

**Forest Service Handbook
National Headquarters - Washington Office
Washington, DC**

**Forest Service Handbook 2709.15 – Hydroelectric Handbook
Chapter 50 - Section 4(E) and Other Reports**

Amendment: 2709.15-Amendment 1

Effective date: February 01, 1987

Duration: This amendment is effective until superseded or removed.

Approved by:

Date approved:

Responsible Staff:

Last Change:

Superseded Document(s):

Digest:

Forest Service Handbook 2709.15 – Hydroelectric Handbook
Chapter 50 - Section 4(E) and Other Reports
Amendment: 2709.15-Amendment 1
Effective date: February 01, 1987
Table of Contents

| | |
|--|----------|
| 55.3 - Standard 4(e) Conditions | 3 |
|--|----------|

55.3 - Standard 4(e) Conditions

Exhibit 1 contains approved standard license conditions as examples of the 4(e) conditions to send to FERC. Condition numbers shown would not necessarily be the numbers used in the actual 4(e) report given to FERC.

Forest Service Handbook 2709.15 – Hydroelectric Handbook
Chapter 50 - Section 4(E) and Other Reports
Amendment: 2709.15-Amendment 1
Effective date: February 01, 1987
Exhibit 1

Forest Service Standard 4(e) License Conditions

Enclosure II

LICENSE CONDITIONS NECESSARY FOR PROTECTION AND UTILIZATION OF THE
<NAME> NATIONAL FOREST IN CONNECTION WITH THE APPLICATION FOR
LICENSE PROJECT NO. <No.>

I. GENERAL

License articles contained in the Commission's Standard Form L- <no.> (revised October 1975) issued by Order No. 540, dated October 31, 1975, cover general requirements that the Secretary of Agriculture, acting by and through the Forest Service, considers necessary for adequate protection and utilization of the land and resources of the <name> National Forest. For the purposes of section 4(e) of the Federal Power Act (16 U.S.C. 797(e)), the purposes for which National Forest System lands were created or acquired shall be the protection and utilization of those resources enumerated in the Organic Administration Act of 1897 (30 Stat. 11), the Multiple-Use Sustained Yield Act of 1960 (74 Stat. 215), the National Forest Management Act of 1976 (90 Stat. 2949), and any other law specifically establishing a unit of the National Forest System or prescribing the management thereof (such as the Wilderness Act or Wild and Scenic Rivers Act), as such laws may be amended from time to time, and as implemented by regulations and approved Forest Plans prepared in accordance with the National Forest Management Act. Therefore, pursuant to said section 4(e) of the Federal Power Act, the following conditions covering specific requirements for protection and utilization of National Forest System lands shall also be included in any license issued.

II. STANDARD FOREST SERVICE PROVISIONS

Condition No. 1 - Requirement to Obtain a Forest Service Special-Use Authorization.

Within 6 months following the date of issuance of this license and before starting any activities the Forest Service determines to be of a land-disturbing nature, the Licensee shall obtain from the Forest Service a special-use authorization for the

Forest Service Handbook 2709.15 – Hydroelectric Handbook
Chapter 50 - Section 4(E) and Other Reports
Amendment: 2709.15-Amendment 1
Effective date: February 01, 1987
Exhibit 1--continued

occupancy and use of National Forest System lands, and that authorization shall be filed with the Director, Office of Hydropower Licensing.

The Licensee may commence land-disturbing activities authorized by the license and special-use authorization 60 days following the filing date of such authorization, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule.

Notwithstanding the authorizations granted under the Federal Power Act, National Forest System lands within the project boundaries shall be managed by the Forest Service under the laws, rules, and regulations applicable to the National Forest System. The terms and conditions of the Forest Service special-use authorization are enforceable by the Forest Service under the laws, rules, and regulations applicable to the National Forest System. The violation of such terms and conditions also shall be subject to applicable sanctions and enforcement procedures of the Commission at the request of the Forest Service. In the event there is a conflict between any provisions of the license and Forest Service special-use authorization, the special-use authorization shall prevail on matters which the Forest Service deems to affect National Forest System resources.

Condition No. 2 - Forest Service Approval of Final Design

Before any construction of the project occurs on National Forest System land, the Licensee shall obtain the prior written approval of the Forest Service for all final design plans for project components which the Forest Service deems as affecting or potentially affecting National Forest System resources. The Licensee shall follow the schedules and procedures for design review and approval specified in the Forest Service special-use authorization. As part of such prior written approval, the Forest Service may require adjustments in final plans and facility locations to preclude or mitigate impacts and to assure that the project is compatible with on-the-ground conditions. Should such necessary adjustments be deemed by the Forest Service, the Commission, or the Licensee to be a substantial change, the licensee shall follow the procedures of Article 2 of the license. Any changes to the license made for any reason pursuant to Article 2 or Article 3 shall be made subject to any new terms and conditions of the Secretary of Agriculture made pursuant to section 4(e) of the Federal Power Act.

Condition No. 3 - Approval of Changes After Initial Construction

Notwithstanding any license authorization to make changes to the project, the licensee shall get written approval from the Forest Service prior to making any changes in the location of any constructed project features or facilities, or in the uses of project lands and waters, or any departure from the requirements of any

Forest Service Handbook 2709.15 – Hydroelectric Handbook
Chapter 50 - Section 4(E) and Other Reports
Amendment: 2709.15-Amendment 1
Effective date: February 01, 1987
Exhibit 1--continued

approved exhibits filed with the Commission. Following receipt of such approval from the Forest Service, and at least 60 days prior to initiating any such changes or departure, the Licensee shall file a report with the Commission describing the changes, the reasons for the changes, and showing the approval of the Forest Service for such changes. The licensee shall file an exact copy of this report with the Forest Service at the same time it is filed with the Commission. This article does not relieve the Licensee from the amendment or other requirements of Article 2 or Article 3 of this License.

Condition No. 4 - Consultation

Each year during the 60 days preceding the anniversary date of the license, the Licensee shall consult with the Forest Service with regard to measures needed to ensure protection and development of the natural resource values of the project area. Within 60 days following such consultation, the Licensee shall file with the Commission evidence of the consultation with any recommendations made by the Forest Service. The Commission reserves the right, after notice and opportunity for hearing, to require changes in the project and its operation that may be necessary to accomplish natural resource protection.

III. OPTIONAL FOREST SERVICE PROVISIONS

A. FISH AND WILDLIFE RESOURCE MANAGEMENT

Condition No. 5 - Minimum Streamflow Requirement

During the construction and operation of the facilities authorized by this license, the Licensee shall maintain each year, immediately below the point of diversion in _<Name of Creek>_, a continuous, minimum flow of <no.> cubic feet per second (cfs) or the natural flow, which ever is less, as measured immediately below the point of proposed diversion.

[OPTIONAL - use as necessary.] After notice to and concurrence by the Forest Service, the Licensee shall release the entire unrestricted flow in <name of creek> down the channel for <no.> consecutive days during the peak runoff period to maintain channel competence and to aggregate and flush the gravel.

The Licensee may temporarily modify minimum flows if required by operating emergencies beyond the control of the Licensee. The Licensee may also modify minimum flows for short periods upon written consent of the Forest Service.

Forest Service Handbook 2709.15 – Hydroelectric Handbook
Chapter 50 - Section 4(E) and Other Reports
Amendment: 2709.15-Amendment 1
Effective date: February 01, 1987
Exhibit 1--continued

[Use this statement if standard condition 6 is used.] This interim minimum instream flow requirement shall remain in effect until the date that the approved adjusted instream minimum flows provided for in Article <condition 6> are implemented.

ALTERNATE Condition No. 5 - Minimum Streamflow Regime

During the construction and operation of the facilities authorized by this license, the Licensee shall maintain each year, immediately below the point of diversion in <name of creek>, the following continuous, minimum flows or the natural flows, which ever are less, as measured immediately below the point of proposed diversion:

| | |
|---|--|
| <u><date></u> through <u><date></u> | <u><no.></u> cubic feet per second (cfs) |
| <u><date></u> through <u><date></u> | <u><no.></u> cfs |
| <u><date></u> through <u><date></u> | <u><no.></u> cfs |

[OPTIONAL - use as necessary.] After notice to and concurrence by the Forest Service, the Licensee shall release the entire unrestricted flow in <name of creek> down the channel for <no.> consecutive days during the peak runoff period to maintain channel competence and to aggregate and flush the gravel.

The Licensee may temporarily modify minimum flows if required by operating emergencies beyond the control of the Licensee. The Licensee may also modify minimum flows for short periods upon written consent of the Forest Service.

[Use this statement if standard condition 6 is used.] These interim minimum instream flow requirements shall remain in effect until the date that the approved adjusted instream flows provided for in Article <condition 6> are implemented.

Condition No. 6 - Minimum Streamflow Modification Study

[Use only in conjunction with a version of Condition No. 5, above].

Within 1 year of the date of issuance of this license, the Licensee shall file with the Director, Office of Hydropower Licensing, a plan approved by the Forest Service for the study of instream flows. This study must address: (a) the effects of diverting different quantities of water on downstream aquatic and terrestrial habitats; (b) the water requirements of aquatic organisms in the areas affected by diversions, including existing organisms and those that may be introduced; (c) the effects of project discharges on stream morphology and stability; (d) measures that will ensure the protection and enhancement of water quality and animal and vegetative habitats in the streams and environs; (e) requirements for recreation and aesthetics;

Forest Service Handbook 2709.15 – Hydroelectric Handbook
Chapter 50 - Section 4(E) and Other Reports
Amendment: 2709.15-Amendment 1
Effective date: February 01, 1987
Exhibit 1--continued

and (f) recommendations for minimum instream flow and flow regimes that will achieve the identified measures of protection and enhancement. The plan must also include a schedule for implementing the adjusted instream flows.

The Licensee shall not commence the study described in the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule.

Within 2 months following completion of the study, the Licensee shall file with the Director, Office of Hydropower Licensing, the study results along with any recommended changes, approved by the Forest Service, in the interim minimum instream flows or flow regimes in Article <condition 5>.

Licensee may not implement the adjusted instream flow requirements, until approved by the Forest Service, and until 60 days after the filing date for the study results, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule. The approved adjusted instream flow requirements, shall supersede those shown in Article <condition 5>.

Condition No. 7 - Guaranteed Priority Flow Bypass Device

The Licensee shall construct, operate, and maintain a guaranteed priority stream flow device as part of the diversion/intake structure. Required stream maintenance flows listed in Article <condition 5> shall be automatically released through this device, before any flow can be diverted into the conduit. The Licensee shall install a water measurement control section with a continuously-recording streamgage, downstream of the point of release of the bypass flow, that will accurately measure the bypass flow. The Licensee shall provide a stage-discharge chart to the Forest Service prior to commencement of operation of the project. Forest Service approval must be obtained for the design of the bypass mechanism and the design and location of the measuring control section and streamgage prior to construction. The Licensee shall file a report of the streamflow at the gaging station by December 31, of each year for the preceding water year. The report must be filed with the <name> National Forest.

Condition No. 8 - Fish and Wildlife Mitigation Plan

Within 1 year from the issuance of this license and before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee shall file with the Director, Office of Hydropower Licensing, a fish and wildlife habitat mitigation plan approved by the Forest Service. This plan must identify requirements for construction and mitigation measures to meet Forest Service fish and wildlife habitat objectives and standards. The plan

Forest Service Handbook 2709.15 – Hydroelectric Handbook
Chapter 50 - Section 4(E) and Other Reports
Amendment: 2709.15-Amendment 1
Effective date: February 01, 1987
Exhibit 1--continued

also must include dates for accomplishing these objectives and standards and must identify needs for and timing of any additional studies necessary.

The Licensee shall not commence activities the Forest Service determines to be affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule.

B. RECREATION RESOURCE MANAGEMENT

Condition No. 9 - Project Recreation Plan

Within 1 year following the date of issuance of this license and before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee shall file with the Director, Office of Hydropower Licensing, a plan approved by the Forest Service for accommodation of project-induced recreation.

The Licensee shall not commence activities the Forest Service determines to be affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule.

C. RESERVOIR OPERATION

Condition No. 10 - Reservoir Operation Plan

Within 1 year following the date of issuance of this license and before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee shall file with the Director, Office of Hydropower Licensing, a plan, approved by the Forest Service, for the operation and maintenance of the reservoir. The plan must address at least the following: water storage and releases, including storage limitations (if any), dates and/or criteria for filling and release; procedures for flood conditions; erosion prevention in the reservoir area and spillway channel; and trash and debris removal. The plan must include an implementation schedule and maintenance program.

The Licensee shall not commence activities the Forest Service determines to be affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule.

D. SOIL CONSERVATION AND PROTECTION OF WATER QUALITY

Condition No. 11 - Water Quality Study

Forest Service Handbook 2709.15 – Hydroelectric Handbook
Chapter 50 - Section 4(E) and Other Reports
Amendment: 2709.15-Amendment 1
Effective date: February 01, 1987
Exhibit 1--continued

Within 1 year following the date of issuance of this license and prior to the engaging in any activities which the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee after consultation with the Forest Service, shall complete a water quality study to assess the impact of the project on the water quality of <Creek> and file the study, along with comments from the Forest Service, with the Director, Office of Hydropower Licensing. The Director may approve the study or require its modification. If the results of the approved study indicate to the Forest Service that changes in project structures or operations are necessary to maintain water quality standards of the State of <name>, the Licensee may be required by the Forest Service to file with the Commission a mitigation schedule, approved by the Forest Service, for implementing the specific changes in project structures or operations.

The Licensee shall not commence activities the Forest Service determines to be affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule.

Condition No. 12 - Erosion Control Plan

Within 1 year following the date of issuance of this license and before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee shall file with the Director, Office of Hydropower Licensing, a plan approved by the Forest Service for the control of erosion, stream sedimentation, dust, and soil mass movement.

The Licensee shall not commence activities the Forest Service determines to be affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule.

Condition No. 13 - Solid Waste and Waste Water Plan

Within 1 year following the date of issuance of this license and before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee shall file with the Director, Office of Hydropower Licensing, a plan, approved by the Forest Service, for the treatment and disposal of solid waste and waste water generated during construction and operation of the project. At a minimum, the plan must address the estimated quantity of solid waste and waste water generated each day; the location of disposal sites and methods of treatment; implementation schedule; areas available for disposal of wastes; design of facilities; comparisons between on and offsite disposal; and maintenance programs.

Forest Service Handbook 2709.15 – Hydroelectric Handbook
Chapter 50 - Section 4(E) and Other Reports
Amendment: 2709.15-Amendment 1
Effective date: February 01, 1987
Exhibit 1--continued

The Licensee shall not commence activities the Forest Service determines to be affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule.

Condition No. 14 - Hazardous Substances Plan

Within 1 year following the date of issuance of this license and at least 60 days before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee shall file with the Director, Office of Hydropower Licensing, a plan approved by the Forest Service for oil and hazardous substances storage and spill prevention and cleanup.

At a minimum, the plan must require the Licensee to (1) maintain in the project area, a cache of spill cleanup equipment suitable to contain any spill from the project; (2) to periodically inform the Forest Service of the location of the spill cleanup equipment on National Forest System lands and of the location, type, and quantity of oil and hazardous substances stored in the project area; and (3) to inform the Forest Service immediately of the nature, time, date, location, and action taken for any spill.

The Licensee shall not commence activities the Forest Service determines to be affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule.

Condition No. 15 - Spoil Disposal

Within 1 year following the date of issuance of this license and before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee shall file with the Director, Office of Hydropower Licensing, a plan approved by the Forest Service for the storage and/or disposal of excess construction/tunnel spoils and slide material. At a minimum, the plan must address contouring of any storage piles to conform to adjacent land forms and slopes, stabilization and rehabilitation of all spoil sites and borrow pits, and prevention of water contamination by leachate and runoff. The plan also must include an implementation schedule and maintenance program.

The Licensee shall not commence activities the Forest Service determines to be affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule.

E. AESTHETICS

Condition No. 16 - Visual Resource Protection

Forest Service Handbook 2709.15 – Hydroelectric Handbook
Chapter 50 - Section 4(E) and Other Reports
Amendment: 2709.15-Amendment 1
Effective date: February 01, 1987
Exhibit 1--continued

Within 1 year following the date of issuance of this license and before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee shall file with the Director, Office of Hydropower Licensing, a plan approved by the Forest Service for the design and construction of the project facilities in order to preserve or enhance its visual character. The plan must consider facility configurations and alignments, building materials, color, conservation of vegetation, landscaping, and screening. Project facilities of concern to this plan include, among other things, clearings, diversion structures, penstocks, pipes, ditches, powerhouses, other buildings, transmission lines and corridors, and access roads.

The Licensee shall not commence activities the Forest Service determines to be affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule.

F. TRANSMISSION LINE

Condition No. 17 - Transmission Line Burial

The Licensee shall bury the transmission line along <alignment>. The location and depth of burial of the line are subject to approval by the Forest Service.

G. PIPELINE CROSSINGS

Condition No. 18 - Pipeline Road Crossing

The licensee shall construct <number> road crossings over the pipeline/penstock at locations designated by the Forest Service. Such crossings must be designed to carry a loaded logging truck.

H. TIMBER SALE CONTRACT COORDINATION

Condition No. 19 - Coordination With Timber Sale Purchaser

The project area may be under contract to the purchaser of the <name> timber sale. Before starting construction or removing any timber in the project area, the Licensee shall develop an agreement with that timber sale purchaser if the sale has not been closed. The agreement must stipulate the joint use of roads and the method of disposal for timber within the project boundary and under the existing sale contract. The agreement must be approved by the Forest Service before timber removal may begin. Removal of timber in addition to that already sold to the purchaser, must be authorized by amendment to the purchaser's contract or by a separate timber sale contract sold to the Licensee or another party.

Forest Service Handbook 2709.15 – Hydroelectric Handbook
Chapter 50 - Section 4(E) and Other Reports
Amendment: 2709.15-Amendment 1
Effective date: February 01, 1987
Exhibit 1--continued

I. ENDANGERED SPECIES

Condition No. 20 - Protection of Sensitive and T&E Species

Within 1 year from the issuance of this license and before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee shall file with the Director, Office of Hydropower Licensing, a detailed implementation plan approved by the Forest Service for the mitigation of impacts to sensitive, threatened, and endangered plant and animal species located within the area to be disturbed.

The Licensee shall not commence activities the Forest Service determines to be affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, prescribes a different commencement schedule.

J. AGREEMENTS

Condition No. 21 - Inclusion of Agreement

The terms and conditions of the Memorandum of Agreement between _____ and the USDA Forest Service _____ Region, dated _____, <as amended _____,> are hereby incorporated into this license, shall be deemed a term and condition of the Secretary of Agriculture pursuant to section 4(e) of the Federal Power Act, and the Licensee shall abide by the terms of said agreement. Incorporation of the Memorandum of Agreement into the license shall not be construed to limit, replace, or otherwise diminish the authority of the Secretary of Agriculture, acting through the Forest Service, for making additional terms and conditions pursuant to said section 4(e). Notwithstanding any language in the Memorandum of Agreement to the contrary, should there be a conflict between any other provision of this license and said agreement, the provisions of the agreement shall prevail on matters which the Forest Service deems as affecting National Forest System resources.