32 FERC P 62333 (F.E.R.C.), 1985 WL 67885
**1 Office Director Orders

Television Communications, Inc.

Project No. 7242-001
Order Issuing License (Minor)
(Issued August 15, 1985)

**63403 Kenneth M. Pusateri, Acting Director, Office of Hydropower Licensing.

Television Communications, Inc. (Applicant) filed on April 16, 1984, an application for a license under Part I of the Federal Power Act (Act) to construct, operate, and maintain the Kanaka Project No. 7242.[1] The project would be located on Sucker Run Creek, a tributary of the South Fork Feather River, near the town of Feather Falls, in Butte County, California.

Notice of the application has been published and comments have been received from interested Federal and state agencies. The significant concerns of the commenting agencies are discussed below.

Project Description

The proposed run-of-the-river project would consist of a diversion structure across Sucker Run Creek, a 4,960-foot-long pipeline/penstock, a powerhouse with an installed capacity of 1.12 MW and an 850-foot-long transmission line. A more detailed project description is contained in Ordering Paragraph (B).

Safety and Adequacy

The proposed diversion would impound an insignificant amount of water. Failure of the dam would not endanger downstream property or human life. If constructed in accordance with sound engineering practices, the proposed project structures, under the conditions of this license, would be safe and adequate.

Comprehensive Development and Economic Feasibility

The project would operate with a total installed capacity of 1,120 kW and a hydraulic capacity of 30 cfs. An estimated 2.8 GWh of electricity will be generated annually at a plant factor of 29 per cent.[2] The proposed project would be economically feasible based on the sale of power at the avoided cost of fuel in the State of California, adjusted for escalation.

The proposed project is not in conflict with any existing or planned development of Sucker Run Creek nor the South Fork Feather River. The project would make good use of the available head and flow of the Creek and would be best adapted to the comprehensive development of the resource for beneficial public purposes.

Environmental Considerations

The following resources would not be affected by the proposed action, either directly or indirectly, and do not constitute significant environmental issues: recreation, land use, and air quality and noise. These resources will not be discussed further in this document. Substantive issues have been raised concerning the following resource topics.

Minimum Flows

Operation of the proposed project would reduce flows throughout a 6,400-foot-long section of Sucker Run Creek (the bypassed reach). To protect and enhance the reproducing brown trout and rainbow trout populations inhabiting the bypassed reach, the California Department of Fish and Game (DFG) recommends that the Applicant provide continuous minimum flow releases from the diversion structure of 15 and 8 cubic feet per second (cfs) during normal water years and dry water

years, respectively. In addition, DFG recommends that the Applicant monitor water temperature in the bypassed reach and provide to the bypassed reach the natural streamflow, or volume of water that is necessary to prevent water temperature from exceeding 20° C.

****2** The Applicant states that the methodology used by DFG to determine its minimum flow ***63404** recommendation is not appropriate because it does not incorporate all the usable fish habitat present in the bypassed reach. The Applicant further states that DFG, in determining dry water year releases, grossly overestimates the watershed area that provides inflow to Sucker Run Creek at the point of diversion. As an alternative, the Applicant proposes to provide continuous minimum flow releases of 5 and 3 cfs during normal and dry water years, respectively, and to cease operation during the summer low-flow period (July through October). The Applicant states that these mitigative measures would provide adequate protection for fish resources throughout the year.

The Commission Staff's review of the streamflow studies indicates that the Applicant-sponsored IFIM study (a study using the U.S. Fish and Wildlife Service's Instream Flow Incremental Methodology) provides the most useful information in determining the impact of flow reductions on the amount of fish habitat available in the bypassed reach. The Staff's examination of the data reveals that rainbow trout adult habitat would be reduced by 2.4, 9.8, 13.2, and 26.8 percent when streamflow is reduced from 15 cfs to 13, 10, 8, and 5 cfs, respectively. Rainbow trout juvenile habitat would be decreased by 4 to 16 percent at flows of 13 and 5 cfs, respectively, while rainbow trout fry habitat would remain virtually unchanged throughout the range of flows analyzed.

The Staff's inspection of the mean daily flow records for each month of each water year between 1975 and 1982 shows that the project could operate without having significant adverse impacts on the trout population, if the project varies operation as seasonal flows vary. The minimum releases that should be maintained in the bypassed reach to protect the trout populations are as follows.

From February through April, a continuous minimum flow release of 13 cfs. This flow release would reduce rainbow trout adult habitat by 2.4 percent. During May and June, an 8-cfs flow release. This measure would reduce habitat available to adult and juvenile rainbow trout by 13 and 10 percent, respectively. From July through October, the natural flows should be released throughout the bypassed reach. Maintenance of natural flows during these critical periods would maintain summer, pre-project dissolved oxygen levels and water temperatures. From November through January, a minimum flow release of 5 cfs. Because metabolic rates and activity levels of fish acclimatized to cold temperatures are reduced, the amount of habitat needed to sustain the trout population is also reduced. Therefore, decreases in the amount of habitat during this time of year would not adversely affect the fish resources.

Article 21 requires the Licensee to vary the operation of the project and to vary the minimum flow releases according to the above schedule.

Monitoring Equipment

The DFG recommends that the Applicant install a continuous recording stream flow gage and temperature monitoring device at a DFG-approved site to monitor the temperature of the creek and the volume of flow releases from the proposed project diversion. DFG further recommends that the Applicant provide an annual record of daily flow, temperature and power generation data.

****3** The Applicant objects to the installation of a recording station due to the cost of and the possibility of the station being washed out during high flow periods. The Applicant also objects to this requirement because the U.S. Geological Survey (USGS) maintains a sophisticated gaging station less than 1 mile downstream of the powerhouse. The Applicant proposes to install staff gages calibrated for critical flow levels and a continuous recording flow meter at the powerhouse to monitor the volume of water diverted for power production. By comparing the volume of water through the powerhouse and the volume flowing passed the USGS gage, the Applicant would calculate the amount bypassing the point of diversion.

Maintenance of minimum flow releases and temperature regimes is critical to the protection and enhancement of fish resources in the bypassed reach; therefore, the volume of the releases must not be less than those specified. Accurate measurements of water temperature and flow releases are necessary to ensure that sufficient flows from the diversion to the

bypassed reach are provided and preferred temperatures are not exceeded. Flow measurements determined by comparing the volume of water through the powerhouse and USGS gage would not provide a sufficiently accurate measurement of the flow from the diversion due to the influx of flow from a small intervening watershed area between the USGS gage and the point of diversion. The amount of water from the watershed would supplement the volume of water passing the USGS gage, thereby providing a false reading for the volume of water released from the project's diversion structure. Article 22 requires the Licensee to install continuously recording temperature and stream flow equipment to ensure that flows and temperatures necessary ***63405** to protect and enhance aquatic resources are accurately measured and maintained.

Flow Diversion Rate

The DFG recommends that the Applicant divert water at a rate not to exceed 30 percent of the existing streamflow per hour to avoid adverse impacts to the fish resources that inhabit Sucker Run Creek downstream of the diversion structure.

Rapidly varying streamflows could strand fish resources downstream of the diversion; therefore, the rate at which the streamflow (ramping rate) is varied by project operation should be controlled. Article 32 requires the Licensee to limit the ramping rate in order to protect fish and wildlife resources within the bypassed reach.

Fish Screens

To protect fish resources that will inhabit the pond created by the proposed diversion structure from turbine related impacts, the DFG recommends that the Applicant provide, operate and maintain fish screens at the project intake. The Applicant recognizes that the diversion structure will change the existing lotic habitat to a lentic habitat characterized by a deep, clear, cool, slow-moving, well aerated pool that is the type of habitat preferred by trout in other reaches of Sucker Run Creek, and agrees to install fish screens. Article 23 requires the Licensee to install fish screens at the intake structure to prevent trout populations from sustaining turbine-induced injury and/or mortality.

Erosion and Sediment Control and Spoil Disposal

****4** Throughout the life of the project, accumulations of sand and gravel will occur in the pool upstream of the diversion structure. These accumulations must be removed to maintain the volume of water in the diversion pond necessary for project operation. DFG and the Central Valley Region Water Quality Control Board (CVR) recommend that the Applicant remove sand and sediment from the diversion pool to a site acceptable to DFG and CVR. DFG and CVR also recommend that all accumulated material, measuring ½-inch or more in diameter, be returned to Sucker Run Creek in an approved manner, such as a self-cleaning diversion structure. DFG suggests that the Applicant consult with DFG personnel when designing the structure to ensure that the structure will pass the 100-year flood flow and that it accurately, continuously, and automatically releases necessary minimum flows, and gravel.

To prevent erosion of areas disturbed by pipeline and penstock construction, CFG recommends that the Applicant reseed all areas denuded by project construction with mulch and native species having food and cover value to wildlife. Also, DFG recommends that the Applicant design the tailrace to prevent erosion of streambanks resulting from flows through the powerhouse discharge.

The Applicant has agreed to comply with the recommendations proposed by DFG and CVR.

Proper design of the diversion structure is necessary to ensure the passage of flow releases and gravel needed to maintain fish habitat and spawning areas. Article 24 requires the Licensee to consult with DFG and CVR on the design of a diversion structure to ensure that it will provide necessary flow releases and gravel for maintenance of fish habitat. Erosion due to ground disturbance, disposal of dredge spoils, and water flows from the powerhouse must be controlled to prevent loss of habitat and degradation of water quality due to sedimentation and turbidity. Article 25 requires the Licensee to consult with DFG and the U.S. Fish and Wildlife Service (FWS) during preparation of a plan for mitigating erosion related impacts due to project construction and operation.

Transmission Line Impacts

Site surveys have shown that various raptors are present in the project area; however, FWS states in a letter dated January 25, 1984, that none of these birds are Federally listed threatened or endangered species. DFG recommends that the Applicant construct the proposed 850-foot-long aerial, transmission line so that it does not pose a hazard to raptors. The Applicant does not object to this recommendation. Movement of raptors throughout the transmission line corridor would expose these birds to the hazards of electrocution. To protect raptors from adverse impacts resulting from encountering the transmission line, Article 26 requires the Licensee to consult with FWS and DFG to develop a plan to protect the birds from electrocution.

Cultural Resources

There are no known historic, cultural, or archeological resources that will be affected by the proposed project. The inclusion of Article 27 will protect any cultural resources that may be discovered during the proposed construction or during any future construction at the project.

***63406** *Other Environmental Concerns*

****5** Water quality certification, as required by Section 401 of the Clean Water Act, was waived for the proposed project by the State of California, Regional Water Quality Control Board, Central Valley Region, on March 23, 1984.

No Federally listed threatened or endangered species or critical habitat or sites listed or eligible for listing on the *National Register of Historic Places* will be affected by the project.

Finding of No Significant Impact

Minor short term impacts will result from construction of the project. Construction of the 92-foot-long diversion structure and its associated pond will cause minor short term increases in turbidity and sedimentation. Installation of the 4,960-foot-long penstock and 850-foot-long transmission line will cause minor disturbance of vegetation and wildlife; however, erosion control measures will be utilized to prevent significant soil losses. Also, ambient noise levels and degradation of visual and air qualities will be temporarily affected during construction, but these impacts will be minor.

Minor long-term impacts on streamflow and fish resources will result from operation of the proposed project. Diversion of water for power generation will reduce the volume of water presently flowing through a 6,400-foot-long segment of Sucker Run Creek. Continuous releases, and constant monitoring, of specified minimum flows, in conjunction with the natural aeration effect produced by the local topography, will maintain existing fish habitat in the bypassed reach.

In accordance with the National Environmental Policy Act of 1969, an Environmental Assessment was prepared for the Kanaka Project (FERC Project No. **7242**-001).[3] On the basis of the record, and Staff's independent environmental analysis, the issuance of a **license** for the project, as conditioned herein, will not constitute a major Federal action significantly affecting the quality of the human environment.

It is ordered that:

(A) This **license** is issued to Television Communications, Inc. (Licensee), under Part I of the Federal Power Act (Act) for a period of 50 years, effective the first day of the month in which this order is issued, for the construction, operation, and maintenance of the Kanaka Project No. **7242**, located near the town of Feather Falls, in Butte County, California. This **license** is subject to the terms and conditions of the Act, which is incorporated by reference as part of this **license**, and subject to the regulations the Commission issues under the provisions of the Act.

(B) The Kanaka Project No. **7242** consists of: (1) All lands, to the extent of the Licensee's interests in those lands, constituting the project area and enclosed by the project boundary. The project area and boundary is shown and described by an exhibit that forms part of the application for **license** and that is designated and described as:

Exhibit	FERC Number	Title

G-2	7242-3	Project Boundary

(2) Project works consisting of:

(1) an 11-foot-high, 92-foot-long concrete diversion structure located at elevation 1,645 feet m.s.l.; (2) a 30-inch-diameter, 4,960-foot-long pipeline/penstock; (3) a 41-foot by 45-foot powerhouse, located at elevation 1,130 feet m.s.l., containing a single 1500 hp impulse turbine connected to a 1.12 MW generator; (4) an 850-foot-long tap line to interconnect the project with an existing 11-kV transmission line; and (5) appurtenant facilities.

****6** The location, nature, and character of these project works are shown and described by the exhibit cited above and by certain other exhibits that also form a part of the application for **license** and that are designated and described as:

Exhibit A—Pages A-1 and A-2

Exhibit F	**FERC No.**	**Title**
F-1	1	Powerhouse and Diversion Dam

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

(C) Exhibits A, F, and G, designated in Ordering Paragraph (B) above, are approved and made a part of the **license** only to the extent that they generally describe and show the project.

(D) Pursuant to Section 10(i) of the Act, it is in the public interest to waive the following Sections of Part I of the Act, and they are excluded from the **license**:

Section 4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to public notice and to the acceptance and expression in ***63407** the **license** of terms and conditions of the Act that are waived here; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.

(E) This **license** is subject to Articles 1 through 18 set forth in Form L-15 (revised October, 1975), entitled "Terms and Conditions of **License** for Unconstructed Minor Project Affecting the Interests of Interstate or Foreign Commerce" attached to (reported at 54 FPC 1883) and made a part of this **license**. This **license** is also subject to the following additional articles:

Article 19. Licensee shall continue to consult and cooperate with appropriate Federal, state and other natural resource agencies for the protection and development of the environmental resources and values of the project area. The Commission reserves the right to require changes in the project works or operations that may be necessary to protect and enhance those resources and values.

Article 20. Licensee shall pay the United States the following annual charge: For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 1,500 horsepower.

Article 21. Licensee, in the bypassed reach section of Sucker Run Creek between the diversion structure and the powerhouse, shall release minimum flows from the diversion structure according to the following schedule: from February 1 through April 30, a minimum flow release of 13 cubic feet per second (cfs) or the natural streamflow, whichever is less; from May 1 through June 30, a minimum flow release of 8 cfs or natural streamflow, whichever is less; from July 1 through October 31, natural streamflow; and from November 1 through January 31, a minimum flow release of 5 cfs or natural streamflow, whichever is less. These flows may be temporarily modified if required by operating emergencies beyond the control of the Licensee and for short periods of time upon mutual agreement between the Licensee and the California Department of Fish and Game.

****7** *Article 22*. Licensee shall construct and operate streamflow and water temperature monitoring equipment at a location to allow continuous accurate monitoring of minimum flow releases and water temperatures downstream of the Kanaka Hydroelectric Project. Further, Licensee shall annually make available to the U.S. Fish and Wildlife Service, the California Department of Fish and Game, and the FERC's San Francisco Regional Engineer, the record of minimum flows and water temperatures.

Article 23. Licensee shall, within 6 months following issuance of this **license**, file for Commission approval functional design drawings of the fish screen for the diversion intake of the Kanaka Hydroelectric Project, prepared after consultation with the California Department of Fish and Game, and the U.S. Fish and Wildlife Service. Within 6 months from completion of construction, Licensee shall file as-built drawings with the Commission.

Article 24. Licensee shall, after consultation with the California Department of Fish and Game and the Central Valley Region Water Quality Control Board, design a diversion structure which allows accurate, automatic, and continuous flow and gravel releases to protect and enhance the aquatic habitat downstream of the diversion structure. Licensee shall, within 1 year of the date of issuance of this **license**, file with the Director, Office of Hydropower **Licensing**, the design plan, along with comments on the design from the California Department of Fish and Game, the Central Valley Regional Control Board and the U.S. Fish and Wildlife Service. The Director, Office of Hydropower **Licensing**, reserves the right to require modifications to the design of the diversion structure to protect fish habitat.

Article 25. Licensee shall, after consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game, prepare and file with the Commission, within 1 year from the date of issuance of this **license**, a plan for spoil disposal, to control erosion and dust, and to minimize the quantity of sediment or other potential water pollutants resulting from construction and operation of the project. The plan shall also include: an implementation schedule; monitoring and maintenance programs for project construction and operation; and provisions for periodic review of the plan and for making any necessary revisions to the plan. In the event that the Licensee does not concur with any agency recommendations, Licensee shall provide a discussion of the reasons for not concurring based on actual site, geological, soil and groundwater conditions. The Commission reserves the right to require changes to the plan. Unless the Director, Office of Hydropower **Licensing**, directs otherwise, the Licensee may commence ground disturbing or spoil disposal activities at the project 90 days after filing the above plan.

Article 26. Licensee shall design and construct the transmission line in accordance ***63408** with guidelines set forth in "Suggested Practices for Raptor Protection on Power Lines—the State of the Art in 1981," Raptor Research Foundation, Inc., 1981. Further, Licensee, after consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game, and within 1 year from the date of issuance of the **license**, shall file a transmission line design plan that will provide adequate separation of energized conductors, groundwires, and other metal hardware, adequate insulation, and any other measures necessary to protect raptors from electrocution hazards. Agency comments on the adequacy of the design plan shall be included in the filing. Unless the Director, Office of Hydropower **Licensing**, within 60 days following the filing, instructs otherwise, Licensee may commence transmission line construction at the end of the period.

****8** *Article 27*. Licensee shall, prior to any future construction at the project, consult with the California State Historic Preservation Officer (SHPO) about the need for cultural resource survey and salvage work. Documentation of the nature and extent of consultation, including a cultural resources management plan and a schedule to conduct any necessary investigation prior to such construction, and a copy of a letter from the SHPO accepting the plan, shall be filed with the Commission within 6 months of any construction activity in the location of such investigations. Licensee shall make available funds in a

reasonable amount for any such work as required. If any previously unrecorded archeological or historical sites are discovered during the course of construction or development of any project works or other facilities at the project, construction activity in the vicinity shall be halted, a qualified archeologist shall be consulted to determine the significance of the sites, and Licensee shall consult with the SHPO to develop a mitigative plan for the protection of significant archeological or historical resources. If Licensee and the SHPO cannot agree on the amount of money to be expended on archeological or historical work related to the project, the Commission reserves the right to require Licensee to conduct, at its own expense, any such work found necessary.

Article 28. Licensee shall commence construction of project works within two years from the issuance date of the **license** and shall complete construction of the project within four years from the issuance date of the **license**.

Article 29. Licensee shall provide one copy to the Commission's Regional Engineer and two copies with the Director, Division of Inspections, of the final contract drawings and specifications for pertinent features of the project, such as water retention structures, powerhouse, and water conveyance structures, at least 60 days prior to start of construction. The Director, Division of Inspections, may require changes in the plans and specifications to assure a safe and adequate project.

Article 30. Licensee shall review and approve the design of contractor-designed cofferdams and deep excavations prior to the start of construction and shall ensure that construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days prior to start of construction of the cofferdam, the Licensee shall provide with the Commission's Regional Engineer and Director, Division of Inspections, one copy of the approved cofferdam construction drawings and specifications and a copy of the letter(s) of approval.

Article 31. Licensee shall, within 90 days of completion of construction, file with the Director, Division of Project Management, for approval, revised Exhibits A, F, and G to describe and show the project as-built.

Article 32. Licensee shall, for the protection of fish and wildlife resources within the bypassed reach, divert water at a rate not to exceed 30 percent of the existing streamflow per hour, except in any emergency.

****9** (F) This order is final unless a petition appealing it to the Commission is filed within 30 days from the date of its issuance, as provided in Section 385.1902 of the Commission's regulations, 18 C.F.R. §385.1902 (1984). The Licensee's failure to file a petition appealing this order to the Commission shall constitute acceptance of this order. In acknowledgment of acceptance of this order and its terms and conditions, it shall be signed by the Licensee and returned to the Commission within 60 days from the date this order is issued.

Footnotes

[1] Authority to act on this matter is delegated to the Director, Office of Hydropower **Licensing**, under §375.314 of the Commission's regulations, 49 Fed. Reg. 29,369 (1984)(Errata issued July 27, 1984)(to be codified at 18 C.F.R. § 375.314). This action may be appealed to the Commission by any party within 30 days of the issuance date of this order pursuant to Rule 1902, 18 C.F.R. § 385.1902 (1984). Filing an appeal and final Commission action on that appeal are prerequisites for filing an application for rehearing as provided in Section 313(a) of the Act. Filing an appeal does not operate as a stay of the effective date of this order or of any other date specified in this order, except as specifically directed by the Commission.

[2] Project energy generation is equivalent to the energy that could be produced by burning 4,600 barrels of oil or 1,300 tons of coal annually in a steam electric power plant.

[3] Environmental Assessment, Kanaka Project, FERC Project No. **7242**-001—California, Division of Environmental Analysis, Office of Hydropower **Licensing**, Federal Energy Regulatory Commission, February 26, 1985. This document is available in the Division of Public Information and in the Commission's public file associated with this proceeding.

