surplus figures into deficits. We therefore find that there is a regional need for the High Ross power and a need for the power on the system of the City of Seattle.

CAPITAL COSTS

The Judge noted the City's estimated capital cost of High Ross in the amount of \$73,030,960 (Ex. 116) and the Staff's estimated cost of \$70,393,000 (Ex. 250), (I.D. 36). The Judge pointed out that these estimates were within 3 percent of each other and found that they were acceptable and could be used in comparison with alternatives to High Ross. American Intervenors contend, however, that additional costs of serious magnitude must be added to the costs as shown by the City and the staff. These costs included: (1) shortening the life of the generators; (2) mitigating the loss of wildlife habitats within the Ross Reservoir; (3) mitigating potential losses of fishery habitat; (4) recreation facilities in British Columbia. American Intervenors say that the assessment of the four items of cost could run into millions of dollars, depending on their ultimate solution. On the contrary the staff argues that the existing cost estimates are adequate for licensing purposes and are as complete as possible considering that estimates of future mitigation and recreation plans would be speculative at the present time. The City likewise contends that environmental costs and future mitigation work and studies are included in the overall estimates.

On the life of the generators Witness Chavez for the staff, in computing annual costs, included an item of \$68,000 per year which would apply to interim replacements including replacement of generation components (Ex. 248). City Witness Gleason testified that the increased loadings may result in

somewhat shorter life of various items of electrical equipment, but it is not possible to estimate with any accuracy what increase in costs over the life of the project may be expected (Tr. 2795-96).

Both City and Staff included amounts related to environment and recreation. City shows mitigating costs of \$106,000 to construct a temporary fish passage facility on Lightning Creek, placing incubation boxes in Lightning Creek, introducing shrimp feed into the Ross Reservoir and inhibiting plant succession in the Skagit Valley in British Columbia for the benefit of the deer (Ex. 91). City also showed post-licensing investigations in the amount of \$400,000 (Ex. 91). These amounts were included with other recreational and environmental costs in the cost of service estimates of the City and the staff (See Tr. 2722; Exs. 116, 250). The City showed recreational and environmental studies and work to total altogether \$5,375,870. It may be that all necessary mitigating costs are not included; on the other hand the limited damage to wildlife, as discussed below, does not require large additional costs. In view of this evidence the Commission is of the opinion that the cost estimates are reasonable for purposes of comparison with alternative projects.

OPERATIONAL PROBLEMS

The Judge discusses what the effect of High Ross on fish would be with respect to atmospheric gases dissolved in the water that passes over the spillway and water temperatures. Evidence was introduced that as long as the discharge from the powerhouse exceeds the spillway discharge, the dissolved gas would not exceed 110 percent of saturation, the state standard (Tr. 6337), and the evidence indicates that the project can be operated to meet this standard (Tr. 6368, 6395-97). The Judge adopted a staff recommendation that the license should include a specific article ensuring continuing compliance with the Washington Water Quality Standards (Article 61). No exceptions were taken to the Judge's discussion or conclusion on dissolved gases.

On the control of water temperature, which affects the development of fish eggs, and the supply of food for fish, evidence was presented by both City and staff, and the Judge concluded that, because of conflicting evidence, there should be included in the license a requirement that City

engage in further studies in cooperation with DOF and DOG and prepare plans for the placement of water intakes at the dam so as to approximate existing temperatures downstream and to operate the intake works to provide satisfactory water quality, including temperature (Articles 60 and 61).

The Judge also discussed the question of the impact of downstream flows on fish, particularly fry that might be stranded below the dams and concluded that since no change in flow regimes was proposed in conjunction with raising the Ross dam this was not a proper subject for consideration in this proceeding. No exceptions were taken with respect to temperature and variations in downstream flows except by the Tribes.

The Tribes are concerned with their treaty rights to their "usual and accustomed" fishing areas on the Skagit River below the Gorge Dam. They cite the record as showing the death of fry from fluctuations in flow and reduced downstream temperatures as the project is now operated. They contend that unless the Commission makes a finding under Section 4(e) of the Federal Power Act, it cannot issue a license which would infringe upon their treaty rights. Section 4(e) provides in part that licenses shall be issued within any reservation only after a finding by the Commission "that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired." They contend that their fishing rights are included within their "reservation" even though the fishing rights are not exercised on Indian reservation lands, and there are no such lands within the boundaries of Project No. 553.

As the staff notes and the Judge finds, the record shows that the application for High Ross does not propose any permanent change in the existing flow regime from the Project (Ex. 169, 9-2) i.e.; flow releases from Gorge Dam, so that the question of flow releases is not an issue in this proceeding. Any discussion of altered flow regimes would be a discussion of a separate application requiring an entirely different analysis (Tr. 6971-72, 8947-48). In this regard Article 37 of the Project license provides that the Licensee in connection with the Gorge development shall comply with such reasonable modifications of the project structure and operation in the interests of fish and wildlife resources as may be hereafter presented by the Commission. Article 39 provides for studies to determine flow release schedules below the Gorge development.

On May 1, 1947, the City made an agreement to release below the Gorge Dam a minimum of 1000 cubic feet per second or the natural flow whichever is less (Ex. 163). While the evidence shows that reduction to this level resulted in loss of fry and DOF contended before the Judge that a higher flow should be required, this is a matter for a separate proceeding based on Article 37 of the License. 6/ Since the Project No. 553 license expires in October 1977, the matter of a larger release of water could become an issue in the forthcoming relicensing proceeding. This matter would not directly affect the Ross Dam, because it is the amount of water released at Gorge which concerns the fishery below that dam.

The Staff notes further that there is no basis in the record for the Tribes' claim that fry in the Skagit River are killed by fluctuations in water temperature, although such fluctuations could cause decreases in food production and delays at various stages in the life history of salmonids. We note that, in any case, licensee is required under Article 59 of the amended license to monitor river and reservoir temperatures and conduct heat budget studies in cooperation with DOF and DOG, and if necessary, prepare designs for water intake facilities at Ross Dam that would permit selective withdrawals and maintenance of existing downstream temperatures. Under Article 60, licensee must consult with DOF, DOG, and DOE and prepare a plan for operating the intake works so as to provide a satisfactory water quality, including temperature, downstream. With these precautions, any adverse effects on fishery resources that might be occasioned by changes in water temperatures could be avoided.

While we do not agree with the Tribes' argument with respect to that part of Section 4(e) of the Federal Power Act pertaining to reservations, even assuming arguendo that the Tribes' alleged interests constitute a "reservation" within which the "license" would be issued the Commission can still make the finding that the license will not interfere or be inconsistent with the purpose for which the reservation was created or acquired. Further discussion of the Tribes' Section 4(e) arguments is therefore unnecessary.

6/ Article 44 of the amended license here is similar to Article 37 and would cover the Ross development.

The Tribes point out that the present proceeding, if there is an appeal, will not be determined before the license expires. They add that new investment will affect the amount the government or a new licensee must pay in the event of recapture. It is clear that there can be no recapture by the United States under Section 14 of the Act because the City is a municipality and is exempt. 7/ They also argue that any new licensee will be required to take substantial measures to rectify the past detrimental effects of the project, and it is probable that the licensee would be required to construct fish passage facilities. To this, the City points out that before the project was built salmon were not observed in the Skagit River much above Newhalem because of the rapids (Item U, pg. 67). However, the Tribes assert that this has not been proven. In any case, there is no reason not to act on an application to amend the license at this stage. As shown above there is a need for the power, and we find that the project is best adapted within the meaning of Section 10(a) of the Act.

ALTERNATIVES TO HIGH ROSS

NEPA requires that alternatives to the proposed action be considered. The alternatives to which exceptions are directed are as follows:

1. Building Dam to 1675 feet rather than 1725 feet.

American Intervenors except to the Judge's finding that High Ross could not be built to 1675 feet instead of 1725 feet because it provides substantially more peaking capability at 1725 feet. A proposal to limit the increase in height is a variation on the "No Action" alternative briefly discussed in the FEIS (Ex. 269, p. 8-7), where the point is made that if the project is not built an alternate would have to be found since there has been an annual load growth in the area of approximately 5.8 percent for peak load and 5.4 for energy.

Specifically, American Intervenors point out that in building High Ross the turbines will be modified but only minor changes are contemplated for the generators. As a result of the higher head, American Intervenors note, a heavier load will be put on the generators, but they will reach a

7/ Act of August 15, 1953, (67 Stat. 587).

maximum capability of 529 MW at a water level of 1675, 50 feet less than the planned height of the reservoir (Tr. 9802, 9807; Ex. 206). Although the average reservoir elevation for High Ross will be below 1725 feet, it will be higher than if the reservoir were limited to 1675 feet (Tr. 9739). Thus the record shows that from 1725 feet down to approximately 1676 feet capacity would be 529 MW; at 1668.8 feet, which is the maximum drawdown for the higher dam, it would only fall to 522 MW (Ex. 106). The drawdown for a maximum reservoir elevation of 1675 would be lower and would produce correspondingly less dependable capacity. It may be observed that the capacity at 1602.5 feet the maximum height of the present reservoir, is 450 MW. However, this drops to only 218 MW at 1475 feet, the maximum drawdown for the existing reservoir.

2. Conservation of Energy and Rate Manipulation

American Intervenors object to the Judge's finding that conservation of energy and rate manipulation may be beneficial in the long run but in the face of an immediate need for power are not a valid alternative to a new source of power. According to the testimony, conservation requirements are of dubious use after the first flush of enthusiasm (Tr. 3281, 6803-6807). In any case conservation is only in part an alternative (Tr. 8658). Contrary to American Intervenors' allegations there is a need at this time, as already discussed, to add to City's energy supply.

On rate manipulation there is evidence in the record that High Ross could be delayed by peak-load pricing to reflect the costs of the proposed project, and such an effect might result even with an increase in the price of natural gas as a substitute fuel (Tr. 7931-7934). However, there is also evidence that it is not proved that a change in Seattle's rate structure would reduce the load, particularly since some rates are at a level of less than one cent per kilowatt hour (Tr. 3335, 3343-45, 3401, 6477, 6813). In view of this situation staff witness Miller testified that if he were operating a major utility and was responsible for having an adequate supply of reliable energy available, he would consider conservation and price elasticity to have about a one percent effect on load. If he gave these factors any greater effect and postponed building a power plant, in view of the shortage of materials, he might be caught in a shortage (Tr. 6814-6815). The Commission agrees with this and the statement in the FEIS (Ex. 169, 8-14) that although conservation practices could effect some reduction in the need for new generating capacity, they will not eliminate growth in energy demand and the need to expand electric generating capacity.

Pursuant to the Energy Policy and Conservation Act of 1975, Public Law 94-163, 89 Stat. 871, 940 approved December 22, 1975, especially Section 382, the issuance of this amendment of license authorizing the increase in height of Ross Dam of Project No. 553 provides for the use of a renewable resource that will increase the dependable capacity of the project by about 273 MW and produce an average of an additional 327,300,000 kilowatt-hours of electric energy annually. This will conserve fuel resources equivalent to about 537,000 barrels of oil annually.

3. Purchase of BPA Power.

ROSS introduced cost comparisons in the form of a discounted cash flow analysis, to show that purchases of power from the Bonneville Power Administration would be less expensive than building High Ross (Ex. 274), and it advocated a discount rate of 8 or 9 percent. The staff used 6 percent in its analysis and later, in its brief, indicated that 7 percent would be appropriate for Seattle, whose bonds are exempt from Federal taxation and are rated double A by Standard and Poor and by Moody (Tr. 9737). The Judge notes that under either a 6 or 7 percent discount the BPA power is more expensive. ROSS excepts, arguing that the 8 or 9 percent discount should be used since a subsidized rate for tax exempt bonds is not appropriate, while American Intervenors say the Judge should make a definite finding on bond rates. The staff does not think that a specific finding on interest rates is necessary.

In the opinion of the Commission an interest rate of 6 or 7 percent is reasonable on this record, for the Commission is concerned with alternatives facing the City rather than whether the City is being subsidized by a tax exemption, for that is national policy. Using such discount rates the ROSS study (Exhibit 274) shows that BPA power is more costly.

American Intervenors, as well as ROSS, argue that the Judge incorrectly finds that the purchase of BPA power is not a proper alternative to High Ross (in addition to being more expensive) since, he says, obtaining power from BPA would require the building of other generation

with its own environmental impacts and the Pacific Northwest will have a deficit of peaking power through the next twenty years even with High Ross and all the peaking power BPA can obtain by adding units to federal dams. It has already been noted that BPA power is more costly, and, as discussed above, the Pacific Northwest needs High Ross for reliable peaking power even considering the plans for additional projects covered by the more recent reports of PNUCC. The record indicates that BPA is getting into an increasingly difficult situation of supplying the demands of its preference customers and could not do so after the year 1983 (Tr. 7229).

4. Other Alternatives

The Judge has determined that a gas turbine or a combined steam and gas turbine, a base load oil-fired plant, a base load coal-fired plant and a nuclear plant are all more costly and would involve environmental impacts that would have adverse effects in quantity and quality at least as significant if not more so than High Ross. American Intervenors, on the other hand, contend that High Ross is not the least expensive or desirable of the alternatives to be considered, and there is no proof that the adverse environmental impacts of the proposed alternatives are as significant as those from High Ross. Based upon the cost of 9.8 mills per kilowatt-hour for energy delivered, American Intervenors attempted to show that the annual cost was greater than revenues so that there was a cost-benefit ratio of only 0.75. This is plainly based on a misconception; High Ross would be built largely to supply peaking power, rather than kilowatt-hours, to the City's customers. The proper type of calculation is that made by the staff where the annual costs of High Ross are compared with the costs of generating the same amount of power and energy in a thermal-electric plant (Exs. 247, 248). By this method of staff found a substantial net power benefit.

American Intervenors also attempt to show that the cost of average energy is more than the cost of nuclear energy at Hanford although less than the cost at a steam plant citing exhibits prepared by Witness Jones for City (Exs. 119, 120). Actually these exhibits show that High Ross is much less expensive than the equivalent share of the nuclear plant or the steam plant. It is also noted that the FEIS compares the annual cost of power at High Ross with the annual cost under the alternatives referred to above and finds that High Ross is the least costly. 8/

American Intervenors contend that the record does not support the Judge's finding that the alternatives have adverse environmental effects at least as significant if not more so than High Ross. It argues the City's Witness Jones was not an expert on environmental matters and there was no exhaustive analysis of the environmental impact of the alternatives.

The FEIS contains a short resume' of the adverse environmental effects of the more possible alternatives (Ex. 169, 8-1). Thus it points out that combustion turbines use fuel in short supply, release combustion by-products and involve construction of new transmission lines, that combined cycle plants (combustion and steam turbines) and oil-fired steam plants involve air pollution from stack emissions, depletion of fuel resources, consumptive use of water, new transmission lines etc., that a baseload nuclear plant also requires a large volume of cooling water, and that a pumped storage plant would involve land clearing, excavation, and loss of wildlife habitat and recreational use. The record also contains supportive testimony by City's Witness Jones and staff Witness Chavez (Tr. 3203, 3207, 3209, 3365, 3378, 3438, 3498, 7298). The Commission agrees with the contentions of City and the staff that exhaustive analysis of the environmental impact of these alternatives would be pointless.

8/ We take notice that the same general result would be achieved if a more up-to-date interest rate, such as 6 or 7 percent instead of 5-3/8 percent used by the FEIS, which employed costs as of January 1, 1972, were used. (Ex. 169. 8-3).

WILDLIFE

The Judge made the general finding that the issue is the propriety of raising the Ross Dam with the City urging approval and the intervenors requesting denial in order not to ruin the area for future generations. He said "There is no perfect answer. The best we can do is to weigh overriding considerations and reach an equitable solution consonant with public interest". American Intervenors object to an alleged emphasis by the Judge on there being no elimination of endangered species and his failure to provide the balancing process between natural resource losses and power benefits. It contends that quantification and qualification of wildlife habitat can be done. ROSS contends that there would be severe, serious and permanent wildlife losses if Ross Dam is raised and that the Judge has ignored the impact. 9/

The Staff points out that the Judge does not imply that endangered species are the sole criteria for balancing in decision-making on hydroelectric projects and notes the several voluminous studies that have been made on the record of wildlife on both sides of the international border including consideration of the Ross Basin area as geographically and scientifically significant and located between the relatively moist coastal zone and the relatively dry interior zone. Considering the evidence on the transitional characteristics of the wildlife in the Ross Basin the staff concludes that the relative value of the affected wildlife, together with other anticipated adverse impacts, do not justify denying the application. Staff also contends that the record is full on the extent of wildlife losses and the effectiveness of mitigation measures.

9/ ROSS makes extensive reference to its brief before the Judge contrary to Section 1.31(b)(2) of the Commission's Rules that briefs on exceptions and opposing exceptions shall be self contained.

City presented for the record a three-volume report, "A Biotic Survey of the Ross Lake Basin", prepared by the University of Washington under the direction of Dr. Richard D. Taber, a professor. It covers for the area in the United States the types of plant communities and the species of plants, a survey of the deer population, a survey of small mammals, and lists of mammals, birds, reptiles and amphibians (Items DD, EE, FF). City presented for the Canadian area an "Environmental Investigation" under the direction of Dr. Jones F. Bendell for F.F. Slaney & Company Limited in four volumes which covered similar matters. Witness Stendal for DOG felt that the study methods were adequate and provided good data within the constraints of time and logistics (Tr. 5792).

The staff sets forth its findings on wildlife in the FEIS. This is based on the University of Washington Biotic Survey referred to above (Ex. 169, 2-22). The conclusion is made that the clearing of vegetation from elevation 1,602 up to elevation 1,727 and the subsequent inundation up to 1,725 would adversely affect the wildlife of all sections of the Ross Basin in both the U.S. and Canada (Ex. 169, 3-5).

In the opinion of the Commission the Judge gives an accurate picture of the impact of High Ross on wildlife without incorporating the details found in this massive record. Essentially 8,320 acres will be flooded, of which 4720 acres will be in Canada, and this, as he says, will have some impact on the wildlife which uses the affected area. For example, DOG's witness Stendal, quoting the University of Washington Biotic Study for 1972 (p. E-3) notes that nine species of small birds will be eliminated from the area as breeding populations (Tr. 5793).

The studies, the FEIS, and the Judge emphasize the deer population. This may be reduced by the loss of winter range in the United States and spring range in Canada. Thus in the United States the winter range, which exists from the present lakeshore up to 3000 feet would be reduced by 700 acres, leaving 1400 to 1500 acres. The FEIS determines that this would reduce the deer population by 25 to 35 percent (Ex. 169, 3-6). It notes that deer which would normally winter below elevation 1,725 would be forced to move to adjacent areas and compete with established animals; this would cause greater winter mortality after the shore line is cleared.

By counting deer pellets, the deer on winter ranges were estimated to be 227 in 1970-71 and 206 in 1971-72; by direct observation an estimate of 305 and 250 was made (Item EE, p. 4). About 400 are estimated for the lowland spring ranges in Canada, part of which will be flooded by High Ross (Tr. 5692; Item GG, Vol. III, p. 6-6).

The record indicates that the reduction in numbers could be mitigated by cutting or burning present vegetation to allow growth of forage for deer (Tr. 5459-60; Item GG, Vol III, p. G-54 Item EE, P. A-11). The question is raised, however, whether the mitigation techniques will be unaesthetic and endanger other wildlife (Tr. 5794), and whether this method should applied to a locality outside the Ross Valley. In any case it does not appear that the reduction in the deer population, even if not offset by mitigation measures is a decisive problem.

In the United States part of the area, in addition to deer, only beaver would be affected among large mammals. An estimated 35 beaver inhabit Big Beaver Valley and half would remain after flooding (Tr. 5445). Other larger mammals, black bears and mountain goats, would not be affected in any significant way by the raising of the Ross Lake (Tr. 5446). Generally, most of the birds, reptiles and amphibians would have their populations reduced in proportion to the land flooded. These species which are found mainly in stream-bottom or marshy plant communities, however, would be flooded by the project (Tr. 5445).

In the Canadian area, as presented by the City's Witness Bencell, the record indicates a certain reduction in carnivores and fur bearers; 5-10 fewer coyotes, 3 fewer cougars, 15-20 fewer raccoons, 15-25 fewer black bears (Tr. 5682). Small mammals would be reduced roughly in proportion to the flooded area (Tr. 5683). Of the game birds and waterfowl, only the ruffed

grouse, snipes, rails and some species of waterfowl would be reduced in numbers (Tr. 5685-87). Of the 177 species observed, 82 species were noted as breeding in the area, but only 12 were nesting in the area to be flooded (Tr. 5639). Of these, eleven would obtain a new shore line habitat and the twelfth, the sparrow hawk, could find suitable habitat above 1725 feet. The witness was of the opinion that more than 70 percent of the present population of breeding birds in the area would remain after the reservoir is raised (Tr. 5690).

As observed above, American Intervenors contend that the Judge has failed to provide a balancing process between natural resource losses and power benefits stating that environmental values should be quantified. As far as wildlife is concerned, the Commission is of the opinion that the Judge has balanced the various factors and has arrived at the proper judgment. While wildlife numbers will be reduced, the reduction does not appear substantial in number and nothing unique will be lost (Tr. 5440, 5677). Contrary to the implication of American Intervenors, the record is very full and the various types of wildlife habitat in both the United States and the Canadian part of the Ross Basin have been studied and mapped (Ex. 132, 191). There is nothing to show that the areas near the Ross Basin are unique with respect to fauna and flora. The Ross Basin represents a transitional area where species and subspecies tend to hybridize, but examples could be found both north and south of the area (Tr. 5492).

FISHERIES

The Judge discussed the impact on fishing of High Ross noting that, in contrast to the Skagit River, the present reservoir not only supports a greater number of fishermen, but is more productive as to total number of fish taken and as to catch per unit of effort. He accepts the estimate that the trout population, largely rainbow trout, in the system would increase proportionately to the increase in the size of the reservoir. He also noted that in British Columbia there is an abundance of fishing from boats, while trout streams were at a premium. He observed that the Skagit River fishing

was attractive and productive and that ten miles of river would be inundated leaving the remaining two miles of accessible stream subject to incompatible recreational development. He concluded that the loss of the Canadian Skagit fishery would reduce the variety of fishing experiences available to lower mainland anglers and this must be weighed against improvement in individual fishing success which might come as a result of raising the reservoir and possible mitigative measures.

In spite of the Judge's discussion ROSS contends that he entirely overlooks the impact of flooding on the Skagit River. Further, ROSS says, there is no testimony that individual fishing success will be improved as a result of raising the reservoir and that the stream fishery will be eliminated. We agree with the Judge that loss of the Canadian Skagit fishery would reduce the variety of fishing experiences available to Lower Mainland anglers and that this must be weighed against any improvement in individual fishing success which might come about as a result of raising the reservoir, and possible mitigative measures, such as improving access to unaffected reaches of trout stream in British Columbia, should be considered.

Staff's proposed conclusion is accepted herein. There is some doubt as to whether the trout population would be able, following inundation to 1,725 feet, to maintain itself at its present level, much less at the 50 percent higher level projected by Applicant. Losses may be occasioned by the absence of sufficient spawning habitat above 1,725 feet, by the inability of the fish to find and utilize any additional spawning habitat which may be there, or by a combination of these factors. In this context, close consideration and careful planning of measures to mitigate for possible losses to the trout population is hereby ordered. (See Article 56).

RECREATIONAL AND WILDERNESS VALUES

There is an important issue on the impact of High Ross on recreation. Recreation, of course, would become available by the creation of a larger Ross Lake. Recreation can also be derived from the enjoyment of land and water in its natural state. However, there is a value inherent in the natural environment apart from recreation and apart from any scientific need, and this should be considered in connection with flooding by High Ross whether in the United States or Canada.

1. Impact of High Ross in the United States--The issues here relate largely to Big Beaver Valley and camp sites on the shore of Ross Lake. Big Beaver Valley is a broad flat valley that commences four miles north of the present Ross Dam and extends westward about 12 miles to the Picket Mountain Range. Approximately 6 miles of the lower valley is in the Ross Lake National Recreation Area, and the upper 6 miles is in the North Cascades National Park. (Ex. 19). Fashioned by glaciers, it is a hanging valley which prior to the initial flooding of the Skagit River was several hundred feet higher than the River, but which now has its mouth at the lake level. It was studied by witnesses Joseph and Margaret Miller for N3C and was shown to include interesting stands of lodgepole pine, western hemlock, douglas fir and Western redcedar, flowers, ponds and bogs, (which represent the work of beavers), and other animals and plants, with steep slopes on either side and snow-capped mountains in the background.

The Judge notes that access to Big Beaver Valley is difficult, although one can get there by boat or trail, and its use is limited. The Judge is of the opinion that if there is little or no recreation in the valley anyway, then raising Ross would not have any substantial adverse effect, and if there is to be intensive recreation, then the higher reservoir will enhance such possibilities.

American Intervenors say there is no support for the Judge's further statement that if one assumes commitment of the valley to intensive recreational use, the Valley's potential with High Ross far exceeds its value at present lake level. Actually the record supports the Judge's statement. City's Witness Wirth points out that it is necessary to hike six miles from Ross Lake to reach the wilderness area in the National Park. He notes the hike from the present lakeshore, while not unpleasant, is not unusual, nor does it offer any particularly significant experience (Tr. 6129, 6258). On the other hand when the Valley is flooded, Big Beaver will afford an outstanding recreation experience for those not privileged to enjoy the wilderness--the elderly, the low-income citizen, and those not hardy or rich enough to be able to hike or climb. (Tr. 6125). He adds that a facility could be built at the western end of the flooded area in Big Beaver that would provide access to the wilderness area for short walks or long hikes into the mountains (Tr. 6126). Witness Sharpe for City also discussed the value of an arm of Ross Lake extending up Big

Beaver Valley that would benefit hikers and mountain climbers by providing access to the area by boat (Tr. 3017, 3169).

American Intervenorors cite the Wilderness Act of 1964, 16 U.S.C. 1131 et seq. for the proposition that Congress intends to secure for the American people the benefits of an enduring resource of wilderness. However, the area that would be flooded in the Valley is not included in any wilderness area; rather it is in the Ross Lake National Recreation Area. 10/

While there is evidence in the record as to the rarity of unspoiled valleys in the region (Ex. 279, Tr. 6575), and the value of Big Beaver as a research natural area (Tr. 6552), other areas would provide at least some of the features of Big Beaver (Ex. 169, 3-5; Tr. 6565, 7133-34, 7138, 7128, 7142, 7146). Thus the Chilliwack Valley likewise has ponds as a result of beaver dams and also stands of western redcedar (Tr. 7138, 7143), and it receives greater protection by being in a national park (Tr. 7139). The Commission concludes that from the recreational standpoint the flooding of part of Big Beaver, while destructive of some recreational values, will enhance recreation in other ways. Furthermore, while the record indicates that Big Beaver is an interesting and beautiful area, it is not so unique that it must be preserved at any cost as a kind of ecological specimen.

The Judge noted that High Ross would support some 890 camp sites (Ex. 298), much more than suggested by any witness for ultimate development, and future use is expected to be at full capacity. American Intervenorors point out that this is a national recreation area, but this does not mean that mass recreation is the requirement, and there will be a net recreation loss if the dam is raised. Thus their Witness Butterfield testified that raising the reservoir elevation to 1725 feet would flood 70 percent of the potential development areas adjacent to Ross Lake and these will be needed in the future (Tr. 8355).

There seems to be no doubt that level areas along the shore of Ross Lake that could be useful for camp sites and other developments will be reduced by High Ross (Exs. 297, 298), but Butterfield's estimate was based on maps with too small a scale (Tr. 9585). Applicant's witness Freitas found 1,030 camp sites at the present lake elevation and 890

10/ 16 U.S.C. §90a.

at the increased elevation based on field surveys (Tr. 9583-84), and this appears to be a more accurate result. In any case W. Lowell White, superintendant of the North Cascades Park Complex, calls for only 100 camp sites consisting of replacements and additional ones (Tr. 6618).

Mr. White estimates that given a reasonable level of recreation facility development and easy access, the Ross Lake National Recreation Area will receive annual visits of about the same level as Mount Rainier National Park, amounting to nearly 1.7 million visits in 1972. He notes that the FPC licensed Skagit River Project No. 553, stretches through the length of the recreation area, and the three project reservoirs are the focus for visitor use and physical occupancy.

Apart from any loss of natural beauty in Big Beaver Valley, the record shows that even though the number of camp sites may be reduced, the higher, larger lake, when properly developed by the licensee with the approval of the Park Service, will provide enhanced recreational opportunities for many people in the United States.

2. Impact of High Ross in Canada--The Judge finds that High Ross would reduce the value of the lower Skagit Valley for recreation and as an outdoor laboratory for educational and scientific pursuits, but the loss would not be total, and the impacts are not sufficient to outweigh the benefits. He notes that even with the higher reservoir, the Skagit Valley could support a level of recreation far in excess of the current level. He adds that an opportunity should be afforded the appropriate agencies to formulate a plan for recreation development and he has so provided in ordering clause (K).

ROSS, however, says that it is the view of the Canadian Federal and the British Columbia Provincial governments that such impacts are indeed unacceptable and outweigh any benefit that would result. ROSS contends that the Judge ignores the fact that any increased level of recreation would involve different types of recreation of lower quality and value, and it is the value of the recreation and not the level that is significant. Furthermore, it says, the Judge has ignored that High Ross would expose three miles of mud flats and tree stumps when the reservoir is down and damage the unique ecotone and plant communities.

The City contends that raising Ross Lake will greatly enhance the recreation potential in Canada, particularly water-oriented recreation. It argues that the testimonial conflict centered on the issue whether the available data could support a meaningful benefit-to-cost study and thus a monetary value. The City says that such a benefit--cost analysis is not feasible because future recreational development of the Skagit is too uncertain. As for general education, City points out that while some valley bottom would be lost, the ecotone would remain in the adjacent area. Further, City says the Skagit would not qualify as a site for education about the wilderness, for it is not in any sense wilderness or unspoiled land since logging has been terminated only recently.

The Staff contends that a benefit-cost study constitutes a refinement of the crude compilation of general capacity figures and permits sensitivity to the relative values that people place on different kinds of recreation opportunities and it is not true that such an analysis can only be based on conjecture. On the basis of a "unit value" approach, with discounting, Staff notes that its witness and the IJC concluded that the present value of recreation in the Canadian Skagit Valley with High Ross is lower than the present value of recreation without it (Tr. 881, 883; Ex. 169, App. F, pp. 24, 145). However, balanced along with other adverse impacts of raising the reservoir against the considerable power benefits and other improvements to be derived from the project, the loss does not compel denial of the proposed development.

The record contains somewhat varying estimates of the impact of High Ross on the Canadian Skagit as to recreation and related values. Estimates made by the IJC, the Commission's staff and ROSS, indicate that there will be a net loss with High Ross. IJC finds that in its present state the Skagit Valley supports a limited amount of outdoor recreation of a generally high quality. (Ex. 169, App. F, p. 22). Without improvements it is estimated that the Valley would support 25,000 days of use annually, but with improvements 340,000 days. With High Ross, without improvements, use would be limited to 12,000 days per year, but with improvements 342,000 days per year. When the various uses are valued, without improvements, the present value of future uses would be reduced from \$3,200,000 to \$2,173,000 and with improvements from \$14,726,000 to \$13,742,000. IJC notes that while the ultimate capacity

of the Valley to support recreation may be greater with High Ross than without, the present value of recreation would be reduced by loss of highly valued opportunities for fishing and hunting, and by the interruption of most recreational use during the period of construction and reservoir clearing.

The staff witness Bowden estimates that without High Ross recreation days, including hunting, river and reservoir fishing, and general recreation would increase from 113,230 days in 1976 to 803,500 days in 2015 (Tr. 863-864). With High Ross, total recreation would amount to only 2,500 days in 1976 because of the construction activities, and would increase to 890,500 in 2015 and 1,029,500 in 2018 (Tr. 874-875). The witness computed the present value of the future use of the Canadian Skagit Valley using a discount rate of 8 percent and a unit value of one for each day of recreation, regardless of activity. This amounted to \$2,805,980 if the Ross Reservoir is not raised and \$1,569,290 if it is raised (Tr. 879). The Witness also devised specific values per day for each type of recreation: \$10.00 for hunting, \$8.00 for fishing in the river, \$5.00 for fishing in the reservoir, \$4.00 for general recreation in the present state, and \$3.00 for general recreation with Ross Reservoir raised (Tr. 880). Using these values and an 8 percent discount he found a total value of \$11,664,000 if the reservoir is not raised and \$4,878,000 if the reservoir is raised (Tr. 881).

Evidence presented by ROSS indicates that the Canadian Skagit Valley has features that are not commonly repeated elsewhere. Thus, among 33 valleys in southwestern British Columbia, 19 had very limited flat bottom lands and none had been subject to extensive logging (Tr. 8012-13). Of the remaining 5, 4 are threatened with rapid development and one is substantially more remote from Vancouver (Tr. 8013). A recreationist witness for ROSS stated that the primary contribution of the Skagit Valley is that it affords a variety of recreational opportunities which are in short supply: flatland hiking and camping, river canoeing, river fishing and ski touring--suitable for all ages, the unskilled and the unfit (Tr. 1326).

There is evidence in the record that the Canadian Skagit Valley is beautiful, with open meadows, forests, and snow-capped peaks in the background (Ex. 14). Five thousand acres of this will be flooded, and there will be a 2000-acre drawdown area where there will be mud flats (Tr. 2860). The effect of the drawdown will be minimized by cutting

stumps to ground level on slopes of less than 40 degrees, and to six inches above ground level on slopes of 40 degrees or greater (Ex. 173). We also note, however, that the drawdown would be greatest during periods of the year when recreational visitation would be least, with a drawdown of five feet or less between July 1 and November 1, the peak recreation season (Ex. 41).

There is also testimony and discussion in the record as to option values and social preservation values (Ex. 169, Appendix F. pp. 151-154). The former are defined as the values which persons who are not currently planning to use the Skagit Valley place on maintaining it in its present state for their possible future use, while the latter are the values to society as a whole and to people who want to know that it is preserved in an unchanged state. The desires of people expressed in the record cannot be overlooked in reaching a decision here.

The Applicant, City, has not succeeded in entirely overcoming this negative evidence. City's Witness Mills found 502,000 user days per year without High Ross and 1,208,000 user days with High Ross (Tr. 5846; see Ex. 209). As discussed above, the staff witness shows a lesser increase in use with High Ross; and IJC shows a slight decrease in days per year. Whichever estimates are accepted, the weight of the record is that the value of the recreation is less with High Ross than without because of the loss of the flat valley areas and the stream. The City attempts to show that such a value analysis is impossible because the timing of future recreational development is uncertain. However, with or without development, the record indicates that the recreational development would be of higher value without High Ross.

The City rests its argument on the evidence of its Witness Mills that raising Ross would vastly increase the capability of the area to support water-oriented recreation which is in the greatest demand in British Columbia (Tr. 5841). Surveys conducted in 1971 and 1974 showed that some three-quarters of the vehicles reaching the Canadian Skagit went to the area next to the present Ross Lake rather than the areas to the north (Tr. 9403; Ex. 292, 293). Further, High Ross would increase the warm lake supply in British Columbia south of the Fraser River by 50 percent (Tr. 5943).

To conclude, it is impossible to arrive at any mathematical conclusions on the impact of High Ross on the Canadian Skagit. In spite of some of the figures it looks entirely possible that, with proper development, large numbers of people would use and enjoy the extension of the Ross Lake (even though at certain times it will be drawn down, i.e., during the off season months). The natural wilderness experience would doubtless suffer. It comes down to a question of balancing the damage against the need for High Ross.

COMPLIANCE WITH NEPA

1. The Alternatives--American Intervenors and ROSS take exception to the Judge's conclusions that the FEIS complies with NEPA. One objection is that the FEIS failed to take into account the environmental consequences of the various alternatives, and the Commission should order the preparation of a new environmental impact statement. We agree with the staff that the rule of reason should prevail here. The court in National Helium Corporation v. Morton, 486 F.2d 995, 1002 (CA10-1973) said:

"The environmental impact statement should be placed in perspective. The relevant provisions bring environmental factors into the agency decision-making placing them on an equal footing with economic, technical and other considerations....If the agency had failed altogether to follow out the procedure required by NEPA, the arbitrary and capricious standard might well apply."

In Environmental Defense Fund v. Corps of Engineers, 492 F.2d 1123 (CA5-1974) the court also adopted the rule of reason and said that the Act does not intend to impose an impossible standard on the agency.

The various possible alternatives are discussed above based on the record and the FEIS. The FEIS discussion of alternatives, such as steam plants or nuclear plants, is short, but this may properly be supplemented by the record. In Environmental Defense Fund, Inc. v. Corps of Engineers, 342 F. Supp. 1211, 1217 (E.D. Ark 1972), affirmed 470 F.2d 289, 297 (CA8-1972) it was said that the EIS is not to be equated to a trial court of record, that, while it should be as complete as possible, there is nothing to prevent the parties or the agency from bringing new or additional information, opinions and arguments to the attention of the decision makers. The court also pointed out that it is doubtful whether any agency could come up with a perfect EIS, but the deficiencies and inadequacies can be brought to the attention of the decision makers.

Here the shortened description of the impact of some of the alternatives, which were shown to be uneconomic, is in the opinion of the Commission sufficient under the circumstances but has been supplemented by testimony in the record (see above).

2. Impact in Canada--American Intervenors, and ROSS fault the FEIS and the Initial Decision on their treatment of the Canadian impact. Particularly, they object to the staff's failure to make its own investigation and its attachment to the FEIS of the 1971 report of the IJC. Preliminarily, the Commission notes that it is dealing with another country. NEPA provides in Section 4332(2)(C) for an environmental impact statement, but in an entirely different subsection 4332(2)(E) requires the Commission to "recognize the worldwide and long-range character of environmental problems" and lend support to international "initiatives, resolutions and programs" to prevent a "decline in the quality of mankind's world environment". As said in an order in this proceeding granting an extension of time, "This Commission has no authority to send its staff to a foreign country to conduct an investigation. Presumably that function belongs to the IJC, which has acted and reported thereon as discussed above". (51 FPC 504, 507(1974)).

However, the staff mentions Canada and British Columbia as involved in the environmental problem at numerous points in the FEIS and in the attached discussion of comments (Ex. 169). Furthermore, three expert witnesses from Canada testified for the staff: Bryan R. Gates, a British Columbia government biologist (Tr. 514), who testified as a private citizen on wildlife, Edward H. Vernon, also a British Columbia government biologist (Tr. 740) who testified as a private citizen on fisheries, and Gary K. Bowden, a consultant (Tr. 856) who testified on the impact of High Ross on recreation. Of course, the record also contains the testimony of environmental witnesses for the City and the intervenors. In these circumstances it is the Commission's opinion that the question of the impact of the High Ross project in Canada has been covered in depth and compliance has been had with NEPA.

GOVERNMENT OFFICIALS

American Intervenors, and ROSS contend that the Judge did not give sufficient weight to the opinions of responsible government officials citing the Fish and Wildlife Coordination Act, 16 U.S.C. §662(b) providing that the reporting officers and project reports of the federal

agencies shall give full consideration to the report and recommendation of the Secretary of the Interior and to any report of the state agency on the wildlife aspects of such projects. With regard to this matter, by letter of May 31, 1974, the Under Secretary of the Interior expressed his opposition to the project because of the impact on fish and wildlife, but Interior did not file a brief. In our opinion Interior's concerns have been covered in the initial decision as supplemented by this opinion. Interior said that it could fully appreciate the many factors which must be considered by the Commission in its deliberations and therefore in the event it is compelled to override Interior's recommendation and issue a license, Interior made certain recommendations concerning measures to compensate for fish and wildlife losses and the inclusion of certain public recreational facilities. The Judge has included such conditions in the amended license and the Commission is adopting them here.

American Intervenors say that the Judge has not given full consideration to the views of the U.S. Fish and Wildlife Service or the testimony of its employee, Mr. Ronald Starkey. Upon examination of this testimony (Tr. 7575), it appears to be informative on questions of impact on fish and wildlife but largely corroborative of other testimony. The Judge noted the opposition of the Canadian Federal Government and the Government of British Columbia. However, as already indicated, the opposition of the Canadian Government was not decisive. It was expressed in a resolution of the House of Commons which did not have the force of law.^{11/} Also, as discussed above, British Columbia in 1967 agreed on flooding and was to receive an annual rental payment (Ex. 44). As noted earlier, the IJC had agreed in 1942 to the flooding and acknowledged possible losses in its 1971 report, but realized in such report that if the project were built some people would find the new environment at least as pleasant.

^{11/} See State Department letter of November 22, 1973, (Ex. 169, H-109).

CONCLUSION

Based upon the extensive record, the Judge's initial decision, exceptions, and briefs opposing exceptions it is the Commission's opinion that the license should be amended. This represents a balancing of numerous advantages and disadvantages as set forth in the record. In particular the record shows a need for the power to be produced at the raised dam at a cost which is less than that of other alternatives. At this time of fuel shortage it is also significant that no fuel will be burned or stream or air pollution created. At the same time there will be damage to wildlife and to certain natural areas, such as the Big Beaver Valley and the Canadian Skagit, and there will be a loss of certain kinds of wilderness experience and stream fishing, but there will also be some recreational advantages.

In view of the thorough briefing the Commission sees no need for oral argument, and this will be denied.

Technical corrections suggested by City have been made in the Judge's ordering clauses.

The Commission further finds:

(1) The Initial Decision of the Administrative Law Judge issued February 4, 1976, amending the license for Project No. 533 to permit raising the height of the Ross Dam and modify appurtenant facilities thereto to provide for a reservoir at elevation 1725 feet should be adopted as the decision of the Commission as supplemented herein.

(2) Subject to the terms and conditions below, the project here proposed is best adapted to a comprehensive plan for improving and developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, and for other beneficial public uses, including recreational purposes.

(3) The license amendment will not interfere or be inconsistent with the purpose of which any reservation was created or acquired.

(4) It may be in the public interest for Tribes to be permitted to intervene in these proceedings.

The Commission orders:

(A) The City of Seattle, Washington, Department of Lighting, Licensee for Skagit River Project No. 553, is hereby authorized to increase the height of Ross Dam and modify appurtenant facilities thereto to provide for a reservoir at elevation 1725 feet along the Skagit River, a navigable river of the United States, and within the Ross Lake National Recreation Area, public lands of the United States, subject to the terms and conditions of the Federal Power Act, which is incorporated herein by reference, and subject to such rules and regulations as the Commission has issued or prescribed under the provisions of the Act.

(B) The following project drawings depicting proposed modifications to Ross Dam and Reservoir have been examined and found to substantially conform to the Commission's Rules and Regulations and are hereby approved as a part of the license for Project No. 553 and those drawings noted as superseded are deleted from the license:

Exhibit K

<u>FPC No.</u>	<u>Showing</u>	<u>Superseded FPC No.</u>
553-205	"Map of Ross Project General Arrangement and Project Boundary"	
553-206	"Topography of Ruby Reservoir"	553-199
553-207	" " " "	553- 48
553-208	" " " "	553- 49
		553- 50

Exhibit L

<u>FPC No.</u>	<u>Showing</u>
553-209	"Ross High Dam - General Plan"
553-210	"Ross High Dam - Arch Extension - Basic Geometry"
553-211	"Ross High Dam - Arch Extension - Typical Sections"
553-212	"Ross High Dam - Design Criteria and Stress Analysis"
553-213	"Ross High Dam - Abutments - Thrust Block, Saddle Dam, Wing Wall-Plan and Sections"
553-214	"Ross High Dam - Geology at Abutments"
553-215	"Ross High Dam - Power Intake Structure Extension to El. 1738 - Plan and Sections"

Exhibit M

Statement in three sheets, entitled, "General Description of Mechanical, Electrical and Transmission Equipment and Their Appurtenances" filed on December 17, 1970, as a part of the application for amendment of license.

(C) Article 2 of the license for Project No. 553 is hereby amended to read as follows:

Article 2. The project covered by and subject to this license is located in and along the Skagit River and on lands of the United States in the Ross Lake National Recreation Area and consists of:

A. All lands constituting the project area and enclosed by the project boundary, and/or interests in such lands necessary or useful for the purposes of the project, whether such lands or interests therein are owned or held by the Licensee or by the United States; such project area and project boundary being more fully shown and described by certain exhibits which accompanied the applications for license and amendments thereof and which are designated and described as follows:

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
J (t)	553-30	General location of transmission line from Diablo Plant to Seattle
J-2	553-37	General Project Map
	<u>1. Diablo Development</u>	
K	553-196	"Diablo Reservoir and Diablo-Ross Transmission Line"
	553-197	"Map of Diablo Project General Arrangement and Project Boundary - Sheet A"
	553-198	"Map of Diablo Project General Arrangement and Project Boundary - Sheet B"

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
	2. <u>Ross Development</u>	
K	553-38	"Topography of Ruby Reservoir"
	553-39	"
	553-40	"
	553-41	"
	553-42	"
	553-43	"
	553-44	"
	553-45	"
	553-46	"
	553-47	"
	553-137	"Transmission System Right-of-Way - Ross Powerhouse to Bothell Substation"
	553-138	"
	553-139	"
	553-140	"
	553-141	"
	553-142	"
	553-143	"
	553-144	"
	553-145	"
	553-146	"
	553-147	"
	553-148	"
	553-149	"
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	553-163	"
	553-164	"
	553-165	"
	553-166	"
	553-167	"
	553-168	"
	553-169	"
	553-170	"
	553-171	"
	553-172	"
	553-173	"

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
K	553-201	"Map of Ross Project General Arrangement and Project Boundary"
	553-205	"
	553-206	"Topography of Ruby Reservoir"
	553-207	"
	553-208	"
	<u>3. Gorge Development</u>	
	553-113	"Vicinity Map of Gorge Powerhouse and Switching Station"
	553-180	"Map of Gorge Project Boundaries and Areas"
	553-181	"
	553-182	"
	553-183	"
	553-184	"
	553-185	"
	553-186	"
	553-187	"

B. All water rights, the use and possession of which are necessary in the operation of the project or appurtenant thereto, such as are described in Exhibit D of the applications for license and amendment thereof.

C. All project works consisting principally of:

1. Diablo Development - A concrete arch dam in Section 5, T. 37 N., R. 13 E., W.M., 359 feet high; a spillway section at each end of the dam surmounted by tainter gates; a reservoir created by said dam extending about 4 miles upstream to Ross Dam and having a capacity of 90,000 acre-feet, of which 60,000 acre-feet is usable; an intake structure; a concrete lined tunnel about 2,200 feet long directly connected to two steel penstocks, extending from the dam to the powerhouse; a differential type surge tank at the lower end of the tunnel; a powerhouse containing two generator units each having a capacity of 60,000 kilowatts connected to two turbines each rated at 115,000 horsepower with modified runners operating under a net effective head of 318 feet; a transmission line extending from the powerhouse to the Gorge plant; a transmission line known as the Diablo transmission line with carrier current telephone system installed thereon extending from the Gorge plant to Bothell Substation; and other appurtenant facilities;

...; the location and character of the project works being more fully shown and described by the exhibits hereinbefore cited and other exhibits which are designated and described as follows:

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
L	553-16	"Log of Diamond Drillings, Diablo Dam Site"
	553-17	"Log of Diamond Drillings, Diablo Dam Site"
	553-18	"Log of Diamond Drillings, Diablo Dam Site"
	553-29	"Map showing general design of tower structure for transmission line from Diablo Plant to Seattle"
	553-82	"Diablo Dam and Intake, General Plan"
	553-83	"Diablo Dam, Elevation and Sections"
	553-84	"Plans and Sections of Intake, Tunnel and Powerhouse"
	553-85	"Apparatus Layout, Main Floor of Powerhouse"
	553-86	"Apparatus Layout, Main Floor of Powerhouse"
	553-87	"Powerhouse Sections"
	553-88	"Section through Generator"
	553-89	"Plan and Elevation of Switchyard"
	553-90	"Plan and Section of Tailrace"
	553-132	"Diablo Dam - Concrete Plug for Temporary Tunnel at Elevation 885.0"
	553-133	"Diablo Dam - Spillway Paving - North Bank"
	553-134	"Diablo Dam - Spillway Paving-South Bank"
M	Sheets 6 to 10, inclusive, of a printed document entitled "The Skagit Power Development", approved by the Commission on June 9, 1942.	
M (t)	<p>Typed sheet "Proposed Skagit - Seattle Transmission Line", approved by the Commission on March 15, 1930.</p> <p>Statement in five sheets entitled "General Description and Specifications of Mechanical, Electrical, and Transmission Equipment" together with attached prototype performance curve, received August 8, 1958, superseding part of page 9 of Exhibit M, now a part of the license.</p>	

2. Ross Development - A concrete arch dam about 661 feet high in Section 35, T. 38 N., R. 13 E., W.M., known as Ross Dam, constructed to elevation 1,736 feet at the roadway crest, with fixed spillway crests at elevation 1,704.5 feet; a reservoir created by said dam having a gross capacity of 3,456,000 acre-feet (1,052,000 acre-feet usable storage) at normal full pool elevation 1,725 feet; control gates in the spillway sections; two power tunnels around the left abutment of the dam extending downstream from the intake works to a power plant; a powerhouse with installation of four units, each consisting of a 180,000 horsepower turbine connected to a 133,000 kilowatt (0.95 P.F.) generator; a 230-kV double circuit transmission line extending from Ross power plant to Bothell Substation; a transmission line extending from the dam to Diablo plant; and other appurtenant facilities; the location and character of the project works being more fully shown and described by the exhibits hereinbefore cited and other exhibits which are designated and described as follows:

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
L	553-51	"General Location Map of Ruby Dam and Test Pits at Roland Bar"
	553-52	"Sand and Gravel Test Pits at Roland Bar"
	553-53	"Hydrograph of Skagit River at Ruby Dam Site, 1919 to 1932, inclusive"
	553-54	"Hydrograph of Skagit River at Ruby Dam Site, 1933-1936, inclusive"
	553-55	"Location of Diamond Drill Holes and Electrical Soundings at Ruby Dam Site"
	553-56	"Profile and Log of Diamond Drill Holes at Ruby Dam Site"
	553-57	"Profile and Log of Diamond Drill Holes at Ruby Dam Site"
	553-58	"General Vicinity Map of Ruby Dam and Diablo Lake"
	553-62	"Soundings in Skagit River from Ruby Dam Site to Buster Brown Flats"
	553-67	"Miscellaneous details for Ruby Dam"
	553-69	"Sections at Contraction Joints, Ruby Dam"

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
L	553-70	"Plan of Ross Dam to Elev. 1380 as constructed"
	553-71	"River Diversion & By-pass Tunnel for Ross Dam as Constructed"
	553-72	"General Layout of By-pass Inlet Structure Ross Dam as Constructed"
	553-73	"Foundation Grout & Drainage Holes, Cont'r. Jt's. & Keys-Ross Dam as constructed"
	553-74	"Elevation and Details of Ross Dam as Constructed"
	553-75	"Plan and Profile of Inspection Gallery, Typical Grout Piping at Joints, & Typical Top Keys - Ross Dam, as Constructed"
	553-76	"Sections at Construction Joints Ross Dam as Constructed"
	553-77	"Concrete Wing Walls Right & Left Abutments as Constructed"
	553-78	"Location & Details of Timber Crib Dam & Abutments as Constructed"
	553-99	"Ross Dam - 2nd Step, Plan to Elev. 1550 and Key Details"
	553-100	"Ross Dam - 2nd Step, from Exist. Concrete to Elev. 1550"
	553-101	"Ross Dam - 2nd Step, Sections at Contraction Joints & Miscellaneous Details"
	553-102	"Ross Dam - 2nd Step, Power Tunnels & Intake Structures, Plan and Elevation"
	553-108	"Ross Dam, Upstream Elevation Showing 1st, 2nd & 3rd Step Construction - to Elevation 1615"
	553-109	"Ross Dam - 3rd Step, Plan to Elev. 1615 and Key Details"
	553-110	"Ross Dam - 3rd Step Sections at Contraction Joints & Miscellaneous Details"

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
L	553-112	"Ross Dam - 3rd Step, Two 72-inch Hollow Jet By-Pass Valves Titled 50 - General Layout Scheme B"
	553-126	"Ross Reservoir Floating Debris Control Boom Locations and Details"
	553-127	"Ross Dam - 3rd Step - Intake Tunnels & Powerhouse - Plan & Profiles"
	553-129	"Preliminary Transverse Sections Thru Plant"
	553-130	"Preliminary Longitudinal Section Thru Units"
	553-131	"Preliminary Plan of Generator Floor"
	553-200	"Happy Creek - Ross Lake Diversion Tunnel"
	553-202	"Ross Dam - Third Step - Spillway Gate and Hoist"
	553-209	"Ross High Dam - General Plan"
	553-210	"Ross High Dam - Arch Extension - Basic Geometry"
	553-211	"Ross High Dam - Arch Extension - Typical Sections"
	553-212	"Ross High Dam - Design Criteria and Stress Analysis"
	553-213	"Ross High Dam - Abutments - Thrust Block, Saddle Dam, Wing Wall-Plan & Sections"
	553-214	"Ross High Dam - Geology at Abutments"
	553-215	"Ross High Dam - Power Intake Structure Extension to El. 1738 - Plan and Sections"
M		Sheets 6 to 10 inclusive, of a printed document entitled "The Skagit Power Development", approved by the Commission on June 9, 1942.
		Statement in three sheets entitled, "General Descriptions and Specifications of Mechanical, Electrical, and Transmission Equipment" - signed by Hoffman 12/22/49.
		Statement in one sheet entitled, "General Description and Specifications of Mechanical, Electrical, and Transmission Equipment" - signed by Raver 8/30/54.

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
M		Statement in two sheets entitled, "General Descriptions and Specifications of Mechanical, Electrical and Transmission Equipment" - signed by Hoffman 12/22/49.
		Statement in three sheets entitled, "General Description of Mechanical, Electrical and Transmission Equipment and Their Appurtenances" filed on December 17, 1970, as a part of the application for amendment of license.

3. Gorge High Dam Development - A concrete arch and gravity section dam to elevation 880 feet above sea level at roadway crest with a gravity spillway section equipped with two gates with crests at elevation 875 feet in closed position; a reservoir created by the dam having a storage capacity of about 8,000 acre-feet at normal surface elevation 875 feet and extending to the tailrace of Diablo powerhouse; a new intake structure with some modification of the existing power tunnel; a tunnel about 2 miles long connecting the intake with three penstocks and a penstock tunnel in the vicinity of the powerhouse; a surge tank; a powerhouse containing four turbines, three units each rated at 38,500 horsepower and one unit rated at 92,500 horsepower, all units with modified runners for operation under a gross head of 380 feet; a switching station; and other appurtenant facilities the location and character of the project works being more fully shown and described by the exhibits hereinbefore cited and other exhibits which are designated and described as follows:

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
L	553-117	"General Arrangement Plan of Generator Floor"
	553-118	"General Arrangement Longitu- dinal Section Through Units"
	553-121	"General Layout of Powerhouse, Extension 92,500 Horsepower Unit"
	553-122	"General Arrangement 92,500 Horsepower Unit"
	553-123	"Switching Station Plan"
	553-124	"Switching Station Elevations"
	553-189	"General Layout, Plan & Profile"

<u>Exhibit</u>	<u>FPC No.</u>	<u>Showing</u>
L	553-191	"Plan, Elevation, and Sections"
	553-192	"Galleries, Shafts, Foundation Grouting, and Drainage"
	553-193	"Spillway 47' x 50.32' Fixed Wheel Gates and Hoists"
	553-194	"Alignment and Typical Details for Intake Tunnel"
M	Statement in thirteen sheets entitled, "General Descriptions and Specifications of Mechanical, Electrical, and Transmission Equipment" signed by Hoffman 7/23/48.	
	Statement in eight typewritten sheets entitled, "General Description and Specifications of Mechanical, Electrical, and Transmission Equipment" as revised November 25, 1955, and received in the Commission December 5, 1955.	
D. All other structures, fixtures, equipment, or facilities used or useful in the maintenance and operation of the project and located within the project area, including such portable property as may be used and useful in connection with the project or any part thereof, whether located on or off the project area, if and to the extent that inclusion of such property as a part of the project works is approved or acquiesced in by the Commission; also, all other rights, easements, or interests, the ownership, use, occupancy or possession of which is necessary or appropriate in the maintenance and operation of the project or appurtenant to the project area.		

(D) Article 24 of the license for Project No. 553 is hereby amended to read as follows:

Article 24. The Licensee shall pay the United States the following annual charge, effective as of the first day of the month in which the increased generating capacity at Ross Powerhouse becomes commercially operable.

(a) For the purpose of reimbursing the United States for the cost 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 1,057,000 horsepower.

(b) Effective January 1, 1964, for the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands, other than those used for transmission lines only, \$1,830.89, and

(c) Effective January 1, 1952, for the purpose of recompensing the United States for the use, occupancy and enjoyment of its lands for transmission lines only, \$320.40.

(E) The following Articles are hereby added to the license:

Article 41. The Licensee shall be responsible for and shall take reasonable measures to prevent soil erosion on lands adjacent to the stream(s) and to prevent stream siltation or other forms of water or air pollution resulting from construction, operation or maintenance of the project. The Commission upon request, or upon its own motion, may order the Licensee to take such measures as the Commission may find to be necessary for these purposes, after notice and opportunity for hearing.

Article 42. The Licensee shall construct, maintain and operate, or shall arrange for the construction, maintenance and operation of such reasonable recreational facilities, including modification thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities and utilities, giving consideration to the needs of the physically handicapped, and shall comply with such reasonable modifications of the project as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the National Park Service, Department of the Interior, in the process of implementation of a master plan for the Ross Lake National Recreation Area, after notice and opportunity for hearing.

Article 43. 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 reasonably prescribed by the Commission 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 44. 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 reasonable 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.

Article 45. 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 in such manner as to reasonably preserve the project environmental values and so as not to interfere with traffic on land or water. Dredging and filling in a navigable water of the United States will also be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

Article 46. The Licensee shall do everything reasonably within its power and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon the request of officers of the agency concerned to prevent, make advance preparations for suppression, and suppress fires on the lands to be occupied or used under the license. The Licensee shall be liable for and pay the costs incurred by the United States in suppressing fires caused from the construction, operation, or maintenance of the project works or of the work appurtenant or accessory thereto under the license.

Article 47. The Licensee shall interpose no objection to, and shall in no way prevent, the use by the agency of the United States having jurisdiction over the lands of the United States affected, or by persons or corporations occupying lands of the United States under permit, of water for fire suppression from any stream, conduit or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license, or to the use by said parties of water for sanitary and domestic purposes from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license.

Article 48. The Licensee shall allow any agency of the United States, without charge, to construct or permit to be constructed on, through, and across those project lands which are lands of the United States such conduits, chutes, ditches, railroads, roads, trails, telephone and power lines, and other means of transportation and communication not inconsistent with the enjoyment of said lands by the Licensee for the purposes of the license. This license shall not be construed as conferring upon the Licensee any right of use, occupancy, or enjoyment of the lands of the United States other than for the construction, operation, and maintenance of the project as stated in the license.

Article 49. In the construction and maintenance of the project, the location and standards of roads and trails on lands of the United States and other uses of lands of the United States, including the location and condition of quarries, borrow pits, and spoil disposal areas, shall be subject to the approval of the department or agency of the United States having supervision over the lands involved.

Article 50. The Licensee shall cooperate with the United States in the disposal by the United States of mineral and vegetative materials, under the Act of July 31, 1947, 61 Stat. 681, as amended (30 U.S.C. §601, et seq.) from lands of the United States occupied by the project or any part thereof, provided that such disposal has been authorized by the Commission and that it does not unreasonably interfere with the occupancy of such lands by the Licensee for the purposes of the license, and provided further that, in the event of disagreement, any question of unreasonable interference shall be determined by the Commission after notice and opportunity for hearing.

Article 51. The right of the Licensee and of its transferees and successors to use or occupy waters, over which the United States has jurisdiction, or lands of the United States 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 52. The Licensee shall avoid or minimize any disturbance caused by construction and maintenance of the project works to the natural, scenic, historical and recreational values of the area, blending project works with the natural view, and revegetating, stabilizing and landscaping any construction areas located outside the area of the project reservoir. Within one year from issuance of this license amendment, the Licensee shall submit to the Commission its detailed plan to avoid or minimize any disturbance to such values of the area caused by construction and maintenance of the project works; the plan, including an architectural rendering of the major project features shall be prepared after consultation with a professional land use planner and appropriate Federal, State and local agencies; and this plan shall give due consideration to the provisions of the Commission's Order No. 414, issued November 27, 1970. The Commission reserves the right, after notice and opportunity for hearing, to prescribe any changes in the plans as the public interest may warrant.

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Article 53. The Licensee shall retain a Board of three or more qualified independent consultants who have not participated in the design of the proposed project works, to review the design, specifications, and construction of the project for safety and adequacy. The names and qualifications of the Board members shall be submitted to the Chief, Bureau of Power for approval. Among other things, the Board shall assess the geology of the project site and surroundings; the proposed design; specifications, and construction of the dam, powerhouse, electrical and mechanical equipment involved in water control and emergency power supply; the construction inspection program; construction procedures and progress; instrumentation; the filling schedule for the reservoir and plans for surveillance during the initial filling. The Licensee shall submit to the Commission copies of the Board's report on each meeting. The Licensee shall also submit a final report of the Board upon completion of the project. The final report shall contain a statement indicating the Board's satisfaction with the construction, safety and adequacy of the project structures.

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Article 54. Licensee shall consult with the appropriate agencies of Canada, the United States, the Province of British Columbia, and the State of Washington and shall, within one year of the date of issuance of this amendment, submit for Commission approval a plan for clearing Ross Reservoir area. Licensee shall dispose of all temporary structures, unused timber, brush, refuse, or other unneeded material resulting from the clearing of lands or from the maintenance or alteration of the project works. Licensee shall, during the operation of the project, remove all trees which may die along the periphery of Ross Reservoir and annually remove and dispose of all forest debris which may float on the reservoir surface.

Article 55. The Licensee shall, during the development and operation of the project, continue to consult and cooperate with the Washington Department of Game; the Washington Department of Fisheries; the Washington Department of Ecology; the Fish and Wildlife Service and National Park Service of the U. S. Department of the Interior; the British Columbia Department of Recreation and Conservation; and other appropriate environmental agencies in Canada and the United States for the protection and development of the natural resources and values of the project area.

Article 56. The Licensee shall, following consultation with the Washington Department of Game; the Fish and Wildlife Service of the U. S. Department of the Interior; and the Fish and Wildlife Branch of the British Columbia Department of Recreation and Conservation, conduct or arrange for a study of the impact of the reservoir at elevation 1,725 feet on the fisheries resources of the Ross Reservoir-Skagit River basin above Ross Dam. The study shall be conducted, using the results of the completed investigations as baseline data, to determine the effects of the enlarged reservoir and its operation on the production of trout and the trout fishery in Ross Reservoir and its tributaries, including the inflowing Skagit River. The study shall be conducted in cooperation with the above-named agencies, and shall be completed within three years following the initial filling of the reservoir.

Within six months following completion of the above study, Licensee shall file for Commission approval a revised Exhibit S, prepared in accordance with the Commission's Rules and Regulations, to include (1) the results of the study; and (2) proposals to implement the recommendations of the study, which recommendations shall include, but need not be limited to, measures to mitigate the losses of trout, if any, created by the enlarged reservoir.

Article 57. The Licensee shall, within one year of the date of this order, file for Commission approval a plan for mitigating the loss of wildlife habitats of the Ross Reservoir-Skagit River basin above Ross Dam that will result from enlarging Ross Reservoir. This wildlife mitigation plan shall be developed through consultation with the Washington Department of Game; the Fish and Wildlife Service and National Park Service of the U. S. Department of the Interior; the Fish and Wildlife Branch and Provincial Parks Branch of the British Columbia Department of Recreation and Conservation; the Forest Service of the British Columbia Department of Lands, Forests and Water Resources; and the Canadian Wildlife Service. The plan shall include a schedule for its implementation and for filing of periodic progress reports.

If the above-named agencies do not concur on a comprehensive plan for the Ross Reservoir-Skagit River basin within one year of the date of this order, the Licensee shall in cooperation with the above-named agencies of British Columbia and Canada, develop a plan for the British Columbia section of the basin; and in cooperation with the above-named agencies of Washington and the United States, develop a separate plan for the Washington section of the basin. The separate plans shall be completed and filed for Commission approval within one year of their commencement or two years from the date of this order, whichever is earlier.

If Licensee and the above-named agencies cannot concur on a plan for the entire Ross Reservoir-Skagit River basin or for one or both of the separate United States and Canadian sections thereof within two years from the date of this order, the Commission, on its own motion or upon the recommendation of any of the above agencies, may, after notice and opportunity for hearing, prescribe such plan as the public interest may warrant.

Article 58. The Licensee shall, within three years following the initial filling of the reservoir, complete a study to assess the impact of the enlarged reservoir on the wildlife resources of the project area. The study shall be conducted in cooperation with the Washington Department of Game; the Fish and Wildlife Service of the U. S. Department of the Interior; the Fish and Wildlife Branch of the British Columbia Department of Recreation and Conservation; and the Canadian Wildlife Service. Within six months following completion of the study, Licensee shall file for Commission approval as part of its revised Exhibit S a report on the results of the study with recommendations for any changes in the wildlife mitigation measures or any further studies which may be necessary.

INTAKE

Article 59. The licensee, in consultation and cooperation with the State of Washington, Departments of Fisheries and Game, shall monitor reservoir temperatures and river temperatures at the Alma Creek gage, conduct such additional heat budget analyses thereof as may be agreed upon, and monitor temperature effects upon the fishery resources; and if indicated, prepare plans to install multi-level intake facilities during construction, to permit withdrawal of water from the level of the reservoir which will provide temperatures downstream as would have existed without this raising of Ross Dam. Licensee shall submit reports on these activities to the Commission for its review. The design and placement of multi-level intake facilities shall be shown on Exhibit L drawings to be filed for Commission approval prior to construction.

Article 60. Licensee shall consult with the Washington Departments of Fisheries, Game, and Ecology and file for Commission approval within two years from the date of issuance of this license: (1) a plan for operating the intake works so as to provide satisfactory water quality including temperature, as measured at the Alma Creek gage, to protect the fisheries resources of the Skagit River; and (2) a schedule of proposed releases from the High Ross spillway, outlet works, and powerhouse to minimize the concentration of total dissolved gas downstream in the Skagit River and to insure compliance with Washington State water quality standards.

Article 61. The Licensee shall, to the satisfaction of the Commission's authorized representative, install and operate such signs, lights, sirens or other devices below the powerhouse to warn the public of fluctuations in flow from the project, and shall install such signs, lights and other safety devices above the powerhouse intakes, as may be reasonably needed to protect the public in its recreational use of project lands and waters.

Article 62. Licensee shall cooperate with the District Engineer, Seattle District, Corps of Engineers, in studies to determine any necessary revisions to the flood control surcharge provisions of Article 36 and shall, within one year after issuance of this order, submit a revised schedule, for Commission approval, to reflect any required change in reservoir operating levels.

Article 63. Licensee shall not permit the water level of Ross Lake to rise above the 1,725 feet m.s.l. elevation approved by the International Joint Commission unless such higher level shall have been approved by the IJC, and the Federal Power Commission.

Article 64. Licensee shall commence construction on the modification of Ross Dam within two years of the date of this order, and shall complete construction activities within four years of the date of commencement of said activities.

Article 65. Licensee shall notify the Commission within 30 days of the date the increased generating capacity at Ross powerhouse becomes commercially operable.

Article 66. Licensee shall file within one year after completion of construction a revised Exhibit F and for Commission approval revised Exhibit K maps which clearly identify the location and acreage of project lands, including United States lands, within the project boundary of Skagit River Project No. 533. All lands for existing and future recreation sites, identified as to ownership shall also be included within the project boundary depicted on the Exhibit K maps.

Article 67. The Commission reserves the right to determine additional annual charges, if any, for the use and occupancy of U.S. lands until after revised Exhibits F and K are filed.

Article 68. The Exhibit R, filed on December 17, 1970, consisting of:

(1) Page 5, Subsection b through the first full paragraph on page 7; and page 10, first paragraph of the text.

(2) Annex C of the text; and

(3) Exhibit R map Sheet RH1-FPC No. 553-216, insofar as it describes existing and proposed recreational development by the Licensee at that part of the Ross Lake Development lying within the U. S. boundaries,

is hereby approved and made a part of the license for Project No. 553: Provided, That the Licensee shall continue to consult and cooperate with the National Park Service of the U. S. Department of the Interior and the appropriate agencies of British Columbia in the development and/or maintenance of recreation facilities at the Ross Lake Development: Provided further, That the Licensee shall, within one year from the date of this order, file for Commission approval an amendment to the Exhibit R conforming to Section 4.41, Exhibit R, of the Commission's Regulations under the Federal Power Act to include, inter alia:

(1) The number, type and location of facilities, construction costs, and a construction schedule for a public access area to be developed by the Licensee at the left bank of the reservoir above Ross Dam.

(2) A plan prepared in cooperation with the appropriate agencies of British Columbia for the development of recreation facilities at that part of the Ross Lake Development located in Canada. This plan shall include (a) a showing of the type, number and location of recreational facilities to be developed; (b) a construction schedule; and (c) a list of construction costs to be borne by Licensee and others. In the event the Licensee and the above-referenced agencies cannot reach an agreement on a

plan, the Commission may, upon its own motion or upon the recommendation of one of the above-referenced agencies, order a hearing to determine a plan as the public interest may warrant, and

(3) Revised Exhibit R map(-) showing the location, type and number of recreation facilities provided or to be developed and/or maintained by the Licensee at the Ross Lake Development of Project No. 553.

Article 69. Licensee shall make such additional archeological surveys as may become necessary prior to, and during, construction and reservoir clearing operations, and shall continue to consult with the Washington State Historic Preservation Officer and the National Park Service's Interagency Archeological Services Division to determine the extent of any additional archeological surveys and salvage that may be necessary in the Ross Reservoir area. The Licensee shall afford sufficient time and provide the necessary funds for surveys within the project boundary, and if necessary for the excavation and salvage of significant archeological sites discovered by the surveys. Copies of survey and salvage reports shall be filed with the Commission, the State Historic Preservation Officer, and the Interagency Archeological Services Division.

Article 70. Licensee shall continue to implement, and modify when appropriate, the emergency action plan prepared in accordance with previous instructions of the Commission dated August 15, 1975. 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 such emergency action plan.

Article 71. The Licensees shall file with the Commission's Regional Engineer and Chief, Bureau of Power, one copy each of the contract plans and specifications prior to the start of construction. The Chief, Bureau of Power, may require appropriate changes in the plans and specifications so as to assure a safe and adequate project.

(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 amendment. In acknowledgement of the acceptance of this license amendment, it shall be signed for the Licensee and returned to the Commission within 60 days from the date of issuance of this order.

(G) The Initial Decision issued February 4, 1976, to the extent not inconsistent herewith is affirmed and adopted as the decision of the Commission as supplemented herein.

(H) The Tribes are hereby permitted to intervene in these proceedings subject to the rules and regulations of the Commission; Provided, however, that participation of such intervenors shall be limited to matters affecting asserted rights and interests as specifically set forth in the petition to intervene; Provided, further, that the admission of such intervenors shall not be construed as recognition by the Commission that they might be aggrieved because of any order or orders of the Commission entered in this proceeding; and Provided, further, that the record shall not be reopened for the purpose of this intervention and Petitioners shall take the record as they find it.

(I) Exceptions not granted are denied.

(J) The motion made February 17, 1976, to reopen the record is denied.

(K) Oral argument is denied.

By the Commission.

(S E A L)

Kenneth F. Plumb,
Secretary.

Project No. 553

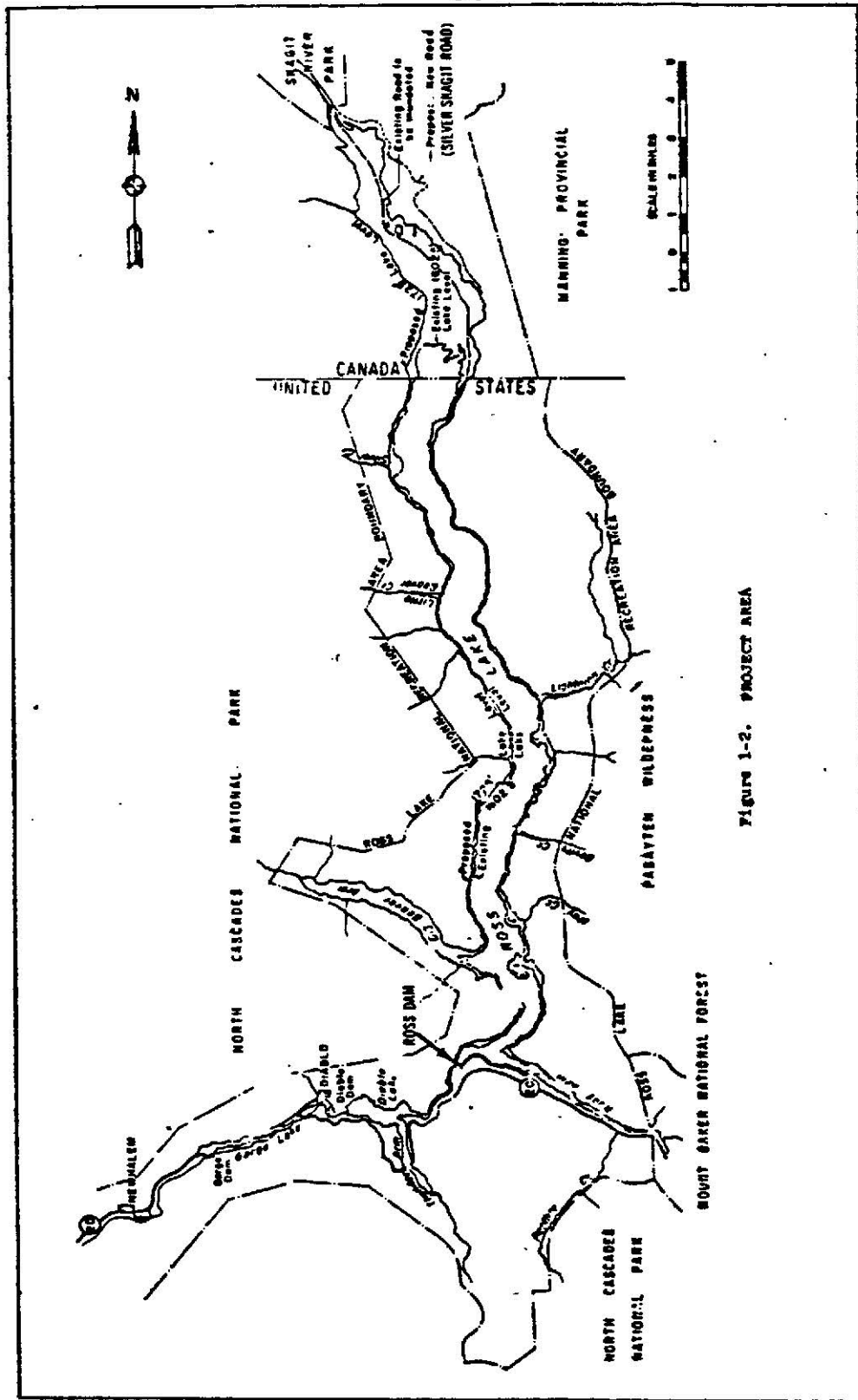


FIGURE 1-2. PROJECT AREA

FEDERAL POWER COMMISSION

WASHINGTON, D. C. 20426

EQUAL OPPORTUNITY EMPLOYER

**POSTAGE AND FEES PAID
FEDERAL POWER COMMISSION**



Your
Seattle
City Light

Gordon Vickery, Superintendent



August 5, 1977

Kenneth F. Plumb, Secretary
Federal Power Commission
Washington, D. C. 20426

H. R. 5
FPC

Re: Opinion No. 808. Project No. 553. City of Seattle, Washington

Dear Mr. Plumb:

Enclosed, pursuant to Paragraph (F) of the above opinion and order, is an executed acknowledgement of acceptance of such order and license amendment, executed by myself and the City Comptroller pursuant to the terms of Ordinance 106627 of the City, approved July 25, 1977, a certified copy of which is attached for your information.

Very truly yours,

(Sgd.) Gordon Vickery

Gordon Vickery
Superintendent

GV:je

Attachments

cc: Vickery
Lane
Sheehan
Sundquist
Bishop, G.W.
File

cc sent 8/11/77: Robert L. McCarty
Attachments. c/o McCarty & Noone
490 L'Enfant Plaza E.
Suite 3306
Washington, D.C. 20024

AUG 11 1977

Project No. 553, Amendment No. 18

IN TESTIMONY of its acknowledgement of acceptance of all the provisions, terms and conditions of this license amendment, the City of Seattle, Washington, this 5th day of August, 1977, has caused its corporate name to be signed hereto by Gordon Vickery, its _____ Superintendent of Lighting, and its corporate seal affixed hereto and attested by E. L. Kidd, its Comptroller and City Clerk, pursuant to ordinance duly adopted on the 29th day of July, 1977, a certified copy of the record of which is attached hereto.

CITY OF SEATTLE, WASHINGTON

By _____
Superintendent of Lighting

ATTEST:

Comptroller and City Clerk

(Executed in quadruplicate)

Section 4. This ordinance shall take effect and be in force thirty days from and after its passage and approval, if approved by the Mayor; otherwise it shall take effect at the time it shall become a law under the provisions of the city charter.

Passed by the City Council the 25 day of July, 1977,
and signed by me in open session in authentication of its passage this 25 day of July, 1977.

President of the City Council.

Approved by me this 29 day of July, 1977.

Mayor.

Filed by me this 29 day of July, 1977.

Attest:

City Comptroller and City Clerk.

(SEAL)

Published

By

Deputy Clerk.

STATE OF WASHINGTON)
COUNTY OF KING) SS
CITY OF SEATTLE)

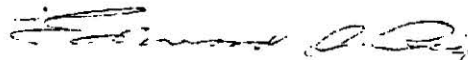
I, E. L. KIDD, Comptroller and City Clerk of the City of Seattle, do hereby certify that the within and foregoing is a true and correct copy of the original instrument as the same appears on file, and of record in this Department.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of The City of Seattle, this

AUG 5 1977

E. L. KIDD
Comptroller and City Clerk

By



Chief Deputy

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

WHEREAS, by virtue of authority vested in the City and Council of the City of Seattle, the Superintendent of Lighting, subject to the approval of the Board of Public Works, has the honor to inform the Council of the provisions for the maintenance of the lighting and power circuits and

WHEREAS, the said Council of the City of Seattle provides that the Superintendent of Lighting shall make all surveys, maps, profiles, plans, specifications, estimates, and reports in connection with the maintenance of lighting as shall be required by the City and

WHEREAS, by Resolution dated May 20, 1954, the Board of Public Works authorized the Superintendent of Lighting to make an application to the Federal Power Commission for amendment of the license for Project No. 551-Whitman River Project, providing the construction of the third step of Ross Dam to an elevation of 1620 feet, plus or minus; and

WHEREAS, pursuant to said application the Federal Power Commission issued the City of Seattle Amendment No. 4 of the license for Project No. 551 which was issued February 27, 1955; and

WHEREAS, it has been determined that it will be beneficial to the City of Seattle to install Article 36 of Amendment No. 4 concerning flood control operations of Ross Dam; and

WHEREAS, the Federal Power Commission has issued Amendment No. 9 of the license for Project No. 551, amending Article 36 of the license in a manner substantially agreed upon by the Department of Lighting and the Seattle District Office of the U. S. Corps of Engineers; and

WHEREAS, among other things said Amendment No. 9 requires that same be accepted by the City of Seattle and that such acceptance be signed and returned to the Federal Power Commission within sixty (60) days from the date of issuance thereof; and, therefore,

BE IT RESOLVED BY THE BOARD OF PUBLIC WORKS OF THE CITY OF SEATTLE:

THAT Paul J. Rorer, Superintendent of Lighting of the City of Seattle, be and hereby is, authorized and directed to sign, in quadruplicate, the acceptance of said Amendment No. 9 and to return the same to the Federal Power Commission within the time specified therein.

APPROVED by the Board of Public Works in regular session this 6th day of October, 1955.

/s/ W. E. Parker
Chairman

/s/ E. G. Rorer
Executive Secretary

the Skagit River hydroelectric development (Project No. 553).

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. The order designated Amendment No. 18, and identified as "Opinion and Order Affirming and Adopting Initial Decision Authorizing Amendment of License to Increase Height of Ross Dam," issued July 5, 1977 by the Federal Power Commission to the City of Seattle in connection with the hydroelectric development on the Skagit River (Project No. 553), is hereby accepted by the City of Seattle and in acknowledgment thereof the Superintendent of Lighting and City Comptroller upon approval of this ordinance by the Mayor are hereby authorized to execute the same.

Section 2. Such acknowledgement of acceptance shall be executed in such numbers as may be necessary and forwarded to the Federal Power Commission with the necessary certified copies of this ordinance.

Section 3. Any act pursuant to the authority and prior to the effective date of this ordinance is hereby ratified and confirmed.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

OPINION NO. 808-A

City of Seattle, Department of) Project No. 553
Lighting)

OPINION AND ORDER DENYING
REHEARING AND DENYING REOPENING

Issued: August 2, 1978

DC-A-10

LICENSE AMENDMENT (Major),
NATIONAL ENVIRONMENTAL
POLICY ACT; COSTS (Project
Costs); MITIGATION; LICENSED
PROJECT (Alternatives);
CONSERVATION OF FISH AND
WILDLIFE RESOURCES; INDIANS;
ALTERNATIVE PROPOSALS.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Charles B. Curtis, Chairman;
Don S. Smith, Georgiana Sheldon,
and George R. Hall.

City of Seattle, Department of) Project No. 553
Lighting)

OPINION No. 808-A

OPINION AND ORDER DENYING
REHEARING AND DENYING REOPENING

(Issued August 2, 1973)

On August 4, 1977, American Intervenors 1/; Canadian Intervenors 2/; Swinomish Tribal Community, Upper Skagit Tribe, and Sauk-Suiattle Tribe (Tribes); and Cecil D. Andrus, Secretary of the Interior, (Secretary) filed applications for rehearing of the Commission's 3/ Opinion No. 808 and order issued July 5, 1977, granting an amendment of license to the Department of Lighting of the City of Seattle (City), which approves the raising

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- 1/ North Cascades Conservation Council, et al.
2/ R.O.S.S. Committee and David Brousson (ROSS).
3/ The proceedings began before the Federal Power Commission. When that agency ceased to exist, the matter came before the Federal Energy Regulatory Commission. That having happened on October 1, 1977, the term Commission refers to the FPC when used with respect to events prior to October 1, 1977, and to the FERC when used otherwise.

of the height of the City's Ross Dam on the Skagit River by 121 feet. 4/ This modification would increase the dependable capacity of the Ross power house by 273 MW to 525 MW and would increase the average primary energy output by 36 MW to 100 MW (Ex. 244). The enlarged reservoir would inundate an additional 8,320 acres of land, 4,720 in Canada and 3,600 in the United States. While the issues discussed in the applications for rehearing have largely been raised earlier and discussed in Opinion No. 308, some of the arguments have been updated and amplified and require further comments.

4/ The Secretary requested a stay and also filed a petition for leave to intervene. The petition to intervene was answered by the City on August 19, 1977. On September 6, 1977, the Commission granted rehearing for purposes of further consideration and on September 16, 1977, granted intervention to the Secretary and a stay of 45 days from the issuance of the order to permit the Secretary to file proposed conditions relating to the flow on the Skagit River for the benefit of the fisheries resources. The Secretary filed his conditions promptly on September 21, 1977, and American Intervenors responded on October 17, 1977, moving to reopen the record. On November 18, 1977, the Canadian and American Intervenors filed a supplement to their applications for rehearing calling attention to treatment of the Canadian impact in other proceedings before the Commission. On March 9, 1978, the Tribes moved to dismiss the City's application on the ground that the license for Project No. 553 had terminated, but that was denied by the Commission's order of March 9, 1978.

INTERNATIONAL JOINT COMMISSION

ROSS argues that the City has not complied with the terms of the 1942 order of the International Joint Commission (IJC) in that it has failed to enter into an agreement with the Province of British Columbia indemnifying British Columbia for injuries sustained by the City's flooding of the Canadian Skagit in 1953. Of course, the City did enter into an agreement in 1967 (Ex. 44) permitting flooding in Canada up to elevation 1725 feet (the High Ross level) and, in addition, up to elevation 1740 feet as the Province may consider necessary to properly contain the reservoir. From 1953 to 1967 the City and the Province entered into annual agreements covering flooding up to 1602.5 feet (the present Ross level) (Tr. 1736-39; Ex. 50).

The American Intervenor object to Opinion No. 808 relying on the 1967 agreement as carrying out the 1942 order of the International Joint Commission (IJC), yet restricting the water level to 1725 feet. The 1740 foot provision we find separable, and we limited the level to 1725 feet out of an abundance of caution as to the extent of the authority given by the IJC. The American Intervenor also point to a provision in the 1967 agreement providing for arbitration of disputes which they say is contrary to the Boundary Water Treaty of 1909, 36 Stat. 2448. The question of the arbitration provision, we believe, is separable and entirely moot; no such issue arises here. In any case, the IJC has treated the 1967 agreement as valid as evidenced by its letters of February 14, 1967, accepting the agreement, by a statement of the IJC chairman at June, 1971, hearings to the effect that at a meeting on April 4, 1967, the IJC formally noted that the condition of the order of approval had been met by the signing of a binding agreement, and by the IJC's letter of March 25, 1977, to the Honorable Richard D. Vine, Deputy Assistant Secretary of State, saying that on March 12, 1977, the IJC dismissed the proceeding brought by the Province of British Columbia, which questioned the 1967 agreement. By order of July 14, 1967 (38 FPC 130, 131) the FPC noted that the Licensee had executed the 1967 agreement with the Province allowing flooding up to the 1725 foot level under the provisions of the 1942 order of the IJC and that by letter of April 26, 1967, the IJC had stated that it had no objection to allowing a 2½ foot increase in the water level. It is not within our province or jurisdiction to determine now that what the IJC has approved is, in fact, invalid.

WILD AND SCENIC RIVERS ACT

ROSS continues to argue that Congress has barred this Commission from issuing a license for the Skagit Project under the Wild & Scenic Rivers Act, 16 U.S.C. §1278. This is not so. Section 1278(b) of that Act provides that the Federal Power Commission shall not license any dam on a river listed in Section 1276(a) that would have a direct and adverse effect on the values for which such a river might be designated (for addition to the Wild and Scenic Rivers System) as determined by the Secretary responsible for its study or approval. A part of the Skagit River below the Gorge Dam has been so designated. However, Section 1278(b) provides that nothing shall preclude licensing of developments below or above a potential, wild, scenic or recreational river area which will not invade the area or diminish the fish or wildlife values present in the river area.

The record shows here that raising the Ross Dam will not change the amounts and variations of downstream flow (Tr. 6971, 8947; Ex. 169, 1-5, 9-2). Further, temperature changes that might be adverse to fish eggs or fry can be controlled by the provision in Article 59 that, if temperature studies so indicate, the Licensee shall submit plans to install multi-level intake facilities during construction so as to permit withdrawal of water from the reservoir in order to provide temperatures downstream as would have existed without raising the Ross Dam.

ROSS says that whether the Commission considers the downstream risk to be appreciable or not is beside the point since Congress commends to the Secretary of Agriculture or Secretary of the Interior the decision whether an exception may be made and the Commission is obligated to request a determination prior to acting on the City's application. There is no provision in the statute that the FPC was required to seek such a determination, and therefore there is no bar in the Wild & Scenic Rivers Act to the Commission granting a license or an amendment of license under the Federal Power Act. Further, this is an outstanding license, and there are no prohibitions in the Wild and Scenic Rivers Act to amendments of a license so long as it does not interfere with the Wild and Scenic Rivers designation.

POWER RESOURCES

Both the American Intervenors and Ross continue to contend that the record should be reopened to receive data on the power resources of the Pacific Northwest. Specifically they refer to forecasts of the Pacific Northwest Utilities Conference Committee, West Group Forecast of Power Loads and Resources. These show increasing peaking surpluses, but deficiencies in energy. Thus ROSS asks us to include in the record and consider the West Group Forecast dated February 15, 1977, a table from which it attached to its application for rehearing.

However, the footnotes were omitted from the reproduction of the table and they are pertinent to the allegations made regarding the need for the project power output. Footnote (1) indicates that the table was developed assuming nuclear power plants would have an availability in the first year of operation of 60% and 75% thereafter. The table is also based on the assumption that the nuclear plants will be on-line and operating at specific times. 5/ Neither of these assumptions can be relied upon. For instance, there has been, and continues to be, a history of delays in bringing nuclear facilities on-line at projected dates. The Western Systems reliability Council Report to the Commission dated January 1, 1977 shows for the West Group Sub-Area that, of the eight nuclear plants proposed from now until 1986, all but one have been delayed at least one year or more already and that further delays can be expected for a variety of reasons. Also, the assumptions for nuclear plant availability are not borne out by the actual operating experience. For example, during the years 1975 and 1976, the nuclear plant capacity factor nationwide was 49.5% and 50.8%, respectively. 6/ In view of the above, we believe the output from the High Ross Development is needed as soon as it can be made available, and reopening would serve no purpose.

In addition, the High Ross Development can conserve the use of valuable non-renewable energy resources. The High Ross Development is estimated to be capable of producing an average of 126 MW (Exh, 244) or an increase 38 MW (Average) over the present installation. As said in Opinion No. 808, this is equivalent to an average annual energy output of about 333 million Kwh, or a savings of 547,000 barrels of oil, or 154,000 tons of coal annually. Also, although the average annual plant factor of the additional capacity at the High Ross Development is about 14% on an annual basis, the project,

5/ The full table is attached as Appendix A to this Opinion.

6/ These data were obtained from utility reports and are summarized in an FPC news release entitled, "FPC Releases Preliminary Power Productions, Capacity, Fuel Consumption Data", dated March 23, 1977. The West Group report assumes that nuclear plants will operate at 60% plant factor the first year and 75% each year thereafter."

having seasonal storage capability, will operate at a higher plant factor, 40-50%, during periods of high demand. Therefore, the power output becomes valuable not only for capacity, but also for its energy output during the critical high demand periods of the city's system. Such a project, therefore, adds flexibility to the system and reliability to power supply while conserving valuable non-renewable energy resources.

We may note in this connection that American Intervenor quote the questions of the IJC to the Commission quoted in Opinion 808, particularly the query that if additional power from High Ross will meet the needs of the City for a limited time and additional power sources will be added after that, "what would be the cost of changing the sequence in which these projects are constructed, postponing the raising of Ross Dam until a decision on the total merit of the project could be made with greater certainty?" They say we have not responded to the IJC's "directive". We may point out that the IJC's consent is required for certain actions taken at the boundary, and it has given its consent here, but the Commission is not subject to directives from the IJC in the matter of granting a license. In any case, as discussed above it would appear that these nuclear plants may not be built on schedule, much less built ahead of schedule.

ALTERNATIVES TO HIGH ROSS

American Intervenor and Ross continue to argue that the Commission has not fully explored alternatives to High Ross. American Intervenor says that the record is devoid of testimony or studies regarding the effects of raising the reservoir to 1675 feet of elevation, or any other alternate elevation between the present height and 1725 feet. They cite Aeschliman v. N.R.C., 547 F.2d 622, 628 (CA DC-1976), in which the court said that where an intervenor's comments on a draft EIS raises a colorable alternative not considered already, the Commission must undertake its own preliminary investigation of the proffered alternative to determine whether it is worthy of detailed consideration in the EIS, and the Commission must explain the basis for each conclusion that further consideration of a suggested alternative is unwarranted. The court said, however, that the preliminary investigation of an alternative need not be nearly as detailed as that required of alternatives which are considered in the Environmental Impact Statement (EIS), and that often a short explanation will suffice.

As discussed in Opinion No. 808, a Ross Dam at 1675 feet will not deliver the power available at 1725 feet and that appears to be why no study was made of the environmental impact of this or alternate levels. Further consideration of this variation on the City's proposal is unwarranted. Contour maps in the record indicate that along most of the shoreline, because of the steep slopes, the fifty foot difference would not greatly affect the amount of the land flooded except at the head of Beaver Canyon or at the northern end of the Canadian Skagit (Ex. 275; Item Z, p. 30A).

As to other alternatives, the purchase of power from the Bonneville Power Administration is subject to what we consider to be an unassured sufficiency of capacity, and certainly energy, existing in the Pacific Northwest. Other alternatives, such as steam and nuclear generation, are more expensive and as the FEIS points out, as well as supporting testimony, are subject to their own environmental problems. It is clear that the disadvantages of a fossil fuel or nuclear plant such as stack emissions, water heating, land clearing, mining, and loss of wildlife and recreation in the area cannot be mathematically compared with the disadvantages of High Ross. This is a matter of judgement. In our opinion, since the Ross Dam is already in place, it is likely that raising it would produce less impact on the environment than construction of a fossil-fuel or nuclear plant.

COSTS OF MITIGATION AND RECREATION

American Intervenors assert that in comparing High Ross with alternatives, the Commission has seriously underestimated the costs, particularly the costs of mitigation of wildlife and fisheries habitat and the construction of recreation facilities in British Columbia. As noted in Opinion No. 808, the City has included some of these costs in its overall cost estimate of \$73,030,960 (Ex. 116). Included are fish and wildlife costs of \$133,580 for mitigation, including inhibiting plant succession for the benefit of the deer (Ex. 91), anticipated studies in the amount of \$296,950 and post-licensing investigations of \$407,070, or \$837,600 in all, including interest during construction. ^{7/} There may arise other expenses in the future and increases in estimated costs, but they need not be substantial. For instance, the loss of range for deer can be mitigated by cutting to retard the normal process of plant succession, which results in shading of the shrubs on which the deer browse (Tr. 54, 59). This can be done by a small crew of men only once every few years. In Canada it has been suggested

^{7/} Figures shown on wildlife and recreation costs in Opinion No. 808 do not include contingencies or interest during construction. The figure of \$5,375,870 includes \$2,266,000 for wildlife including amounts corresponding to those set forth here in the text and \$1,458,000 for prelicensing studies through 1973 (Ex.9).

that meadow areas be cultivated to provide grasses and shrubs as deer forage (Tr. 5701-02). On the other hand, witness Stendal for the Washington Department of Game testified that these mitigative measures, while helping the deer, might endanger other forms of life and would detract from the scenic and aesthetic qualities of the area, so should be undertaken elsewhere (Tr. 5793, 5798). The staff argues in favor of the use of the Missouri Plan by which the project area is studied and rated on the basis of habitat and compared with other areas offered for mitigation. It is clear from the record that it is impossible without further study and discussion among the parties to determine the ultimate costs of mitigation as pointed out by staff witness Gill (Tr. 9040).

In this situation the Commission included Article 57 in the license providing for the development of a plan for mitigating the loss of wildlife habitats of the Ross Reservoir-- The Commission frequently inserts in licenses open-ended provisions which may result in an indefinite amount of additional costs for the licensee, including provisions for the protection of wildlife and fish. See for example: Western Massachusetts Electric Company, Opinion No. 541, 39 FPC 723, 752 (1968); Power Authority of the State of New York, 41 FPC 712, 718 (1969); Consumers Power Company et al. 42 FPC 274, 279 (1969); New England Power Company, Opinion No. 576, 43 FPC 568, 613-614 (1970). While additional mitigation expenses in the present proceeding may add to the project costs, we take notice that the costs of operating a fossil-fuel alternate project would also be greatly increased because of the steep rise in the cost of fuel.

With respect to recreation City has included in costs the amount of \$3,149,770 for total recreational facilities, and this includes \$433,200 for recreational enhancement in Canada covering clearing, grubbing and grooming of land for beaches and a reasonable allocation of the cost of clearing vegetation from the drawdown area flush with the ground surface in the interests of recreation (Tr. 5179-80; Exs. 116, 186). Other estimated costs of clearing in Canada total \$2,960,300 including \$216,000 for management and supervision of clearing and recreational enhancement. Like wildlife mitigation costs, the license provides for the development of plans that may add to the cost of the project. Article 68 provides for the development and filing of a plan for the construction of recreational facilities in Canada. What we have said above as to the rising costs of fossil fuel projects applies here likewise.

American Intervenors contend that in the license provisions regarding mitigation we leave the development of mitigation plans to the future and that this violates our regulations, 18 CFR 4.41, and the Fish and Wildlife Coordination Act, 16 U.S.C. 662 (b), as well as NEPA. Section 4.41. Exhibit S of our Regulations provides for filing of proposals for mitigation and a statement on cooperation and consultations with the state fish and wildlife agencies and the Fish and Wildlife Service. Both types of material are contained in City's Exhibit S; there is no requirement that a determination on mitigation plans be made at the time of the issuance of the license either in our Regulations, in the Fish and Wildlife Coordination Act, or NEPA. 8/

BALANCE OF NATURAL
RESOURCE AND POWER QUESTIONS

American Intervenors also argue that the Commission has failed to balance properly natural resource and power questions. They say that the Commission has not considered the comparative values of wildlife, natural resources and recreational resources in the Ross Lake Basin in a regional, state or national context. Opinion No. 808, however, discusses the relative value of the Ross Basin, both in the United States and Canada, from the standpoint of natural and recreational resources. Based on the record, we have concluded that there is nothing to show that the areas near the Ross Basin are unique with respect to fauna and flora.

Specifically we note in the Opinion that the Ross Basin represents a transitional area where species and subspecies tend to hybridize but examples could be found both north and south of the area (Tr. 5492). The City's witness Taber concluded that there were no species of wildlife which could be called either rare or unique, nor any species which would be eliminated from the Basin by the higher lake (Tr. 5440). The small mammals were all common species in the north Cascades (Item DD, p. 12). While the higher water level would eliminate habitat for certain birds, the areas in question were said to be but a small fraction of the total habitat for these lowland species in western Washington (Item EE, pp 10-11). There is some indication that the number of species of birds in Big Beaver are greater than in other specified localities in

8/ National Environmental Policy Act of 1969, 42 U.S.C. § 4321, et seq.

Colorado, Wyoming, Washington, Idaho and British Columbia (Item FF, pp. 6), but this does not demonstrate that Big Beaver is a unique habitat or the species are unique. City's witness Bendell said that his studies revealed no indication whatever of any unique or peculiar species of wildlife or wildlife habitat in Canada that would be eliminated or even substantially reduced by the new reservoir (Tr. 5677).

ROSS argues that the Commission has failed to carry out NEPA's careful balancing analysis in that NEPA does not permit the Commission to offset supposed benefits to the City against environmental and social costs to Canada. We know of no such provision in NEPA. In NEPA we are required in Section 4332(2)(F) to recognize the worldwide character of environmental problems, and we have done so with regard to the impact of High Ross in Canada. Further, British Columbia has agreed to an annual rental as compensation for the flooding.

IMPACT IN CANADA IN FEIS

Canadian and American Intervenorors in their supplemental application for rehearing point out that in several instances there has been included an extensive discussion and analysis of Canadian impacts and alternatives in environmental impact statements prepared in connection with other matters before the Commission including El Paso Alaska Company, Docket No. CP75-96 et al., FEIS for the Alaska Natural Gas Transportation Systems, FPC staff, supplement September 1976; Department of the Interior, Alaska Natural Gas Transmission System, FEIS-Canada March 1976; and Tenneco Atlantic Pipeline Company (TAPCO), Docket No. CP77-100 et al. FEIS, September 1977.

The Intervenorors argue that the impact statements cited demonstrate that the FPC and now FERC, have both the authority and capability to investigate and analyze impacts in Canada and should order the staff to file a supplemental environmental impact statement on Canada doing so. In our opinion we have complied with NEPA and in any case, a supplement to the FEIS would exalt form over substance. It would add nothing to the record which the parties have already commented upon and which was available to the public for comment in the staff's FEIS. Comments set forth in the FEIS on the draft environmental impact statement found defective the lack of treatment of the impact of High Ross in the Skagit Valley in Canada. In its responses the staff points out that the IJC report, which it has attached to the FEIS as Exhibit F, describes the natural resources in the Canadian Section of the Ross Basin and the impacts expected from the proposed action (Ex. 169, 9-3, 9-7). The staff notes that the inquiry was conducted in response to a request from the U.S. and Canadian governments, and it is believed the report is responsive to the assignment and is appropriate for use with the FEIS.

The staff presents three Canadian witnesses, Bryan R. Gates, a former employee of the British Columbia Fish and Wildlife Branch, who testified on wildlife and hunting conditions, Edward H. Vernon, a British Columbia government biologist, who testified on fisheries and Gary K. Bowden, a consultant, who testified on recreation. The Applicant presented witness Bendell, formerly at the University of British Columbia, who, with the assistance of a field team, studied and presented evidence on wildlife in the Canadian Skagit and how it would be affected by High Ross (Tr. 5667). The Appendix to the FEIS and the evidence in the record by these and other witnesses enabled the Commission in Opinion No. 808 to discuss the impact of High Ross in Canada.

As indicated in Opinion No. 808 it is not certain that the FEIS must cover the impact in a foreign country, but, in any case, the staff adopted the IJC report as part of the FEIS. It should be noted that the staff is not privileged to act in an official capacity in Canada; in the present case members of the staff did some viewing of the project area but made no systematic studies. In the Alaska case, similarly, the staff carried on no investigating activities in Canada, but overflew certain regions after arrangements were made with the Canadian Government, and therefore had to rely on the reports of others. Similarly in TAPCO the FEIS covers the Canadian portion of the project facilities, but the staff made no studies in Canada, apart from a trip to St. John, New Brunswick, and an overflight of the route. It had to rely on information supplied by the Applicant and relevant publications.

Under the rule of reason NEPA does not intend to impose an impossible standard on the agency (Environmental Defense Fund v. Corps of Engineers, 492 F.2d 1123 (CA5-1974)) particularly where nothing will be accomplished. In lieu of conducting its own investigation the staff attached the IJC study to the FEIS and supplemented it on the record. We see no reason to reopen the record in order to make a further addition to the FEIS. 9/

9/ By letter filed November 28, 1977, City points out that our rules do not provide for a supplemental application for re-hearing. However, we do not see that we cannot receive such a supplement. In any case we are denying the applications as supplemented.

INDIAN FISHING RIGHTS

The Tribes argue that the Commission erred in not considering the effects of the license amendment on their treaty protected fishing rights downstream from the Gorge Dam. While the record shows a loss of salmon fry from stranding on sandbars at times of low flow (Tr. 4867-68; Ex. 162), as stated above, the record shows that no change in flow regimes is proposed in conjunction with raising the dam (Ex. 169, pp. 1-1, 9-2). In fact, the increased storage could enhance the City's capacity to maintain requested flows (Tr. 4876, 4920).

The Tribes and the Secretary of the Interior cite Montana Power Co., 22 FPC 502 (1959), aff'd. Montana Power Co. v. F.P.C., 298 F.2d 335 (CA9- 1962) for the proposition that the same findings are required as a condition precedent to the issuance of a major amendment to an existing license as to the issuance of the license in the first instance. That case involved the application for an amendment to a license seeking authorization for construction of a third generating unit at an established project. The question also arose whether the rental to be paid for the occupation of Indian lands should be reevaluated although the amendment would not affect the amount of land occupied. The Court said that the Commission does not license a "project" but rather "project works" and that the amendment was really a new and original license for the third unit. Therefore the Commission, the Court said, had power to impose an additional annual charge for the use of the Indian Lands in connection with the installation of the third generating unit. In our opinion the Montana case involved a different situation than that here. There a rental charge was computed based on sharing of the benefits which, in turn depended on the capacity of the plant and energy generated. Montana Power Co. v. FPC, supra; 22 FPC at p. 520; 25 FPC 221, 222-223 (1961). There was thus a good reason to change the rental when another generating unit was added. Here the height of the Ross Dam is to be increased, and the record shows that it will not affect the downstream fishery. In licensing these project works nothing will be done that has any relation to the complaint of the Tribes, regardless of its merit.

The Tribes argue that in order to acquire jurisdiction to issue a license affecting a reservation we must make findings under Section 4(e) and 23(b) of the Federal Power Act. Section 4(e) provides that licenses shall be issued within any reservation only after a finding by the Commission that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired. As indicated in Opinion No. 808, while we do not agree with the Tribes' argument that the project is within a reservation, we find that it does not interfere with the purpose of the reservation since the license for the project works involved here would not affect the downstream flow. Accordingly, there is no finding required under Section 23(b).

REQUEST FOR ESTABLISHMENT OF MINIMUM FLOWS

The Tribes say the Commission erred in its conclusion that the proposed amendment to Project No. 553 should not be considered in the relicensing proceeding, for the changes made as the license is about to expire would be irreversible before a comprehensive environmental review of the entire project has been completed.

The Secretary of the Interior requested that the effect of the Commission's Opinion No. 808 be stayed until an examination is made of the impact on the Skagit River fishery resource resulting from the operation of Project No. 553 under the proposed amended license. In the alternative he asked for a stay for 45 days, which was granted as stated above. He points out that he is responsible for fulfilling the United States' judicial and statutory duties to protect the fishing rights of the Indian Tribes and that without proper conditions in the license the operation of the project would severely impair those fishing rights.

As noted above, on September 21, 1977, the Secretary filed proposed interim conditions for Skagit River Flows. The Secretary proposed that during the period February 1 through July 15 the Licensee shall release enough water from Gorge Dam so as to maintain a minimum flow of 3,000 cfs at Marblemount Bridge. If drought conditions necessitate, however, a lower flow down to 1000 cfs is to be maintained without fluctuations irrespective of tributary inflows. Limits are put on the rate of reduction of flows. From the period August 15 through October 1, a minimum base instantaneous flow at Gorge Dam shall be maintained at 1000 cfs (or approximately 2,000 cfs at Marblemount Bridge) with limitations on flow reductions. The Secretary said that for the periods July 15 to August 15 and October 1 to February 1 additional studies were needed to

determine proper flows. The Secretary would also amend Article 59 of the amended license to provide that Interior, the Tribes, the State of Washington Departments of Fisheries and Game, and the National Marine Fisheries Service may determine whether multi-level intake facilities are needed to maintain pre-construction temperature levels in the Skagit River downstream from the Ross Dam and that, upon doing so, Licensee shall prepare plans to install such facilities during construction.

The American Intervenors respond that the proposed 3,000 cfs minimum downstream flow represents a substantial change in the operation of the Skagit project and may affect recreation and power generation. Therefore, they move that the record be reopened for additional evidence and testimony on these matters.

We adhere to our view that the record should not be reopened. In our opinion this project is needed and should be built. To delay issuing an amendment of license now, in our opinion, would be contrary to the public interest. That is not to say that Interior and the Tribes do not raise substantial points with respect to a higher rate of flow below the Gorge Dam, but it is clear that increasing the height of the Ross Dam will not affect the flow regime. The record is not sufficient here to show whether a minimum flow of 3000 cfs is necessary or appropriate to correct past deficiencies. However, Article 44 provides that the Licensee shall, for the conservation and development of fish and wildlife resources, construct such reasonable 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 of the State after notice and opportunity for hearing. The amendment of license for High Ross was granted upon this condition even though it may involve further costs or reasonably altered methods of operation.

In this situation the present amended license should not be stayed or the record reopened. However, we shall treat the Secretary's September 21, 1977, request for minimum flows in the Skagit River below Gorge Dam as a recommendation

under Article 37 of the license. ^{10/} We are accordingly issuing separately a notice of the initiation of a proceeding on his recommendation. It is, of course, true that a change in operations of Project No. 553 would have to be considered in the light of possible detriment to recreational interests and to the need for peaking capacity.

The Commission further finds:

The applications for rehearing filed by American Intervenors, ROSS, Tribes, and the Secretary of the Interior present no facts, legal principles or other reasons that would warrant any change in or modification of the Commission's Opinion No. 808, as supplemented herein.

The Commission orders: -

(A) The applications for rehearing filed by American Intervenors, ROSS, Tribes, and the Secretary of the Interior are denied.

(B) The motion to reopen the record with respect to the downstream flow and temperature issues filed by the American Intervenors is denied.

(C) The requests of American Intervenors and ROSS to reopen the record to receive more recent data on power resources of the Pacific Northwest are denied.

By the Commission.

(S E A L)

Kenneth F. Plumb,
Secretary.

10/ Article 37 provides as follows:

The Licensee shall in connection with the Gorge development, construct, maintain, and operate such protective devices and comply with such reasonable modifications of the project structure and operation in the interests of fish and wildlife resources as may be hereafter prescribed by the Commission upon the recommendation of the Secretary of the Interior, the Washington Department of Fisheries or the Washington Department of Game.

Project No. 553

WEST GROUP FORECAST - ESTIMATED LOADS AND RESOURCES
JULY 1977 - JUNE 1988

APPENDIX A

Figures are megawatts.		1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
1. Total Area Peak Load (January)		24,020	25,202	26,742	27,963	29,229	30,561	31,816	33,187	34,633	36,128	37,744
2. Total Peak Resources <u>1/</u>		28,187	31,589	32,668	34,580	37,325	37,462	39,326	41,861	44,177	46,191	46,847
3. Reserve Requirements		(2,882)	(3,276)	(3,744)	(4,194)	(4,677)	(5,195)	(5,727)	(6,306)	(6,927)	(7,226)	(7,549)
4. Peak Resources		25,305	28,313	28,924	30,386	32,648	32,267	33,599	35,555	37,250	38,965	39,298
5. Peak Surplus (Over Total Load)		1,285	3,111	2,182	2,423	3,419	1,706	1,783	2,368	2,617	2,837	1,554
6. Total July-June Energy Load		15,545	16,326	17,335	18,178	18,948	19,770	20,565	21,401	22,281	23,183	24,128
7. Total Energy Resources <u>1/</u>		15,032	15,489	15,693	16,703	18,126	18,929	19,306	20,700	22,277	23,337	23,414
8. Reserve Requirements		(313)	(322)	(330)	(351)	(386)	(368)	(388)	(407)	(421)	(444)	(478)
9. Energy Resources		14,719	15,167	15,363	16,352	17,740	18,561	18,918	20,293	21,856	22,893	22,936
10. Energy Surplus (Over Total Load)		(826)	(1,159)	(1,972)	(1,826)	(1,208)	(1,209)	(1,647)	(1,108)	(425)	(290)	(1,192)
11. Interruptible Load	-Peak	1,006	1,066	1,199	1,237	1,195	1,143	1,153	1,164	1,174	1,185	1,195
(Included in Lines 1 and 6)	-Energy	975	1,046	1,149	1,200	1,159	1,108	1,118	1,128	1,138	1,149	1,159
12. Fossil-Thermal & Miscellaneous Resources	-Peak	-	-	-	-	-	-	-	-	-	-	-
(Not Included Above) <u>2/</u>	-Energy	554	611	617	611	611	611	611	611	603	603	603
Probability that Resources Will Be Insufficient to Meet Total Energy Load in at Least 1 Period of: <u>3/</u>												
13. Year Shown	-2	31.2	18.6	35.2	31.8	15.8	18.0	21.0	18.4	11.0	15.0	24.6
14. Years, 1978-79 through Year Shown	-2	-	18.6	41.6	59.2	65.0	69.8	75.6	79.2	80.8	84.6	87.2
Probability that Resources Will Be Insufficient to Meet Firm Energy Load in At Least 1 Period of: <u>3/</u>												
15. Year Shown	-2	17.4	9.6	11.8	10.2	4.8	6.4	7.6	6.0	3.0	4.6	9.4
16. Years, 1978-79 through Year Shown	-2	-	9.6	18.6	25.4	28.2	32.6	37.2	41.0	42.4	45.4	50.8

1/ Resources include hydro; small fossil-fuel plants; Hanford-NPR through June 1983; Centralia; Trojan; Colstrip #1 and #2 (50%), #3 and #4 (70%); WPPSS Nuclear #1, #2, #3, #4, #5; Boardman Coal; Skagit #1 and #2; Pebble Springs #1; and net contractual imports/exports with utilities outside the area. Hanford is not included as a peak resource. Estimated amounts for scheduled maintenance (energy only), hydro realization factor (peak only) and incremental losses have been deducted. All existing thermal units and future thermal units under 500 megawatts (peak and energy) are included in amounts as submitted by respective project owners. The energy availability of all future thermal units 500 megawatts or larger has been included as 60% of the first full year and 75% thereafter.

2/ The energy megawatts tabulated in line 12 reflect the amounts of energy available from existing fossil and gas turbine installations which may be considered available as reserve energy resources. These amounts are in addition to those included as firm energy resources in line 7.

3/ Based on same load and resource data as other tabulations herein, except that there is no consideration of energy reserve requirements or realization factor. Study initialized on the basis of actual system conditions and streamflow forecasts made as of February 1, 1977. Because the outlook for 1977-78 is strongly affected by the poor runoff forecasted for 1977, the probabilities for 1977-78 are omitted from the accumulated probability figures. The tabulation shows probability of not meeting load, while last year's West Group Forecast showed probability of meeting load.

FEDERAL ENERGY REGULATORY COMMISSION

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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Charles B. Curtis, Chairman;
Georgiana Sheldon, Matthew Holden, Jr.,
and George R. Hall.

City of Seattle, Washington,
Department of Lighting

)
)

Project No. 553

ORDER GRANTING REQUEST FOR STAY OF
OPINIONS NOS. 808 AND 808-A

(Issued July 2, 1980)

In Opinion No. 808 issued July 5, 1977, the Federal Power Commission affirmed and adopted an Initial Decision of an administrative law judge amending the license under the Federal Power Act of the City of Seattle, Washington, Department of Lighting (Seattle), for its Skagit River Project, Commission No. 553, and thereby authorized Seattle to elevate Ross Dam by 121 feet to increase the power output. In Opinion No. 808-A issued August 2, 1978, the Commission 1/ denied rehearing, and in due course petitions to review the foregoing Commission orders were filed in the United States Court of Appeals for the District of Columbia Circuit. Those petitions were consolidated with an earlier petition to review a Commission order denying a motion to dismiss Seattle's application for the license amendment; and the consolidated appeal was briefed and argued, and is currently awaiting the mandate of that Court. 2/

On April 1, 1980, Seattle filed a document requesting the Commission "to stay its Opinion Nos. 808 and 808-A... until the completion of direct judicial review proceedings presently pending and any further certiorari proceedings therefrom in the U. S. Supreme Court." As we understand that request, Seattle is asking us to stay (inter alia) Article 64 of its amended license which, as required by Section 13 of the Federal

1/ The term "Commission" refers to the Federal Power Commission in contexts prior to October 1, 1977, and to the Federal Energy Regulatory Commission in contexts on and after that date.

2/ Sub nom Swinomish Tribal Community v. Federal Energy Regulatory Commission, Nos. 78-1659, 78-1949, 78-1957, and 78-1958. On June , 1980, the Court of Appeals issued a decision affirming the Commission's orders.

Project No. 553

Power Act (FPA) 3/ obligated Seattle to commence construction of the High Ross Dam within two years of the date of Opinion No. 808, which period would have ended July 5, 1979. 4/ Seattle states that it wishes to construct High Ross Dam as soon as possible because of its need for the power, but that it would not be in the public interest to do so during the continuance of judicial review. No party has opposed Seattle's request for stay.

Seattle contends that 5 U.S.C. §705, which is part of the Administrative Procedure Act (APA), authorizes the Commission to "postpone the effective date of action taken by it, pending judicial review," if the Commission finds that justice so requires. Seattle also contends that our orders of April 17 and June 27, 1979, in Monongahela Power Company, Project No. 2709, establish that we may maintain the status quo by ordering a stay of Opinions Nos. 808 and 808-A while they are undergoing judicial review. 5/

3/ Section 13 provides, in pertinent part:

That the licensee shall commence the construction of the project works within the time fixed in the license, which shall not be more than two years from the date thereof... . The periods for the commencement of construction may be extended once but not longer than two additional years In case the licensee shall not commence actual construction of the project works, or any specified part thereof, within the time prescribed in the license or as extended by the Commission, then, after due notice given, the license shall, as to such project works or part thereof, be terminated upon written order of the Commission... .

4/ As permitted by Section 13, Seattle was previously granted an extension of the period for the commencement of construction to two years from August 1, 1978, which was the first day of the month in which Opinion No. 808-A was issued. Thus, Seattle must begin construction by August 1, 1980, absent a stay. ✓

5/ In that case we stayed the commencement of construction of the Davis Project, Commission No. 2709, after the Court of Appeals denied a motion of the Secretary of the Interior to enjoin construction. The Court said that its denial was without prejudice "if the Commission does not provide prompt procedures for considering any application for a stay that might be filed." In recognition of the Court of Appeals' action in that case, Seattle has come directly to the Commission for relief in the first instance.

Project No. 553

In the matter now before us, another extension of the date for commencement of the construction of High Ross Dam cannot be granted because Section 13 permits only one such extension. If Seattle does not begin construction on or before August 1, 1980, the Commission will be required by Section 13 to give due notice and, then, to terminate Seattle's license "as to such project works or part thereof." And such action would moot the appeal. On the other hand, if Seattle went forward with construction in order to avoid termination of the license with respect to the High Ross Dam, it would have to make substantial expenditures that either its taxpayers or ratepayers would have to bear and that might be wasted, depending on the outcome of judicial review.

A stay of Opinions Nos. 808 and 808-A, or of the commencement of the elevation of Ross Dam, would produce the same result as an amendment of Seattle's license extending the commencement date. Admittedly, an amendment of Seattle's license is presently prohibited by Subsection 313(b) of the FPA, which gives the court exclusive jurisdiction to "affirm, modify, or set aside" the order after the record is filed with it. Nonetheless, a stay would not affect the merits of the petitions for review that are still before the Court of Appeals. The Commission believes it is consistent with the public interest to preserve the position in which it places an applicant to whom it issues a hydropower license while that license is undergoing judicial review. When a date for the commencement of construction cannot be extended and the extended date is about to expire while judicial review is pending -- and the Commission is faced with its statutory duty to terminate the license in whole or in part notwithstanding the ability, willingness, and desire of a licensee to go forward with the licensed project -- the Commission should act to preserve the status quo, in the interest of justice and in aid of the jurisdiction of the reviewing court. A stay under such circumstances would aid the appeal in that it would obviate a license termination mooting the appeal.

As noted above, the jurisdiction of the reviewing court to modify or set aside a Commission order becomes exclusive once the record is filed with the court. This subsection, however, has never expressly prohibited a Commission stay order pending judicial review, and such a stay does not interfere with a reviewing court's ability to act on the merits of the issues on appeal. If anything, it gives greater deference to the court. The provisions of 5 U.S.C. §705, giving an administrative agency the authority to stay the effective date of its action in the interest of justice, pending judicial review, are substantially the same as those in the original Section 10(d) of the APA. These provisions are not limited with respect to the time when an agency may act. Nor does the legislative history

Project No. 553

of the APA suggest any such limitation. 6/ Although Section 313(b) of the FPA was subsequently amended in 1958, the amendment made no change with respect to what actions were within the exclusive jurisdiction of the reviewing courts once that exclusive jurisdiction attached. 7/ We conclude that Section 313(b) of the Federal Power Act does not preclude the Commission from issuing a stay pursuant to 5 U.S.C. §705. 8/ A stay issued in the interest of justice pending review that aids and preserves the jurisdiction of the reviewing court is consistent with and in furtherance of the purpose of Section 313(b) of the Act. 9/

Section 13 of the Federal Power Act is designed to avoid lengthy and unnecessary procrastination by a licensee in developing water power resources, contrary to the public interest. We view the present situation as one in which Section 13 itself is not sufficiently flexible to accommodate the delays associated with the rehearing and judicial review of Seattle's license amendment, however. Seattle is ready, able and willing to go forward with the elevation of Ross Dam, but recognizes, as we do, that it would be counterproductive to go forward so long as its construction and other authority under the

6/ See, e.g., H.Rep. No. 1980, 79th Cong., 2d. Sess. 277-78 (1946).

7/ Pub. L. 85-791, §16 (eff. Aug. 28, 1958), 72 Stat. 941, 947. The same statute enacted 28 U.S.C. §2112, which explicitly gave the Courts of Appeals (at that time) authority to issue procedural rules pertaining to the filing and contents of administrative records in all proceedings instituted before them to "enjoin, set aside, suspend, modify, or otherwise review ... orders of administrative agencies, boards, commissions, and officers" [Emphasis added.] Congress used this broader language that clearly encompasses proceedings for suspensions (i.e., stays), but at the same time reenacted the narrower language of Section 313(b) of the FPA (i.e., exclusive court jurisdiction to "affirm, modify, or set aside"). We infer that Congress did not intend to preclude the Commission's concurrent authority to stay its orders pending judicial review.

8/ Section 35 of Pub. L. 85-791 expressly stated that the statute was not to be construed to repeal or modify any provision of the APA. 72 Stat. 951.

9/ Our conclusion is consistent with those cases recognizing a district court's authority to act to preserve the status quo "in aid of the appeal" while review is pending. See, e.g., *Jago v. United States District Court*, 570 F. 2d 618, 622 (6th Cir. 1978); *Hoffman v. Bear Drivers & Salesmen's Local Union No. 888*, 536 F.2d 1268 (9th Cir. 1976); *Silverthorne v. Laird*, 460 F.2d 1175 (5th Cir. 1972); *Carpenters District Council v. Morse*, 455 F. Supp. 535 (E.D. Mich. 1978); *Hayward v. Clay*, 456 F. Supp. 1156 (D.S.C. 1977). See also 9 Moore's, Federal Practice Par. 203.11.

Project No. 553

license amendment is subject to being set aside. Under such circumstances, we view an order staying the commencement of construction as an administrative act necessary to effectuate the purposes of Part I of the Federal Power Act for developing our nation's water power resources. 10/

In our view the authority to act as requested is derived not only from 5 U.S.C. §705, as suggested by Seattle, but also from Section 309 of the Federal Power Act, which provides, in pertinent part:

The Commission shall have power to perform any and all acts, and to prescribe, issue, make, amend, and rescind such orders, rules, and regulations as it may find necessary or appropriate to carry out the provisions of this Act.

We find that it is necessary to stay Opinions Nos. 808 and 808-A to enable the courts to complete their review and to avoid a possible termination of the license for the raising of the Ross Dam that would be contrary to the public interest as the Commission has previously determined it to be in those opinions.

When a licensee requests a stay while a license or license amendment under the Federal Power Act is challenged in court, we continue to believe, as stated in our order of April 17, 1979, in the case of Project No. 2709, that "the public interest requires a stay of the commencement of construction activities under the license." Conversely, it is not in the public interest to require a licensee to invest substantial amounts in construction activities with no assurance that it will be able to complete its project and attempt to recover those sums. Accordingly, we find that it is in the public interest to stay Opinions Nos. 808 and 808-A pending resolution of the challenge to Seattle's license amendment, and that justice so requires.

10/ In the context of the considerations for stays promulgated in *Virginia Petroleum Jobbers Association v. Federal Power Commission*, 259 F.2d 291 (D. C. Cir. 1958) and *Washington Metropolitan Area Transit Commission v. Holiday Tours, Inc.*, 559 F.2d 841 (D. C. Cir. 1977), the consequences of a failure to grant a stay dominate the other considerations in this instance.

Project No. 553

The Commission orders:

Pending further order of the Commission, the request of the City of Seattle, Washington, Department of Lighting, filed April 1, 1980, to stay the Commission's Opinion Nos. 808 and 808-A pending the completion of judicial review is granted as requested.

By the Commission. Commissioner Holden voted present.

(S E A L)

Kenneth F. Plumb

Kenneth F. Plumb,
Secretary.

Other Amendatory Orders and Notices

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

City of Seattle)

Project No. 553

NOTICE OF ISSUANCE OF ANNUAL LICENSE(S)

(October 25, 1977)

On September 26, 1977, City of Seattle, Licensee for the Skagit River Project No. 553, located on the Skagit River, Whatcom County, Washington, filed an application for a new license pursuant to the Federal Power Act and Commission Regulations thereunder.

The license for Project No. 553 was issued effective October 28, 1977, for a period ending October 27, 1977. In order to authorize the continued operation and maintenance of the project, pending Commission action on Licensee's application, it is appropriate and in the public interest to issue an annual license to City of Seattle.

Take notice that an annual license is issued to City of Seattle for the period October 28, 1977, to October 27, 1978, or until the issuance of a new license for the project, whichever comes first, for the continued operation and maintenance of the Skagit River Project No. 553 subject to the terms and conditions of the original license. Take further notice that if issuance of a new license does not take place on or before October 27, 1978, a new annual license will be issued each year thereafter, effective October 28 of each year, until such time as a new license is issued, without further notice being given by the Commission.

Kenneth F. Plumb
Secretary

DC-A-6

FILE: RELICENSE # 553

| #553 Article 72 |

Gov 6
4-12

July 10, 1980

Honorable Kenneth F. Plumb
Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, Northeast
Washington, D.C. 20426

This is identical
to New Article
No. 72 for Project
#553 (Skagit), also
adopted July 10, 1980

Dear Mr. Plumb:

Newhalen Creek
Amendment of the License for FERC Project No. 2705 WA
By Adding New Article No. 39

We have received a letter from Mr. William W. Lindsay, Director of the Office of Electric Power Regulation, offering us an opportunity to amend the license for Project No. 2705 by adding a new standard article. The new article gives the licensee authority to grant permission for certain uses of project lands and waters and to convey certain interests in project lands, without prior Commission approval. By this letter, we accept that new article as an amendment to the project license. The new article should be designated Article No. 39. A copy of the new article, with that article number filled in, is attached to this letter.

Yours truly,

J. P. Recchi for...

Robert H. Murray
Superintendent
Seattle City Light
City of Seattle

WF:vw

Attachment: New License Article No. 39

cc: Murray
Recchi
Flaherty
Rockey
Coe/Farr
Garman
Sundquist
G. W. Bishop
File

Article 28. (a) In accordance with the provisions of this article, the Licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain other types of use and occupancy, without prior Commission approval. The Licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the Licensee shall also have continuing responsibility to supervise and control the uses and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the Licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the Licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, cancelling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

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

(c) The Licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges and roads for which all necessary State and Federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the Licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The Licensee may convey fee 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.

(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.

**Your
Seattle
City Light**

Randall W. Hardy, Superintendent
Charles Royer, Mayor

February 27, 1985

Mr. Eugene Neblett
Regional Engineer
Federal Energy Regulatory
Commission
333 Market Street
San Francisco, California 94105-2195

Dear Mr. Neblett:

SKAGIT PROJECT NO. 553 WA, ARTICLE 72
BOUNDARY PROJECT NO. 2144 WA, ARTICLE 51
NEWHALEM PROJECT NO. 2705 WA, ARTICLE 39

As required by paragraph (C), of the referenced license articles, the attached list briefly describes the conveyances made by Seattle City Light during 1984.

Yours truly,

Original Signed by
RANDALL W. HARDY

Randall W. Hardy
Superintendent

RWH:ssg

Attachment

cc: Kenneth F. Plumb, Secretary
Federal Energy Regulatory Commission
441 G Street Northwest
Washington, D.C. 20426

bcc: Hardy
Saven
Coe-Hauskins
Freitas
Farr(2)
File

FEB 22 1985

An Equal Employment Opportunity - Affirmative Action Employer
City of Seattle - City Light Department City Light Building 1015 Third Avenue Seattle Washington 98104 (206) 625 3000

SEATTLE CITY LIGHT
 PERMISSION TO USE FERC PROJECT LANDS GRANTED IN 1984

<u>PM NUMBER</u>	<u>USE</u>	<u>TYPE OF INTEREST</u>	<u>LOCATION</u>
270504-3-408	Access	Permit	Section 4, 5, 8-27-5 Snohomish County, WA
351001-4-401	Access	Permit	Patrol road between towers D68/6N & D67/12N Section 12-35-10
371221-3-453	Rental	Permit	House #27, Newhalem, WA
371221-3-454	Rental	Permit	House #1, Newhalem, WA
371221-3-455	Rental	Permit	Garage #19, Newhalem, WA
371221-3-456	Rental	Permit	House #304, Newhalem, WA
371221-3-458	Rental	Permit	House #12, Newhalem, WA
371305-3-438	Rental	Permit	Garage #B-8, Diablo Dam
371305-3-439	Rental	Permit	House #B-12, Diablo Dam
371305-3-440	Dwelling	Permit	House #H-19, Diablo Dam
371305-3-441	Rental	Permit	House #B-15, Diablo Dam
371305-3-442	Rental	Permit	House #H-5, Diablo Dam
371305-3-443	Rental	Permit	Garage #H-27, Diablo Dam
371305-3-444	Rental	Permit	Garage #H-33, Diablo Dam
280501-2-001	Access	Consent	In NW 1/4 of SW 1/4 of SW 1/4 Section 1-28-5
280527-1-001	Access	Consent	In NE 1/4 of NE 1/4 Section 27-28-5
280534-2-002	Transmission line crossing	Consent	In NW 1/4 of NW 1/4 Section 34-28-5
290501-3-002	State Road Improvements	Consent	In SE 1/4 of SW 1/4 Section 1-29-5
290512-2-001	Fence	Consent	In E 1/2 of NW 1/4 Section 12-29-5
290524-3-001	Sewer Line	Consent	In SE 1/4 of SW 1/4 Section 24-29-5
310620-1-001	Access, gate, gardening	Consent	In N 1/2 of NE 1/4 Section 20-31-6
351014-1-301	Ingress and Egress	Easement	In Govt Lot 2 Section 14-35-10

ERP & M

37 FEB 162 226

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

- 2 -

City of Seattle, Washington

Project No. 553-010

ORDER FURTHER REVISING LICENSE ARTICLE 36
(Issued December 17, 1986)

The City of Seattle, Washington, licensee for the Skagit River Project, has submitted a revised article 36 in compliance with Ordering Paragraph (C) of the Commission order issued July 14, 1967, amending this license. 38 FPC 130(1967).

The submitted article 36 was revised in cooperation with the Corps of Engineers in order to modify the flood regulation schedule therein to reflect the change in the surface elevation of Ross Lake from 1,600 feet to 1,602.5 feet authorized by the July 14, 1967, order. The project has been operating under this schedule and this order merely corrects article 36 to correspond to the operating agreement.

The Director orders:

(A) Article 36 of the license for Project No. 553 is revised as follows:

Article 36: The licensee shall reserve a maximum of 120,000 acre-feet of storage space in Ross Reservoir for flood control during the period October 1 to March 15. The required storage space, if not previously obtained through power withdrawals, shall be provided by drawing down the reservoir at a rate equalling or exceeding a uniform drawdown rate from zero on October 1 to 60,000 acre-feet on November 15 and similar drawing down, but at a more rapid rate to provide the full 120,000 acre-feet on December 1, with the reservoir level at elevation 1,592.0 feet. Whenever the United States Weather Bureau forecasts that the discharge at the gaging station near Concrete will equal or exceed 90,000 second-feet in eight hours on a rising stage of a flood, the licensee shall, as a maximum, release only such flows from Ross, Diablo, and Gorge plants, but not more than a mean daily discharge of 5,000 second-feet, plus or minus 20 percent allowance for operational latitude. If the reservoir pool should reach the elevation of 1,602.5 feet before the flood recession occurs, the gates shall be operated to induce maximum surcharge storage to effect maximum reduction of discharge downstream. If surcharge storage is induced, it shall be maintained as long as possible, or until flood recession occurs. After flood recession starts, releases from Ross Reservoir shall be increased until discharge equals inflow. Storage shall be evacuated as rapidly as possible without endangering downstream installations as soon as the discharge at Concrete recedes to 90,000 second-feet and a falling trend is forecast. "Details of Regulation for Use of Storage Allocated for Flood Control in Ross Reservoir, Skagit River, Washington (revised May 25, 1967)" is incorporated by reference as a part of this article.

DC-A-11

George Marshall

(B) This order is issued under authority delegated to the Director and is final unless appealed to the Commission under Rule 1902 within 30 days from the date of this order.

Richard T. Hunt
Richard T. Hunt
Director, Office of
Hydropower Licensing

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CITY LIGHT
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REFERRED

SUPP/ERP+M ✓

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DEC 30 1986
DEC 31 1986

cc: Lane

cc: Whitney

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Harman - '11'

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ERP & M

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

City of Seattle, Washington

Project No. 553-010

ERRATA NOTICE
(January 13, 1987)

ORDER FURTHER REVISING LICENSE ARTICLE 36
(Issued December 17, 1986)

cc: Key
Paula
~~_____~~

In the sentence beginning "Whenever the United States Weather Bureau..." insert "Ross Dam as are necessary to the normal production of electric energy at the" following "release such flows from".

Kenneth F. Plumb
Secretary

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Sept/ERP+M ✓

cc EAD ✓
Hardy ✓

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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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LAW DEPT.

AUG 3 1987

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ROOM 1000

Before Commissioners: Martha O. Hesse, Chairman;
Anthony G. Sousa, Charles G. Stalon,
Charles A. Trabandt and C. M. Naeve.

City of Seattle, Washington,) Docket No. EL86-I-000
Department of Lighting) (Project No. 553)

ORDER RULING ON PETITION FOR DECLARATORY ORDER REGARDING
ANNUAL CHARGES, DISALLOWING CREDIT AGAINST FUTURE
CHARGES, AND DISMISSING PROTESTS

(Issued August 3, 1987)

The Department of Lighting, City of Seattle, Washington (Seattle), the licensee for the Skagit River Project No. 553, located on the Skagit River in Whatcom County, Washington, has filed a petition for declaratory order under Rule 207(a)(2) and (5) of the Commission's Rules of Practice and Procedure. ^{1/} The petition and subsequent filings ask for an order to remove uncertainties as to whether it must pay adjusted annual charges for use of United States lands by its licensed project pursuant to (1) a bill of August 26, 1985, covering the years 1977 through 1983; and (2) annual bills for 1984 and subsequent years. These billings, made pursuant to the Commission's regulations, impose substantially larger payments for land use annual charges than the dollar amounts referred to in the license. For the reasons discussed below, we determine that Seattle is required to pay such adjusted charges, determined in accordance with the Commission's regulations under the Federal Power Act (FPA), rather than the dollar amounts referred to in its license.

Background

The Skagit River Project No. 553 was originally licensed in 1927 for a term of 50 years. ^{2/} Diablo was the only development authorized at that time. Article 24 of the original 1927 license required Seattle to recompense the United States for the use and occupancy of its lands pursuant to Section 10(e) of the Federal Water Power Act of 1920 (FWPA) ^{3/} and specified that such charges would be determined in accordance with the provisions of Regulation 14 of the Commission's rules and regulations, which regulation

^{1/} 18 C.F.R. § 385.207(a)(2) and (5) (1987). The provisions of Section 385.207 were the same in 1985 as now.

^{2/} Federal Power Commission order of October 28, 1927.

^{3/} 41 Stat. 1063 (1920).

implemented Section 10(e) of the FWPA, as then in effect. Until amended in 1935, 4/ Section 10(e) did not explicitly provide for adjustment by the Commission of annual charges for recompensing the United States for the use, occupancy, and enjoyment of its lands (other than tribal lands embraced within Indian reservations). 5/

In 1937, the Commission issued an order to authorize an amendment to the license for Project No. 553 so that Seattle could construct, as part of Project No. 553, an additional dam and powerhouse known as the first step of the Ruby development (now known as the Ross development). 6/ In 1943, the Commission issued another order that formally amended the license (designated Amendment No. 1), pursuant to the 1937 order and effective as of the date of the authorizing order. 7/ The 1937 and 1943 orders changed the operative ordering paragraph of the license so that the entire project covered by the amended license 8/ was made subject to the FPA, as distinguished from the FWPA, and to the rules and regulations under the FPA. 9/

4/ Title II of the Public Utility Act of August 26, 1935, 49 Stat. 838. By the 1935 enactment, the FWPA with a number of changes became basically Part I of the FPA.

5/ Similarly, Section 10(e) of the FWPA did not explicitly provide for adjustment by the Commission of annual charges to reimburse the United States for the costs of administration.

6/ Federal Power Commission order of July 23, 1937.

7/ Federal Power Commission order of January 22, 1943.

8/ At that time, the license authorized the Diablo development, the first step of the Ruby (Ross) development, and certain transmission facilities.

9/ This paragraph, which operated to issue the license, read as follows after the 1937 and 1943 orders:

NOW THEREFORE, the Commission hereby issues this license to the Licensee for the purpose of constructing, operating and maintaining upon the lands of the United States hereinafter designated and described, certain project works necessary or convenient for the development, transmission and utilization of power and constituting a part of the project hereinafter described, and of authorizing in connection with and as a part of

(Footnote continued on next page.)

The findings and ordering provisions of the 1937 and 1943 orders, in amending Article 24 of the license, also made it clear that land use annual charges were to be determined with reference to the FPA and not the FWPA. 10/

Other Commission actions also make it clear that the annual charges under the amended license were governed by the FPA and the regulations thereunder. For example, two orders granted partial

9/ (Continued from previous page.)

said project the occupancy and/or use by the Licensee of said lands of the United States and of all riparian rights appurtenant thereto which are necessary or useful for the purpose of the project; said license, including the period thereof, being subject to all the terms and conditions of the Act [meaning here, the FWPA], and of the rules and regulations of the Commission pursuant thereto as amended and made effective on the first day of April 1924, as though fully set forth herein, which said rules and regulations are attached hereto and made a part hereof, said license, as amended pursuant to the Commission's order of July 23, 1937, being subject to the Federal Power Act (the Federal Water Power Act as amended) which is hereby referred to and incorporated as a part hereof, and subject to the rules and regulations of the Commission thereunder, and being subject also to the following express conditions and limitations, to wit: * * * [Underscored words added by the 1937 and 1943 orders.]

10/ The revised Article 24 for the first time included a penalty provision for delinquent payment of annual charges. This penalty provision obviously implemented the new provision for penalties in Section 17 of the FPA; such a provision was not in the FWPA. The revised Article 24, in the 1943 order, also deleted the earlier reference to Regulation 14, which had governed annual charges under the FWPA. Finding (9) in the 1937 order determined that reasonable annual charges for use of United States lands, other than lands used for transmission line, should be at four per cent per annum of the commercial value of the lands as later determined by the Commission; and for lands used for transmission line purposes, five dollars per mill per annum, one hundred feet or less in width, with proportional increase for additional width. The revised Article 24, in the 1943 order, established the dollar amounts for the lands charges to be \$1,066.57 and \$215.36, respectively, effective January 1, 1942.

exemptions from payment of annual charges "pursuant to the terms of the Federal Power Act and the regulations of the Commission thereunder." 2 F.P.C. 913 (1941) and 5 F.P.C. 478 (1946).

Subsequent to the 1943 order, other amendments authorized additional facilities that were covered by the amended license for Project No. 553. 11/ In 1964, the Commission issued an order that approved revised project exhibits and adjusted annual charges. 12/ Article 24 of the license, pertaining to annual charges, was revised by the order, as follows:

Article 24. The Licensee shall pay to the United States the following annual charges:

- (a) For the purpose of reimbursing the United States for the cost of administration of Part 1 of the Act, a reasonable annual charge in accordance with the provisions of Part II [sic, should read Part 11] of the Commission's regulations, in effect from time to time. The authorized installed capacity for such purposes is 832,000 horsepower.
- (b) Effective January 1, 1964[,] for the purpose of recompensing the United States for the use, occupancy, and enjoyment of its lands, other than those used for transmission lines only, \$1,830.89, and

11/ Amendments of 1946 (5 F.P.C. 494) and 1947 (6 F.P.C. 602) authorized the second and third steps of the Ross development and increased the annual charges for United States land used by the project, for other than transmission lines, to \$1,191.46 and \$1,699.32, respectively. Another amendment in 1949, 8 F.P.C. 1113, included the Gorge development in the licensed project; the area of United States lands used was to be determined later, and thus land use annual charges were not increased at that time.

12/ 31 F.P.C. 1268. The order noted that the entire project was complete except for possible raising of Ross dam, and that there had been several license amendments and orders approving changes. For convenience, the order set forth a new Article 2 describing the project together with the relevant project exhibits. The project consisted of the Diablo and Gorge developments as well as the Ross development with the dam constructed to elevation 1615 feet at the roadway crest. The approval of the revised exhibits by the order resulted in an adjusted increase in United States lands occupied by the project of 14.93 acres and an increase in annual charges for occupancy in the amount of \$38.84.

- (c) Effective January 1, 1952, for the purpose of recompensing the United States for the use, occupancy, enjoyment of its lands for transmission lines only, \$320.40.

In Order No. 560, 13/ the Commission prescribed amendments to Section 11.21 of its regulations to revise the annual charges paid by licensees to the United States for use of its lands. The order briefly recited the prior practices of the Commission in determining annual charges for United States lands. 14/ Importantly, however, by Order No. 560, the regulations for the first time prescribed a method by which land use annual charges could be actually determined once the acreage amount was known; the previous regulation did not set out the practice nor the national average values nor the interest rate being used. 15/ The earlier regulations under the FPA, though, had included a provision for adjustment of land use charges "from time to time" by the Commission. 16/

On July 5, 1977, the Commission issued Opinion No. 808, which amended the license for Project No. 553 to authorize an increase in the height of Ross Dam and a consequent increase in its generating capacity. 17/ With respect to land use annual charges, Opinion No. 808 retains in Article 24 the same provisions as were in the

13/ 56 F.P.C. 380 (1976). The revisions were made effective as of January 1, 1977.

14/ The Commission had, in early years, based land use charges on project-by-project appraisals. Because of excessive costs of appraisals, the Commission in 1942 began to use a national average value per acre multiplied by an interest rate. By 1962, the values used resulted in a uniform annual charge of \$2.40 per acre.

15/ Compare 18 C.F.R. § 11.21 (1976) and 18 C.F.R. § 11.21 (1977).

16/ See, e.g., 18 C.F.R. § 11.21 (1976) and the identical provision prescribed in Order No. 50, adopted April 19, 1938, and made effective as of June 1, 1938.

17/ 59 F.P.C. 196, reh. denied, Op. No. 808-A, 4 FERC ¶ 61,114 (1978), aff'd sub nom. Swinomish Tribal Community v. FERC, 627 F.2d 499 (D.C. Cir. 1980).

1964 order. 18/ Opinion No. 808 also added Articles 66 and 67 to the license. Article 66 provides for the filing of revised Exhibits F and K reflecting changes in project lands resulting from the construction of additional facilities at Ross Dam. Article 67 expressly reserves to the Commission the right to determine additional annual charges for the use and occupancy of United States lands after filings of the revised Exhibits F and K.

Opinion No. 808 is not in effect. On July 2, 1980, it and Opinion No. 808-A were stayed. 19/ That stay has not been lifted. Furthermore, in 1984, the United States and Canada entered into a treaty which has the effect of probably delaying for many years the modifications to raise Ross dam and to achieve additional capacity at the Ross development. 20/

The 50-year license for Project No. 553 expired on October 28, 1977. Since then the project has been operated under annual licenses, under the terms and conditions of its previously existing license, pending Commission action on Seattle's relicense application.

On August 22, 1985, the Commission staff transmitted to Seattle a Statement of Annual Charges assessing retroactive annual charges in the amount of \$965,724.10 for the use and occupancy of United States lands for the period January 1, 1977 to December 31, 1983. Staff assessed these retroactive annual charges because, effective January 1, 1977, annual charges for use and occupancy of

18/ Opinion No. 808 did revise Article 24 to reflect the additional authorized installed capacity of the project. This change has no relevance to the determination of land use annual charges. Further, the changes made to Article 24 were not to become effective until the increased generating capacity became commercially operable.

19/ 12 FERC ¶ 61,010.

20/ Treaty Relating to the Skagit River and Ross Lake in the State of Washington, and the Seven Mile Reservoir on the Pend D'Oreille River in the Province of British Columbia, April 2, 1984, United States-Canada, Sen. Exec. Print No. 98-37, 98th Cong., 2d Sess. (1984). Article II of the treaty provides that only if the Province of British Columbia discontinues its obligation, undertaken in a separate agreement between the province and Seattle, to deliver electrical power to Seattle may the height of Ross Dam be increased, and until then "Seattle shall not be required to pay any increase in annual charges attendant thereupon under Section 10(e) of the Federal Power Act."

government lands under Project No. 553 were to be calculated as set forth in Order No. 560. Seattle has not paid these assessed retro-active annual charges and has filed a petition for declaratory order asking that the Commission declare these charges incorrect and invalid. Seattle also challenges subsequent billings of annual charges for the years 1984 through 1986, which billings were also based on the provisions of Section 11.21 of the regulations.

The acreage figures for United States lands, on which the challenged annual charge assessments were based, are 15,200.41 acres (for lands exclusive of transmission line use) and 95.50 acres (for transmission line use). The total acreage is the same as that given by Seattle in a letter dated October 18, 1963, to the Commission responding to a question as to acreages of United States lands occupied by the project. Thus there is no apparent dispute as to the accuracy of the acreage amounts. 21/

The dispute centers, then, on the amount of the "per acre" charge, with almost all of the disputed dollar amount being for lands used for non-transmission line use. According to Seattle, the proper amount is the dollar figures set out in Article 24 of the license, namely, \$1,830.89 per year for United States land for other than transmission line use, and \$320.40 for United States land for transmission line use. These dollar figures, of course, yield a very small "per acre" charge: \$0.12 per acre annually for non-transmission line use and \$3.35 per acre annually for transmission line use. The challenged staff assessments, on the other hand, used the methodology prescribed by Order No. 560. Under this methodology, the charge for non-transmission line use increases from \$5.74 per acre annually in 1977 to \$11.81 per acre annually in 1983; the annual charge per acre for transmission line use is one-half that for non-transmission line use. 22/

21/ Nor is there any apparent question as to whether the acreage amount is affected by the 1984 treaty (see n. 20). The acreage amount is that for the period of the 1964 amendment, and Seattle's 1963 letter shows that with the raising of Ross dam to the 1725 foot elevation some 4000 additional acres of United States lands would be used. No charge is being made for this additional acreage.

22/ On May 8, 1987, the Commission, partly in response to criticism from the Inspector General and the General Accounting Office, issued Order No. 469 to revise its billing procedures for annual charges and its methodology for assessing land use annual charges (52 Fed. Reg. 18,201 (May 14, 1987)). However, these revisions are not effective for the period of time here and thus need not be considered further. It appears, though, that the "per acre" charge will increase for Project No. 553.

Discussion

In its petition, the City of Seattle has raised alternative arguments against the imposition of the adjusted annual charges. First, Seattle asserts that, since the license for Project No. 553 was issued under the FWPA, the Commission had no authority to adjust the annual charges for use of government land and, therefore, Section 11.21 of the Commission's regulations, prescribed by Order No. 560, cannot apply to Project No. 553. Alternatively, Seattle argues that, if the license for Project No. 553 was subject to Section 11.21 of the regulations, then the annual charges for use of government lands which that section, under the authority of Section 10(e) of the Act, permitted the Commission to fix were, in fact, fixed in Opinion No. 808, which was issued after Order No. 560, and have not been changed by the Commission.

Both of Seattle's alternative arguments are wrong. As set out above, the 1937 and 1943 orders made the license for Project No. 553 subject to the provisions of Section 10(e) of the FPA and the regulations thereunder. Under Section 10(e) of the FPA, the Commission clearly has the authority to adjust annual charges from time to time. Order No. 560 prescribed the methodology for such adjustment of land use charges.

Also with respect to its first argument, Seattle asserts that, under Section 11.21(e) of the regulations prescribed by Order No. 560, 23/ it operates the project under a license issued on October 28, 1927 (the initial license order), and thus well prior to August 26, 1935 (when the FPA replaced the FWPA), so that the charges cannot be more than the dollar amount referred to in Article 24. This assertion, of course, ignores the fact that by the amendments of the license, and the Commission orders accepted by the licensee, the entire project and the license covering the project were expressly made subject to the FPA and the regulations

23/ Section 11.21(e) (see 18 C.F.R. § 11.21(e) (1977)) provides:

- (e) No licensee under a license issued prior to August 26, 1935, shall be required to pay annual charges in an amount greater than that prescribed in such license, except as may be otherwise (provided) in the license.

under the FPA. 24/. Both the FPA and the regulations under the FPA permit adjustment of annual charges from time to time. Furthermore, the exception clause at the end of § 11.21(e) would, in any event, operate to permit adjustment, because the license for many years has provided for adjustment of annual charges.

As to Seattle's second, alternative argument, we do not believe that Opinion No. 808 shows that the Commission at that time intended to fix the land use annual charges at the referenced dollar amounts, so as to show an intent that the provisions of the regulation, adopted by the fairly contemporaneous Order No. 560, would not apply to the licensed project. Such an inference would amount essentially to a grant of the public domain and, of course, should not be lightly inferred. — *But also so should repeal of a license provision*

Furthermore, the inference is unreasonable in the circumstances. In adopting Order No. 560, the Commission noted its statutorily imposed duty to ensure that the United States shall be adequately compensated, through the payments of annual charges, for the use of its land. The Commission went through the rulemaking procedure to update and codify the methodology for land use annual charges. The rule it adopted updated the land use annual charge from the \$2.40 per acre charge then used to a charge of \$5.74 per acre for 1977, with gradual increase thereafter.

It is unreasonable to believe that the Commission intended to perpetuate a charge of some \$0.12 per acre for Seattle's licensed project while at about the same time it was increasing the land use charge nationwide from \$2.40 to \$5.74 an acre for 1977. We are aware of no possible basis for such a belief.

In view of the number of substantial issues addressed in Opinion No. 808, it is understandable that adjustment of land use charges was not treated as a significant issue. The Opinion does not discuss any issue on annual charges. However, Article 67,

24/ To relate an amendment not only to the newly authorized facilities but also to previously authorized facilities is within the Commission's authority. *Idaho Power Co. v. F.P.C.*, 346 F.2d 956, 960 (9th Cir. 1965) ("[t]he fact that the wheeling requirement attaches to already licensed transmission lines, as well as those approved by the amendment, does not render the requirement to that extent unrelated to and an unreasonable condition of the amendment.")

added to the license by Opinion No. 808, 25/ expressly reserved to the Commission authority to determine later the land use annual charges to be paid by the licensee. Such determination was to be made after the filing of revised Exhibit K. The revised Exhibit K maps to be filed for Commission approval would, when approved, establish the project boundaries and identify the acreages of United States land included as part of and being used by the project. Seattle's suggestion that the Article 67 reservation of authority relates only to changes made in connection with the planned raising of the Ross dam and increased generating capacity at the Ross development is refuted by the provisions of Article 66 of the license, also added by Opinion No. 808. This article required the filing of a revised Exhibit F and for Commission approval revised Exhibit K maps. The revised exhibits, that were required within one year after completion of construction, were by no means limited to those for the planned changes at the Ross development. Rather, Article 66 required revised Exhibits to "clearly identify the location and acreage of project lands, including United States lands, within the project boundary of Skagit River Project No. 553." (Emphasis added.) Thus the express reservation of authority in Article 67 extended to the entire project, rather than to just the changes to the Ross development that were planned and were addressed in Opinion No. 808.

In the circumstances of this case and in light of the foregoing discussion, we believe the adjustment of land use annual charges, pursuant to the requirements of the Commission's regulations prescribed by Order No. 560, is reasonable. Further, since it appears that the changes to the Ross development will be at least delayed for some indeterminable period of time, there is no reason to further delay the adjustment of the charges. We also believe that adjusting the charges as of January 1, 1977, is reasonable in light of Order No. 560, which prescribed the regulations on land use annual charges effective as of January 1, 1977, and in light of the express reservation of authority to adjust the charges that was set out in Opinion No. 808, issued on July 8, 1977.

It follows that Seattle's requests for relief with respect to the billing of land use annual charges for the years 1984, 1985, and 1986 must also be denied. These billings were made in accordance

25/ Article 67 provides as follows:

Article 67. The Commission reserves the right to determine additional annual charges, if any, for the use and occupancy of U.S. lands until after revised Exhibits F and K are filed.

with the Commission's regulations. Seattle claims that these billings were for excessive amounts, for the same reasons it asserts with respect to the billings for the years 1977 through 1983. Seattle protested the bills for 1985 and 1986 and asks for a credit against future billings with respect to the 1984 charges, which it paid without protest. These requests for relief must be denied. 26/

Waiver of Penalties and Terms for Payment of Retroactive Annual Charges

Because of the provisions of Section 17(b) of the FPA, 16 U.S.C. § 810(b), and the implementing regulations, 27/ Seattle now owes approximately \$ 665,000 in penalties for failure to pay the annual land use charges billed for the years 1977 through 1983. Seattle described in its petition the serious hardship imposed upon it by this assessment in that it is a utility whose rates are set to cover annual costs and it cannot retroactively increase its rates to customers to recover the cost of this billing. We acknowledge Seattle's hardship and will, accordingly, alleviate it in part. Pursuant to Section 17 and the regulations we will waive all penalties for late payment. Furthermore, we will permit Seattle to pay the annual charges for the years 1977 through 1983, in the amount of \$965,724.10, in three annual installments of \$321,908.04 each, with the first payment due on October 1, 1987, and each subsequent payment, beginning in 1988, due with Seattle's payment of current annual charges for the immediately preceding year.

26/ In its petition for declaratory order, Seattle requests that, if the Commission determines that the adjusted charges are correct, it be granted time to prepare its brief and argument on the issues, including due process, statute of limitations, estoppel, and laches. Under Rules 207 and 203(a)(6) and (7), 18 C.F.R. § 385.207 and 203(a)(6) and (7) (1985 and 1987), Seattle's petition should have set forth the relevant facts and the basis in fact and law for the position taken in filing the pleading. The Commission's rules do not contemplate a briefing schedule after Commission decision, except to the extent that Rule 713, 18 C.F.R. § 385.713 (1987), permits requests for rehearing.

27/ 18 C.F.R. § 11.21 (1987). A regulation to the same effect is set out at 18 C.F.R. § 11.32 (1985 and 1986).

The Commission orders:

(A) The petition of the City of Seattle, Department of Lighting, filed October 9, 1985, that it be relieved of the assesement of retroactive annual charges of \$965,724.10 for the period January 1, 1977 to December 1, 1983, is denied.

(B) The City of Seattle's protests of the billing of land use annual charges for the years 1985 and 1986 are dismissed, and the City of Seattle's request for a credit against future billings, because of an asserted overpayment of land use annual charges for the year of 1984, is denied.

(C) All penalties for failure to timely pay the land use annual charges for the years 1977 through 1983 are waived, provided that the City of Seattle timely make the payments pursuant to Ordering Paragraph (D) of this order.

(D) The City of Seattle shall pay the billing of land use annual charges for the years of 1977 through 1983 in three equal annual installments of \$321,908.04 each, the first due on October 1, 1987, and each subsequent installment, beginning in 1988, due with Seattle's payment of current annual charges for the immediately preceding year.

By the Commission.

(S E A L)

Kenneth F. Plumb

Kenneth F. Plumb,
Secretary.

Skagit River Hydroelectric Project
FERC Number 553
License, Amendments, and Amendatory Orders and Notices*,**

Compiled by R. Rutz 2/21/91

Instrument Number	Order***		Amendment***		Purpose; requirements
	Date****	Number (if any)	Number	Date****	
1 2	7/23/37 6/9/42	License			The license was issued for the Diablo development on October 10, 1927, and was accepted by the City of Seattle on October 21, 1927. The Gorge and Ross developments were later added by amendment, as noted below.)
		unknown unknown			Nothing can be found regarding this. Nothing can be found regarding this.
3		Amendment 1	1	1/22/43	We do not have the actual 1937 order (and, from the evidence, it appears that FERC does not either). The FPC issued a "true and correct" copy, dated 8/19/42, of the minutes from the FPC meeting in Seattle on 7/23/37 at which the order was issued. The formal license amendment. It includes the previous 2 orders and further modifies them. This amendment authorized the Ruby development, and approved the first step to

Instrument Number	Order***		Amendment***		Purpose; requirements
	Date****	Number (if any)	Number	Date****	
4	9/28/43	Amendment 2	2	2/11/44	elevation 1280 feet and the second step to elevation 1500.
	7/17/45	Amendment 3			This approved an extension of time for the Diablo and Ruby developments. The formal amendment.
	1/25/46				Added the carrier current telephone line on the Diablo transmission lines to the project facilities.
5	5/3/46		3	12/12/46	Established the terminus of the transmission lines at, but not including, the Bothell Y switching station.
	7/30/46				Required installation of instrumentation on Ross Dam, required the construction of a roadway on the crest, and extended the time allowed for completion of construction.
					Formal amendment which changed the elevation of the Ruby first step to 1380 and the second step to 1525, and incorporated the earlier 3 orders.
	4/29/47	Amendment 4	4		Established the Ross third step at elevation 1620, spillway sills to 1582, and set the flood control volume. Required the City to install and maintain stream gaging stations.
	1/13/48				Extended time period for acceptance of

Instrument Number	Order***		Amendment***		Purpose; requirements
	Date****	Number (if any)	Number	Date****	
6	3/29/49	9/9/49	4		amendment. Hollow jet bypass valves exhibits approved. Amendment modifying third step elevation to 1615, modifying the gaging station sites, modifying list of exhibits, and extending the deadline as per the 1/13/48 order.
7	9/21/49	10/18/49			Approval of Ross Reservoir floating debris control plan exhibits.
8			4	2/2/50	Errata to 9/9/49 order. The formal amendment, incorporating the 4/29/47 and 9/9/49 orders.
9		Amendment 5 9/9/49 10/18/49	5	10/18/50	This amendment also cites the 9/9/49 order. Errata to 9/9/49 order. Formal amendment to add Unit #24 to Gorge; to install and operate fish and wildlife protective devices, and to make reasonable modification of project structures and operations in the interests of fish and wildlife resources as may be prescribed by the FPC.
(assumed)10		Amendment 6 9/12/50	6		Authorization to build Ross Powerhouse with three 90-MW units and space for a fourth unit.
11		Amendment 7 9/3/52	7		Established Diablo capacity at 160,000 HP instead of 320,000.

Instrument Number	Order***		Amendment***		Purpose; requirements
	Date****	Number (if any)	Number	Date****	
12		Amendment 8 11/12/52	8		Improvement of Diablo spillways.
13		Amendment 9 9/17/54	9		Changed the flood control volume to 120,000 acre feet, and reset the flood control period to October 1 through March 15.
14		Amendment 10 3/16/55	10		Approval of the addition of Unit #41 to Ross Powerhouse.
15		Amendment 11 3/6/56 4/17/56	11		Authorized construction of Gorge High Dam. Extended the deadline for completion of construction.
16		Amendment 12 8/20/56	12		Authorized the upgrade of the transmission lines to 230 kV in order to handle the output of Ross Powerhouse.
17		Amendment 13 6/6/58	13		Amended the license to provide for a different method of assessing annual charges, and exceptions allowed for municipal owners.
18		Amendment 14 1/27/59	14		Authorized the peaking capacity of Diablo generating units to increase from 132,000

Instrument Number	Order***		Amendment***		Purpose; requirements
	Date****	Number (if any)	Number	Date****	
					kW to 160,000kW.
19		unknown			Nothing can be found regarding this. It is assumed that this was a technical submittal, such as a revised drawing.
20		unknown			Nothing can be found regarding this. It is assumed that this was a technical submittal, such as a revised drawing.
21		Amendment 15 5/24/62			Approval of drawing and authorization of Happy Creek-Ross Lake diversion tunnel.
22		5/19/64	15		Comprehensive revision of project exhibits, and incorporation of 5/24/62 order.
23		Amendment 16 7/14/67	16		Authorized raising the spillway crest of Ross to 1602.5; required the City to file a recreational use plan for the project, and to work with WDF, WDG, and FWS to conduct studies to determine flow release schedules below Gorge Dam in the interest of fisheries and furtherance of Article 37.
		4/19/67			This order required posting of notification that recreational facilities are available for use without discrimination. (This is not formally part of amendment 16, but is consistent with it.)

Instrument Number	Order***		Amendment***		Purpose; requirements
	Date****	Number (if any)	Number	Date****	
24		Amendment 17 1/6/75	17		Approved (but did not require) the construction of a tourist visitor center on Diablo Lake adjacent to Ross Powerhouse.
n.a.*****	808	Amendment 18 7/5/77	18		Order authorizing the fourth step of Ross Dam ("High Ross") to spillway elevation 1725
n.a. n.a.	808A	8/2/78 7/2/80			Denial of motions for rehearing. Orders 808 and 808A, and the license articles 41-71, were stayed by the FPC at the request of the City, to avoid having the construction deadlines expire as a result of ongoing legal actions against High Ross.
	Other amendatory orders and notices				
n.a. n.a.		10/25/77 7/10/80			Notice of issuance of annual licenses. The City submitted its acceptance of a new article (#72) which authorizes the City to make conveyances to concessionaires and others in the Project Area without further approval from the FPC.
n.a.		12/7/86			Modification of flood regulation schedule to reflect surface elevation of 1602.5.
n.a. n.a.		1/13/87 8/3/87			Errata to order of 12/7/86. Ruling against the City's petition regarding annual charges.

Notes

*Sources. Two nearly complete copies of the license instruments, orders, and amendments were kept until the 1970s, one in Law Dept. Utilities Division and one in at City Light Engineering Division. Both have been consulted for this table. The Power Manager file also provided some documents that the others were lacking, or had better copies of some documents. Various other files and sources have also been consulted.

**License documents. The two copies above consist of a chronological assemblage of most of the relevant orders. A copy of the merged set of documents has been attached to this table. A consolidated license document has also been prepared in which only the most recent version of the license and its articles are included. This consolidated document is available on request from EAD.

***In the earlier years of the license the practice of the FPC was to issue amendatory orders, and subsequently issue formal amendment documents. More recently the practice has been to simply issue the orders of amendment.

****Particularly in the earlier years of the license, the Federal Power Commission and the City of Seattle were inconsistent in their use of dates. Dates of issuance, approval, acceptance, notice, etc. were used at various times. For the purpose of this compilation the date of issuance is used unless another date is clearly indicated on the document, as in page headers.

*****Not applicable. At about this time the City and the FPC cease to refer to license amendments, orders, and submittals as "instruments".