

The Departments of the Interior and Health, Education, and Welfare have recommended certain modifications of the plan in the interest of public safety and health. Licensee has agreed to adopt their respective recommendations relating to the schedule for construction of recreational facilities. Furthermore, Licensee has indicated it will comply with the additional recommendations of the Department of Health, Education, and Welfare, except with respect to the installation of sanitary facilities at the planned Big Eddy Parking Area which it believes are not necessary due to the relatively small size of the area and its principal use for boat launching and parking. While we are not requiring the inclusion of these facilities in the plan, such facilities could be required by the Commission in the future under Article 17 of the license, if the need therefor should arise.

The Commission finds:

The following designated and described recreational use plan for the project should be approved as part of the license for the project: Exhibit R—One Sheet (FPC No. 2343-6) Map of Project Area, Statement entitled: "Plans for Recreational Use".

The Commission orders:

The recreational use plan for Project No. 2343, designated and described in the above finding is hereby approved as part of the license for the project.

Before Commissioners: Lee C. White, Chairman; L. J. O'Connor, Jr., Charles R. Ross and Carl E. Bagge.

YUBA COUNTY WATER AGENCY, PROJECT NO. 2246

ORDER AMENDING LICENSE (MAJOR)

(Issued May 6, 1966)

Application was filed on May 4, 1964, and supplemented, by Yuba County Water Agency, licensee for proposed Project No. 2246, for amendment of the license, 29 FPC 1002, for the project to be located on Yuba River and certain of its tributaries, in Yuba, Nevada and Sierra Counties, California, and affecting lands of the United States within the Plumas and Tahoe National Forests, and utilizing the existing U.S. Corps of Engineers' Englebright Dam and Reservoir pursuant to the Act of June 25, 1938 (52 Stat. 1040).

The above-mentioned May 4, 1964 application for amendment has been revised by amendments or supplements thereto, principally an amendment filed October 6, 1965. The changes proposed in the October 6, 1965 filing, as supplemented, are designed, among other things, to make the cost of the project financially feasible.

The principal changes proposed in the May 4, 1964 and October 6, 1965 filings and supplements thereto consist of: (1) a change in the effective date of the 50-year license from May 1, 1963 to April 1, 1966; (2) an increase in the lands of the United States to be occupied by the project by about 960 acres; (3) a change in New Bullards Bar Dam from rockfill to concrete arch type with relocated spillway and eliminate the authorized New Bullards Bar power plant; (4) a reduction in the diameter of Lohman Ridge Tunnel from 14.0 to 12.5 feet and a reduction in the diameter of the Camptonville Tunnel from 15.5 to 14.5 feet; (5) the relocation of Log Cabin Dam 50 feet upstream;

(6) the elimination of the New Colgate Diversion and Timbuctoo Afterbay dams; (7) realignment of New Colgate Tunnel and an increase in its diameter from 20.0 to 26.0 feet; (8) an increase in the installed capacity of New Colgate Power Plant from 122,000 to 282,600 kw; (9) the relocation of New Narrows Plant to a point upstream with an increase in its installed capacity from 41,000 to 46,700 kw; and (10) deletion from the license of Article 36 requiring construction of fish trapping facilities at Timbuctoo Afterbay Dam which has been eliminated. The total rated capacity of the project would be increased under the proposed changes from 295,000 to 329,300 kw.

The licensee advises that the proposed changes in the project works are justified following additional investigations of foundations and materials which developed data permitting refined designs of structures and facilities and, as stated above, are necessary to improve the financial feasibility of the project. The designs of power facilities at New Bullards Bar and New Colgate were revised to utilize the combined head between those two sites more efficiently and to maximize the hydroelectric potential of Yuba River upstream from Englebright Reservoir. The revised 282,600 kw installed capacity at New Colgate replaces the presently authorized capacities of 132,000 kw at New Bullards Bar and of 122,000 kw at New Colgate and the 24,000 kw capacity at Pacific Gas and Electric Company's existing unlicensed Colgate plant, the title to which will pass to the licensee when the plant is shut down and abandoned upon commencement of water storage behind New Bullards Bar Dam.

The deletion from the project of Timbuctoo Afterbay Dam, as proposed, is justified by the fact that we are herein modifying the requirements of subparagraph (b) of license Article 33 so as to provide that the New Narrows Power Plant shall be operated in a manner consistent with the needs of fishery resources, and deletion of Timbuctoo Afterbay Dam will also justify the deletion of license Article 36 which requires the licensee to construct and maintain such facilities at the Timbuctoo Afterbay Dam for trapping and removing salmon and steelhead trout as have been approved by the Commission. The proposed increase in lands of the United States to be occupied by the project is a result of inclusion in the project area of recreational use sites, possible aggregate quarry area, and the revised layouts of the project works.

The requested new effective date of the license from May 1, 1963 to April 1, 1966 is necessary, the licensee states, due to its inability to obtain bids for the construction of the project and to the extended period of time required for geologic exploration resulting in the aforementioned design changes of project structures and facilities. The changes will delay completion of project construction to a date which, under the present license period, allows only 43 years in which to obtain power revenues for the servicing of the bonds to finance the power facilities of the project. The licensee states that unless a period of 46 years (in addition to the construction period) is authorized under the license for such bond servicing, the project cannot be financed, and the licensee points out that it has acted diligently in prosecuting all exploration, design, negotiations, and finance efforts to bring the project to the present status of having a negotiated contract for the construction of the project at a cost figure considered by the licensee to be financially feasible. In order to allow the licensee the maximum term for servicing its revenue bonds, we are herein making the effective date of the license for the project May 1, 1966.

The licensee received one bid to construct the project and this was unacceptable. The sole bidder expressed its willingness to negotiate a contract

upon the licensee obtaining appropriate State legislation to negotiate a construction contract. The California Legislature gave statutory permission to negotiate and a construction contract in the amount of \$142,891,459 has been negotiated, conditioned upon Commission approval of the license amendment herein applied for and upon the licensee's sale of revenue bonds.

The licensee has obtained Congressional authority in the Rivers and Harbors Act of 1965 (Public Law 89-298) for a grant of funds for the flood control features of the project, estimated by the licensee to be about \$13,200,000. However, the money has not yet been appropriated. The licensee has applied for a grant from the State of California under the latter's Davis-Grunsky Act and has received approval by the California Department of Water Resources for a grant totalling \$4,403,000, of which not more than \$695,000 is for recreation, \$397,100 is for onshore water supply systems and sanitary facilities for the initial phase of recreational development, and \$3,311,000 is for fish enhancement. In addition, the licensee has negotiated contracts with Pacific Gas and Electric Company for: (1) the purchase by the licensee of Pacific's existing Bullards Bar and Colgate projects and associated water rights and (2) the sale to Pacific of Project No. 2246 power output, yielding to the licensee an annual payment of \$7,700,000 for service of the debt on the project during that period of the license in which the project is capable of full operation, and a monthly payment of \$25,000 for operation and maintenance of the project.

Based upon a study and analysis of the proposed changes in the project works, Commission staff has concluded that the project works as revised are stable and safe and that the project as presently proposed is financially and economically feasible.

The Department of the Army has reported that the proposed changes in the license would not alter any previous comments and recommendations made by the Corps, and no additional terms or conditions are considered necessary for inclusion in the license.

The Department of Health, Education, and Welfare has reported that vegetation permitted to be left in about the lower 300 feet (below elevation 1700 feet) of the New Bullards Bar Reservoir under a September 2, 1965 Agreement between the licensee and the California Department of Fish and Game could result in low dissolved oxygen levels, particularly with thermal stratification in the New Bullards Bar Reservoir, and that insufficient knowledge is presently available to the Department to permit prediction of such a problem in any new project reservoirs or to determine the most economic method of preventing its occurrence, and the Department recommended that the clearing plan be re-evaluated when New Bullards Bar Reservoir is constructed. In responding to HEW's report, the licensee stated that: (1) intended removal of merchantable timber and slash between elevations 1700 and 1580 feet will reduce considerably the vegetation left under the water; (2) State and Federal fish experts consider submerged vegetation beneficial to fishlife; and (3) water temperature studies by the State Department of Fish and Game indicate that thermal stratification should not be a contributing factor to low dissolved oxygen levels in New Bullards Bar Reservoir. Based upon Commission staff studies of the problem involving other licensed project reservoirs, it is believed that oxygen deficiency could occur below the thermocline even with complete reservoir clearing, but that since game fish do not inhabit such areas, such deficiency would have no adverse effects on fishery resources. In any event, releases through the multi-level outlets of the New Bullards Bar Dam can provide mixed waters for downstream

flows suitable for the fish habitat, as herein required by revised license Article 40.

The Department of the Interior, in reporting on the application for amendment, pointed out that the deck of the project's New Narrows Power Plant is shown at elevation 343 feet on Exhibit L drawings of the application, whereas the spillway design flood for the possible downstream Federal Marysville Reservoir, as shown on the U. S. Corps of Engineers' report¹ would be at elevation 345 feet, and the Department suggested that liability in the event New Narrows Power Plant is inundated by flood under Marysville Reservoir operation should be clarified by a license stipulation to that effect. The licensee has advised that it will revise the deck design of New Narrows Power Plant from elevation 343 to elevation 345 feet and that it concurs in the inclusion of a license condition on the subject somewhat revised from that proposed by the Department. We consider that new license Article 59 herein will assure adequate protection to the United States.

The Department stated also that in view of the revised project features and operation, it requests either revision or deletion of the following license articles pertaining to fish and wildlife interests, namely: revision of *Article 33*, which fixes minimum streamflow schedules for maintenance of fishlife in the streams listed; revision of *Article 34*, which establishes minimum pool levels at New Bullards Bar Reservoir and Timbuctoo Afterbay Dam; and revision of *Article 40*, which provides for control of water temperatures at New Colgate Diversion Dam; deletion of *Article 35* regulating releases from Timbuctoo Afterbay Dam; and deletion of *Article 36* providing for the construction and maintenance of facilities at Timbuctoo Afterbay Dam for trapping and removing salmon and steelhead trout; and inclusion in the license of new conditions covering: (1) breaching of the existing Bullards Bar Dam; (2) financing by the licensee of a \$16,500 post-project-construction study of fish conditions in Yuba River downstream from New Narrows Power Plant; (3) inclusion of fish screens in the irrigation diversion works; and (4) approval by State and Federal fish agencies of the design of the outlet works at New Bullards Bar Dam.

In commenting on the Department's request for further revisions of the license, the licensee agreed to revision of license Article 33, with minor rewording; to the revision of license Article 34; to the deletion of license Articles 35, and 36; and to the revision of license Article 40 essentially as hereinafter set forth. With respect to the Department's above-mentioned requested revision of license Article 33, we consider that any modification of streamflow schedule set forth in the article could be accomplished under the provisions of license Article 31 and therefore does not require the inclusion of condition H. to footnote "3" to Article 33 of the license, as requested by the Department.

In commenting on the Department's requested new license conditions, the licensee objected to the breaching of existing Bullards Bar Dam. The licensee pointed out that license Article 31 already provides that the Commission may require modification of project structures and operation in the interest of fish life and that the Department's requested post-project-construction study would impose additional financial liability on the licensee. In view

¹ H. Doc. 180, 89th Cong., 1st Sess. (1965).

of license Article 31, under which the Commission could require the licensee to make such a study when indicated by operating conditions, we are not including in the license the Department's requested condition for the study. The licensee pointed out that fish screens on the irrigation diversion works, as requested by the Department, are not presently required by the license and would be downstream from and outside of the project boundary. The Department has informally advised us that it has reconsidered its requests for the breaching of the existing Bullards Bar Dam and for the installation of fish screens on the irrigation diversion works, and may withdraw its requests. With respect to the Department's request for a license condition requiring fish agency approval of the design of outlet works at New Bullards Bar Dam, the licensee refers to the September 2, 1965 Agreement with California Department of Fish and Game (referred to above in HEW's report on the application) which, the licensee states, covers approval of the design of this facility and that this request of the Department is a duplication of the general requirements of license Article 40. However, inasmuch as the design of the multi-level outlet works shown on Exhibit L-38 (FPC No. 2246-92) filed for Commission approval on March 7, 1966, has not been submitted for comments by State or Federal fish agencies, we are including herein new Article 60, requiring approval by such agencies of the outlet works design a condition precedent to the start of construction thereof, even though we are herein approving the Exhibit L drawing except insofar as the requirements of Article 60 have not been met.

The Chief, Forest Service, acting for the Secretary of Agriculture, who has supervision over the Tahoe and Plumas National Forests, has advised that no additional license conditions are necessary for the protection and utilization of the National Forest lands affected by the proposed project changes.

Pursuant to Article 56 of the license, the licensee has filed for Commission approval a Recreational Use Plan, developed in cooperation with the U.S. Forest Service, describing a plan for recreation sites and facilities at eight areas on the New Bullards Bar Reservoir including an administration site, an observation point, three camping areas and three day-use areas, two of which will have boat launching facilities and one of which will have a swimming beach. Because comments on the plan have not been received from appropriate Federal and State agencies, we are not approving the plan at this time. However, by inserting in the license Article 61, we are assuring the development for both initial and future recreation needs at the project.

We are revising license Article 4 so as to conform to the article presently included in licenses for the type of project herein involved with respect to project inspection procedures. We are including herein new license Articles 58 and 62 requiring, respectively, that the licensee: (1) engage at least three qualified independent consultants to advise it on appropriate foundation treatment for project works; and (2) to measure and report to the Commission at stated intervals stress, strain, and temperature conditions within New Bullards Bar Dam and its foundation. We are revising license Article 57 to show the authorized increased installed horsepower capacity of the project as being 439,000 horsepower. Finally, we are eliminating from the license Article 30 because we are herein giving our approval to final design Exhibit L drawings for New Bullards Bar Dam and Spillway.

The Commission finds:

(1) Public notice of the application for amendment filed October 6, 1965 has been given. No protests or petitions to intervene have been received.

(2) The license for Project No. 2246, amended as hereinafter provided, is in the public interest.

(3) The authorized horsepower capacity of the project for the purpose of computing the capacity component of the administrative annual charges is by this order increased to 439,000 horsepower, and the amount of annual charges, based upon such increased capacity, to be paid under the license for the project for the costs of administration of Part I of the Federal Power Act is reasonable.

(4) Amended Exhibit J (FPC Nos. 2246-88, -89, and -90); amended Exhibit K (FPC Nos. 2246-66 through -72) insofar as the tentative project boundary and the project works are shown; amended and supplemented Exhibit L (FPC Nos. 2246-45, -47, -52, -73 through -87, -91, and -92); and Exhibit M (amended, February, 1966) filed in the Commission February 28, 1966; conform to the Commission's Rules and Regulations and should be approved as part of the license for the project to the extent indicated in paragraph (A) below.

(5) Superseded license Exhibit K (FPC Nos. 2246-8, -9, -11, -15, -32, -36, and -37); license Exhibit K (FPC No. 2246-17); superseded license Exhibit L (FPC Nos. 2246-19, -23 through -27, -29, -33, -34, and -35); and license Exhibit M filed in the Commission June 14, 1961; should be eliminated from the license for the project.

The Commission orders:

(A) The exhibits designated in finding (4) above are hereby approved as part of the license for Project No. 2246 to the extent indicated therein and the license exhibits designated in finding (5) above are hereby eliminated from the license for the project.

(B) The effective date of the license for Project No. 2246, is by this order hereby amended to be May 1, 1966.

(C) Paragraph (A) of the license is hereby amended to read as follows:

(A) This license is hereby issued to Yuba County Water Agency, of Marysville, California (Licensee) under Section 4(e) of the Federal Power Act (Act) for a period of 50 years, effective as of May 1, 1966, for the construction, operation and maintenance of Project No. 2246, affecting lands of the United States within the Plumas and Tahoe National Forests and a Government dam and lands of the United States adjacent thereto; subject to the terms and conditions of the Act which is incorporated by reference as a part of this license, and subject to such rules and regulations as the Commission has issued or prescribed under the provisions of the Act.

(D) Paragraph (B) of the license is hereby amended to read as follows:

(B) Project No. 2246 consists of:

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

application for license and application for amendment of license and which are designated and described as follows:

<i>Exhibit</i>	<i>FPC No. 2246-</i>	<i>Titled</i>
J-1 (Amended)-----	88	Yuba River Development— General Map.
J-2 (Amended)-----	89	Bullards Bar and Middle Yuba- Oregon Cr Diversion Project— General Map.
J-3 (Amended)-----	90	Colgate and Narrows Project— General Map.
K-1 (Amended)-----	66	Bullards Bar Project—Reservoir Map*.
through	through	
K-3 (Amended)-----	68	
K-4-----	10	Bullards Bar Project—Reservoir Map.
K-5 (Amended)-----	69	Bullards Bar Project—Reservoir Map*.
K-7-----	13	Bullards Bar Project—Reservoir Map.
K-8-----	14	Bullards Bar Project—Reservoir Map.
K-9 (Amended)-----	70	Middle Yuba—Oregon Creek Diver- sion Project—Log Cabin and Hour House Reservoir Map*.
K-10 (Amended)-----	71	Colgate Project—Detailed Map*.
K-11 (Amended)-----	72	Narrows Project—Detailed Map*.

*Insofar as they show the tentative project boundary and the location of project works.

(b) All project works consisting principally of:

1. A concrete arch dam, designated New Bullards Bar Dam and located on North Yuba River, about 631 feet high above streambed and about 2,320 feet long at its crest, with a gated spillway through the left abutment, creating a reservoir with gross storage capacity of 930,000 acre-feet and water surface area of 4,600 acres at normal maximum operating surface at Elevation 1,955 feet; a power pressure tunnel and penstock incorporating a surge tank and extending about 27,600 feet from a multi-level intake structure at the dam to a power plant designated New Colgate Power Plant; such power plant, located on the right bank of Yuba River downstream from the confluence of North and Middle Yuba Rivers, with total installed capacity of 282,600 kilowatts in two similar generating units;

2. A concrete arch dam, designated Hour House Diversion Dam and located on Middle Yuba River upstream from its confluence with Oregon Creek, about 77 feet high above streambed and about 335 feet long on the top axis, with an ungated, overflow type spillway centered on the dam, creating a reservoir with gross capacity of approximately 290 acre-feet and surface area of about 14 acres at normal maximum operating surface at Elevation 2,030 feet;

3. A concrete arch dam, designated Log Cabin Diversion Dam and located on Oregon Creek upstream from its confluence with Middle Yuba River, about 49 feet high above streambed and about 292 feet long at the top, with an ungated, overflow type spillway centered on the dam, creating a reservoir

with gross capacity of approximately 95 acre-feet and surface area of about 5.5 acres at normal maximum operating surface at Elevation 1,970 feet;

4. A gravity-flow tunnel, designated Lohman Ridge Tunnel and extending approximately 19,410 feet from Hour House Diversion reservoir to Log Cabin Diversion reservoir;

5. A gravity-flow tunnel, designated Camptonville Tunnel and extending approximately 6,110 feet from Log Cabin Diversion reservoir to New Bullards Bar reservoir;

6. A power pressure tunnel, designated New Narrows Power Tunnel and extending about 750 feet from an intake structure on the right bank of Yuba River immediately upstream from existing Englebright dam of the California Debris Commission to New Narrows Power Plant; such power plant, located on the north bank of Yuba River downstream from Englebright dam, with installed capacity of 46,700 kilowatts in one generating unit; and

7. A substation at each power plant; and appurtenant hydraulic, mechanical and electrical facilities and miscellaneous project works the location, nature and character of which structures are more specifically shown and described by the exhibits hereinbefore cited and by certain other exhibits which formed part of the application for license and application for amendment of license:

<i>Exhibit</i>	<i>FPC No. 2246-</i>	<i>Titled "New Bullards Bar Project"</i>
L-14 (Amended)-----	73	General Arrangement.
L-15 (Amended)-----	74	Dam Layout and Geometric Data.
L-16 (Amended)-----	75	Spillway, Plan and Profile.
L-37-----	91	Dam, Thrust Blocks.
L-38-----	92	Dam, Multilevel Power Intake, except insofar as the requirements of Article 60 of the license have not been met.
L-20 (Amended)-----	76	Log Cabin Dam—General Arrangement.
L-21-----	45	Camptonville Tunnel—Plan and Profile.
L-22-----	77	Hour House Dam—General Arrangement.
L-23-----	47	Lohman Ridge Tunnel—Plan and Profile.
		<i>"New Colgate Project"</i>
L-24-----	78	Tunnel—Plan and Profile.
L-25 (Amended)-----	79	Powerplant—Plan Elevation 579.5.
L-26 (Amended)-----	80	Powerplant—Plan Elevation 562.5.
L-35-----	86	Powerplant—Site Plan.
L-36-----	87	Powerplant—Sections.
		<i>"New Narrows Project"</i>
L-27-----	81	General Arrangement.
L-28-----	52	General Arrangement—Sheet 2 of 2.
L-29 (Amended)-----	82	Power Tunnel—Profile.
L-30 (Amended)-----	83	Powerplant—Sections.
L-31 (Amended)-----	84	Powerplant—Plans.
L-32 (Amended)-----	85	Powerplant—Plans and Sections.
M (Amended, February, 1966)		comprised of two typewritten pages entitled "General Description of Mechanical, Electrical and Transmission Equipment" filed February 28, 1966.

(c) All other structures, fixtures, equipment or facilities used or useful in the maintenance and operation of the project and located on the project area, including such portable property as may be used or 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 part of the project is approved or acquiesced in by the Commission; also all riparian or other rights, the use or possession of which is necessary or appropriate in the maintenance or operation of the project.

(E) Articles 4, 28, 33, 34, 40, and 57 of the license are hereby amended to read as follows:

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

Article 28. The Licensee shall commence construction of the project works within one year from May 1, 1966, shall thereafter in good faith and with due diligence prosecute such construction, and shall complete construction within 4½ years from May 1, 1966.

Article 33. The Licensee shall maintain the following minimum streamflow schedules for maintenance of fish life in the several streams listed:

(a) Stream	Flow (cfs) ¹		Measurement point
	Apr. 15 to June 15	June 16 to Apr. 14	
Middle Yuba (below Hour House Diversion).	50	30	Approx. 500 ft. downstream of dam.
Oregon Creek (below Log Cabin Diversion).	12	8	Approx. 500 ft. downstream of dam.
North Yuba (below New Bullards Bar).	5	5	Approx. 500 ft. downstream of dam.

¹ Or natural flow, whichever is less. Maximum 24-hour fluctuations of plus or minus 10 percent shall be permitted for flows in Middle Yuba below Hour House Diversion and in Oregon Creek below Log Cabin Diversion.

(b) Stream	Flow (cfs) ¹			Measurement Point
	Jan. 1 to June 30	July 1 to Sept. 30	Oct. 1 to Dec. 31	
Yuba River (below Daquerre Point Dam).	245	70	400	Over crest of Daquerre Point Dam and through fishway.

¹ Provided that these flows shall be in addition to releases made to satisfy existing downstream water rights.

(c) Water releases for fish life as specified in paragraphs (a) and (b) of this article shall be subject to the following reduction in any critical dry year, defined as a water year for which the April 1 forecast of the California Department of Water Resources predicts that streamflow in the Yuba River at Smartville will be 50 percent or less of normal:

Yuba River at Smartville Streamflow Forecast Percent of Normal	Reduction in Water Releases for Fish Life, Percent
50-----	15
45-----	20
40 or less-----	30

However, in no event shall releases for fish life below Daguerre Point Dam be reduced to less than 70 cfs. The critical dry year provisions herein shall be effective from the time the aforesaid forecast is available until the April 1 forecast of the following year.

(d) In addition to maintaining minimum water releases for fish life in Yuba River below Daquerre Point Dam, as specified in paragraphs (b) and (c) of this article, the Licensee shall maintain uniform and continuous releases from Englebright Dam within the limits of the following schedule:

Period	Releases (cfs) ¹	Measurement Point
Oct. 16 to 31-----	600-1,050	New gaging station to be built downstream from the two Narrows powerhouses.
November-----	600-700	
December-----	600-1,400	
Jan. 1 to 15-----	1,000-1,850	
Jan. 16 to Mar. 31-----	600	

¹ Provided that:

A. Variations from this schedule are permissible during emergencies, uncontrollable flood flows, and critical dry year curtailments.

B. Variations from the scheduled uniform releases of not more than 15 percent is permissible but shall be minimized whenever possible.

C. Reduction in the average continuous flow from October 15 to 31 shall be not more than 35 percent of the average flow during the preceding seven-day period and shall be minimized whenever possible.

D. Reduction in the average continuous flow from November 1 to 30 shall be not more than 15 percent of the average flow during the preceding 15-day period and shall be minimized whenever possible.

E. Increase in uniform releases during October and November shall be permitted when water storage is sufficient, provided no reduction in December releases is necessary as a result of the increases.

F. Changes in flow releases due to project operation during the period January 15 to October 15 shall not fluctuate at an hourly rate of more than 500 cfs and shall be changed as gradually as possible within the hourly period.

G. These provisions shall be subject to re-evaluation and revision at such time as Marysville or other downstream reservoir is constructed on the Yuba River.

Article 34. The Licensee shall maintain a minimum pool in New Bullards Bar Reservoir at Elevation 1,730 feet.

Article 40. Consistent with the primary purpose of the power intakes in the new Bullards Bar Dam, the Licensee shall operate, within limits of the project, the multiple-level power intakes in New Bullards Bar Dam to pro-

vide water of suitable quality in the Yuba River downstream from the New Narrows Power Plant for the production of anadromous fish as may be prescribed by the Commission upon the recommendations of the Director of the California Department of Fish and Game and the Fish and Wildlife Service, Department of the Interior.

Article 57. The Licensee shall pay to the United States the following annual charges:

(i) For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable annual charge in accordance with the provisions of Part II of the Commission's regulations. The authorized installed capacity for such purpose is 439,000 horsepower.

(ii) For the purpose of recompensing the United States for the use, occupancy and enjoyment of its lands, including those used for transmission line right-of-way, an amount to be determined hereafter by the Commission.

(F) The following additional articles are hereby included in the license:

Article 58. The Licensee shall engage at least three qualified, independent consultants for the purpose of reviewing and reporting on the foundation treatment of the New Bullards Bar arch dam and other hydraulic structures, including tunnels. The report of the consultant shall be submitted prior to the initiation of foundation treatment. The Licensee shall also submit a final report of the board covering the construction of the project upon completion.

Article 59. The Licensee shall not hold the United States liable for any damage to New Narrows Power Plant due to inundation or backwater resulting from a downstream Federal reservoir with a water surface elevation of up to and including 345 feet (U.S.G.S. datum) measured at the downstream dam, nor shall the Licensee hold the United States liable for any loss of power head or reduction in power protection due to said reservoir within the limits of a normal water surface elevation not in excess of 340 feet (U.S.G.S. datum) measured at the downstream dam.

Article 60. The Licensee shall not commence construction of the multi-level power intake at New Bullards Bar Dam until specifically authorized by the Commission following concurrence with the Licensee by the Director of the California Department of Fish and Game and by the Fish and Wildlife Service, Department of the Interior, on the location and functional design of the intake.

Article 61. The Licensee shall construct, maintain and operate or shall arrange for the construction, maintenance and operation of such recreational facilities including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities and utilities, as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal and State agencies, after notice and opportunity for hearing and upon findings based upon substantial evidence that such facilities are necessary and desirable, and reasonably consistent with the primary purpose of the project.

Article 62. The Licensee shall install instruments in the dam and foundation for the purpose of measuring foundation stresses and movements, deflections in the dam, and stresses and temperatures in the concrete, and shall submit to the Commission annually, for a period of five years after completion of construction of the New Bullards Bar Dam, reports evaluating the results of the instrumentation.

(G) Articles 30, 35, and 36 of the license are hereby eliminated therefrom.

(H) 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.

(I) This order shall become final 30 days after 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.

Before Commissioners: Lee C. White, Chairman; L. J. O'Connor, Jr., Charles R. Ross and Carl E. Bagge.

WEST PENN POWER COMPANY, DOCKET NO. E-7276

ORDER AUTHORIZING LEASE OF ELECTRIC FACILITIES

(Issued May 9, 1966)

West Penn Power Company (Applicant), filed an application with the Federal Power Commission on March 7, 1966, seeking an order pursuant to Section 203 of the Federal Power Act authorizing it to lease the electric facilities of the Borough of Brackenridge, (Borough), Allegheny County, Pennsylvania.

Applicant is incorporated under the laws of the State of Pennsylvania and authorized to do business in the States of Pennsylvania and West Virginia. It is an operating public utility engaged in the production, distribution and sale of electricity in the greater portion of the Counties of Armstrong, Butler, Fayette, Greene, Washington, and Westmoreland, and in parts of Allegheny, Cameron, Centre, Clarion, Clinton, Elk, Indiana, Lycoming, McKean, and Potter Counties, Pennsylvania. It interchanges power with the Monongahela Power Company in West Virginia and with the Potomac Edison Company in Maryland.

The Borough is located in Allegheny County, Pennsylvania, about 15 miles northeast of Pittsburgh and operates an isolated electric utility system within its corporate limits, which serves the Borough and its residents.

Under a lease agreement dated December 23, 1965, between the Borough and the Applicant, the Applicant proposes to lease the Borough's electric utility system for a period of 30 years from the effective date of the lease for a total rental of \$2,000,000 payable as follows: \$260,000 on the effective date of the lease and the balance of \$1,740,000 in 29 annual installments of \$60,000 each. The lease agreement also provides that within 6 months after its effective date, the Applicant shall construct facilities to connect the leased property with its interconnected system and shall give written notice to the Borough of the completion thereof. At that time the Borough's generating facilities shall cease to be a part of the leased property.

Applicant estimates that the original cost less an accumulated provision for depreciation of the Borough's steam production plant is \$280,912 and that of the distribution plant is \$147,145. Applicant proposes to record the entire annual amount of rent, \$60,000 plus \$6,667 for $\frac{1}{30}$ of the initial payment of \$200,000, total \$66,667 as a charge to Account 426, Other Income Deductions.

According to the application the proposed transaction will have the immediate effect of reducing the rates of 1,667 of the Borough's 1,748 customers.