

Forest Service Handbook (FSH) 2709.15

Index of Documents: *Some chapters, because of their length, are organized into several documents. Additionally, interim directives (IDs) and some tables of contents and exhibits are separate documents.*

Service-wide Issuances: *Line officers at the Forest Service headquarters office in Washington, DC, have the authority to issue direction that sets forth authorities, management objectives, policies, responsibilities, delegations, standards, procedures, and other instructions that are continuing and that apply to or are needed by more than one unit.*

Field Issuances: *Regional Foresters, Forest Supervisors, Research Station Directors, the Northeastern Area Director for State and Private Forestry, and the Director of the International Institute of Tropical Forestry may supplement Service-wide direction. However, District Rangers and Research Project Leaders do not have authority to issue supplements. Supplements may be more restrictive than parent material, but cannot expand the authorities or relax restrictions unless approved in writing by the next higher official.*

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The Federal Power Commission was created by the Federal Water Power Act of June 10, 1920. Before passage of this act, Congress or the responsible Departments approved hydroelectric projects. The name of the Commission has been changed to the Federal Energy Regulatory Commission (FERC).

Originally the Secretaries of Agriculture, Interior, and War were members of the Federal Power Commission. However, because of the increasing workload, the makeup of the Commission was changed to five Presidential appointees. Section 4(e) of the Federal Power Act took on added significance as it provided that the Secretaries retained direct control over actions on reserved land under their jurisdiction.

Besides administering the licensing of hydroelectric power projects, FERC also regulates the rates and charges for the transportation and sale of natural gas, the transmission and sale of electricity, and the transportation of oil by pipeline as well as the valuation of such pipelines.

The FERC has regulatory jurisdiction over hydroelectric projects in the following instances:

1. The project involves Federal land.
2. The project involves navigable waters.
3. The project involves use of a Federally owned dam.
4. The project involves interstate commerce (grid connection).

The Public Utility Regulatory Policies Act (PURPA) of 1978 (P.L. 95-617), states that public utilities must buy power produced by small renewable-resource power plants on an avoided cost basis.

Section 408 of the Energy Security Act of 1980 (P.L. 96-294) amended section 405 of PURPA to allow FERC, under certain conditions, to grant exemptions from Part 1 of the Federal Power Act (Licensing) for small hydroelectric projects that generate 5 megawatts or less.

Section 213 of PURPA amended Part 1 of the Federal Power Act to allow FERC to exempt certain conduit hydroelectric facilities 15 megawatts or less.

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105 - DEFINITIONS

1. **Avoided Cost.** The cost of the power that a utility would either purchase or generate to meet the top 10 percent or top 100 megawatts of customer demand, whichever is greater.
2. **Baseload.** The minimum load in a stated period of time.

3. Baseload Capacity. The electric power output that can be produced continuously; usually computed by considering equipment that the operator (utility) intends to run at least 70 percent of the time. This is distinguished from peaking or cycling capacity.

4. Cumulative Impact. An impact that can be (1) the same (or similar) impact for a number of projects in an area, or (2) impacts of one or more projects which add up year after year. If there are unmitigated impacts, the possibility exists for cumulative impacts depending on the number of existing and potential projects and/or the additive nature of the impacts (40 CFR 1508.7).

5. Capacity. The load for which a generator, turbine, or system is rated.

6. Dam. Any artificial barrier, together with appurtenant works, that affects the water flow and water level of a natural body of water. A barrier to control the flow or raise the level of water.

7. Demand. The rate at which electric energy is delivered to or by a system, expressed in kilowatts, at a given instant or averaged over any designated period of time.

8. Diversion. The point on a stream where water is diverted into the system.

9. Diversion Structure. Any structure used to divert water from a stream into a pipeline or other water conveyance system.

10. Drawdown. The distance that the water surface of a reservoir is lowered from a given elevation as the result of the withdrawal of water.

11. Energy. That which does or is capable of doing work. Electric energy is usually measured in kilowatt-hours.

12. Firm Power. The amount of power it would be possible to produce continuously during a repetition of the most adverse hydro year on record.

13. Flow. Volume of water per unit of time. Can be expressed in gallons or cubic feet per minute (gal/min, CFM) or in cubic feet per second (CFS), and so forth.

14. Flow Duration Curve. A curve showing the percentage of time (in certain time period) that a river's flow was equal to or greater than a given discharge value (flow volume on y-axis; time (days per year) on x-axis).

15. Francis Turbine. A reaction turbine used to turn the generators in large hydroelectric projects. Most often used in projects with moderate head and high flow conditions.

16. Grid. An electric utility's system for distributing power.

17. Grid Connection. A connection joining a plant that

generates electricity to an electric power utility's system so that electricity can flow in both directions between the utility system and plant.

18. Gigawatt-hour. Equals one million kilowatt-hours.

19. Head. The differences in elevation between two water surfaces; it is the amount of fall of the stream that is used to develop power.

a. Critical Head. The head at which the full-gate output of the turbine equals the nameplate generator capacity.

b. Design Head. The head at which the turbine operates to give the best overall efficiency under various operating conditions.

c. Gross Head. The difference in water surface elevation between the forebay (impoundment) and the turbine.

d. Net Head. The gross head less all hydraulic losses sustained in bringing water to the turbine, except those chargeable to the turbine.

20. Headrace. A low pressure pipeline (can also be a flume).

21. Impoundment. Any artificial structure used to collect water in a pond, reservoir, penstock, and so forth, as for irrigation or power generation to stop the natural flow of water.

22. Impulse Turbine. A turbine in which available head is converted into kinetic energy or velocity head in a constricting nozzle(s) before acting upon a cup-like bucket. See Pelton Wheel.

23. Installed Capacity. The total of the generation capacities shown on the nameplates of all generators in a hydro electric plant.

24. Intake. The beginning of the power generation system. This is the point where water enters the pipe.

25. Interconnection. The physical connection of an electricity-generating plant to an electric utility system so that electricity can flow in both directions between the utility system and the plant.

26. Intermediate Load. The amount of electrical power needed for use when the base load does not fill demand.

27. Intertie. The connection of two or more electric utility systems to transfer surplus power from one to the other.

28. Kilovolt (kV). This is 1,000 volts, a measure of electric potential in a powerline.

29. Kilovolt-amp (kVA) - at unity power factor; a VA = Watt; or kVA = kW.

30. Kilowatt hour (kWh). A kilowatt of power used for one hour; 1 kWh = 3,414 Btu.

31. Load. The average demand on electrical equipment or on an electric system.

32. Load Factor. The ratio of average demand to maximum demand or to capacity.

33. Load Management. Any method or device that evens out electrical demand by eliminating uses during peak periods or shifting usage from peak times to off-peak times.

34. Low Pressure Pipeline. (Also referred to as zero-grade pipeline.) Pipe constructed merely to carry water from a source to the point where it enters the penstock. It is usually built on a slight grade--only enough to ensure that the water flows--and is not designed to carry water under pressure.

35. Micro Water Power Project. A small hydro project with an installed generating capacity of 100 kilowatts or less. This definition is not an official FERC category or name.

36. Megawatt (MW). This is 1,000 kilowatts or 1,000,000 watts.

37. Natural Water Feature Exemptions. Exempt projects that utilize natural water features for the generation of electricity, such as a perched lake or waterfall, without the need for any dam or impoundment (16 U.S.C. 2708(b)). The head-works (diversion) structure for such a project must not obstruct the flow to such a degree as to adversely affect the natural water feature.

38. Nitrogen Entrainment. The entrapment of bubbles of atmospheric nitrogen in the water column at supersaturation levels that occurs in nature as water drops over falls or cascades into deep plunge pools. In a hydroelectric project, this happens if air is "gulped" at the intake of a pressurized system. This air drawn into the penstock dissolves under the negative pressure head developed as water flows to the powerhouse. The supersaturation of the water with nitrogen affects the fish by introducing nitrogen bubbles into their blood system. They then suffer from a condition similar to the bends with death often resulting.

39. Off Peak. Times when power demand is below average; for electric utilities this is generally night and weekends.

40. On Line. The process of generating electricity and sending it over the transmission lines.

41. On Site. The use of electricity or heat at the same location where it is produced.

42. Outage. The period when a generating unit, transmission line, or other facility is out of service.

43. Output. Amount of power or energy delivered from a piece of equipment, station, or system.

44. Peak Load. Maximum load, produced or consumed, in a stated period of time.

45. Peak Periods. Peak load times are when demand for electricity is high, such as summer weekday afternoons or winter weekday evenings. Different utilities may define the peak period narrowly to include only a few hundred hours per year or broadly to include several thousand hours per year.

46. Peaking Capacity. The capacity of generating equipment that is normally operated only during the hours of highest power demand.

47. Pelton Wheel. An impulse turbine consisting of a series of buckets acted upon by one or more jets of water. A water turbine used to drive a generator in a hydroelectric project characterized by a high head and low flow. It is possible to vary nozzle size to alter the flow of available water, such as between winter and summer. This is typical of small hydro projects (sec. 10.52) utilizing mountain streams.

48. Penstock. The high pressure pipeline that serves the powerhouse. The penstock can originate at the diversion or at the transition point from one or more low pressure conduits.

49. Pondage. Reservoir storage capacity of limited magnitude that provides only daily or weekly regulation of streamflow.

50. Power. The time rate of transferring energy, usually measured in watts or horsepower. This term, as used by the electric power industry, includes power and energy.

51. Power Facilities Agreement. An agreement between the developer and the purchasing utility that defines each partner's responsibility for the transmission line and hook-up with the utilities system (ownership, construction, operation and maintenance, and so forth).

52. Power Pool. Two or more electric systems interconnected and operated on a coordinated basis in order to economically supply their combined loads.

53. Power Purchase Agreement. An agreement between the developer of a qualifying facility (QF) (as defined by the Public Utility Regulatory Policies Act) and the purchasing utility that defines the type, amount, and method of payment for the power purchased. The State Public Utility Commission or similar body usually controls final approval of each agreement. Agreements are of many types, but utilities usually pay more for guaranteed (firm) capacity during peak load periods when the utility really needs the power.

54. Qualifying Facility (QF). A generating system that qualifies under the Public Utility Regulatory Policies Act so that utilities must purchase the power produced at avoided-cost rates.

55. Ramping Rate. The established rate at which the water

flow is to gradually decrease in the tailrace and increase in the turbine bypass during shutdown (or vice-versa in the case of a start up). The purpose of establishing a flow rate change is to prevent the stranding of fish downstream from the power plant that may occur as a result of rapidly falling waters as well as to protect the public from sudden increases in streamflow.

56. Regional Power Grid. A system of transmission lines that interconnect the Region's utilities with the generation resources.

57. Retrofit. The process of adding new equipment or modifying existing equipment in an existing water distribution or storage facility.

58. Run-of-the-River Plant. A hydroelectric power plant that operates using the flow of a stream as it occurs (without a reservoir). Small hydro plants (sec. 10.52) of this type are limited in generating capacity to the flow in the stream.

59. Streamflow. The rate at which water passes a given point in a stream, usually expressed in cubic feet per second.

a. Minimum Streamflow. Minimum natural or regulated flow of stream during a specified time.

b. Regulated Streamflow. The controlled rate of flow at a given point during a specified period resulting from reservoir operation.

60. Tailrace. The discharge from the power plant. Refers to the water channel between the power plant and the stream into which the water discharges.

61. Transmission. The movement or transfer of electric energy in bulk.

62. Utility. In this case, any distribution of power; electric utility is the most general term which includes all power distributing/producing utilities.

a. Investor-Owned Utility (IOU). A privately owned utility serving the public; traditionally referred to as a public utility and regulated by FERC and State Commissions.

b. Municipal Utility. A publicly owned electric (or other) utility, generally serving a single city or town. These utilities are regulated by their own elected boards.

c. Public Utility. An investor-owned utility.

63. Wheeling. Usually, the transfer of bulk power from one utility to another through the transmission lines of a third utility.

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06 - CALCULATION OF OUTPUTS, AND VALUES Exhibits 1, 2, 3, and 4 show the user how to analyze the tradeoffs associated with various alternatives and understand the developer's interest in a project. Perform the calculations for projects being evaluated when necessary or desirable.

Exhibit 1

Value of the Energy Resource

$$kW = \frac{(Q)(H)(e)}{11.8}$$

Where kW = Power in kilowatts.

Q = Volume of flow in cubic feet per second (cfs).

H = Usable head in feet. (static head less friction losses in penstock).

11.8 = Factor to convert units of potential energy into kilowatts.

e = Average efficiency factor: 70 percent efficiency for a small generating system; 80 percent efficiency for large systems.

Exhibit 2

Maximum Capacity of a Power Plant

Calculate the installed or maximum capacity for a hypothetical project with the following parameters:

Given:

Maximum diversion flow = 100 ft³/s

Average annual diversion flow = 20 ft³/s (during operating season).

Plant operates 10 months per year.

Penstock = 10,000 linear feet and 48-inch diameter.

Gross Head = 400 feet.

Head loss @ 100 ft³/s = 60 feet.

Net head @ max. flow = 340 feet.

Average plant efficiency = 70 percent.

Calculation:

Installed capacity in kilowatts =

$$\frac{(Q)(H)(e)}{11.8} = kW$$

$$\frac{(100)(340)(.70)}{11.8} \approx 2,016 \text{ kW or } 2.02 \text{ MW}$$

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Exhibit 3

Changes in Head

In order to evaluate the monetary effects of locating the proposed structure or powerhouse up or down the stream, calculate the value of 1 foot of head for the hypothetical project, using the givens in exhibit 2 and assuming the selling price to a utility is \$.05 per kWh, as follows (note that relocation distance is measured by the amount of vertical change in feet):

Annual Value:

$$(.70 \text{ eff}) (20 \text{ ft}^3/\text{s}) (1 \text{ ft}) (24 \text{ h/d}) (30.5 \text{ d/mo}) (10 \text{ mo/yr}) ($.05/\text{kWh})$$

$$11.8$$

$$\approx \$434.24/\text{year for 1-foot change in head.}$$

Consider this change in project benefits along with other changes in costs due to changes in penstock length or size of generating equipment, ease of construction, and changes in volume of diversion flow.

The present worth (PW) of a 25-foot change in head for this project over 20 years @ 10 percent interest is:

$$PW = (\text{SPWf of } 10\% \text{ @ } 20 \text{ yrs.}) (\$434/\text{ft.} \times 25 \text{ ft.}) = \$92,372.$$

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Exhibit 4

Hydroelectric Comparisons

Where:

SPWf is the uniform series present worth factor from the formula $SPWf = \frac{(1+i)^n - 1}{i(1+i)^n}$

Where:

i = interest rate

n = number of payments

note: if n is in months, then i must be a monthly interest rate.

60-100 watts = typical light bulb.

1,000 watts = 1 kilowatt (kW).

1,000,000 watts = 1,000 kW = 1 megawatt (MW).

1,000 MW = 1 Gigawatt (GW) = 1 billion watts.

1 Kilowatt-hour (kWh) = 1,000/watt-hours (Wh) = energy consumed by a 100-watt bulb lit for 10 hours.

1 Gigawatt-hour (Gwh) = 1,000 MWh.

1.5 MW = about 2,000 horsepower.

The following information may help to put the units of generated

capacity into perspective:

1. The average home in California uses 15 Kwh/day, or 5,475 Kwh per year.

2. The town of Yreka (population 5,916) consumes 12,500,000 Kwh per year (12.5 Gwh). Discounting peak energy demands, this is equivalent to the power produced annually by a 1.5 MW (1,500 KW) plant (typical small hydro project size).

3. 12.5 Gwh is equivalent to the power produced in a thermal plant burning 21,500 barrels (903,000 gallons) of crude oil per year (42 gallons equals 1 barrel).

4. At \$30 per barrel, the value of 21,500 barrels of oil would be \$645,000 per year.

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1. U.S. Congress, Federal Power Act, 16 U.S.C. 797 and Federal Power Commission, U.S. Government Printing Office, April 1, 1975, stock number 015-000-00324-3.

2. Code of Federal Regulations, Title 18, Chapter 1, U.S. Government Printing Office. (Contains Federal Energy Regulatory Commission rules and regulations.)

3. U.S. Department of Agriculture, Agriculture Handbook 478, National Forest Landscape Management, Volume 2, Chapter 2, "Utilities," 1975.

4. U.S. Department of Agriculture and the Interior Environmental Criteria for Electric Transmission System, 1970. U.S. Government Printing Office, Washington, D.C. 20402, stock number 404-9320-70-2.

5. U.S. Congress, Federal Land Policy and Management Act of 1976, Public Law 94-579 (90 Stat. 2743 - 2794).

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10.5 - Definitions. Federal Energy Regulatory Commission (FERC) regulations define major projects as those projects having an installed capacity greater than 2,000 horsepower (1.5 MW) and minor projects as those with capacities of 2,000 horse-power (1.5 MW) or less. Do not confuse these regulation definitions with references to small hydroelectric projects that are 5 MW or less and may be exempted from licensing or licensed through simplified procedures.

10.51 - Major Projects Greater than 5 Megawatts. A project of this size must undergo the full licensing process. Such projects include: (1) major unconstructed projects, (2) major constructed projects (relicensing), (3) major modified projects, and (4) major projects at existing dams (sec. 10.55).

10.52 - Minor Projects and Major Projects 5 Megawatts or Less (Small Hydro). To qualify as a small hydro, a project may be either (1) a minor project (1.5 MW or less) or (2) a major project that is 5 MW or less. See section 13.2 for additional information concerning minor projects. A shorter environmental report (Exhibit E of the FERC License) is required by FERC for projects 5 MW or less.

10.53 - Preliminary Permits. (Sec. 11).

10.54 - Exemptions. The following types of small hydro projects (sec. 10.52) may qualify for exemption from parts of the Federal Power Act.

1. Small Conduit Hydroelectric Facilities. To qualify as a small conduit hydroelectric project: (1) the conduit must be preexisting for another purpose (irrigation ditch, and so forth); (2) it must be 15 MW or less; and (3) the facilities must be entirely on non-Federal land.

2. Case Specific Exemptions. These projects must be 5 MW or less and must be located at existing non-Federal dams or developable natural water features. This excludes constructing new dams; any new diversion structure must not obstruct the flow to such a degree as to adversely affect the natural water feature. This is the adjusted definition adopted by FERC as a result of the May 10, 1984, ruling by the 9th Circuit Court of Appeals.

3. Exemption Construction. Construction must begin within 2 years of exemption and be complete within 4 years. The applicant must obtain a Forest Service special-use permit within 12 months of exemption for use of National Forest lands.

10.55 - License Types. The Federal Energy Regulatory Commission (FERC) issues licenses to the proponent of a hydroelectric project for the purpose of constructing, operating, and maintaining project works necessary for development of power for a specified period of time. FERC's acceptance of an application for a license withdraws public domain land for power purposes.

1. Major License. This is for projects greater than 1.5 MW. The following are types of major licenses:

a. Initial License. This is the first license issued to any project.

b. New License (Relicensing). This is the license issued to operate a constructed project, although some new construction may take place.

c. Amendment. This modification to a license is issued during the license term to authorize additional capacity or to authorize other additions or other changes that do not involve new capacity.

2. Minor License. This is issued to construct and operate a project 1.5 MW or less (sec. 10.52).

3. Transmission Line License. This license is for a transmission line, not licensed with the project it serves, from the generation point of a licensed project to the service point or point of interconnection.

~~11 - PRELIMINARY PERMIT RULES.~~ Although desirable, a preliminary permit from the Federal Energy Regulatory Commission (FERC) is not necessary. A preliminary permit establishes a priority of application while the applicant performs detailed feasibility studies and prepares the application for exemption or license. This permit does not (1) authorize project construction, (2) authorize entry on National Forest System lands, or (3) commit FERC to the issuance of an exemption or license. The acceptance by FERC of an application for preliminary permit withdraws the Federal lands involved (withdrawal for power purposes) from entry, location, or other disposal. Preliminary permits have a maximum term of 3 years and are not renewable. However, in most cases, an applicant may immediately apply for a new permit when the previous one expires.

After receiving an acceptable application, FERC publishes, in the Federal Register and in a newspaper in the project's vicinity, a Notice describing the project and requesting comments from agencies and the public. Copies of the detailed application are available from the applicant. The Forest Service may make a brief reply, as described in section 53.1.

~~12 - EXEMPTIONS FROM LICENSING.~~ See section 10.54 for types of exemptions.

12.1 - Application for Exemption. The Federal Energy Regulatory Commission (FERC) publishes a Notice in the Federal Register and local newspaper and invites review and comments on applications for exemption found acceptable for processing. If an agency does not comment within 60 days of the notice, FERC assumes that the agency has no comment on, or objection to, the exemption. FERC approves the applicant's proposal as adaptable to a particular site; it does not grant the applicant land-use rights or eminent domain privileges. The exemptee has 2 years from the date of the exemption to begin construction. Any agency may request that specific conditions be included in the exemption order.

12.2 - Special Concerns. The Forest Service special-use authorization is the controlling document on National Forest lands for exempted projects (see sec. 60.3 and sec. 61.51b).

FERC determines the technical adequacy of structures involved on licensed projects. For exempt projects, the Forest Service ensures that a qualified engineer performs a technical review that conforms to Forest Service Manual standards. Structures to review may include pipes, ditches, powerhouses, buildings, powerlines, and so forth. The developer should fund this review if it involves significant costs.

12.3 - Relation of Exempted to Licensed Projects. An exemption from licensing does not withdraw Federal land for power purposes; therefore, an other hydroelectric project or other withdrawal could later replace the exempted project with fair compensation.

A qualifying license or exemption application takes FERC permitting precedence over a preliminary permit application (even if filed after the preliminary permit application, but only prior to the issuance of the preliminary permit). The original applicant for preliminary permit is given the opportunity to change the application for preliminary permit to an application for exemption or license.

An application for license does not have an advantage for authorization by FERC over an application for exemption for an otherwise equal project at the same location. FERC usually grants the license or exemption to the project best adapted to the power capabilities of the site. Rules of municipal preference or the first application received govern essentially equal projects.

13 - LICENSES

13.1 - Application for License. See 18 CFR 4 for Federal Energy Regulatory Commission (FERC) rules for the information required in an application for license. The applicant must file an application for a new license (relicense of an existing project) no sooner than 5 years or later than 3 years prior to the expiration of the original license.

13.11 - Comment Period on Application for License. FERC publishes a Notice in the Federal Register and local newspaper and invites review and comment on acceptable applications for license. For projects greater than 5 MW, the applicant sends copies of the application to affected parties. This starts the 60-day comment [4(e)] period. For projects 5 MW or less, the FERC public notice states where the agencies and public may obtain a copy of the application for license. When the applicant is not directed by FERC to send the Forest Service a copy of the application directly, the 60-day 4(e) comment period is the same as the public comment period stated in the public notice.

13.2 - Short-Form License Application. Applicants for projects 1.5 MW or less may use the short-form application, which requires less information than the regular license application.

13.3 - License Amendment Application. Licensees must obtain FERC approval before changing anything authorized in the license.

Licensees may apply to FERC at any time for an amendment to their existing license.

After FERC accepts the application for amendment, the application is noticed and distributed the same as in section 13.1.

14 - THREE STAGE CONSULTATION PROCESS. FERC requires applicants for license or exemption to consult with appropriate State and Federal agencies before making an application to FERC for license or exemption from licensing (18 CFR 4.38). This consultation is conducted in three stages. See section 23.61 for Forest Service procedures within this process.

1. The first stage starts immediately after the applicant obtains a preliminary permit from FERC or, if no preliminary permit is desired, when the applicant has a proposal to be studied. The applicant must contact the agencies so that they can tell the applicant what studies the agency needs to analyze the proposal and what procedures to follow. See details of stage 1 consultation in 18 CFR 4.38(1).

2. The second stage begins after the applicant has completed contacts with the agencies. This stage ends when the applicant has completed the studies and drafted an application for license or exemption. The applicant must supply copies of the draft application to interested agencies and request comments within times specified in 18 CFR 4.38(2)(iv). See details of stage 2 consultation in 18 CFR 4.38(2).

3. The third stage starts when the applicant files an application for license or exemption and ends when FERC has received all the comments. For projects 5 MW or less, the applicant when filing the application with FERC must give copies to the agencies consulted. For projects greater than 5 MW, the applicant gives copies of the application to the agencies after receiving a notice of acceptance of the application from FERC. See details of stage 3 consultation in 18 CFR 4.38(3).

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CHAPTER 20 - FOREST SERVICE PROCEDURES

20.4 - Responsibility. (FSM 2770.4).

21 - RELATIONSHIP WITH THE FEDERAL ENERGY REGULATORY COMMISSION. The Forest Service shall work closely with the Federal Energy Regulatory Commission (FERC) to provide conditions for the license in accordance with section 4(e) of the Federal Power Act.

21.1 - License and Special-Use Authorization. A developer is required to obtain a license or exemption from licensing from FERC pursuant to the Federal Power Act, and to obtain a right-of-way from the Federal Land Management Agency pursuant to the Federal Land Policy and Management Act to construct and operate a project on Federal lands (ch. 60).

Issue investigation special-use permits to authorize investigative work (preliminary permit stage).

Ensure that the project special-use authorization terms do not conflict with the terms of the FERC license. They should be complementary documents; however, the special-use authorization may contain more specific requirements (sec. 71.11).

Use the special-use authorization to administer the project operations as far as applicable and to directly control resource protection during construction. For licensed projects, coordinate all significant actions with the FERC office administering the license.

The applicant is responsible for the environmental studies and the analysis required for the license application (18 CFR subchapter B, subparts D-H). Use this information to secure compliance with National Environmental Policy Act when making the 4(e) report (sec. 30.41).

21.11 - Changes Needed in License. Only action by the Federal Energy Regulatory Commission (FERC) may change existing license conditions, including project boundaries; FERC will change existing license conditions only after public notice and opportunity for hearings. If the conditions need adjustment, the Regional Forester should send a letter to FERC recommending the change and stating the reason for the recommendation, what the change is expected to accomplish, and the extent of coordination with or agreement by the licensee (sec. 13.3).

21.2 - Forest Service Requirements Affecting Power Production Capability. (FSM 2773.4 and sec. 55.11).

21.3 - Project Boundaries and Withdrawals

21.31 - Resource Management Within Project Boundaries. (FSM 2774.1).

21.32 - Resource Management Within Withdrawals. Until revoked,

areas withdrawn for power development by the Federal Power Act, Act of June 10, 1920, as a result of an application for preliminary permit or license, are reserved for that purpose as the priority use, starting on the date of application. The Federal Energy Regulatory Commission (FERC) has vacated all inactive Federal Power Act withdrawals and will revoke the withdrawals of land for projects when they become inactive by means of the license or permit being denied, revoked, or otherwise terminated. Refer to FSH 2709.14 section 20 for further information concerning Federal Power Act withdrawals.

Proceed with the full range of National Forest System resource activities (including mineral leasing) on Federal Power Act withdrawal areas considered inactive, because the withdrawal has been or will be revoked.

In most cases, defer major long-term investment in Forest Service projects on active withdrawals until the withdrawal is vacated. Except in rare instances, it is not possible to recover that investment if the project is subsequently licensed and displaces the Forest Service project. In deciding whether or not to make other investments in withdrawn areas, take into account the conflicting potential uses of the site. Considering the number of power projects that are either never built or that experience long delays, it might be wise to undertake the investments that can be amortized reasonably before a power project realistically could be completed.

See section 62.52h for information regarding issuing Forest Service permits within various types of withdrawals.

21.4 - Federal Energy Regulatory Commission Inspections. As appropriate, Forest Service representatives should accompany Federal Energy Regulatory Commission (FERC) regional office staff on their annual inspections of project facilities, including recreation developments.

Document any unacceptable conditions or practices in the operation of FERC project facilities that affect National Forest System land. Send a report to FERC identifying the project, clearly describing the location and nature of problems, explaining how the project adversely affects the protection and management of the National Forest, and indicating whether a forest officer will accompany the FERC inspector.

A copy of the letter summarizing the results of the inspection may be requested from the FERC Regional Director.

21.5 - Recreation Management and Inspections. Review and request updates of the licensee's plans for meeting project-induced recreation demand, as needed. Licensees must file a FERC form 80, Licensed Projects Recreation Report, on each project every 4 years unless FERC waives the requirement. Old projects without a recreation plan are not exempt from this review and report.

When additional recreation developments are necessary or there is a need for changes in the existing recreation plan, outline a proposal in a letter to the licensee and request the opportunity to participate in the next scheduled form 80 review or other recreation review. Send a copy of this letter to the FERC

Regional Director. Point out Forest Service concerns relating to recreational development needs during annual FERC inspections of project facilities.

Negotiate directly with the licensee, because this is the most effective way to get the licensee to improve the recreation development; the licensee then applies to FERC for approval of the agreed-to changes.

Where the Forest Supervisor is unable to reach agreement with the licensee on measures for meeting project-induced recreation demands, including development time schedules, take the discussions to the FERC Regional Director and, if necessary, to the Chief. If there is still no agreement, the Chief may take the issue to the Commission Staff.

Another option to ensure the licensee updates the recreation facilities needed is to wait until the licensee applies to FERC for an amendment to the license to develop additional capacity. Then, in the comments sent to FERC, request that FERC require an updated recreation plan from the licensee. If the facilities proposed by the amendment create the need for a new recreation plan, then, the Forest Service can require a new plan by making it a license condition through the 4(e) report.

22 - RELATIONSHIP WITH OTHER AGENCIES

22.1 - Army Corps of Engineers. Proponents of hydroelectric projects must apply to the Army Corps of Engineers for a section 404 permit (dredge and fill). The Corps determines whether or not a permit is necessary. This action is independent of the Federal Energy Regulatory Commission (FERC).

22.2 - Fishery Management Agencies. Coordinate with the U.S. Fish and Wildlife Service and State fish and wildlife management agencies when negotiating instream flow needs for fish, wildlife, recreation, vegetation, or other purposes.

22.3 - Cultural Resources Coordination. Coordinate with the National Park Service, Interagency Archeology Services (must consult on projects greater than 5 MW) and with any State cultural review agencies when a project involves cultural resources. Consult with Native American groups when necessary (36 CFR 296 and FSM 2361).

22.4 - Water Quality. The State manages water quality. The State water quality agency must be involved in the project and FERC requires the applicant to show compliance with the requirements of that agency.

22.5 - State Water Rights. The State manages water rights. The State water right agency may need to be involved. FERC requires the applicant to secure the water rights necessary for the project within 5 years of being licensed. The license gives the licensee the ability to obtain any private rights necessary for the project.

22.6 - Counties. Require the applicant to obtain appropriate permits from the county (for building codes, sanitation, and so forth).

22.7 - Other Federal and State Agencies. Other Federal and State agencies may have an interest in the project depending on its location. Coordinate Forest Service requirements with these agencies.

22.8 - Other Agency Indirect Management of National Forest System Lands. By law, some other Federal as well as State and local agencies have a role in the activities and resources on National Forest System lands (for example, water quality and pesticide use). State and local jurisdictions cannot enforce on Federal lands, any requirements that conflict with the Federal uses or rights granted. However, sometimes their requirements do conflict with National Forest Management (road use, mitigation, and so forth). Establish with other agencies a clear understanding of the Forest Service responsibilities and management requirements and implement cooperative advanced planning with those agencies.

If another agency places a requirement in the developer's permit that is unacceptable to the Forest Service, correct the situation through discussions with the other agency. Where that fails, request action by higher levels.

23 - GENERAL FOREST SERVICE PROCEDURES

23.1 - Exempt Project Controls. (sec. 12.2).

23.2 - Land Management Plans. Forest land management plans should address the potential of hydroelectric development in the various management units. Develop standards and guidelines to provide direction to energy-related development in the management areas (sec. 32.11).

23.3 - Federal Energy Regulatory Commission License Where Special-Use Authorization May Be Denied. This situation should not occur because the Forest Service has the authority under section 4(e) of the Federal Power Act to condition the license and because the Federal Energy Regulatory Commission (FERC) should accept a justified recommendation on interference and inconsistency with National Forest purposes from the Forest Service (sec. 54.4). Only the Chief may make exceptions to this policy. See section 54 for procedures for problem projects.

23.4 - Recreation Planning. Cooperate with the applicant or licensee in the development of project recreation plans when recreation facilities are necessary. The licensee is responsible for construction, operation, maintenance, and replacement of project recreation facilities. Where it is in the Government's interest, the Forest Service may perform the operation and maintenance of facilities on National Forest System land with funds provided by the licensee in accordance with a collection agreement. Do not enter into an agreement that relieves the licensee of the ultimate responsibility for providing the necessary measures to accommodate project-induced recreation. Licensee operation and maintenance may be more appropriate on some projects (FSM 2310).

23.5 - License or Special-Use Authorization Surrender, Termination, or Project Abandonment. Primary Forest Service

concerns relative to closing out a project are:

1. That the developer make suitable arrangements for continued operation and maintenance of the project works unless the project is to be removed. Do not agree to assume this responsibility.

2. That the developer restores the site to an environmentally acceptable condition (sec. 61.52c).

23.6 - Relationship with Applicant. Establish a positive working relationship with the applicant to make it easier to secure acceptable resource impacts. To help establish such a relationship: (1) make early contacts, (2) provide timely input and review, (3) reach agreement on procedures, and (4) assign an individual in the Forest Service to serve as liaison for the project to make contact easier and input more uniform.

23.61 - Preapplication Coordination and Responses. Make the applicant aware of the information needs for the project, such as issues to address, alternatives to investigate, studies to conduct, and other information to collect (sec. 30.43 and sec. 32). The Forest Supervisor or Regional Forester should sign official responses to contacts from the applicant performed under the staged consultation procedures of FERC's process (sec. 14). Define what is to be done as the minimum and leave the way open for the applicant to collect further data as the studies indicate or new situations require. If the applicant makes an application that is insufficient, point out earlier correspondence that detailed what information was necessary.

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24 - TYPICAL ORDER OF EVENTS

24.1 - Timeline Comparison of License and Exemption Processes. See exhibit 1 for a timeline comparison table of the license and exemption processes and the Forest Service steps within those processes. See sections 32.41, 32.53b, 52.11, and 54.43 for procedural adjustments if an EIS is necessary.

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EXHIBIT 1 IS A SEPARATE DOCUMENT

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24.2 - Typical Order of Events for Licensed Project. Exhibit 1 shows a typical order of events for a licensed project. All Forest Service steps are at the forest level unless otherwise noted.

Exhibit 1

Typical Order of Events for a Licensed Project

1. Proponent conceives a project.
2. Proponent may consult with the Forest Service (optional but much preferred).

APPLICATION FOR PRELIMINARY PERMIT

3. Proponent may make an application for preliminary permit to the Federal Energy Regulatory Commission (FERC) (optional).
4. FERC sends out notification of application for preliminary permit (cc to W.O. and R.O., and other agencies).
5. The Regional Forester responds with letter stating that National Forest resources may be affected and asking FERC to require the applicant to contact the Forest Supervisor to obtain a special-use permit (sec. 53.1).

6. FERC issues preliminary permit (routinely done, seldom denied).

STAGE 1 OF FERC CONSULTATION PROCESS BEGINS (CONTACTS)

7. The applicant sends the details of the proposal (to the extent known) to the agencies. The applicant applies to the

Forest Service for an investigation special-use permit (sec. 61.51a).

8. The Forest Service should scope project (determine issues of proposal along with the needs for public involvement) to determine what is important for the applicant to study, and what the Forest Service will evaluate, as well as what skills are necessary for the project interdisciplinary team (sec. 32.1, sec. 32.2, and sec. 32.3).

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Exhibit 1 - Continued

9. The Forest Service should prepare a preliminary concerns letter (documentation of issues and guidance for environmental analysis) and send it to the applicant (sec. 30.43 and sec. 32.1).

10. Applicant obtains an investigation memorandum of understanding and/or special-use permit from the Forest Service. Remember: (a) do not authorize use with potential for resource disturbance without a special-use permit (sec. 61.51a); (b) cultural resource investigation by the applicant or consultant requires a Cultural Resources special-use permit; (c) if used, a memorandum of understanding with the applicant could address coordination and study requirements, and identify at what point a special-use permit is required (sec. 41.3).

STAGE 2 OF FERC CONSULTATION PROCESS (STUDIES)

11. Usually, the applicant conducts an engineering and economic feasibility study first and then studies specific locations and facilities. The Forest Service may review and comment on the feasibility study. The Forest Service works closely with the applicant to ensure that the project develops in a logical manner and considers a full range of alternatives. Public scoping is conducted as necessary (sec. 32.2). Frequent consultation with other affected agencies is important at this stage, especially with State and Federal fish and game agencies, and with State water agencies.

12. Negotiations on and development of the recreation plan and other needs begin and may continue through step 28 as necessary.

13. Applicant prepares a draft of the license application as part of stage 2 of the FERC consultation process. This should also be the application for special-use authorization.

14. If a project gets to this stage, plan on the applicant filing an application for license. The Forest Service implements full interdisciplinary team involvement and appropriate public involvement. The Forest Service updates and verifies the issues, and conducts an interdisciplinary review of the applicant's environmental analysis and report, following the

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Exhibit 1 - Continued

environmental analysis procedures outlined in 40 CFR 1500 and FSM 1950. This will ensure that the environmental procedures are adequate for the decisions concerning what 4(e) and special-use authorization conditions are necessary for the project (sec. 32.2 through sec. 32.4).

STAGE 3 OF FERC CONSULTATION PROCESS (APPLICATION)

15. Applicant makes application for license to FERC, and applicant applies for a Forest Service special-use authorization to begin stage 3 of the FERC consultation process (sec. 61.3).

16. FERC reviews the application for compliance. If the application complies with the appropriate regulations, FERC accepts the application for processing and the applicant or FERC notifies the Forest Service, and FERC makes public notice of the application for license. Note that if the application is found deficient, FERC sends the applicant a deficiency letter. An applicant can be asked by FERC to provide additional information not specifically required by FERC regulations.

17. The Forest Service conducts an interdisciplinary review of the applicant's environmental analysis contained in the environmental report of the application (sec. 32). Public contacts may be appropriate here. The Forest Service appropriately documents or approves the documentation of the analysis as the basis for step 18 (sec. 32.5 through 32.7).

18. The Forest Service responds to FERC (sec. 52). The 4(e) report identifies the recommendation of the project's compatibility with National Forest purposes. If compatible, it also states (1) the decision as to the 4(e) conditions, and (2) the decision that the Forest Service will issue a special-use authorization if the project is licensed. These decisions are deferred to step 21 if an environmental impact statement (EIS) is necessary. Note: See section 54 for actions if the project is inconsistent or would interfere with National Forest purposes.

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Exhibit 1 - Continued

FERC PROCESSING

19. As FERC continues to process the application for license, there may be further negotiations with the applicant who may make corrections or amendments to the application.

These may require further environmental review by the Forest Service.

20. FERC prepares its environmental document. The Forest Service should become a cooperating agency if an EIS is necessary

(sec. 30.42 and 53.43).

21. If FERC prepares an EIS, the Forest Service submits its 4(e) report with the license conditions after the EIS is completed (these conditions should have been initially shown as part of the EIS). This is the decision step for 4(e) and special-use-authorization conditions (sec. 54.43 and sec. 32.6).

APPROVALS AND PERMITS

22. FERC issues or denies the license. There may be a delay here if FERC takes no action. The license, if issued, becomes effective the first day of the month of issuance. The license issuance may be appealed within 30 days, but only by the applicant or by official intervenors.

23. The licensee applies for permits as necessary; water rights, Army Corps of Engineers, fish and game, water quality, and so forth. Except as specified by these agencies, the licensee may apply for these permits at any time, usually near the time of license application.

24. The Forest Service determines if any changes in the EA are needed based on the FERC order or environmental documents, or on changes to the license application. If the EA is substantively changed, the Forest Service issues a revised decision notice (sec. 30.43).

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Exhibit 1 - Continued

DESIGN

25. Licensee works on detailed plans and specifications.

26. The licensee supplies these plans early enough for the Forest Service to make an adequate review (sec. 62). The Forest Service reviews and approves these plans.

27. The Forest Service reviews and comments on or approves technical aspects of the project including design plans, site plans and specifications affecting surface resources. Remember: (a) do not duplicate acceptable technical reviews made by FERC and other agencies; (b) review each draft as things which previously were acceptable may be changed as corrections are made (sec. 61.8).

28. The Forest Service issues a special-use authorization for construction (sec. 61.51c) (only after FERC issues a license). The special-use authorization includes environmental plans. As conditions dictate, the special-use authorization may be issued as early as step 25.

CONSTRUCTION

29. Licensee starts construction. Forest Service and FERC monitor and control through special-use authorization and license

respectively. The Forest Service, FERC, and the licensee maintain continual on-the-ground coordination. Note: Forest Service coordination and inspections may be at the licensee's expense; however, this must be specified in advance, in a collection agreement.

Coordination includes:

- a. On-the-ground layout, clearing limits, and road location.
- b. Changes (licensee may need to apply for an amendment).
- c. Environmental monitoring.

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Exhibit 1 - Continued

- d. Unforeseen disasters, such as spills and impacts missed in the reviews.
- e. Fire inspections, plans, and permits.
- f. Blasting coordination (permits required).
- g. Administration of the special-use authorization.

Note: Other agency regulation of construction activity is usually minimal and the Forest Service should keep other concerned agencies informed on project status.

Note: The Forest Service shall not supervise or direct any construction activity.

- 30. Forest Service and FERC approve constructed project.

OPERATION

- 31. The Forest Service removes construction stipulations from current authorization.

32. The Forest Service and licensee work together on project operation during life of project (road maintenance, vegetation control, powerline maintenance, winter road use, recreation management). Forest Service administers special-use authorization with an awareness of license articles to ensure that the licensee also is meeting both.

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24.3 - Typical Order of Events for Exempted Project. The steps for an exempted project are similar to a licensed project, except that the Forest Service generally does not complete a full environmental review before the Federal Energy Regulatory Commission issues the exemption. The Forest Service manages project development through the special-use authorization. Exhibit 1 shows a typical order of events.

Exhibit 1

Typical Order of Events for an Exempt Project

STAGE 1 OF FERC CONSULTATION PROCESS BEGINS (CONTACTS)

1. Proponent conceives a project and consults agencies. Proponent could apply for a preliminary permit and follow steps shown in steps 1 through 6 of exhibit 1 section 24.2.

2. Proponent applies to Forest Service for investigation special-use permit (sec. 61.51a). The Forest Service scopes the project to determine preliminary issues of the proposal along with the needs for public involvement (sec. 32.1 and sec. 32.2). The Forest Service identifies the project interdisciplinary team (sec. 32.3), and documents the preliminary issues in a preliminary concerns letter to the applicant. Note: Scoping is not complete until appropriate public involvement is completed (sec. 32.1).

STAGE 2 OF FERC CONSULTATION PROCESS (STUDIES)

3. Applicant completes studies and prepares draft application for exemption and consults agencies. (Note: Consultation should be adequate so final project is similar to final application). Forest Service may do cursory or complete analysis of the project, depending on its sensitivity. If cursory analysis is done, the complete analysis must be done by step 13.

STAGE 3 OF FERC CONSULTATION PROCESS (APPLICATION)

4. Applicant makes application for exemption from licensing to the Federal Energy Regulation Commission (FERC) and an application for special-use authorization to the Forest Service (sec. 61.3).

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Exhibit 1 - Continued

5. FERC sends out notification of the application for exemption after finding the application acceptable as in the case of a license application.

6. The Forest Service reviews the applicant's environmental analysis in the environmental report of the application.

7. The Regional Forester responds to FERC with a letter stating the agency position and concerns, if any, and asking FERC to advise the applicant to contact the Forest Supervisor for a special-use authorization (sec. 53.2). This is not a 4(e) response.

FERC DECISION

8. The applicant obtains Exemption from Licensing, which contains, as a minimum, the five standard articles found in FERC Order 106 (sec. 55). Article 5 requires the applicant to obtain a special-use authorization and Article 2 requires compliance with any Fish and Wildlife management agency requirements. FERC sends the Forest Service the environmental assessment used in exempting the project.

9. The exemptee must obtain an investigation memorandum of understanding and/or special-use permit from the Forest Service (usually done by step 2) for investigations on National Forest System land. Cultural resource investigations by the exemptee or consultant require a cultural resources special-use permit. If used, an investigation memorandum of understanding is intended to establish coordination and study requirements and to define when a special-use permit is required (sec. 41.3).

10. The Forest Service works with the exemptee to ensure that the project develops in a logical manner; uses an interdisciplinary team to evaluate proposals as they develop; and keeps public involvement an ongoing process.

11. If not done at step 4, the exemptee makes an application for special-use permit.

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Exhibit 1 - Continued

FOREST SERVICE ANALYSIS AND DECISION

12. The Forest Service conducts an environmental analysis (review) on actual special-use permit application. Public contacts may be appropriate here also (sec. 32.4).

13. The Forest Service ensures the proper documentation of the analysis (sec. 32.5) and issues a decision (sec. 32.6) before the next Forest Service steps.

14. The exemptee applies for other permits (Army Corps of Engineers, fish and game, water quality). Except as specified by these agencies, the exemptee may apply for these permits at any time. Exemptee must have a valid water right at the time of application for exemption, and before starting construction under the Forest Service special-use authorization.

DESIGN

15. The exemptee works on detailed plans and specifications.

16. The exemptee must supply plans and other information early enough for the Forest Service to make an adequate review (sec. 62). The Forest Service reviews and approves plans.

17. The Forest Service reviews and approves all technical aspects of the project, including design plans, site plans, and

specifications; however, acceptable technical reviews made by consultants and other agencies may be substituted. Note: Review each draft because things, which previously were acceptable, may be changed as corrections are made (sec. 12.2 and sec. 61.81).

18. The Forest Service issues a special-use authorization including construction stipulations (sec. 61.51b) (only after FERC grants an exemption). This includes the environmental plans previously prepared.

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Exhibit 1 - Continued

CONSTRUCTION

19. The exemptee starts construction. The Forest Service monitors and manages through special-use authorization. The county, where required, may inspect construction through a building permit. Note: (a) continual on-the-ground coordination is essential especially in early stages; (b) Forest Service inspection and coordination may be at exemptee's expense if covered in a collection agreement.

Coordination includes:

- a. On-the-ground layout, clearing limits, and road location.
- b. Changes.
- c. Environmental monitoring.
- d. Unforeseen disasters such as spills and impacts missed in the reviews.
- e. Fire inspections, plans, and permits.
- f. Blasting coordination.
- g. Administration of special-use authorization clauses.

Note: Other agency regulation of construction activity is usually minimal and the Forest Service should keep other concerned agencies informed on project status.

Note: The Forest Service shall not supervise or direct any construction activity.

-
20. Forest Service approves a constructed project.
 21. The Forest Service removes construction stipulations from the current authorization.
 22. The Forest Service and exemptee work together on project operation during the life of the project (road maintenance, vegetation control, powerline maintenance, winter road use, recreation management).

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24.1-Exhibit 1

TIMELINE COMPARISON OF LICENSES AND EXEMPTIONS
FOR PROJECTS NOT REQUIRING AS EIS

COMMON TIMELINE

AFPP
FERC Notice
FS Response (critical items)

STAGE I

Application for Investigation SUP
FS Scoping (issues, pub. invol. needs, study needs, alts.)
Investigation SUP Issued

STAGE II

Feasibility, Studies, Scoping, Public Invol.,
Alternatives, Consultation, Conceptual design

SEPARATE TIMELINE COMPARISONS

APPLICATION FOR LICENSE

APPLICATION FOR EXEMPTION

STAGE II CONTINUED

Draft AFL / AFSUA
Detailed FS IDT Review
Response to Applicant

Draft AFE / AFSUA
Brief of Detailed IDT Review
Response to Applicant

STAGE III

AFL / AFSUA
Notice

AFE / AFSUA
Notice

Formal FS IDT Analysis
4(e) Preparation
Comments
EA / DN / FONSI
(unless CE)
Consistency Recommendation /
SUA Decision
License Conditions

FS IDT Analysis for Recommendation
to FERC
FS Response to FERC on Critical
items
FS May Defer Detailed Review
Until SUA Process

POST STAGE III

FERC Analysis of information
completed
FERC License Decision(w/EA etc.)
FS ACTION
No Decision (already made)
Issue SUA

FERC EA With FS Input
FERC Exemption Decision
FS ACTION
Use FERC EA
Use AFSUA

Do or Finalize analysis
Verify Documentation
Issue EA, DN, FONSI
Issue SUA

CONSTRUCTION

CONSTRUCTION

KEY OF TERMS IN TIMELINE COMPARISON CHART

AFPP - application for preliminary permit
FERC - Federal Energy Regulatory Commission
FS - Forest Service
SUP - special-use permit
pub. invol. - public involvement
alts. - alternatives
AFL - application for license
AFE - application for exemption
AFSUA - application for special-use authorization
IDT - interdisciplinary team
EA - environmental assessment
DN - decision notice
FONSI - finding of no significant impact
CE - categorical exclusion
SUA - special-use authorization

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CHAPTER 30 - ENVIRONMENTAL PROCESS

30.3 - Policy. Follow the environmental policy and procedures in FSM 1950 and FSH 1909.15 when (1) developing license conditions under section 4(e) of the Federal Power Act, (2) making recommendations concerning project consistency with National Forest purposes, and (3) deciding whether or not to issue a special-use authorization. Conduct an environmental analysis before sending a 4(e) report and making its associated decisions and before issuing a special-use authorization for an exempt project or for investigation. Ensure that the analysis is appropriately documented.

Because section 4(e) of the Federal Power Act (16 U.S.C. 797(e)) provides that license conditions provided by the Forest Service for a hydropower project through the 4(e) report must be included in the license issued by the Federal Energy Regulatory Commission (FERC), base license conditions on environmental analysis, including appropriate public involvement to ensure that issues are addressed and that interested and affected parties are informed.

30.4 - Responsibility

30.41 - Applicant Responsibility. When projects include National Forest System lands, applicants shall apply for Forest Service special-use authorizations at the same time they submit their applications for license or exemption to FERC (sec. 61.3). With the application for special-use authorization, applicants shall supply the information necessary for an environmental analysis, including a complete disclosure of a reasonable range of alternatives and an objective disclosure of the environmental impacts (sec. 54.6).

The applicant should adjust its application for license to FERC so that it contains the information necessary for both the FERC license application and the Forest Service special-use application. In this manner the applicant can reduce the total paperwork.

30.42 - Relationship to Federal Energy Regulatory Commission Responsibility. Because the Federal Energy Regulatory Commission (FERC) has the primary responsibility for National Environmental Policy Act requirements on nonexempt projects, FERC decides whether or not to prepare an environmental impact statement (EIS). FERC makes this decision after consultation with affected agencies. Usually, FERC is the lead agency and the Forest Service a cooperating agency when the project involves National Forest System lands. Unresolved disputes over the need for an EIS should be brought to the attention of the Chief and may have to be resolved with the aid of the Council on Environmental Quality.

30.43 - Forest Service Responsibility. If documentation is completed by the applicant or contractor (40 CFR 1506.5), the Forest Service must independently evaluate it and take

responsibility for the scope and content. Review any information available from FERC about the project. Follow the environmental responsibilities shown in exhibit 1. Supply the applicant with the information outlined in sec. 32.1.

If an EIS is necessary, enter into an agreement outlining the responsibilities of and relationships between the participating Federal agencies.

Using an interdisciplinary team, analyze changes in the proposal resulting from negotiations made after the application for license/special-use authorization and prepare appropriate updated environmental and decision documents as necessary.

EXHIBIT 1 IS A SEPARATE DOCUMENT

31 - GENERAL PROCEDURES

31.1 - Interagency Coordination. Coordinate the environmental reviews of the project with interested local, State, and other Federal agencies. State fish and wildlife management agencies and agencies of the Department of the Interior are usually the involved agencies.

31.2 - Cumulative Impacts. See section 05, and 40 CFR 1508.7 and 1508.25 for cumulative impact definitions and relevant information. Consider the possibility of cumulative effects in the analysis of all projects. Where the effects on the human environment may be significant, recommend to the Federal Energy Regulatory Commission (FERC) that an environmental impact statement (EIS) address them.

In general, evaluate the potential and magnitude of cumulative impacts on a project-by-project basis. Include impacts of past, present, and reasonably foreseeable actions. Note that potential impacts may not have any net effects to accumulate if fully mitigated in the development of the alternatives. Note that if someone is currently studying a project, it may be considered reasonably foreseeable. Also remember that FERC is the primary agency that authorizes a hydroelectric project and, therefore, will be responsible for an EIS if one is necessary.

The following situations may be encountered in a cumulative impact analysis:

1. If the analysis of cumulative impacts shows that the cumulative impact of the existing, proposed, and reasonably foreseeable projects does not indicate a significant cumulative impact, then an EIS will not be necessary to evaluate cumulative impacts.

2. If the analysis of cumulative impacts of the proposed project, as well as impacts from existing projects, indicates that the cumulative impacts do not to reach a significant level, but the analysis indicates that the foreseeable projects may cause a significant impact, then advise FERC of this potential and disclose it in the environmental assessment. However, an EIS will not be required to complete the Forest Service 4(e) report.

3. If the analysis of cumulative impacts of the proposed project, as well as impacts from existing projects, indicates a significant cumulative impact, then an EIS will be necessary before the Forest Service can complete the 4(e) report (sec. 54.43).

4. If the analysis of cumulative impacts from existing projects indicates a significant cumulative impact already exists, then an EIS will be necessary before the Forest Service can complete the 4(e) report unless the impacts of the proposed project were fully mitigated in the development of the alternatives.

The cumulative impact analysis may treat independent projects individually as shown in items 1-4. However, consider dependent projects together in a cumulative impact analysis, regardless of whether all the projects have been applied for at the time of the analysis. A dependent project is one that must be followed by future projects to make that initial project economically feasible. For example, Project A with its 6-mile long transmission line could be built without significant impacts on the quality of the human environment; however, the expense of that transmission line is only economically justified if projects B, C, D, and E also are built and share the transmission line, making it economically feasible. If the combination of projects may have a significant impact, then an EIS must be prepared before project A is authorized.

31.3 - Special Studies. FERC regulations make the studies that are necessary for the environmental analysis the financial responsibility of the applicant and usually are not done by the Forest Service or FERC. The Forest Service must independently evaluate the special studies submitted by the applicant and is responsible for its accuracy. Assist the applicant in the development of study plans by outlining the types of information required, such as data collection methods, standards, and locations, and then by monitoring procedures in the study.

31.31 - Instream Flow Determinations. Notify FERC and the applicant when an instream flow quantification is necessary. The Forest Service is responsible for making the final instream flow determination for Federal reserved water rights on National Forest System lands for the maintenance of favorable conditions of streamflow under the Organic Administration Act (1897); and for multiple use under the Multiple-Use Sustained Yield Act (1960).

The applicant is responsible for the the studies and must conduct them cooperatively with fish and wildlife management agencies. The applicant must submit study plans for Forest Service approval before beginning such studies to determine if the proposed procedures will supply information which the Forest Service needs to evaluate the instream flow requirements.

32 - ENVIRONMENTAL ANALYSIS AND DOCUMENTATION

32.1 - Scoping. Regulations for implementating the National Environmental Policy Act require the Forest Service to determine the scope of a project to guide the environmental analysis. Have the applicant supply the details on the nature and complexity of

the project when the applicant applies to the Forest Service for an investigation special-use permit (sec. 30.41 and sec. 61.51a). Additionally, FERC requires the applicant to provide this information to agencies during stage 1 of the FERC consultation process (sec. 14).

Develop and evaluate a preliminary list of issues and determine the scope and intensity of analysis needed for the proposal to guide the applicant's study and to guide the Forest Service in its independent evaluation of the analysis and documentation (FSM 1950, FSH 1909.15, and 40 CFR 1501.7). Determine these preliminary issues along with the extent of public involvement needed (sec. 32.2), through an interdisciplinary team; document these issues in a preliminary issues report and send it to the applicant. Determine the substantive issues for the environmental analysis to consider in depth, by adding the issues obtained in the public involvement process to the preliminary issues list. Refer to section 31.3 for studies which may be necessary. Supply the applicant with a suggested format for the environmental report so that the environmental report can be used directly as the appropriate environmental document, as necessary. If the applicant's environmental report is not satisfactory for direct use by the Forest Service, follow the procedures of section 54.6. Refer to section 23.61 concerning preapplication consultation.

32.11 - Basis of Forest Service Concerns (Forest Plan). Use the forest plan as one of the key sources of information early in the scoping process. The land management designation, emphasis, and management standards and guidelines must be known to adequately determine management concerns and to guide the development of a project that will be compatible with the management of the National Forest.

32.2 - Public Involvement. Ensure adequate public involvement before authorizing the project. Public involvement needs may range from simple contacts with potentially interested or affected persons to formal public meetings. Refer to FSM 1620 and FSH 1609.13 for public involvement procedure instructions.

For each project, prepare a public involvement plan that may range from a simple paragraph in a scoping report to a complex separate plan as appropriate to the project (FSH 1609.13 and FSH 1909.15 ch. 10). Based on the sensitivity of the issues involved, the Forest Service or other State or Federal agency usually should conduct the public involvement activities with assistance from the applicant. If the applicant is to perform public involvement activities, instruct the applicant on how to conduct such activities and closely monitor the procedure. Ensure that the Forest Service is represented at any scoping meetings held by the applicant.

Document and analyze public comment as appropriate (FSM 1620 and FSH 1609.13).

1. All Licensed Projects. Begin public involvement activities before or at the time the applicant provides the draft application for license (stage 2 of the FERC consultation process, sec. 14 and sec. 23.61); this allows more time for the 4(e) report with its associated decisions, and public comment

before the official time period ends.

2. Licensed Projects Requiring an Environmental Impact Statement. Cooperate with FERC to determine the amount and type of additional public involvement necessary, commensurate with the complexity of the analysis typical of an EIS.

3. Exempt Projects. Determine, during initial review of the proposed exempt project (initial scoping, sec. 32.1), the kind of public involvement activities required and the extent to which the applicant may conduct them.

32.3 - Interdisciplinary Teams and Process. Use an interdisciplinary (ID) team to analyze hydroelectric project impacts (40 CFR 1502.6). Identify an ID team based on the critical issues of the project. Request the aid of other nonteam specialists as necessary in the project evaluation.

The Forest Service ID team should function in a true interdisciplinary manner so that it is possible to objectively evaluate the impacts of proposals, mitigations, and tradeoffs on other resources.

In assigning interdisciplinary teams, consider the following:

1. Scoping. Determine the scope of a project (issues, depth of study, and so forth) by using specialists from all resource areas possibly affected by the proposal.

2. Environmental Analysis. After scoping, consider selecting a smaller ID team to perform the independent environmental analysis of the applicant's data and proposal. Consider the critical issues of the proposal in selecting this smaller team.

3. Project Planning. After the environmental analysis is complete and the specific project planning and design begins, determine if an ID team is necessary to review specific plans.

4. Project Monitoring. Determine if an ID team is necessary for monitoring construction and for analyzing finer details of the project in order to ensure adequate coordination of those details.

32.4 - Environmental Analysis. Ensure that the environmental analysis assesses the nature and significance of the physical, biological, social, and economic effects of a proposed action and its reasonable alternatives. Do not confuse the environmental analysis with the environmental document which discloses the results of the analysis. The detailed environmental analysis takes place after the initial scoping phase, when the applicant makes specific detailed project proposals for Forest Service consideration (FSH 1909.15). Environmental analysis should be an on-going process throughout project development to ensure that the application for license or exemption, and the associated application for special-use authorization, are compatible with National Forest resource needs (sec. 30.43).

32.41 - Timing of the Environmental Analysis. For projects without significant environmental effects, the Forest Service

must complete its environmental analysis and appropriate documentation before the Federal Energy Regulatory Commission's (FERC) final analysis, because the Forest Service must respond with a 4(e) report before FERC acts on the license application or completes its environmental analysis. Do not rely solely on FERC or the applicant for the environmental analysis. If the initial analysis for a licensed project indicates that an EIS is necessary, then a joint analysis will be performed with FERC before making any decisions (sec. 32.53b, sec. 52.11, and sec. 54.43).

Exhibit 1 shows the environmental analysis and decisionmaking process for the period between the application for license and the 4(e) report. Review the diagram considering the information in sections 32.4, 32.5, 32.6, and 54.

SEE PAPER COPY FOR EXHIBIT 1

□32.42 - Depth of the Environmental Analysis. The depth of the analysis depends on the actions or responsibilities that will follow the analysis.

1. For Projects with Applications for License. Perform an analysis in enough detail to determine necessary license and special-use conditions and to make a recommendation to FERC as to whether the project will interfere or be inconsistent with purposes for which the National Forest was created or acquired (section 4(e) report). If the recommendation to FERC is that the project is compatible and consistent with National Forest purposes, the recommendation also indicates that the Forest Service will issue a special-use authorization if FERC licenses the project. The Forest Service can mitigate effects through the 4(e) conditions it requires in the license and in the special-use authorization. See section 54.41 for procedures for applications for license for incompatible projects.

2. For Projects with Applications for Exemption. Conduct an initial limited analysis when the the proponent makes application for exemption to FERC, in order to determine if there are any obvious reasons why the Forest Service should not issue a special-use authorization. When FERC issues the exemption and its environmental assessment and the Forest Service receives an application for special-use authorization, review FERC's analysis and conduct an analysis to determine whether or not the Forest Service should permit the project and what clauses the Forest Service should include in the special-use authorization.

3. For Projects with Applications for Preliminary Permits. Determine if a project in that location is forbidden by law or if there are any other significant constraints that limit the applicant's ability to investigate the project.

4. For Projects with Applications for Investigation Special-Use Permits. Determine the effects of the proposed studies and of reasonable alternative methods of obtaining the required data when environmental impacts are involved.

32.5 - Environmental Documentation Requirements. Based on the

significance of the results of the environmental analysis, determine if it is permissible to categorically exclude the action from documentation or if it is necessary to document the action in an environmental assessment or environmental impact statement.

If not categorically excluded from documentation, base documentation for all special-use authorizations and 4(e) reports on the Forest Service independent environmental analysis of the environmental information supplied by the application for special-use permit (sec. 61.3 and sec. 30.41).

The authority in 40 CFR 1506.5 allows the applicant to prepare an environmental assessment upon agency approval and if the agency does an independent analysis.

An applicant may not prepare an environmental impact statement (EIS) (40 CFR 1506.5); see 40 CFR 1506.2 for exceptions. Usually the lead agency or a consulting firm contracted by that agency prepares the EIS. FERC regulations and the regulations in 36 CFR 251.54(e)(3-5) require the applicant to supply complete information and analysis necessary to prepare an environmental document.

Regardless of who prepares the documentation, it should:

1. Present facts and evidence concerning the effects that the proposed project facilities or operations will have on National Forest management or resources.
2. Present a range of reasonable alternatives and the environmental effects thereof.
3. Determine project compatibility with the National Forest purposes and with the forest plan (sec. 54).
4. Provide a basis for inclusion of the conditions in the license (4(e) report) (sec. 55.1) and in the special-use authorization (sec. 55.11 and ch. 70).
5. Provide a basis for the initial input to the FERC environmental impact statement, if an EIS is necessary.

32.51 - Documentation for an Investigation Permit. Use standard environmental analysis and documentation procedures (FSH 1909.15).

32.52 - Documentation for an Exemption. Use standard environmental analysis and documentation procedures (FSH 1909.15). The documentation choice for the Forest Service may range from (1) adopting the FERC environmental analysis; to (2) telling the applicant where work is deficient and directing the applicant to make the corrections; to (3) the Forest Service preparing its own documentation.

32.53 - Documentation for the 4(e) Report

32.53a - When an Environmental Impact Statement is Unnecessary. If the project does not have a significant impact on the quality of the human environment as it relates to National Forest System

lands, base documentation on the results of the environmental analysis conducted for the applications for license and special-use authorization. The environmental document should consist of the applicant's environmental report and Forest Service comments on it. Those comments would serve to correct any inaccuracies noted in the document provided by the applicant. In addition, the comments may add any other issues, alternatives, impacts, and mitigation deemed necessary to the analysis. If the environmental information supplied by the applicant is insufficient for the Forest Service to use, inform FERC and the applicant as noted in section 54.6.

32.53b - When an Environmental Impact Statement is Necessary. If the proposed project may have a significant impact on the quality of the human environment as it relates to National Forest System lands, it is necessary to prepare an environmental impact statement (EIS) before responding with a 4(e) report containing conditions or making a recommendation concerning the project's compatibility with National Forest purposes. In that case inform FERC, in the initial 4(e) report, that there are significant impacts and request designation as a cooperating agency. Prepare the 4(e) report containing conditions after issuance of the final EIS and record of decision (sec. 52.11 and sec. 54.43).

32.6 - Decision Documents. The following Forest Service actions in response to procedures conducted by the Federal Energy Regulatory Commission (FERC) shall have decision documents as noted.

1. Investigation Special-Use Permit. If not categorically excluded from documentation, issue the decision notice or record of decision before issuing or denying an investigation special-use permit.

2. Project with Application for License. The decision document prepared for the 4(e) report, issued in response to an environmental analysis of an application for license to FERC and a concurrent application for special-use authorization to the Forest Service, contains two decisions:

a. The first dictates what conditions the license must include to protect the National Forest reservation.

b. The second states that the Forest Service intends to issue a special-use authorization if FERC licenses the project. It also discloses the conditions anticipated to be part of that special-use authorization. The issuance of the authorization is not a discretionary act on the part of the Forest Service for a project that is consistent with National Forest purposes. See section 54.4 for procedures for projects that are not consistent with National Forest purposes.

Restate the decision in the 4(e) report cover letter (sec. 52.21). If an environmental impact statement was necessary, issue a separate record of decision according to the procedures in FSH 1909.15 section 47 (sec. 32.53b). If an environmental assessment was prepared, issue a decision notice and a finding of no significant impact (sec. 32.7).

3. Exempted Project. In the Forest Supervisor's decision

issued following an environmental analysis in response to an application for special-use authorization for an exempted project, indicate whether the Forest Service will issue a special-use authorization to the exempt project and the conditions of that authorization, if issued.

32.7 - Finding of No Significant Impact. Except for actions that are categorically excluded, prepare a finding of no significant impact (FONSI) to support any decision document listed in section 32.6 that is not supported by an environmental impact statement (EIS). The FONSI may be part of the decision notice.

32.71 - Finding of No Significant Impact for 4(e) Conditions. If the effects of the conditions themselves do not allow a significant impact on the quality of the human environment on National Forest System land, prepare a FONSI. Attach the FONSI to the 4(e) report given to the Federal Energy Regulatory Commission (FERC).

If significant effects on the quality of the human environment on National Forest System land would result from the Forest Service's proposed conditions, an EIS is needed (a FONSI is inappropriate). See sections 32.53b, 52.11, and 54.43 for procedures.

With or without a FONSI, provide FERC with the Forest Service recommendation as to whether the project would not interfere or be inconsistent with the purpose for which the National Forest was created or acquired. The Forest Service may postpone the recommendation until after the EIS (if one is to be prepared), if the EIS information would influence that recommendation.

32.72 - Verification of the Finding of No Significant Impact. Often the FONSI conclusions are based on the prediction that no significant impact on the quality of the human environment is likely to occur because the plans called for provide adequate mitigation of those impacts. When approving plans prior to construction, verify that the impacts allowed by the implementation of those plans do not constitute a significant impact (sec. 61.81).

32.8 - Appeals. Forest officers must handle unavoidable conflicts expeditiously with the advice of legal counsel. See 36 CFR 211.18, FSM 1570, and FSH 1509.12 for regulations, policy, and procedures.

Both the decision to issue a special-use permit for project investigation and the decision to issue a special-use authorization for an exempted project are subject to appeal.

Because FERC must include the 4(e) conditions, when they are provided, in any license issued, Forest Service imposed conditions constitute a decision and, therefore, are subject to appeal under 36 CFR 211.18(a). The conditions in the Forest Service special-use authorization are subject to appeal.

The Forest Service recommendation to FERC on interference or inconsistency with National Forest purposes is a recommendation to another agency with the authority over the final decision. The Forest Service action to make this recommendation, therefore,

is not subject to appeal (36 CFR 211.18(b)(3)).

In accordance with 36 CFR 211.18(b)(3)), the Forest Service decision to issue a special-use authorization if FERC licenses a hydroelectric project is not subject to appeal. This is (1) because the policy (sec. 60.3) is that if the Forest Service recommends that a hydroelectric project is not inconsistent or would not interfere with the purposes of the National Forest, then the Forest Service shall issue a licensed project a special-use authorization and (2) because the decision to license a project is solely the determination of FERC. Individuals opposed to project authorization have the opportunity to appeal that authorization through FERC procedures. The appeal period for the 4(e) and the special-use conditions should begin at the same time, because the decisions on special-use conditions are made at the same time as the 4(e) report.

32.81 - Appeals of Decisions Split in Time. There are projects that started before the new procedures were instituted, where a 4(e) report was submitted to FERC but no official decision released specifying that a special-use authorization would be issued. In those cases, if the Forest Service did not object to the issuance of a license, it thereby agreed to issue the project a special-use authorization if FERC licensed the project. If the project has been licensed, then process is complete and the issuance of the Forest Service special-use authorization is not appealable. The Forest Supervisor should still issue an appropriate decision document, but the document should note that an appeal of the issuance of the permit would not be timely.

There is some discretion over the conditions in that authorization, and the decision concerning those conditions is subject to appeal. However, an appeal that is based solely on a condition that is of the type that belongs in the license (such as those affecting economic viability) because it is absent from the special-use authorization is not a substantive appeal and may be appropriately dismissed. It is not appealable because the decision concerning license conditions was made when the 4(e) report was transmitted to FERC, and the Forest Service will not include those conditions that are appropriate only to the license in the special-use authorization.

32.82 - Notification of Appeal Rights. At the time the 4(e) report is officially transmitted to FERC, send a copy of the report to the applicant and others with an expressed interest in it and inform them of their appeal rights. Be specific about what is appealable by using wording such as:

"If you disagree with my decision regarding the license or special-use conditions, you may appeal the matter to the Chief of the Forest Service in accordance with 36 CFR 211.18(c)(1)."

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SEC. 30.43-Exhibit 1

DISPLAY OF ENVIRONMENTAL ANALYSIS RESPONSIBILITIES

Steps	Forest Service Process		Process Where Applicant Is Involved	
	Responsible Official	Interdisciplinary Team	Applicant ¹	Forest Service
I. ENVIRONMENTAL ANALYSIS				
A. Scoping				
1. Identify Purpose and Need	Approve	Responsible	Assist	Responsible
2. Develop Analysis Criteria	Approve	Responsible	Assist	Responsible
B. Collect Data	Review	Responsible	Responsible	Verify
C. Interpret/ Analyze	Review	Responsible	Responsible	Verify
D. Formulate Alternatives.	Review	Responsible	Responsible	Verify
E. Estimate Effects	Review	Responsible	Responsible	Verify
F. Evaluate Alternatives.	Review	Responsible	Responsible	Verify
G. Identify Preferred Alternative (EIS)	Responsible	Recommend	---	Responsible
II. DOCUMENTATION (non-EIS) (sec. 32.5)	Review	Responsible	Responsible	Verify
DOCUMENTATION (EIS)	Review	Responsible	Provide Data	Cooperate with FERC
III. DECISION	Responsible	Recommend	---	Responsible
IV. IMPLEMENTATION/ MONITORING	Responsible	Assist	Responsible	Monitor

¹ Applicant is shown as responsible in this column where permissible; however, the Forest Service is ultimately responsible for independently evaluating the applicant's work or when it does the work itself. Have the applicant perform these tasks in conjunction with the license application (sec. 30.41).

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CHAPTER 40 - PROJECT AGREEMENTS

41 - MEMORANDUMS OF AGREEMENT. A memorandum of agreement (MOA) as sometimes used in the past was defined as a form of memorandum of understanding that was a binding contract that could be enforced through the courts. However, as a result of Supreme Court clarification, the Forest Service has authority, through section 4(e) of the Federal Power Act, to require necessary binding conditions in a license issued by FERC. For this reason, a memorandum of agreement should not be used. Regional Foresters shall not enter into memorandums of agreement without prior approval for the specific case from the Chief. If an MOA is used, it must be supported by appropriate environmental analysis and documentation.

42 - MEMORANDUMS OF UNDERSTANDING. A memorandum of understanding (MOU) documents an agreement that either party can cancel with notice, is not binding, and normally is not enforceable in court. Do not include terms that require enforcement in an MOU. Memorandums of understanding are optional and may be useful in coordinating project development and construction (FSM 1580). However, do not use MOU's to authorize any entry on National Forest land where ground or resource disturbance might occur (roads, equipment, survey clearing, staking, or painting). Only authorize these activities in a special-use authorization.

42.1 - Investigation Memorandums of Understanding (Preliminary Permit Stage). A memorandum of understanding (MOU) at the preliminary stage provides direction and defines coordination needed during the license preparation phase. Include, as appropriate, the following items in an investigation MOU.

1. The circumstances under which the developer needs an investigation special-use permit.
2. The office where the developer is to obtain the special-use permit.
3. Types of resource studies necessary.
4. Liaison establishment.
5. Collection agreement information.

42.2 - Project Memorandums of Understanding. Do not use this type of agreement in place of license conditions submitted to FERC under Section 4(e) of the Federal Power Act or in place of appropriate conditions in the special-use authorization. A project MOU may document other agreements or procedures for the implementation of conditions of the license or special-use authorization and establish criteria, standards, and methods. Appropriate items for inclusion in the project memorandum of understanding might include:

1. Clarification of items that are in the application for

license or exemption.

2. Identification of responsibilities for funding and for operation of recreation facilities, particularly those which are both partially project-induced and partially National Forest responsibilities.

3. Liaison designation and funding.

4. Items of coordination necessary before, during, and after construction.

42.3 - Example Investigation Memorandum of Understanding. See the following exhibit 1 for an example investigation stage memorandum of understanding (MOU).

Exhibit 1

EXAMPLE MOU FOR INVESTIGATION STAGE

MEMORANDUM OF UNDERSTANDING
BETWEEN

THE FOREST SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE
AND
<name of developer>

This Memorandum of Understanding is entered into by and between the Forest Service, United States Department of Agriculture, hereinafter known as "Forest Service," and [], hereinafter known as the "Applicant." <name, number, and location of proposed project> to be known as the "Project."

RECITALS:

1. The Applicant is a private agent that proposes to study, investigate, develop plans, and propose agreements for the construction and operation of hydroelectric power generation facilities.

2. The Applicant has filed with the Federal Energy Regulatory Commission (FERC) for a preliminary permit under the Federal Power Act to occupy lands of the United States within the [] National Forest.

3. The Forest Service is responsible for the administration and protection of National Forest System lands within the boundaries of the [] National Forest. The withdrawal and licensing does not relieve the Forest Service of responsibility for multiple-use management of the resource thereon.

4. The parties hereto, through mutual agreement and cooperation expressed in this Memorandum of Understanding, seek to: inform the project Applicant of Forest Service requirements; define the needs, methods, and standards of the studies to be conducted; enable the Applicant to plan resource damage mitigation at an early stage; incorporate the project into the

Forest Service multiple use concept; enhance forest resources where possible; alleviate impacts to the Forest Service during the course of this study; and encourage consultation with the Forest Service during the study period.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

NOW, THEREFORE, it is mutually agreed by both parties hereto as follows:

1. The Applicant agrees to study the feasibility, locations, topography, streamflow, and requirements for hydroelectric development. Any tests requiring a change of land surface, vegetation removal, construction, sampling, or marking (paint, flagging, staking) must be authorized by a special-use permit from the [] National Forest.

2. The Applicant agrees to apply for a hydroelectric investigation permit for all phases of resource measurement testing, surveying, and topography work performed on National Forest System land prior to commencing work.

□
3. The Applicant agrees to apply for a cultural resource permit for investigation of archaeological, historical, and ethnographic studies research and testing on National Forest System land. Prior to commencing work, the contractors shall submit a written proposal with the special-use permit application.

4. The Applicant agrees to require its botanist responsible for plant surveys to be approved by and obtain a botanical collectors permit from the Forest Service before beginning surveys.

5. The Applicant agrees to fully repair all damage, other than ordinary wear and tear to National Forest roads and trails, caused by the Applicant in pursuit of this study.

6. The Applicant shall designate a liaison to the Supervisors Office to represent the Applicant's interests with the Forest Service. This liaison shall serve as contact person for communications and requests between the Forest Service and Applicant. The Applicant shall report immediately any change in status of the liaison.

7. The Applicant agrees to consult with the Forest Service in preparing mitigation measures for all resource damage caused by the proposed project for both construction and operation stages.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

8. The Applicant agrees to submit any requirements from other agencies to the Forest Service for consideration and information.

9. The Applicant agrees to perform all studies and environmental reviews to fulfill the National Environmental Policy Act process pursuant to issuing the special-use permits required by the construction and operation phases of the project.

10. The Forest Service may request the Applicant to enter into a collection agreement to pay for costs above normal administrative duties for performance of work required by law or policy but not funded by the agency on a time schedule beneficial to the applicant.

11. This Memorandum of Understanding does not preclude any other rights and privileges of others that have been issued by an authorized agency of the United States. It is the Applicant's responsibility to research and understand these previously issued rights and privileges in the project area.

12. This Memorandum of Understanding becomes effective upon execution by both parties hereto.

13. Either party may terminate this Memorandum of Understanding by providing 60 days written notice. Unless terminated by written notice, this Memorandum will remain in force for as long as the preliminary permit issued by FERC remains in force.

/s/
<name>
Forest Supervisor
[] National Forest

/s/
APPLICANT

<name>
Project

<date>
Date

<date>
Date

43 - COLLECTION AGREEMENTS. (FSM 1584 and FSH 1509.11, chapter 70).

43.1 - Purpose. Collection agreements are optional and may be used in both prelicense study and project development stages of a project to cover some of the costs of construction monitoring, detailed planning, studies, reviews, environmental analysis, and liaison. Collection Agreements may be useful to the developer to allow the Forest Service to keep up with their rapidly developing project. Their use allows the Forest Service to facilitate the needs of developers for quick turn-around of information.

43.2 - Procedures. If the Forest Service cannot meet the developer's schedule with current funding and priorities, and when mutually agreed, use a collection agreement to expedite planning and project development for the developer. There is no basis for forcing a developer to enter into a collection agreement.

If a collection agreement appears necessary, discuss the

advantages to the developer of such an agreement. These benefits include allowing timely, early review of the designs, proposals, and construction which could (1) save the developer money by not having to redesign; (2) save the developer money by obtaining ground verification by local experts; and (3) prevent future lengthy and costly time delays for shut-downs if the developer's designs are unacceptable on-the-ground. Our experience has shown that some site plans and environmental mitigation plans are over-designed or mislocated, on numerous occasions and that the Forest Service has saved the developer considerably more money in potential construction costs than the collection agreement cost.

Generally, do not use collection agreements to pay the Forest Service to do the developer's work; however, for the sake of overall efficiency, there may be specific instances where it also would be in the Government's interest to perform some studies at the developer's expense. The developer should hire the appropriate consultants. A collection agreement appropriately could cover Forest Service review of surveys and associated administrative activities.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

Collection Agreements commit us to providing the services we agree to, which may mean adjusting workloads, detailing personnel from other units, or using contracting to meet other targets.

Keep complete records of collection agreement expenditures and periodically report those expenses to the other party to the agreement as specified in the agreement.

Since the developer is paying for special processing to meet its time schedule and not just financing the Forest Service, the Forest Supervisor should be able to show that the people doing the work would be surplus (the work they were doing before is no longer financed) or that the work they would otherwise be doing is being accomplished by other means (contracting, temporaries, new hires, overtime, and so forth).

43.3 - Collection Agreement Content and Examples. (FSH 1509.11 sec. 71.2). The mandatory items which must be part of the collection agreement are:

1. Reference to the law that allows the collection agreement (see opening paragraph of exhibit 1). Note that to use the Granger-Thye Act of April 24, 1950 (16 USC 572) as the authority (FSM 1584.13) for the collection agreement, that the other party must be a permittee of the Forest Service. Also note that if there is no permit, the Department gift authority under 7 USC 2269 may be appropriate.

2. Reference to the project involved (see RECITALS of exhibit 1).

3. The reason for the developer paying for Forest Service involvement rather than the Forest Service using appropriated

funds (see clauses D and E of exhibit 1). Ensure that there is a clear statement that the work is in the public interest and that the developer's needs are the driving force behind the collection agreement (FSH 1509.11, sec. 71.21).

4. Method for transferring funds (see clauses 1 and 2 of exhibit 1).

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

5. Disposition of excess funds (see clause 5 of exhibit 1).
6. Government nonliability clause (see clause 7 of exhibit 1).
7. A time and escape clause (use clause 8 of exhibit 1) .
8. Legal protection clauses (use clauses 9 and 10 of exhibit 1).
9. Signatures and dates.

If improvements to National Forest System lands will be made under the collection agreement, see FSH 1509.11, section 71.23. If amendments are necessary, see FSH 1509.11, section 71.27.

Exhibits 1 and 2 show example collection agreements for investigation and construction, respectively.

Exhibit 1

EXAMPLE COLLECTION AGREEMENT FOR STUDY

COLLECTION AGREEMENT

BETWEEN

[]

AND

[] NATIONAL FOREST, USDA-FOREST SERVICE

THIS AGREEMENT, in accordance with the provisions of the Act of April 24, 1950, (16 USC 572), is made and entered into this <day> day of <month> , <year>, by and between the [] <a corporation, etc.> and permittee on National Forest land, hereinafter referred to as [] , and the FOREST SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE, hereinafter referred to as the "Forest Service."

RECITALS:

A. [] proposes to study the [] hydroelectric project.

B. [] feasibility studies on National Forest land are

authorized by Forest Service special-use permit designated:
Hydroelectric Investigation - <date>.

C. The proposed project known as [] would be located on National Forest lands in [township, and range, meridian].

D. [] has requested the Forest Service to provide input to the project studies by attending various meetings, participating in field reconnaissance, and providing certain information relating to various routing alternatives as required by 36 CFR 251.54(a).

E. Forest Service indicates that current staffing and budget are not adequate to provide input and support as described in Recital D within the time frames allotted in the [] project schedule.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

NOW THEREFORE, the parties hereto agree as follows:

1. [] shall make advance payments to the Forest Service, USDA, [address], as requested by the Forest Service, in amounts sufficient to cover the total cost, including administrative costs, of providing the requested information, which total is not to exceed \$[]. The first advance payment shall be in the amount of \$[].

2. Forest Service shall deposit payments received from [] into the Forest Service work fund.

3. This agreement will have no effect on the provisions and clauses of [] special-use permits or easement; specifically, this agreement shall in no way be deemed an admission or agreement on the part of [] that it is required to reimburse the Forest Service for any costs incurred by it in processing [] permit application.

4. Forest Service shall provide to [], accompanying each subsequent request for advance payment, an itemized statement of actual expenditures since the previous deposit.

5. Forest Service will, upon termination of this agreement, refund to [] any unexpended funds previously deposited.

6. Forest Service will provide the work and information, as described herein, as soon as possible following receipt of deposit.

7. The United States of America shall not be liable for any damage incident to the performance of work under this agreement to [] and [] hereby expressly waives any and all claims against the United States of America for compensation for any loss, damage, personal injury or death occurring in consequence of the performance of this agreement.

8. This agreement shall become effective when signed by the parties hereto and will continue for one (1) year from the date of execution of this agreement unless terminated earlier by thirty (30) calendar days' written notice by either party to the other: Provided that any funds on deposit will be available for expenses incident to closing out the work beyond the written notice.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

9. No member of, or delegate to, Congress or Resident Commissioner shall be admitted to any share or part of this agreement or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

10. Nothing herein shall be construed as obligating the Forest Service to expend or involving the United States in any contract or other obligation for the future payment of money in excess of appropriations authorized by law and administratively allocated for this work.

IN WITNESS WHEREOF, the parties hereto, by their respective duly authorized officials, have executed this agreement the day and year first written above.

[Developer identification] U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE, [] NATIONAL
FOREST

By /s/ By /s/
[Authorized representative] Forest Supervisor

Date Date

-
-
-

Exhibit 2

EXAMPLE COLLECTION AGREEMENT FOR PROJECT CONSTRUCTION

COLLECTION AGREEMENT NUMBER 1
BETWEEN

THE EL DORADO COUNTY WATER AGENCY
AND
THE ELDORADO IRRIGATION DISTRICT
AND
EL DORADO NATIONAL FOREST, USDA-FOREST SERVICE

THIS AGREEMENT, in accordance with the provisions of the Act

of April 24, 1950, (16 USC 572), is made and entered into this 8th day of February 1986, by the FOREST SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE, hereinafter referred to as the "Forest Service" and the EL DORADO COUNTY WATER AGENCY AND THE EL DORADO IRRIGATION DISTRICT, a permittee on National Forest land, hereinafter jointly referred to as "El Dorado."

RECITALS:

A. El Dorado proposes to construct the SOFAR Hydroelectric project.

B. El Dorado's construction involving National Forest land is authorized by FERC-License #2761 issued December 24, 1984, and Forest Service Special-Use Permit #_____ issued [] to El Dorado.

C. The proposed project known as SOFAR will be located on National Forest lands.

D. El Dorado desires the Forest Service to provide input to the project design studies, environmental mitigation plans, and construction monitoring by attending various meetings, participating in field reconnaissance, reviewing plans and actions, and providing certain information relating to various routing alternatives as required by 36 CFR 251.54(a).

E. Forest Service indicates that current staffing and budget are not adequate to provide input and support as described in Recital D within the time frame allotted in the project schedule.

HYDROELECTRIC HANDBOOK

Exhibit 2 - Continued

NOW THEREFORE, the parties hereto agree as follows:

1. El Dorado shall make advance payments of \$[] to the Forest Service to cover the liaison, support, and administrative costs of providing the requested information for the period [] through []. Should the amount of time necessary to respond to the project's needs increase, the amount of funding may be renegotiated. The payments shall consist of [] no later than [] and the payments per 3-month period as shown on the attached exhibit A. The Forest Service will provide a quarterly report of expenses relating to this agreement. Adjustments to the payment schedule of exhibit A may be made, based on the carry-over balance shown in such report. Additional advances may be requested by the Forest Service to cover periods where El Dorado's activity is more than planned, as long as the total collection agreement amount remains unchanged, except as provided herein.

2. In the event where unacceptable resource damage is occurring or about to occur because of poor cooperation in resource protection by the construction contractors or others,

the Forest Service reserves the right to request additional funds, since the total amount shown in item 1 above was negotiated on the basis of construction proceeding in a cooperative manner.

3. Forest Service shall deposit payments received from El Dorado into the Forest Service cooperative work fund.

4. Forest Service will, upon termination of this agreement, refund to or credit El Dorado any unexpended funds previously deposited.

5. The United States of America shall not be liable for any damage incident to the performance of work under this agreement to El Dorado and El Dorado hereby expressly waives any and all claims against the United States of America for compensation for any loss, damage, personal injury or death occurring in consequence of the performance of this agreement.

HYDROELECTRIC HANDBOOK

Exhibit 2 - Continued

6. This agreement shall become effective when signed by the parties hereto and will continue until April 30, 1987, unless terminated earlier by thirty (30) calendar days' written notice by either party to the other: Provided that any funds on deposit will be available for expenses incident to closing out the work beyond the written notice.

7. No member of, or delegate to, Congress or Resident Commissioner shall be admitted to any share or part of this agreement or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

8. Nothing herein shall be construed as obligating the Forest Service to expend or involving the United States in any contract or other obligation for the future payment of money in excess of appropriations authorized by law and administratively allocated for this work.

IN WITNESS WHEREOF, the parties hereto, by their respective duly authorized officials, have executed this agreement the date and year first written below.

SOFAR MANAGEMENT AUTHORITY:

By _____ Date _____
Chairman

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE, ELDORADO NATIONAL FOREST:

By _____ Date _____

Forest Supervisor

FSH 2709.15 - HYDROELECTRIC HANDBOOK
2/87 WO

CHAPTER 50 - SECTION 4(e) AND OTHER REPORTS

51 - FEDERAL POWER ACT. See the Zero Code Introduction for background information on the Federal Power Act.

Section 4(e) of the Federal Power Act states:

". . . Provided, that licenses shall be issued within any reservation only after a finding by the Commission that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired, and shall be subject to and contain such conditions as the Secretary of the department under whose supervision such reservation falls shall deem necessary for the adequate protection and utilization of such reservation. . . ."

This provision in the act allows the Forest Service, acting for the Secretary of Agriculture, to require that the license for a hydroelectric project include conditions deemed necessary to protect the National Forest's resources while allowing the wise development of the energy resource.

In addition, section 4(e) requires the Federal Energy Regulatory Commission (FERC), if it is going to issue a license, to license only those projects that it finds are not inconsistent and do not interfere with the purpose for which the National Forest (reservation) was created or acquired. In making this determination, FERC relies heavily on the recommendation of the Federal Department which manages the reserved land (sec. 54.4 and sec. 54.41).

52 - SECTION 4(e) REPORTS. The response to the Federal Energy Regulatory Commission (FERC) under section 4(e) of the Federal Power Act is called a "4(e) report".

As delegated (FSM 2770.4), send a 4(e) report to FERC or the Washington Office Lands Staff, in response to receiving notification of an application for license or amendment for projects proposing to occupy National Forest System lands. A 4(e) report may also be sent at other times, up to the time the license is issued, to change previous input based on negotiations with the applicant or changes the applicant makes in the application for license.

52.1 - Timing. Generally, the Forest Service has only 60 days to prepare the 4(e) response. Considering the amount of time necessary to get the notification to the forest and the time required for the Regional Office review, the forest really only has about 30 days to prepare a 4(e) response. Lengthen this response time by maintaining close coordination with the applicant during the preapplication consultation period so that the forest can do most of the evaluation before receiving notification from FERC. As required in stage 2 of the FERC consultation process, and to expedite Forest Service review, ask the applicant to send the forest the draft and final applications

for license and special-use as soon as they are completed (sec. 32.41).

52.11 - Adjustments in Timing When an Environmental Impact Statement is Necessary. When the analysis shows the necessity of an EIS, send FERC an initial 4(e) report containing a complete justification for the need of an EIS. Send no conditions or draft special-use authorization; however, while cooperating with FERC on the EIS, supply conditions and other information in draft form so they can be incorporated into the EIS. It is not necessary to make the recommendation concerning compatibility with National Forest purposes until the EIS is complete. When the EIS is complete, send in the final 4(e) report with appropriate enclosures (sec. 32.53b and 54.43). See diagram in exhibit 1, section 32.41.

52.2 - Procedures. Draft the 4(e) report based on the forest's environmental analysis and forward it to the Regional Office for Regional Forester approval and signature, and for transmittal to the Lands Staff, Washington Office or to FERC, depending on delegated authority.

The specific routing procedure for those Regions whose 4(e) reports are to be transmitted to FERC through the Washington Office Lands Staff is as follows (1) the Region creates a final draft of the 4(e) report package and sends it electronically to the Washington Office Lands Staff member responsible for FERC coordination; (2) the Lands Staff reviews it and sends comments back to the Region; (3) the Region makes appropriate corrections and the Regional Forester signs the appropriate documents; (4) the Region sends the original package to the Washington Office Director of Lands for forwarding to FERC; (5) the Region immediately sends a copy to the applicant and others who expressed interest in receiving it; (6) upon receipt of the 4(e) package, the Washington Office Director of Lands forwards it to FERC.

52.21 - Cover Letter. The cover letter for the 4(e) report contains:

1) The Forest Service recommendation on project interference or inconsistency with the purposes of the National Forest reservation and the associated decision regarding issuing a special-use authorization, if FERC licenses the project;

2) The Forest Service position on the project;

3) The fact that comments on the project are enclosed (Enclosure I);

4) The decision as to what license conditions the Forest Service requires in the license and the fact that these conditions are enclosed (Enclosure II),

5) That the documentation to support the decisions is enclosed (Enclosure III); and

6) That the draft special-use authorization is enclosed (Enclosure IV).

52.22 - Comments on the Application. In Enclosure I, include comments resulting from the review of the application for license or amendment and of the independent evaluation of the applicant's environmental report. Also in this section, explain the necessity for license conditions and include any information for their use. The comments should include any additions or deletions found necessary as a result of the independent evaluation, for such things as concerns, alternatives, impacts, and recommendations. When the comments are used to supplement the applicant's environmental report, together they become the environmental assessment, upon which the Regional Forester could base a decision.

52.23 - Conditions for the License. In Enclosure II, include license conditions that the Forest Service has determined through environmental analysis are necessary to protect National Forest resources. This is especially important for factors that affect power production capacity and economics (such as instream flows) because such factors are not to be part of the special-use authorization for a licensed project.

Ensure that the conditions are reasonable, enforceable, and within the scope of section 4(e) of the Federal Power Act, and that they pertain directly to matters affecting National Forest resources. Clearly mark them as conditions for the license. Do not include information supporting the need, use, or effectiveness of the conditions in Enclosure II as this information belongs in the comments section (Enclosure I) of the 4(e) report.

The Federal Energy Regulatory Commission (FERC) does not have authority to alter the conditions imposed by the Secretary. Agency "comments" and "position" are recommendations and are not mandatory, but the "conditions" are.

Before developing additional conditions, review FERC standard form license articles in chapter 80 and the standard Forest Service 4(e) conditions in section 55.

52.24 - Decision Notice, Finding of No Significant Impact, and Environmental Assessment. Include as Enclosure III, the decision notice, finding of no significant impact, and environmental assessment prepared in support of the decision concerning license conditions and the issuance of a special-use authorization.

52.25 - Draft Special-Use Authorization. Include as Enclosure IV, a copy of the draft special-use authorization that the Forest Service intends to issue if the project is licensed by FERC.

52.26 - Intra-Departmental Coordination. Before submitting the 4(e) report to the Federal Energy Regulatory Commission, the Regional Forester or the Chief incorporates into the report any comments other Department of Agriculture agencies, such as Soil Conservation Service or the Rural Electrification Administration, have provided concerning the application.

52.3 - Format. Use the following format for the 4(e) report:

1. Reference to project under consideration.
2. Statement that "the following comments and conditions

comprise the report of the Secretary of Agriculture in accordance with section 4(e) of the Federal Power Act."

3. Statement, as appropriate, that the proposed project does or does not "conflict with any project of which we are aware that should be or has been constructed by the United States."

4. Recommendation concerning whether or not the proposed project "interferes or is inconsistent with the purposes for which the <name> National Forest was created or acquired." Cite legal grounds for stating that, "the project as currently proposed would interfere or be inconsistent with National Forest purposes." See section 54.4 for determining consistency.

5. Statement concerning whether or not the Forest Service is opposed to the project. (This is a recommendation only, it is not binding). Please note that the Forest Service may recommend that a project is not inconsistent with National Forest purposes and still recommend against the project for other reasons, leaving the final decision appropriately to FERC.

6. If the Forest Service recommends that the project is not inconsistent or would not interfere with National Forest purposes, then make the statement that the Forest Service will grant a special-use authorization if FERC licenses the project (sec. 32.6).

7. Enclosure I--Comments on the application.

8. Enclosure II--Conditions necessary for the protection and use of affected National Forest lands, in the form of articles to be included in the license.

9. Enclosure III--Decision notice, finding of no significant impact, and environmental assessment.

10. Enclosure IV--Draft special-use authorization.

52.4 - Interventions in Federal Energy Regulatory Commission Proceedings. (18 CFR 1.6-1.8). If circumstances warrant, the Forest Service may intervene in a FERC proceeding. Generally, the Forest Service would choose to intervene only in situations where, although a project does not include National Forest System land, indirect project impacts may adversely affect the National Forest resources. The decision to intervene must have the Chief's approval.

The FERC staff reviews all comments on projects it is considering and reports its findings to the Commission. The comments of intervenors will also be seen in their original form by the Commission.

52.5 - Recommending Federal Takeover of a Project. (FSM 2774.4). Section 14(b) of the Federal Power Act (16 USC 807(b)) provides that a Department may recommend takeover of a project no earlier than 5 years or later than 2 years before expiration of a license, if the Department files the recommendation no later than 9 months after FERC has issued a notice of application for new license. See 18 CFR 16.8 for FERC procedures. Takeover means that the United States wishes to take over the facilities and

operation of the project from the licensee. The Forest Service seldom recommends takeover of a project, and such a recommendation must have the Chief's approval.

52.6 - Sample 4(e) Report. Exhibit 1 is a sample 4(e) report. Review the plans listed in Chapter 62 and decide which plans should have the force of a license article in addition to or instead of being in the special-use authorization. Enclosures I and III would need to be appropriately adjusted if an environmental impact statement was prepared.

☐ EXHIBIT 1 IS A SEPARATE DOCUMENT

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SEC. 52.6-Exhibit 1

EXAMPLE OF A 4(E) REPORT

United States	Forest	Pacific	630 Sansome Street
Department of	Service	Southwest	San Francisco, CA 94111
Agriculture		Region	(415) 556-0122

Reply To: 2770

Date:

Mr. Kenneth F. Plumb, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, D.C. 20426

Dear Mr. Plumb:

Your October 10, 1984, letter requested our comments on the application for license on the Canyon Creek Water Power Project (OEPR-HL Project No. 9999-000 California) filed by Hydroelectric Incorporated. The following comments and conditions comprise the report of the Secretary of Agriculture in accordance with section 4(e) of the Federal Power Act.

This project does not conflict with any project of which we are aware that should be or has been constructed by the United States. It neither interferes with nor is inconsistent with the purposes for which the Eldorado National Forest was created or acquired. We have no objection to a license being issued, subject to certain conditions necessary for the protection and utilization of National Forest System lands and resources affected by the project, and we will issue a special-use authorization to the project if it is licensed by FERC.

Enclosure I contains comments on the application.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

Enclosure II contains conditions, in the form of articles to be included in the license, necessary for protection and utilization of affected National Forest System lands. The conditions are based on the Forest Service review of the application, coordination with other Federal and State agencies, and consultation with the applicant. The Secretary of Agriculture considers these conditions necessary to avoid or mitigate resource and environmental impacts caused by proposed project operations.

Enclosure III contains information for your use, regarding our environmental analysis and decision.

Enclosure IV contains a copy of the special-use authorization we would anticipate issuing, should the Commission license the project.

Sincerely,

ZANE G. SMITH, JR.
Regional Forester

Enclosures

cc:
Eldorado National Forest
Applicant

Exhibit 1 --Continued

ENCLOSURE I

COMMENTS ON APPLICATION FOR LICENSE FOR
FERC PROJECT NO. 9999, CANYON PROJECT
HYDROELECTRIC CORP

EXHIBIT E

The Forest Service has reviewed the environmental report contained in the license application and appendixes. The environmental report, as supplemented with the specific comments that follow, constitutes the environmental assessment for the subject project.

1. Section 2.1, "Instream Water Uses," Page E-1 and E-2, and section 3.1, "Fish," Page E-4.

In order to verify adequate streamflow releases, a guaranteed priority stream maintenance flow device should be incorporated into the diversion/intake structure. It could consist of a slide gate or stop logs that would be adjusted and locked to release the required stream maintenance flow. It would be reset three times each year to release the specified flow. This bypass gate would be located such that the required flows were released automatically before any flows could divert into the penstock. Downstream of the release gate there should be a control section, preferably a weir, which will accurately measure the bypass flow. This metered section should include a continuously recording streamgauge for verifying actual flows. If the measured control section (the weir) is a part of the diversion/intake structure, any seepage not measured by the control structure will need to be measured by the licensee and approved by the Forest Service before credit of seepage flow is counted as part of the stream maintenance flow.

2. Section 3.2, "Wildlife", Page E-4.

The Forest Service presently recommends leaving 1,000 acres, not 300, of contiguous suitable habitat for spotted owls. Timber harvesting is not permitted in spotted owl habitat. Activities within or adjacent to the habitat are restricted during the breeding season: March 1 through August 31; not April to June.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

The spotted owl pair, designated PC-11, is now included as a minimum viable pair on the Eldorado National Forest.

□

The goshawk pair requires 50 acres for its habitat, not 30 acres as stated in the applicant's report. The breeding season restriction is the same as for spotted owl. Timber harvesting is not allowed within that 50 acres.

The key wildlife species that need to be addressed in the wildlife habitat plan are spotted owl, goshawk, and deer (migration).

3. Section 3.3, "Vegetation," Page E-5, section 3.4, "Impacts and Mitigation," page E-6 (last paragraph), all of Appendix I "A Botanical Survey and Rare Plant Inventory of the Proposed Wallace Canyon Creek Small Hydroelectric Project."

The applicant's botanist reports the discovery of one population of *Lewisia serrata*, Heckard & Stebbins, on Long Canyon Creek between the confluence of Wallace Canyon Creek and the proposed powerhouse channel and the discovery of a population of *Phacelia stebbinsii*, Const. & Heckard, along the riparian corridor. Another *P. stebbinsii* population has been reported in the proposed penstock corridor.

4. Section 3.4, "Impacts and Mitigation," Page E-5.

Dredging the diversion pool could create severe environmental impacts. The licensee would have to obtain Forest Service approval of the timing of the dredging operation and the location of any disposal area. The applicant may want to investigate a sluice-gate as an option.

5. Section 3.4, "Impacts and Mitigation," pages E-5 and E-6.

The width of the clearance or removal of vegetation should be minimized to mitigate effect on the spotted owl habitat. Burial of the powerline is an alternative that will be required where feasible, since this would reduce the amount of disturbance to the habitat as opposed to an aerial powerline.

6. Section 4, "Historic and Archaeological Resources," page E-7, and Appendix G, "Archaeological Reconnaissance of Long

Canyon, Wallace Canyon, and Big Grizzley Canyon Creeks Water Power Projects."

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

No cultural resource sites that will require protection have been located by the surveys conducted for the project. However, some minor inaccuracies in the Appendix G report of October 1984 must be corrected as pointed out in the October 24, 1984, letter from Jerald N. Hutchins of the Eldorado National Forest.

7. Section 7, "Recreational Resources," page E-10, section 8, "Aesthetic Resources," page E-10.

Both the semi-primitive non-motorized recreation designation and the Partial Retention Visual Quality Objective for the powerhouse site are very restrictive categories for hydroelectric development. The project must be developed in a manner compatible with those restrictions which basically limit the facilities to being very subdued and well blended in to the background. Forest Service requirements will have to be met not just considered as recommendations, and the design should consider alternate locations and coloring as well as those mitigations listed. A Visual Management Plan will be required.

8. Section 9, "Land Use," pages E-10 and E-11.

The Long Canyon Timber Sale will be under contract until December 31, 1986. That timber sale will be using the same roads as the Wallace Canyon Hydroelectric project. The roads need to remain open for the timber purchaser's operations. The licensee will be responsible for negotiating a road scheduling agreement with the timber purchaser if the licensee needs to block the roads needed by the timber purchaser before the close of the purchaser's contract. We do not want the timber sale contract compromised.

Any roads needed for year around access would have to be hard-surfaced. Any road use and construction will have to have unilateral coordination with Bendix Forest Products Corporation, i.e., the Stockton Box Road Agreement.

Access roads and transmission lines cross private lands. The Forest Service has timber harvesting planned and the project should be coordinated with these activities. Timber volumes could be affected by the project.

The conduit should be buried at a depth to allow heavy equipment to haul over the conduit and possibly to allow removal of timber by aerial or ground methods.

Exhibit 1 - Continued

Any road construction on slopes greater than 55% would require full bench construction with end-haul of cut material required. All spoil areas will require Forest Service approval prior to construction. The roads leading to the diversion facilities should be blocked to prevent public access; use of these roads should be very limited since they transect spotted owl habitats and steep canyons. Road obliteration or alternate means of accessing the diversion facilities should be considered.

The road to the powerhouse would create a more accessible route for cattle to move into Long Canyon, resulting in cattle drifting between two allotments. Cattleguards and drift fences may be needed.

Other Comments

The report mentioned a buried penstock. This would be impractical on the steep slopes greater than 55% because the backfill over the penstock would not remain in place, nor could the steep area withstand the construction impacts.

The transmission line will probably have to be placed underground in many areas for visual resource protection, wildlife habitat protection, fire protection, and timber resource land base maintenance.

Increased fire risk was not discussed. The Licensee must develop a fire plan, to be approved by the Forest Service; such plan will specify measures to be taken to protect the Forest from a fire caused by construction of the project.

The Licensee will be required to prepare the following plans prior to beginning on-the-ground construction. It should be noted that the Forest Service must be able to review specific design plans before they are implemented on-the-ground.

- a. Vegetation Clearing and Disposal Plan.
- b. Construction Spoil Disposal Plan.
- c. Impoundment and Conveyances Operation and Maintenance Plan (dredging and spoil disposal, pipe stability, etc.).

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

- d. Transportation Plan.
- e. Road Maintenance Plan.

- f. Erosion Control Plan.
- g. Land Stability Management Plan.
- h. Visual Quality Management Plan.
- i. Revegetation and/or Rehabilitation Plan.
- j. Streamcourse Protection Plan (diversion, powerhouse, pipeline, and access construction).
- k. Fire Protection Plan.
- l. Sensitive Plant Mitigation Plan.
- m. Toxic and Hazardous Material Spill Prevention, Control, and Countermeasures Plan.
- n. Public Safety Plan.
- o. Cultural Resources Mitigation Plan.
- p. Fish and Wildlife Protection Plan.
- q. Pesticide and Herbicide Use Plan.
- r. Site Plans (detailing cuts, fills, and facilities at the diversion and powerhouse site).

EXHIBIT F (PROJECT DRAWINGS)

Exhibit F-3

This exhibit shows the buried pipeline in the road cross-section as not being under the travel surface, thus increasing the disturbed width 8 feet, that would be unacceptable in most places. The design should be adjusted so that the pipe can be under the travel surface of the road and the road-way reduced 8 feet.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

NEED FOR LICENSE CONDITIONS

Clauses 1 through 4 are standard clauses that the Forest Service requires in all licenses.

Conditions 5 and 6 are required to protect the fisheries resource on National Forest System lands downstream from the diversion. The bypass flow volumes vary by time of year to account for different life-cycle needs of the fish. The flow measurement provisions are necessary to guarantee and verify the protection.

Condition 7 is required to refine the on-the-ground mitigation of impacts the deer migration routes.

Conditions 8-10 are required to protect the watershed values, during the major construction activities proposed on National Forest land.

Condition 11 is required to protect the visual quality of the area as seen from the frequently used hiking trails, from which the project could be viewed.

Condition 12 is required because the area proposed for the project is also in an area proposed for a Forest Service timber sale.

Condition 13 is required to refine the on-the-ground mitigation measures necessary to protect the sensitive plant and animal species previously listed.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

Enclosure II

LICENSE CONDITIONS NECESSARY FOR PROTECTION AND UTILIZATION OF THE ELDORADO NATIONAL FOREST IN CONNECTION WITH THE APPLICATION FOR LICENSE PROJECT NO. 99999

I. GENERAL

License articles contained in the Commission's Standard Form L-2 (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 Eldorado 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 occupancy and use of National Forest System lands, and that authorization shall be filed with the Director, Office of Hydropower Licensing.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

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.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

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 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.

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52.6-Exhibit 1--Continued

III. OPTIONAL FOREST SERVICE PROVISIONS

A. FISH AND WILDLIFE RESOURCE MANAGEMENT

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 Bozo Creek, the following continuous, minimum flows or the natural flows, which ever are less, as measured immediately below the point of proposed diversion:

October 15 through December 15	10 cubic feet per second (cfs)
December 16 through May 15	7 cfs
May 16 through October 14	3 cfs

After notice to and concurrence by the Forest Service, the Licensee shall release the entire unrestricted flow in Bozo Creek down the channel for 8 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.

Condition No. 6 - 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 Eldorado National Forest.

Exhibit 1 - Continued

Condition No. 7 - 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 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. SOIL CONSERVATION AND PROTECTION OF WATER QUALITY

Condition No. 8 - 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. 9 - 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

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

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. 10 - 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.

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Exhibit 1 - Continued

C. AESTHETICS

Condition No. 11 - Visual Resource Protection

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.

D. TIMBER SALE CONTRACT COORDINATION

Condition No. 12 - Coordination With Timber Sale Purchaser

The project area may be under contract to the purchaser of the Clown 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.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

E. ENDANGERED SPECIES

Condition No. 13 - 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.

□
□
□

Exhibit 1 --Continued

ENCLOSURE III

FOR THE
 CANYON CREEK HYDROELECTRIC PROJECT
 FERC # 9999 - HYDROELECTRIC INC.
 EL DORADO NATIONAL FOREST

An environmental assessment, as identified in Enclosure I, documenting the results of the analysis for the subject project is available for review at the Forest Supervisors Office in []. Based on the results of the analysis, I have decided that if the Federal Energy Regulatory Commission (FERC) licenses the applicant's proposed project as outlined in alternative A of the Environmental Report (License Application Exhibit E) for the Canyon Creek Hydroelectric project, (1) that the Forest Service will issue the applicant a special-use permit for the project; (2) that the license conditions shown in Enclosure II of the 4(e) Report will be required in any license issued by FERC for the project; and (3) that the special-use permit will be of the type shown in Enclosure IV of the 4(e) report. This decision is made considering the following factors concerning the proposed project:

1. It provides for the development of a renewable energy source, needed by the country and developed in a manner having acceptable environmental impacts.
2. It provides for maintaining the stability of the slopes into Canyon Creek by using a tramway for access, rather than a road as considered in alternative D.
3. It provides for protection of the fisheries resource by bypassing adequate flows to the stream. It should be noted that alternatives B, C, and D did not provide for instream flows sufficient to adequately protect the fishery.
4. It provides adequate mitigation to the sensitive plant and animal species noted in the area, whereas alternatives C and D did not.

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Exhibit 1 - Continued

5. It is consistent with the El Dorado National Forest Plan implemented in 1986.

Based on the environmental analysis, I have determined that the subject project is not a major Federal action that would significantly affect the quality of the human environment. Therefore, an environmental impact statement is not required. This determination was made considering the following factors:

□

1. The license conditions to be imposed by the Forest Service and FERC for this project will adequately mitigate or prevent significant adverse impacts to the quality of the National Forest environment.

2. The degree of ecosystem disturbance will be major but generally temporary and localized to small areas.
3. The cumulative and secondary effects will be mitigated to nonsignificant levels.
4. There are no known threatened or endangered species within the purposed project area.
5. There are both sensitive animal and plant species that will be affected by the project. These include spotted owls and goshawks, and the plants Phacelia stebbensii and Lewisia serrata. Mitigation measures are required that will provide for adequate protection of these species.
6. There will be a minor irretrievable loss of timber growth resulting from some land being used for the facilities of the project. The construction of the facilities will be essentially a minor irreversible land allocation, although the facilities could be removed and the land rehabilitated.
7. Public interest in projects in this area is believed to be low because of its remote location and lack of attractions for the general public.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

8. Cultural resource surveys have been completed. There will be no effects on cultural resources because no sites are in an affected area.
9. There are no known effects on consumers, civil rights groups, minority groups or women; nor are there any adverse effects on prime farmland or rangeland, wetlands or floodplains. There will be a minor nonsignificant adverse effect on some prime forestland.

This decision will be implemented if and when FERC licenses the Canyon Creek Project (FERC #9999). After that occurrence, construction may begin after the approval of the required mitigation implementation plans, site plans, and compliance with the conditions of the permit and stipulations.

This decision is subject to appeal pursuant to 36 CFR 211.18 from the date of signature, below.

/s/name/
Regional Forester

<date>
Date

**The environmental assessment would be attached here. No sample is necessary

INSTRUCTIONS: Please note that you should list other acceptable alternatives for which the license conditions and attached special-use authorization still apply.

Exhibit 1 --Continued

ENCLOSURE IV

ANTICIPATED SPECIAL-USE AUTHORIZATION

SEE SECTION 71.1 FOR SAMPLE

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53 - OTHER COMMENTS TO THE FEDERAL ENERGY REGULATORY COMMISSION

53.1 - In Response to an Application for Preliminary Permit. Regional Foresters send comments on preliminary permit applications directly to the Federal Energy Regulatory Commission (FERC) in Washington, D.C. (not a 4(e) report).

State the Forest Service position on the issuance of the preliminary permit and limit comments and conditions to major areas of concern and to activities that the applicant may perform during the preliminary permit period. Identify the affected National Forest and designate the lead National Forest and whether or not the project involves a Wild and Scenic River or other special area (sec. 54.1). A condition should state that the permittee must secure a Forest Service special-use authorization prior to undertaking any entry or work on National Forest System lands pursuant to the preliminary permit. Recommendations for denial should be rare.

See exhibit 1 for an example of a response for a project not involving any special areas.

Exhibit 1

Example Response to FERC about a Typical
Preliminary Permit Application

[] Region]

[Address]

2770

August 23, 1986

Mr. Kenneth F. Plumb, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE.
Washington, DC 20426

Dear Mr. Plumb:

This letter is in response to the Notice of Application for Preliminary Permit dated June 20, 1986, for the Hell Roaring Creek Water Power Project No. 7273 on Hell Roaring Creek in Gallatin County, Montana.

This proposed project may impact lands and resources within the Gallatin National Forest. It is evident, however, that additional data must be gathered before we can quantify these impacts and their effects upon National Forest management objectives. Accordingly, the Forest Service has no objection to the issuance of a preliminary permit containing the standard terms and conditions of the most recent revision of the Commission's Form F-1, supplemented by the following special

condition:

"Prior to undertaking any entry or work on National Forest System lands pursuant to a preliminary permit, the Permittee shall prepare and file with the Forest Service a plan of studies to be conducted under the permit; and, the Permittee shall secure a Forest Service special-use authorization and,

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

if appropriate, enter into a memorandum of understanding with the Forest Service. The Permittee shall file with the Commission, within 90 days of the issuance of this preliminary permit, copies of the special-use permit and, if appropriate, the memorandum of understanding."

The special-use authorization would include Forest Service requirements for fire prevention and control, prevention of damage to Federal property and natural resources, and any requirements for repair or rehabilitation of damage resulting from study activities. The memorandum of understanding between the Forest Service and the Permittee, if prepared, would document the needs for studies and arrangements for consultation and cooperation not included in the special-use permit.

Sincerely,

/s/name>

Regional Forester

cc:

Applicant

HYDROELECTRIC HANDBOOK

53.2 - In Response to an Application for Exemption. Regional Foresters send comments on applications for exemption from licensing directly to the Federal Energy Regulatory Commission (FERC) in Washington, D.C.

Prepare a brief response to FERC's notification of application for exemption (not a 4(e) report, although similar). Do not include conditions because the special-use authorization controls the occupancy and use of National Forest System lands. Notify FERC of any special status or other major anticipated problems involved in the applicant's obtaining a special-use authorization. See sections 54.2 and 54.3 for procedures for problem projects.

Request that the applicant be advised that entry or investigative work on National Forest System lands requires a special-use permit from the Forest Service.

If the project is unacceptable, recommend that an exemption not be granted for it because the Forest Service will not issue a

special-use permit.

53.3 - Requests for Additional Time to Submit Comments. Make every effort to meet the Federal Energy Regulatory Commission's (FERC's) deadline for submission of comments. In cases where it is impossible to meet the deadline, the Regional Forester requests an extension before the due date and specifies when FERC can expect to receive the 4(e) report. Generally a request for a 30-, 60-, or 90-day extension is acceptable.

FERC will continue to process an application after the 60-day comment period ends, or after the extension period has passed, and may issue a license without any 4(e) conditions other than the few standard ones that would apply to any license (such as the ones requiring a Forest Service special-use authorization, environmental consultation, and limits on changing the project).

If the extension is necessary because the area is currently unavailable until a land allocation is made, follow the procedures of section 54.42. If the extension is necessary because the applicant needs to supply more data for the analysis, follow the procedures of section 54.6.

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54 - INFORMING THE FEDERAL ENERGY REGULATORY COMMISSION OF POTENTIAL PROBLEM PROJECTS

54.1 - Potential Problems Identified Prior to the Federal Energy Regulatory Commission Issuing a Preliminary Permit

54.11 - Wilderness. (FSM 2775.1). Inform the Federal Energy Regulatory Commission (FERC) and the applicant that: (1) the project may affect <name> Wilderness, (2) the Forest Service can authorize only non-ground-disturbing and nonpermanent investigation studies, and (3) the project, itself, may be authorized only after Presidential approval.

54.12 - Wilderness Study Areas. Inform the Federal Energy Regulatory Commission (FERC) and the applicant that: (1) the project may affect <name> Wilderness Study Area; (2) the Forest Service can authorize only non-ground-disturbing investigation studies at this time; (3) the Forest Service cannot issue a special-use authorization to construct a project before the area is opened to multiple-use management through completion of the study or forest plan, through Federal legislation, or through a separate and complete environmental analysis; and (4) in the future, the area may not be available for hydroelectric use if legislation or the decision made in conjunction with the Forest Plan or separate analysis, so states. The much preferred procedure is to wait for completion of the study or forest plan.

See exhibit 1 for an example response for a project affecting a Further Planning area. A similar letter may be appropriate for projects affecting other types of special areas.

□

Exhibit 1

Example Preliminary Permit Response to FERC about
a Project Located Within a Further Planning Area

[] Region [Address]

2770

August 23, 1986

Mr. Kenneth F. Plumb, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE.
Washington, DC 20426

Dear Mr. Plumb:

This letter is in response to the Notice of Application for Preliminary Permit dated June 20, 1986, for the Hell Roaring Creek Water Power Project No. 7273 on Hell Roaring Creek in Gallatin County, Montana.

This proposed project may impact lands and resources within the Gallatin National Forest.

We request that FERC notify the applicant that the project is within the Big Creek Further Planning Area. Until a decision is made regarding future management of the area, no activities will be allowed which might alter the wilderness qualities of the area.

It is evident that additional data must be gathered before we can quantify these impacts and their effects upon National Forest management objectives. Accordingly, the Forest Service has no objection to the issuance of a preliminary permit containing the standard terms and conditions of the most recent revision of the Commission's Form P-1, supplemented by the following special condition:

"Prior to undertaking any entry or work on National Forest System lands pursuant to a preliminary permit, the Permittee shall prepare and file with the Forest Service a plan of studies to be conducted under the permit; and, the Permittee shall secure a Forest Service special-use authorization and,

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

if appropriate, enter into a memorandum of understanding with the Forest Service. The Permittee shall file with the Commission, within 90 days of the issuance of this preliminary permit, copies of the special-use permit and, if appropriate, the memorandum of understanding."

The special-use authorization would include Forest Service requirements for fire prevention and control, prevention of damage to Federal property and natural resources, and any requirements for repair or rehabilitation of damage resulting from project activities. The memorandum of understanding between the Forest Service and the Permittee, if prepared, would document the needs for studies and arrangements for consultation and cooperation not included in the special-use permit.

Although a preliminary permit does not authorize construction of a project or entry on National Forest land, it provides the permittee time to undertake studies to determine, among other things, the economic and engineering feasibility of the proposed project. These studies may involve activities on or adjacent to the Big Creek Further Planning area, which could diminish the existing wilderness values of the area. For example, the desired studies may require core drilling, test excavation, stream gaging stations, and temporary road access to the unroaded area. The permittee may be limited to activities of a non-ground-disturbing nature, as the Forest Service will not issue a permit for activities that could threaten or diminish the wilderness qualities of the area. Studies undertaken by the applicant will be at the applicant's own risk, because the area may not be available for hydroelectric use after the land-use decision is made.

Sincerely,

</s/name>

Regional Forester

cc:

Applicant

HYDROELECTRIC HANDBOOK

54.13 - Wild and Scenic Rivers. (FSM 2775.3). As appropriate, inform FERC and the applicant that the project may affect the <name> Wild and Scenic River and state the name of the management agency for that river.

Evaluate the documentation establishing the wild and scenic river to help determine whether a project is obviously incompatible with the wild and scenic designation, or whether further analysis is necessary to make that determination. Inform FERC of the findings.

Unless all projects in the proposed area would be unacceptable, do not object to FERC issuing a preliminary permit, because a FERC preliminary permit does not authorize entry on National Forest land. Once FERC has received notice that a project may affect a wild and scenic river administered by the Forest Service, it cannot grant the project a license without the consent of the Secretary of Agriculture, through the Forest Service.

State whether or not it may be possible for the applicant to

obtain a special-use permit from the Forest Service for the study of the project. If we would permit certain types of study, state that no activities will be allowed that may alter the values for which the river was designated, and that any investment in study for this project is at the applicant's risk, since the actual project may not be authorized.

Project studies conducted while a study river is under consideration for inclusion in the wild and scenic rivers system must not disturb the river area in a way that affects its eligibility for such inclusion. The boundaries of the study area are usually about one-quarter mile wide on each side of the river. Respond to FERC regarding these study rivers as directed in section 54.16. Types of study rivers are listed and further instructions are contained in section 54.7.

See exhibit 1 for an example of a response to a FERC notice of application for preliminary permit for a project involving a wild and scenic river.

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Exhibit 1

Example Preliminary Permit Response to FERC about a Project
Located Within a Wild and Scenic River

[] Region [Address]

2770

August 23, 1986

Mr. Kenneth F. Plumb, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE.
Washington, DC 20426

Dear Mr. Plumb:

This letter is in response to the Notice of Application for Preliminary Permit dated June 20, 1986, for the Hell Roaring Creek Water Power Project No. 7273 on Hell Roaring Creek in Gallatin County, Montana.

This proposed project may impact lands and resources within the Gallatin National Forest.

We request that, inasmuch as the project, as currently proposed, is located within the Big Creek Wild and Scenic River system, that FERC notify the applicant that the project may affect the Big Creek Wild and Scenic River. This river was designated under section <number> of the Wild and Scenic Rivers Act (P.L. 90-542; 16 U.S.C. 1271-1287), as a component of the National Wild and Scenic Rivers System. As such, no license for a hydroelectric project may be granted by the commission without the consent of the Secretary of Agriculture in accordance with section 7 of the act and through the procedures outlined in 36

CFR 297.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

It is evident that additional data must be gathered before we can determine whether the project will be on or directly affecting the designated river; or before the Secretary can determine if the project would invade or unreasonably diminish the scenic, recreational, or fish and wildlife values for which the area was designated; or before we can quantify these impacts and their effects upon National Forest management objectives. Accordingly, the Forest Service has no objection to the issuance of a preliminary permit containing the standard terms and conditions of the most recent revision of the Commission's Form P-1, supplemented by the following special condition:

"Prior to undertaking any entry or work on National Forest System lands pursuant to a preliminary permit, the Permittee shall prepare and file with the Forest Service a plan of studies to be conducted under the permit; and, the Permittee shall secure a Forest Service special-use authorization and, if appropriate, enter into a memorandum of understanding with the Forest Service. The Permittee shall file with the Commission, within 90 days of the issuance of this preliminary permit, copies of the special-use permit and, if appropriate, the memorandum of understanding."

The special-use authorization would include Forest Service requirements for fire prevention and control, prevention of damage to Federal property and natural resources, and any requirements for repair or rehabilitation of damage resulting from project activities. The memorandum of understanding between the Forest Service and the Permittee, if prepared, would document the needs for studies and arrangements for consultation and cooperation not included in the special-use permit.

Although a preliminary permit does not authorize construction of a project or entry on National Forest land, it provides the permittee time to undertake studies to determine, among other things, the economic and engineering feasibility of the proposed project. These studies may involve activities which could invade or unreasonably diminish the existing wild river values of the Big Creek River and its tributaries. If this were the case, we could not issue a permit for use of National Forest lands for study unless such activities are reviewed and approved in accordance with section 7(a) of the Wild and Scenic Rivers Act. The permittee may be limited to activities of a non-ground-disturbing nature. All such studies are at the permittee's risk.

Sincerely,

</s/name>
Regional Forester

cc:
Applicant

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54.14 - Research Natural Areas. (FSM 2775.4). Inform FERC and the applicant that the project may affect <name> Research Natural Area (RNA) and that use of that specific area for hydroelectric development would be inconsistent with the purpose for which the <name> National Forest was created or acquired and inconsistent with the purpose of the RNA. In support of this statement, refer to the forest plan or other study that established the RNA, its environmental impact statement, and the regulations (7 CFR 2.60a and 36 CFR 251.23) that allow that specific land allocation. State that no special-use permit will be issued for the study of the project if it is obvious that the potential project could never be compatible.

In some cases the potential impacts may be negligible or the management plan for the RNA may allow for some minor nonconflicting uses (consistent with the purpose of the RNA). In these situations, adjust the response to FERC accordingly.

54.15 - Special Areas. (FSM 2775.5). Where a hydroelectric project would obviously be incompatible with a special land allocation, inform FERC and the applicant that (1) the project may affect the <name> area which was established pursuant to <regulation> by the <procedure; such as a Forest Plan> on <date>, and (2) use of that specific area for hydroelectric development would interfere and be inconsistent with the purpose for which the <name> National Forest was created or acquired (and/or the purpose of the special area). Add or reference any additional information that supports or clarifies that determination. State that no special-use permit will be issued for the study of the project in the <name and type> area if it is obvious that no project in that area could be acceptable.

In cases where a project's compatibility with an officially established land allocation cannot be determined clearly prior to study of the project, inform FERC and the applicant (1) of the area's special status, (2) that the applicant may undertake non-ground-disturbing studies at its own risk after obtaining a Forest Service special-use permit, and (3) that the Forest Service will analyze the proposal when the applicant supplies more data and then advise FERC if the proposal is consistent with the special land allocation.

54.16 - Study Areas. Areas under study for special land allocations, such as candidate wild and scenic rivers (and rivers on the Nationwide Rivers Inventory), candidate research natural areas, and candidate special areas previously described above are temporarily excluded by the Forest Service from hydroelectric development until there is a decision made as to their allocation through the forest plan, legislation, or by special study. In these cases inform FERC and the applicant that (1) the project may affect <name and type> area, (2) the Forest Service can

authorize only non-ground-disturbing investigation studies at this time, (3) those studies undertaken are at the applicant's own risk after obtaining a Forest Service special-use permit, (4) the Forest Service cannot issue a special-use authorization to construct the project prior to the final land allocation decision affecting the area in question.

FERC has indicated that it may not be bound by restrictions on executive agencies such as the Forest Service resulting from executive orders, opinions of other executive agencies, or regulations or policy. However, the fact that the Forest Service is restricted and cannot issue a special-use authorization until the particular land management question is resolved, should cause FERC to withhold action on or dismiss an application so affected.

54.17 - Pressure to Resolve Study Area Status. Be aware that developers or others may pressure for a quick resolution of the study status of a particular piece of land relative to its further planning or candidate <type of study area> designation. The following information is intended to aid field personnel in their discussions of Forest Service procedures with developers.

The usual method of making this designation is through completion of the forest plan or by legislation. Allocations of this sort are made through an analysis of a particular area's attributes and its relation to all nearby similar areas, along with the trade-offs associated with designating each area to appropriate special categories. Forest planning is designed to do this analysis effectively.

An applicant may legitimately propose funding a separate environmental impact statement (EIS) to determine the land allocation for the particular piece of land. However, depending on the specific situation, that special EIS may have to be as encompassing as the one used as the basis for the forest plan. It would, therefore, have to evaluate the reasonable land allocations of many land areas that might have some bearing on the allocation of the area of interest.

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54.2 - Problems Identified Prior to the Federal Energy Regulatory Commission Issuing an Exemption from Licensing. See exhibit 2 of section 53.2 for an example response.

1. Incompatible Projects. These situations are less sensitive than those involving licensing (sec. 54.4). Consistent with the cases described in sections 54.11 - 54.16, where a project is determined to be incompatible, inform FERC and the applicant that (1) the project as proposed, would not be compatible with the management or use of the <name> National Forest, (2) the Forest Service will not issue the project a special-use authorization, and (3) the Forest Service recommends that FERC not issue the exemption.

2. Study Area. Inform FERC and the applicant that (1) the project may affect <name and type> study area, (2) there will not be a decision on that study area's allocation until approximately <date> , (3) the Forest Service will not issue a project special-use authorization until implementation of the land allocation, and (4) if the land-use decision is realistically more than 1 year away, that the Forest Service recommends that FERC deny the application; or if the land-use decision should be made within 1 year, that the Forest Service recommends that FERC deny or hold the application until the decision is implemented.

3. Potentially Incompatible and Other Projects. In these situations, inform FERC and the applicant that the Forest Service is going to analyze the project through its special-use authorization process and make a decision after that process is complete. If aware of any potential conflicts that might prevent development of that project, inform FERC and the applicant at this time so the applicant can determine if it is worth pursuing the project any further.

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54.3 - Problems Identified after the Federal Energy Regulatory Commission Issues an Exemption. If, after the analysis, the project is determined to be incompatible with the use of the area or to have unacceptable impacts, issue a decision to that effect denying the application for special-use authorization. Inform FERC and the applicant of the decision. Even if the Forest Service did not inform FERC of this decision at the time of the application for exemption, the Forest Service still may deny the special-use authorization.

54.4 - Problems Associated with Projects with an Application for License. These situations are similar to those described in section 54.1, except at this point the project proposal is well defined and usually has had considerable analysis. These cases are sensitive because the Federal Energy Regulatory Commission (FERC) makes the final determination concerning whether or not to

license a project and whether or not it is consistent with National Forest purposes. See diagram in exhibit 1, section 32.41.

Legal grounds for recommending that a project interferes with or is inconsistent with the purposes of the National Forest include: definite land allocations made through an implemented forest plan; language in the Federal act that established the reserve (National Forest) in question; or language in another congressional act that designated some restricted or specific use of an affected area.

The forest plan refines the purposes of the National Forest as called for in the National Forest Management Act and is adequate support for recommending to FERC that a project is inconsistent or would interfere with the purposes of the National Forest.

54.41 - Incompatible Project. Where a project is obviously incompatible and if it is possible to support that determination with the forest plan, an environmental impact statement, legislation, or other regulation, state in the 4(e) report that (1) the project as applied for will interfere and be inconsistent with the purposes for which the <name> National Forest was created or acquired, (2) the Forest Service will not (or cannot) issue the project a special-use authorization, and (3) the Forest Service recommends that FERC not issue the project a license. Make comments and cite whatever supporting information and references establish that position (include copies of pertinent documents in the report to FERC).

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In this situation, do not include license conditions in the 4(e) report to FERC. The Forest Service anticipates that FERC will decide according to the Forest Service recommendation. However, because FERC retains the authority to determine whether a project is consistent with the purposes of the reservation, include the following in the 4(e) report: If the commission disagrees with this recommendation of the Forest Service, the Forest Service reserves the right, after notification from FERC, to provide the commission with appropriate license conditions to protect the reservation. These conditions will be provided after an environmental impact statement has been completed by FERC with the Forest Service as a cooperating agency.

54.42 - Study Area. Inform FERC and the applicant through an initial 4(e) report that (1) the project would affect <name and type> study area, (2) the decision on that study area's allocation will not be complete until approximately <date> , (3) the Forest Service cannot issue a special-use authorization until there is a decision regarding the land allocation (preferably through the forest plan), (4) the Forest Service recommends that FERC deny the application or withhold action on the application until after the land allocation, and (5) if FERC decides to proceed with its own environmental impact statement (EIS), the Forest Service requests to be a cooperating agency and, as such, shall inform FERC of its recommendation on the project's consistency with National Forest purposes and shall provide license conditions if appropriate when the EIS is

complete.

Under item 4, if the land-use decision is reasonably more than 1 year away, recommend denial of the application.

Attach comments and supporting information as appropriate. Do not attach conditions or other decision items in the initial 4(e) report.

54.43 - Projects With Significant Effects and/or Potentially Incompatible. Where a project is potentially incompatible with the land's allocation or existing use, but there is not adequate documentation available to support that determination, or where the project is determined through analysis to have a significant effect on the quality of the human environment, inform FERC and the applicant of that fact in an initial 4(e) report. State that (1) the project might interfere and be inconsistent with the purposes for which the <name> National Forest was created or

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acquired, and/or (2) the project would have a significant effect on the quality of the human environment and the Forest Service requests that FERC prepare an environmental impact statement (EIS) for the project and designate the Forest Service as a cooperating agency. Inform FERC that the Forest Service will provide the recommendation on consistency with the reservation and provide license conditions, if appropriate, when the EIS is complete.

Include comments, supporting material, and references in the 4(e) report to support the need for an EIS. Do not include conditions or other decision items.

54.44 - Projects Without Significant Effects. Analyze these projects and attach appropriate conditions to the 4(e) report as discussed in section 52.

54.5 - Problems Associated with Licensed Projects

1. Prior to Obtaining a Special-Use Authorization (sec. 23.3).
2. During Construction (sec. 61.82).
3. During Operation (sec. 61.83 and sec. 61.85).

54.6 - Inadequate Application for License/Special Use. If the application for license and special use does not contain sufficient information or the information is not objective enough to use as an environmental assessment, and an environmental impact statement is not necessary, inform FERC of that fact through an initial 4(e) report (sec. 61.3). Indicate that the final 4(e) report containing conditions will be sent to FERC 90 days after the Forest Service receives an adequate application. Send a copy of the initial 4(e) report to the applicant. Where adequate review of the draft license is possible, this procedure should seldom be necessary (sec. 53.3). See 18 CFR 4.38(2)(i)

for a description of the types of studies which must be conducted before the application for license is prepared.

See exhibit 1 for an example initial 4(e) report for an inadequate application.

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Exhibit 1

Example Initial 4(e) Report for an Inadequate Application

[] Region [Address]

2770

February 28, 1986

Mr. Kenneth F. Plumb
 Secretary
 Federal Energy Regulatory Commission
 825 North Capitol Street, NE.
 Washington, DC 20426

Dear Mr. Plumb:

This letter is the initial response of the Secretary of Agriculture, pursuant to section 4(e) of the Federal Power Act, to the Notice of Application for Minor License by Western Power, Inc., dated December 21, 1985, for Project No. 9999-001 on Quartz Creek in Snohomish County, Washington.

This proposed project may have a major impact on National Forest System lands within the Mt. Baker National Forest. The applicant has not yet supplied adequate information for the Forest Service to use in assessing the impacts of this project and its alternatives. We, therefore, request an extension time, within which to furnish comments, until 90-days after receipt of adequate information regarding the following resources.

1. Instream flow needs and mitigation plans for protection of the fisheries resource and riparian habitat (first requested of the applicant in letter of March 3, 1985).

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

2. Survey and mitigation plans for potential impacts to the sensitive plant species, *Lewisia seratta* (first requested of the applicant in letter of July 25, 1985).

The applicant should contact the Supervisor of the Mt. Baker National Forest at the applicant's earliest convenience to discuss the specific study needs, and prepare a study plan before beginning data collection work.

Sincerely,

</s/name>

Regional Forester

cc:Applicant

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54.7 - Rules Regarding Wild and Scenic Rivers. The Forest Service, acting for the Secretary of Agriculture, is responsible for determining whether the proposed project is "on or directly affecting" a designated wild and scenic river under jurisdiction of the Secretary. Such rivers may have been designated in section 3(a) or through section 2(a) of the Wild and Scenic Rivers Act, or by subsequent acts of Congress.

A project is on a river if it is on a section of river designated by an act of Congress. A project is directly affecting a river if it is proposed to be within the boundaries of the river designated in an act of Congress or designated by the Secretary of the Interior through section 2(a)(ii) of the act. If a project is determined to be on or directly affecting a designated river, section 7(a) of the Wild and Scenic Rivers Act prohibits FERC from authorizing it.

A project is indirectly affecting the river if it is proposed to be above, below, on a tributary thereto, or near but outside the boundaries of the designated river and could have some effect on the wild and scenic values of the river. For a project indirectly affecting a river managed by the Forest Service, the Forest Service is responsible for determining whether a project is compatible with the designation of that river (section 7(a) of the Wild and Scenic Rivers Act).

Follow the procedures of 36 CFR 297 in determining the compatibility of the actual proposal with the wild and scenic river (whether or not it would invade or unreasonably diminish the scenic, recreational, or fish and wildlife values for which the river was designated). A key aspect of this determination is that the project or studies cannot adversely affect the free-flowing characteristics of the designated or study river.

For study rivers listed in section 5(a) of the act, the rules as described in section 7(b) of the act are the same as the preceding rules for designated rivers under section 7(a) of the act. These rules only apply while those rivers are under consideration for inclusion in the wild and scenic rivers system as defined in section 7(b) of the act. While technically not given the same statutory protection, the same or similar rules should apply to specific rivers subsequently designated for study, under section 5(d) of the act, by the Secretary of Agriculture or the Secretary of the Interior or by Congress. See additional instructions in FSM 2354.21.

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Rivers listed on the Nationwide Rivers Inventory fall under the authority of section 5(d) of the act and are under consideration for inclusion in the wild and scenic rivers system. Rivers designated for study through such mechanisms as a forest plan are designated for study by the authority of section 5(d). See instructions in FSM 2354.62.

All rivers under consideration for inclusion in the wild and scenic rivers system shall be protected for that potential designation until such time as they are ruled ineligible or unsuitable. Construction of a project which is within the boundary of a river segment may not be approved while the river is under study for inclusion in the system. Construction of a project indirectly affecting a study river may be approved if it does not invade or unreasonably diminish the values for which the river may be designated.

See section 54.13 for instructions on informing FERC of the status of these rivers.

54.71 - Section 7(a) and 7(b) Determinations. Under section 7(a) of the Wild and Scenic Rivers Act, the Regional Forester as delegated in FSM 2354.04e, makes these determinations when the Forest Service is the management agency for a designated Wild and Scenic River. Determinations under section 7(b) for study rivers follow the same rules. A determination under either section involves determining whether a project is "on or directly affecting" a designated river (includes certain study rivers); if not on or directly affecting the river, the second part would be a determination of whether the project "invades or unreasonably diminishes the values for which" a river is or may be designated. Follow the guidance of section 54.7 and 36 CFR 297 in making these determinations. Send section 7 decisions to the Washington Office Director of Lands for forwarding to FERC in accordance with section 54.72.

54.72 - Approval and Routing of Section 7 Determinations. The specific routing procedure for Section 7(a) and 7(b) Determinations is as follows (1) the Region creates a final draft of the 7(a) or 7(b) report package and sends it electronically to the Washington Office Lands Staff member responsible for FERC coordination; (2) the Lands Staff reviews it and sends comments back to the Region; (3) the Region makes appropriate corrections and the Regional Forester signs the appropriate documents; (4)

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the Region sends the original package to the Washington Office Director of Lands for forwarding to FERC; (5) the Region immediately sends a copy to the applicant and others with an expressed interest in receiving it; (6) upon receipt of the package, the Washington Office Director of Lands forwards it to FERC.

55 - FOREST SERVICE STANDARD LICENSE CONDITIONS. Carefully word

license conditions that the Forest Service wants incorporated into a Federal Energy Regulatory Commission (FERC) license so that it is possible to track and enforce them.

55.1 - Selecting 4(e) Conditions. Select carefully from the standard Forest Service 4(e) conditions (sec. 55.3). Not all conditions would be useful in any one license. Select or develop conditions for resource protection for those situations where it would be desirable to have the force of the license.

Do not use license conditions to gather information concerning the impacts of a proposed project. That information (field surveys, mitigation methods, and so forth) must be supplied by the applicant at the time of the license application. See 18 CFR 4.38(2)(i) for a description of prelicense studies and plans. If the information is unavailable, follow the procedures of section 54.6. License conditions may require more detailed implementation plans for the mitigation measures.

The license can require the licensee to consult other agencies, but cannot require a response from another agency as a prerequisite to the licensee's action.

In section I of Enclosure II of the 4(e) report refer to one of the following Commission standard form L licenses:

- L-1 Constructed Major / US Lands
- L-2 Unconstructed Major / US Lands
- L-5 Constructed Major / Navigable Waters / US Lands
- L-6 Unconstructed Major / Navigable Waters / US Lands
- L-16 Constructed Minor / US Lands
- L-17 Unconstructed Minor / US Lands
- L-18 Constructed Minor / Navigable Waters / US Lands
- L-19 Unconstructed Minor / Navigable Waters / US Lands
- L-20 Constructed Transmission Line
- L-21 Unconstructed Transmission Line

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55.11 - Coordinating License and Special-Use Conditions. Rely on conditions that are to be made part of the special-use authorization when the resource protection needs are fairly routine and the mitigation would not materially affect the economic viability of the project. Conditions that affect power production capability shall be only in the license. If there is a question as to whether the resource should be protected through the license and special-use authorization or the special-use authorization alone, consider the benefits of having the support of the license, especially for expensive mitigation or when any major problems in enforcement are foreseen (FSM 2773.4).

55.2 - Enforcing 4(e) Conditions. Carefully review the license plans that the licensee is to submit for Forest Service approval before submittal to FERC. Ensure that the plans meet the needs of National Forest resource protection, and that the plans contain language that provides for direct enforcement of the plans by the Forest Service. When appropriate, ensure the plan

provides for such actions as the Forest Service temporarily suspending construction activities relating to a plan until the licensee is in compliance. See exhibit 1 for an example of a plan clause making the plan enforceable by the Forest Service through the license.

□

Exhibit 1

SAMPLE ENFORCEMENT CLAUSE TO BECOME PART
OF A PLAN SUBMITTED TO THE
FEDERAL ENERGY REGULATORY COMMISSION

<licensee> is responsible for complying with the objectives and conditions of this plan. In the event that the Forest Service determines that operations affecting National Forest lands are not in compliance with this plan, the Forest Service shall notify <licensee> orally and in writing requesting compliance within a specific period of time. If <licensee> does not comply within the specified time period, the Forest Service may suspend construction or operation activities affected by such noncompliance until the Forest Service determines that the project is in compliance.

In the event that the Forest Service determines that noncompliance poses an immediate threat to safety or the environment, or poses an immediate fire danger, the Forest Service may require an immediate suspension without prior notice. Such suspension shall be given orally by the <title> , <title> , or <title> . The Forest Supervisor shall followup such notice with a letter. The suspension will remain in effect until the Forest Service determines that the project is in compliance.

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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.

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

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Exhibit 1 - Continued

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

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

uses of project lands and waters, or any departure from the requirements of any 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.

Exhibit 1 - Continued

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.] 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:

<date> through <date>	<no.> cubic feet per second (cfs)
<date> through <date>	<no.> cfs
<date> through <date>	<no.> 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].

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Exhibit 1 - Continued

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; 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

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

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 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.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

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

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.

HYDROELECTRIC HANDBOOK

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. 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.

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.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

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.

HYDROELECTRIC HANDBOOK

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.

E. AESTHETICS

Condition No. 16 - Visual Resource Protection

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.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

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.

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.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

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.

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CHAPTER 60 - SPECIAL-USE AUTHORIZATIONS

60.3 - Policy. Issue special-use authorizations for all hydroelectric projects licensed by the Federal Energy Regulatory Commission (FERC) that occupy National Forest System lands. Only the Chief may make exceptions.

Use special-use authorizations to authorize approved hydroelectric projects, that have been exempted from licensing by FERC.

Use special-use permits to authorize studies, especially those that may have land- or resource-disturbing potential (for example, roads, equipment use, drilling, survey clearing, marking, staking, painting, and so forth).

61 - SPECIAL-USE PROCEDURES

61.1 - Types of Authorizations. Use the following hydroelectric Forest Land Use Report (FLUR) codes for projects as appropriate.

1. 413 - Hydroelectric Investigation Special-Use Permit
2. 611 - Licensed Hydroelectric Special-Use Authorization
3. 612 - Exempted Hydroelectric Special-Use Authorization

If the proposed project only has a transmission line or road that would occupy National Forest System land, issue the appropriate authorization for that individual facility (FSH 2709.11, ch. 50), and use its associated FLUR code. For example, if the only facility on the National Forest was a transmission line, then prepare and issue a transmission line authorization (FLUR code 643). For other facilities or multiple facilities which may or may not include transmission lines or roads, use a hydroelectric authorization. See chapter 70 for hydroelectric permit use, instructions, and clauses.

61.2 - Preapplication Procedures. Coordinate with the applicant during project planning to ensure proper development of the power resource. See sections 14, 23.6, 23.61, and 24 for additional instructions on preapplication procedures.

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61.3 - Application for Special-Use Authorization. Applicants shall apply for project special-use authorizations at the time they apply for a license or exemption from licensing. Use form FS-2700-3, Application for Special Use. To be adequate, the application must contain a complete disclosure of alternatives and an objective disclosure of the environmental impacts of those alternatives. Return to the applicant any application that does not contain adequate information and notify the Federal Energy Regulatory Commission (FERC) (sec. 54.6).

The applicant may use the information and exhibits prepared for the FERC application to meet the needs of the special-use application, to the extent that they meet the needs previously specified. See section 61.51a for information concerning applications for investigation special-use permit.

61.4 - Special-Use Authorization Fees. Fees may be charged for investigation special-use permits, as well as for project construction and operation special-use authorizations.

61.41 - Investigation Permit Fee. Unless the market conditions indicate that a higher fee is appropriate, charge \$200.00 for the term of a hydroelectric investigation permit.

61.42 - Licensed Project Authorization Fee. Waive the fee for this type of authorization unless the Chief determines that the fee collected by FERC does not represent a fair market return for the use of National Forest land. If at some future date the Chief should decide to charge a fee, the holder will be credited for the fee already collected by FERC.

The holder shall pay a fee, as described in section 61.43a, for areas outside the license boundary that are under temporary permit.

61.43 - Exempted Project Authorization Fee

61.43a - Fee for Construction Period (Minimum Operation Fee). Charge the annual minimum fee of 10 percent of the land value of the area under permit for periods when power is not being sold. At the option of the Regional Forester, determine such land value by appraisal or by appropriate average land values for the area. The holder shall pay the minimum fee in advance at the beginning of each year.

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Calculate the fee for temporary permits issued for temporary areas outside the main permit area at 10 percent, annually, of the land value of the area under those permits.

61.43b - Operation Fee. Unless local market conditions indicate otherwise, the holder shall pay a fee of 3 percent of the gross power sales from the date of issuance of the permit until the end of the fifth year. From the start of the sixth year to the end of the tenth year, the holder shall pay a fee of 5 percent of the gross power sales. The fee from the start of the eleventh year until the end of the term of the authorization may increase up to 10 percent. Determine the final rate through a reevaluation of the market, during the tenth year.

The holder pays the minimum operation fee (sec. 61.43a) in advance each year and that amount is credited toward the operation fee. The holder pays the operation fee quarterly, within 45-days of the end of each quarter, unless the average annual fee is less than \$2,000. The holder does not start paying the quarterly operation fees each year until that year's accumulated operation fee exceeds the minimum operation fee.

61.43c - Fee Adjustment for Mixed Ownership. Adjust the operation fee when the Government land under permit is less than 90 percent of the total area actually occupied by the project, excluding access roads and transmission lines. Make the adjustment by measuring the slope-distance length of the project, from the outlet of the lowest powerhouse tailrace to the upstream edge of the impoundment created by the diversion. The percentage of that length that is on Government land is the percentage of the total fee that is due the Government. For example, if the government owns 800 feet of a 1,000 foot project the initial operation fee would be 80 percent of 3 percent of the gross power sales or 2.4 percent of the gross power sales.

If there is more than one diversion, include the additional lengths of those other diversions from the point of intersection with those already measured in the total length.

61.43d - Personal-Use Fee. If the power project does not sell the power commercially, charge 3 percent of the average rate charged by the local power company for similar uses, subject to an annual minimum fee of 10 percent of the land value of the area under permit. The holder shall pay the minimum fee in advance each year.

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61.43e - Transmission Line Fee. The holder shall pay a separate fee for the area under permit for the transmission line portion of the project if such a line is the only facility under permit or if the transmission line exceeds 2500 feet to the point of interconnection with an existing transmission line. A separate special-use authorization for a transmission line greater than 2,500 feet is not necessary, but may be used at the discretion of the authorizing officer. Determine the fee by the procedures for transmission line fees.

61.5 - Special-Use Authorization Procedures

61.51 - Choice and Term of Authorization. See section 61.1 for Forest Land Use Report (FLUR) codes and other information.

61.51a - Special-Use Permits for Hydroelectric Investigation (Preliminary Permit Stage). The applicant shall apply for an investigation special-use permit (FLUR code 413) after receiving a preliminary permit from the Federal Energy Regulatory Commission (FERC) or as agreed to in a memorandum of understanding between the applicant and the Forest Service (sec. 61). If necessary, an applicant may obtain a special-use permit for appropriate studies before applying for a FERC preliminary permit, exemption, or license.

The FERC preliminary permit allows the developer to retain priority while conducting feasibility studies, but does not give the developer any right to use National Forest System land without a Forest Service special-use permit. The Forest Service investigation special-use permit governs on-the-ground studies, soil disturbing activities, and the type and placement of instruments and gauges. Ensure that the developer is aware that

special restrictions apply to studies for cultural resources and for studies inside or adjacent to special management areas, such as wild and scenic river corridors, wilderness, or roadless study areas.

When possible, match the term of the investigation special-use permit with that of the FERC-issued preliminary permit. The Forest Service may extend the special-use permit annually when an applicant has a legitimate need to perform additional studies. See section 71.3 for the permit format.

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61.51b - Special-Use Authorizations for Exempted Projects. Issuance of an exemption qualifies a site as being suitable for development and affords the exemptee priority protection as long as the exemptee meets performance requirements. The exemptee must also hold a right of occupancy to any private land, not owned by the exemptee, that the project would occupy.

The special-use authorization for an exempt project should contain the basic conditions that normally would have been in a license, such as the engineering and structural specifications, land-use and administrative fees, resource protection requirements, and safety requirements in addition to other special clauses deemed appropriate by the Forest Service. The Forest Service is responsible for the regulation and monitoring of construction, operation, and fee collection.

The authorizing officer shall establish the term of the permit for an exempted project. Such term should allow for the reasonable amortization of the investment, but generally should not exceed 30 years.

The applicant must show technical and financial capability to construct, operate, and terminate the project. Include provisions for site restoration in an authorization for an exempted project. Require a performance bond of sufficient value to cover restoration as part of a special-use authorization issued for a hydroelectric project that may be high risk, technically or economically. See section 71.2 for the permit format.

61.51c - Special-Use Authorizations for Licensed Projects. The developer of a licensed project must obtain a Forest Service special-use authorization before constructing any new facilities on National Forest land (FSM 2771.1, FSM 7503, and FSM 7504). Issue the special-use authorization for a term that coincides with the term of the license. See section 71.1 for permit format.

61.52 - Special-Use Authorization Rules

61.52a - Timing. Do not grant a project special-use authorization until the Federal Energy Regulatory Commission (FERC) has issued an exemption or license. See FSM 2771.1 for exceptions to the need for a special-use authorization for projects located partially or wholly on National Forest System

lands ("grandfather clause" situations).

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61.52b - Transfers. Transfer special-use permits as necessary and desirable in accordance with 36 CFR 251.59. An easement can be assigned. Transfer of a FERC license does not open the license up for Forest Service review. Existing license conditions cannot be modified or new ones added, except by FERC.

61.52c - Cancellation, Revocation, and Surrender. Cancellation, revocation, or surrender of a preliminary permit, exemption, or license terminates the associated Forest Service special-use authorization.

61.52d - Transmission Lines. If less than 2,500 feet in length, include the portion of the project's transmission lines on National Forest System land in the hydroelectric project special-use authorization. If more than 2,500 feet long, a separate permit may be issued for all of the new transmission line that is on National Forest System land.

Wheeling stipulations are no longer required and may be removed from existing permits; however, consult with the Department of Energy (DOE) for lines over 66 kV that are not part of a licensed project. Send DOE or the appropriate Power Administration a copy of the application for special-use permit. Request their comments, if any, be submitted within 30 days (36 CFR 251.54(g)(2)). FERC is responsible for coordination on licensed projects.

61.52e - Roads. Include single purpose roads built in the project area and used as project facilities in the hydroelectric special-use authorization. Authorize separately from the hydroelectric permit (1) roads that are to be part of the Forest Development Road System (for access to an area and to be open to the public) and (2) reconstruction and use of existing system roads.

61.52f - Permit Boundaries. Include in the investigation permit whatever area is necessary for study. Note that this would not necessarily be valid for special areas as discussed in section 54.1.

For exempted projects, include National Forest System lands needed for permanent facilities in the project special-use authorization. Include temporary areas in an annual permit issued during the construction period.

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For licensed projects, include all National Forest System lands within the project boundaries in the project special-use authorization. For an amendment to license, do not include areas outside of the influence of the changes proposed by the amendment, unless they were previously under permit. Authorize

temporary areas not within the project boundaries by separate annual permit.

61.52g - Personal-Use Hydroelectric Projects. If any part of a hydroelectric power project is located on Federal land, the developer must obtain a license or exemption from licensing from FERC before the Forest Service may issue a special-use authorization.

Section 23(b) of the Federal Power Act as amended by the Act of August 26, 1935, makes it unlawful for a non-Federal entity to develop hydroelectric power on Federal lands, unless a license has been granted or the Federal Energy Regulatory Commission has determined that the proposal qualifies for exemption from Part I of the Act. The only exception is where the entity currently holds a valid permit or right-of-way granted prior to June 10, 1920.

61.52h - Authorizations Within Withdrawals. See FSM 2774.1 for instructions concerning issuing permits for occupied Federal Power Act withdrawals. Lands withdrawn under the Federal Power Act may be exchanged, with the consent of FERC. Unless the withdrawal was revoked before the exchange, those lands exchanged out of still would be subject to hydroelectric use under section 24 of the Federal Power Act.

Forest officers may authorize projects within withdrawn areas for uses other than the use contemplated by the withdrawal; however, insert a clause in the authorization that reserves the government's right to require removal of the permitted facilities without compensation to the holder (FSH 2709.11 sec. 53.5, clause E11).

Before issuing an appropriate special-use authorization for a project occupying National Forest System land withdrawn and occupied by a reclamation project, consult with and obtain consent from the Bureau of Reclamation. These lands remain as part of the National Forest System even if occupied by a Bureau of Reclamation project. Do not issue permits which interfere with reclamation purposes.

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61.52i - Adjustment of the Conditions of an Exempt Project. It is possible that unforeseen impacts or problems could arise during the term of an exempt project, which may be 30 years. Considerable damage could occur before the project needs a new authorization. Therefore, include a clause in authorizations for exempt projects that allows the Forest Service to adjust the terms of the authorization in the public interest and within the economic limits of the project.

Work with the holder to resolve operating impacts as they occur and try to obtain voluntary project adjustment by the holder to correct problems that are causing impacts. If the problems are severe and the Forest Supervisor is unable to obtain voluntary compliance from the holder, the Regional Forester may unilaterally amend the authorization with the appropriate

changes. Take such action only after a thorough analysis of the impacts and economic capabilities of the project and after allowing the holder to provide input. Do not provide the holder with compensation for such changes.

61.6 - General Conditions. Notify the applicant early about the special-use application process, environmental studies needed, issues and potential alternatives to be addressed, mitigation, plans necessary, fees, and general aspects of the special-use authorization and license conditions. Exhibit 1 summarizes the standard special-use authorization to help advise the applicant. See section 62 for additional information. Refer to section 54.11 for license and special-use condition coordination. See chapter 70 for specific special-use authorization conditions and formats.

Exhibit 1

SUMMARY OF SPECIAL-USE AUTHORIZATION CONTENT

The special-use authorization issued by the Forest Service for use and occupancy of National Forest lands for the construction and operation of hydroelectric projects may include clauses referring to the following areas.

1. Fees

- a. Fees.
- b. Rate redetermination.
- c. Service charges for late payment.
- d. Access to sales records.

2. Business Status and Operation

- a. Permit not transferable, but new permits may be issued to the new owner.
- b. Holder must notify Forest Service of any changes in holder status.
- c. Holder must control subcontractors (and sublessees) who must abide by permit requirements.
- d. Holder must post a performance bond.
- e. Permit has a specific term.
- f. Forest Service may suspend or revoke the permit for noncompliance.
- g. Holder must obtain other necessary permits, and have FERC status.
- h. Holder must not discriminate in employment.

3. Liability

- a. Holder must indemnify Government against any claims resulting from its use.
- b. Holder may be liable to the Government for damages resulting from project facilities.
- c. Holder assumes responsibility for damages that result from the natural hazards of operations in the forest.
- d. Holder must conduct inspections and is subject to other inspections.

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Exhibit 1 - Continued

4. Environmental Protection

- a. Aesthetics.
- b. Erosion control.
- c. Pollution control.
- d. Threatened and endangered species.
- e. Timber removal and protection.
- f. Cultural resource protection.
- g. Fish protection and fish releases (exempted projects only).
- h. Inspection, operation, and maintenance plans.

5. Construction

- a. Area maintenance and refuse disposal.
- b. Safety.
- c. Construction standards, codes, and proper engineering.
- d. Construction schedules.
- e. Construction inspection.
- f. Construction management by holder.
- g. Plan approval, construction approval.
- h. Clearing.
- i. Protection of survey corners.
- j. Fire protection.
- k. Sign control.
- l. Unattended construction equipment.
- m. Road construction.
- n. Construction techniques.

6. Land Status

- a. The permit is subject to prior valid claims on the land.
- b. The Forest Service may permit other uses of the land that do not adversely affect the permitted use.
- c. The Forest Service has access to all facilities.
- d. The holder may have to move certain linear facilities to allow for future Forest Service development needs.

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Exhibit 1 - Continued

7. Operation

- a. Changes must be approved by Forest Service.
- b. Pesticide use.
- c. Road use.

8. Plans

The Forest Service may require special plans of the

holder, for example: Fire, erosion control, revegetation and/or rehabilitation, spoil disposal, grading and profile, oil and hazardous substances, sewage disposal, flood plain and wetland protection, reservoir operation, clearing and disposal, timber removal, recreation, landscape management, borrow pit restoration, transportation, road maintenance, safety, and construction monitoring.

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61.7 - Special Procedures Relative to Old Projects

61.71 - Special-Use Permits Issued Before the Federal Land Policy and Management Act. Before the enactment of the Federal Land Policy and Management Act of 1976, licensees may have constructed some of the facilities related to licensed hydroelectric projects under special-use permits rather than under Federal Energy Regulatory Commission (FERC) licenses. Retain that special-use permit unless those facilities subsequently were incorporated into a FERC license before October 21, 1976. If these facilities were included in the license boundary before October 21, 1976, terminate the special-use permit in favor of the license.

61.72 - Relicensing (New License). Projects that receive new licenses require special-use authorizations.

61.73 - Amendments to License. Include in a special-use authorization any areas occupied or altered by new facilities proposed by an amendment to an existing license, whether such areas are within or outside of the old license boundary.

Amendments of licenses often provide an opportunity to correct unsightly and other long-standing damage created by the original project construction. Ensure, however, that mitigation is reasonably associated with the construction proposed under the amendment.

61.74 - Minor Projects Authorized by Forest Service Only. Prior to May 13, 1976, the Forest Service was authorized by the Federal Power Commission to permit minor hydroelectric projects (projects less than 1.5 MW in size (sec. 10.52)). Developers of projects completed since that date must obtain a minor license from FERC. Existing permits for such minor hydroelectric projects will remain valid until terminated or until the permittee requires a new or amended permit. At that time, the permittee shall contact FERC to obtain a license or exemption from licensing, or to obtain a jurisdictional ruling from FERC as described in 18 CFR 24 and section 61.52g.

Follow the instructions in section 61.43 to update the fees for such projects. If the project is for personal use and is not metered, use the minimum fee based on land value until the permittee requests other changes in the project.

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61.8 - Special-Use Authorization Administration

61.81 - Before Construction (Plan Approval). Review and approve plans called for in the license that are subject to Forest Service review or approval. Review and approve plans called for in the special-use authorization. For licensed projects, review and approve engineering designs as they pertain to surface

resources and impacts. Specification and plan review of dams and water conveyance systems must conform to FSM 7512.

Review all design aspects on exempted projects. Verify that the impacts that would result from the implementation of such plans are consistent with those impacts disclosed in the environmental documentation for the project (sec. 32.72). If the impacts are more severe than earlier disclosed, have the developer submit new plans that provide adequate mitigation or the Forest Service must disclose the new impacts through the appropriate environmental procedure (FSM 1950 and FSH 1909.15).

61.82 - During Construction

The holder shall be responsible for inspecting the construction work and for complying with the special-use authorization. Monitor the construction activity closely to ensure that the National Forest resources are protected and the project impacts and construction are limited to those discussed in the environmental analysis.

Review the Federal Energy Regulatory Commission (FERC) license and be aware of State requirements (water quality, fish, fire, and so forth). Inform FERC and other agencies of any current construction situations that they should review to ensure that the developer complies with those requirements.

Avoid interfering unnecessarily with the development of the hydroelectric project and work carefully to anticipate and prevent problems.

If the project is causing unacceptable resource damage, violating fire regulations, or endangering public safety and if the developer is not adequately correcting those situations, the forest may have to suspend part or all operations on National Forest land, pursuant to 36 CFR 251.60f, until the developer complies with the terms of the special-use authorization.

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If time permits, involve the FERC Regional Office in any corrective action the Forest Service intends to take on licensed projects. Otherwise, as soon as possible, advise FERC of the situation and of any Forest Service action taken.

61.83 - During Operation. With an operating project there is usually more time to involve those concerned before taking action on problems. In nonemergency situations only FERC should take the action on licensed projects. Where there is a definite operating emergency, action similar to that in section 61.82 and in accordance with FSM 7566 may be warranted.

61.84 - Projects with Both Special-Use Authorization and License. (Sec. 61.82 and sec. 61.83).

61.85 - Projects With License Only. The Forest Service has no authority to directly enforce license conditions unless the license so states. However, in an emergency, the Forest Service

has authority, under appropriate regulations, to issue a citation or notice of violation to prevent damage to National Forest System lands.

Promptly bring any violation of license conditions that adversely affects National Forest management or resources to the attention of the licensee and the Federal Energy Regulatory Commission (FERC). Verbally request corrective action. Document the situation and request in writing that the licensee take immediate corrective action. Send copies of correspondence to the Regional Forester and to the FERC Regional Director. If the licensee does not take suitable corrective action within a reasonable time, the Regional Forester shall inform the FERC Regional Director of the situation by letter, request necessary action to enforce the license conditions, and send a copy of that letter to the licensee. When necessary, use phone contacts with the FERC Regional Director's staff for swifter action. Flagrant violations also may be reported directly to the enforcement branch at FERC's Washington Office. Official complaints may be filed by the Chief with FERC's enforcement branch.

Where there is a memorandum of agreement, a collection agreement, or a cooperative agreement with the licensee, administer these in accordance with their terms.

62 - SUPPLEMENTAL PLANS. Supplemental plans are used to reduce the number of confusing and perhaps unnecessary special-use and license clauses that control specific construction, operation, and maintenance impacts. Identify these plans as early as possible (often through a letter or project memorandum of understanding) and refer to them in a clause that makes them part of the special-use authorization or license. Supplemental plans are subject to Forest Service approval. The holder should complete at least general plans (with site specifics to come later) before construction begins. Exhibit 1 can be used as a key to the plans listed, and their potential for use in certain aspects of a project.

□ Exhibit 1

LISTING AND KEY TO USE OF COMMON PLANS

No.	Name	Codes For Use
1.	Erosion Control	MC, PO
2.	Landscape Management	MC, PO
3.	Revegetation/rehabilitation	MC
4.	Spoil Disposal	MC
5.	Clearing/Disposal	MC
6.	Spill Prevention	MC, PO
7.	Monitoring	MC, PO
8.	Grading and Profile	PC
9.	Sewage/Refuse Disposal	PC, PO
10.	Reservoir/Conveyance Operation & Maintenance	PO
11.	Floodplain/Wetland	PC
12.	Borrow Pit Restoration	PC
13.	Cultural Resource Management	PC
14.	Fish and Wildlife	PC PO

15.	Water Resources	PO
16.	Sensitive Plants/Animals	PC, PO
17.	Fire	MC
18.	Transportation	MC
19.	Road Maintenance	MC, MO
20.	Recreation Site	PC
21.	Public Information	PC
22.	Safety	PC, PO

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

- 1 Codes MC (mandatory construction) - usually needed in construction phase.
 PC (possible construction) - might be needed in construction phase.
 MO (mandatory operation) - usually needed in operation phase.
 PO (possible operation) - might be needed in operation phase.

62.1 - Plan Contents. The following sections describe the typical content of some common plans.

1. Erosion Control. Contains detailed specifications to control soil erosion and to prevent slope instability as a result of construction, operation, or maintenance of project facilities. Coordinate with plans for revegetation and rehabilitation, spoil disposal, and grading and profile.

2. Landscape Management. Includes, but is not limited to, (1) the identification of important viewed areas, (2) analysis of impacts, and (3) measures for mitigating the visual impacts during construction and operation of the facilities.

3. Revegetation/Rehabilitation. Includes requirements similar to the following: The holder shall strip topsoil from certain construction areas and deposit it in storage piles apart from other excavated material. After the desired amount of material has been removed, the holder shall spread the stored topsoil evenly over exposed subsoil in appropriate areas to the extent practicable and shall revegetate the area.

To the extent practicable, the holder shall establish a vegetative cover on all cut and fill slopes, spoil and borrow areas, and other disturbed areas as required by the Forest Service.

The holder shall seed or plant at a time of the year, in a manner, and with species that the Forest Service considers to offer the best chance of success. The holder shall repeat these measures regularly as conditions permit until the areas are accepted in writing by the Forest Service as being satisfactorily revegetated and stabilized.

4. Spoil Disposal. Concerns the storage or disposal of

excess construction/tunnel spoils and slide material. Address (1) purpose and use of material, (2) spoil storage locations, (3) contouring of the storage pile to conform to adjacent landform and slope, (4) stabilization and rehabilitation of spoil sites and borrow pits, and (5) prevention of water contamination by leachate and runoff. If spoil is to remain an active borrow, discuss long-range rehabilitation.

5. Clearing and Disposal. Identify (1) the areas to be cleared of vegetation, (2) the degree of clearing (how much vegetation to remove; for example, all over 12 inches, all down to mineral soil, and so forth), (3) the dimensions of the clearings, (4) the methods to be used in clearing, (5) the anticipated amounts of slash and their locations, and (6) the methods and timing of disposal.

The timber removal portion of the plan should specify (1) the need for a timber settlement contract; however, removal by a Forest Service commercial timber sale is the preferred timber disposal method (FSM 2464.03), (2) what timber to remove, (3) when to remove it, (4) how to remove it (including slash disposal, stump heights, logging systems, seasons, and everything that normally goes into a logging plan), and (5) who is responsible for its removal. This portion of the plan is not necessary if the Forest Service is going to remove the timber via a commercial timber sale unless the holder is responsible for removing small portions that need immediate removal.

6. Toxic and Hazardous Material Spill Prevention, Control, and Countermeasures. The holder shall prepare an Oil and Hazardous Substances Pollution Contingencies - Spill Prevention Control and Countermeasures Plan (SPCC) in conformance with 40 CFR 112 (Oil Pollution Prevention). This plan includes an implementation schedule, inspection and maintenance program, and evidence of appropriate agency consultation.

Select, where appropriate, from the following example requirements for inclusion in the plan:

- a. The holder shall locate storage facilities for oil, fuel, and toxic and hazardous material so as to prevent any spillage into waters or channels leading into water.
- b. The holder shall develop containment areas with large berms and impervious surfaces as needed.
- c. The holder shall maintain, in the project area, a cache of spill cleanup equipment suitable to contain a spill from project equipment or a storage area.
- d. The holder periodically shall inform the Forest Service of the location of the spill cleanup equipment and of the location, type, and quantity of oil, fuel, and toxic and hazardous substances stored.
- e. The holder shall inform the Forest Service immediately of the nature, time, date, location, and action taken for any spill.
- f. The holder shall note in the spill contingency plans,

the spill emergency contacts for the holder, Forest Service, and other agencies and shall post the contacts in the construction office at the work sites.

Please note that the plan must follow 40 CFR 112 regulations (1) if total fuel products storage exceeds 1,320 gallons at one site or (2) if any single container exceeds a capacity of 660 gallons. The plan may be on another format if those conditions are not met. Underground storage must be in accordance with State and local laws. Pesticide use shall be in accordance with FSH 2109.2.

7. Monitoring. This plan may be prepared in conjunction with the environmental documentation of the project. It should specify (1) which resources the project is likely to affect, (2) the mitigation measures to be used to protect those resources (or location of mitigation list), (3) which resources and parameters will be monitored or measured, (4) the reasons those resources will be monitored or measured and the relationship of the parameter measured to the resource, (5) the duration and frequency of the monitoring or measurement, (6) the party responsible for the monitoring or measurement, (7) the timing and procedure for reporting the results, (8) the cost (optional), and (9) what actions to take if the impacts measured are unacceptable.

This plan is mainly needed for construction stipulations but may also be needed for overall operation. In complex situations, the plan would be better as a part of the license than special-use authorization.

8. Grading and Profile. This plan includes grading plans, profiles, and cross-sections to show precise elevations, excavations, and other details related to the installation of buildings, structures, or improvements within the project area. These plans should detail the specifications for any change in the course of and any construction operations in stream channels or draws. These plans include provisions for the prevention, control, and mitigation of any water pollution or impairment of the beneficial uses that might result from any alteration of or construction in stream channels. These plans include provisions for drainage, retaining structures, seeding, and planting done for the prevention and control of erosion.

9. Sewage and/or Refuse Disposal. This plan provides for drainage where necessary to intercept and/or divert surface runoff from the entire fill area of any refuse disposal site and that the sites are entirely above the groundwater table. There shall be no disposal of hazardous or potentially hazardous wastes on National Forest System lands. Most, if not all, refuse should be hauled to established disposal sites.

Require that the holder prepare plans for disposal of sewage generated during construction and operation of the project. The holder should prepare these plans in consultation with the Forest Service and with State and local health and water quality agencies. If applicable, the plans should include (1) the estimated quantity of sewage generated each day, (2) criteria for selecting the location of the disposal site(s) and method(s) of treatment, (3) areas available for disposal, (4) length of time

the facility will be necessary, (5) design criteria, (6) cost comparison of on-site disposal with disposal in a offsite treatment facility, (7) justification of on-site disposal of sewage, (8) implementation schedule, (9) maintenance program, and (10) evidence of agency consultation.

10. Impoundment and Conveyance Operation and Maintenance. The holder should prepare the operation and maintenance plan before beginning construction. The plan should address at least the following: (1) Water storage and releases, including storage limitations (if any), dates, discharge, and criteria for filling and release; (2) sluicing operations, including dates, discharge, and criteria for release; (3) procedures for flood conditions; (4) erosion prevention in reservoir area, spillway channel, and sluiceway; and (5) silt, sediment, trash, and debris removal. The plan should include an implementation schedule, maintenance program, and evidence of agency consultation. The holder shall file the plan for approval by the Forest Supervisor or authorized representative.

11. Floodplain and Wetland Protection.

a. If not already prepared for the license, the holder may need to prepare plans that:

(1) Evaluate the flood magnitude and associated flood heights of the 500-year recurrence event.

(2) Identify the full range of potential direct or indirect adverse impacts associated with the occupancy or modification of floodplains.

(3) Delineate wetlands.

(4) Identify and evaluate mitigating measures, including, but not limited to, technically feasible design and construction methods that (a) minimize the potential adverse impacts on floodplains or wetlands and (b) preserve and restore or enhance the natural and beneficial values that the project could adversely affect.

Plans should include an implementation schedule, maintenance program, and evidence of agency consultation.

b. The holder should plan for and perform the following during all phases of construction and operation of the project on National Forest System lands:

(1) Apply sound floodplain and wetland management principles.

(2) To the extent possible, avoid long- and short-term adverse impacts that may be associated with the occupancy and modification of floodplains and with the destruction, loss, or degradation of wetlands.

(3) Apply those best management practices (FSM 2532.3) approved for actions carried out in floodplain or wetland situations.

(4) Avoid filling of land within floodplains and wetlands

wherever possible.

12. Borrow Pit Restoration. Typically provides that after removal of the desired material, the holder must (1) recontour the land surface as close as possible to its original condition and (2) obliterate the service road. To prevent erosion, the holder shall fill ruts or marks of heavy equipment or other disturbed earth to the surrounding level.

13. Cultural Resource Management. The cultural resource management plan is usually part of Exhibit E of a FERC license or application for exemption, or as a report on historical or archaeological resources.

This plan must include a discussion of identified resources (without revealing specific locations), a statement as to their significance, evaluation of proposed impacts, and a plan for mitigation of those adverse impacts.

It is not necessary to duplicate in a separate plan the items included in the application.

14. Fish and Wildlife. As needed, the holder should prepare plans that include implementation of mitigation measures pertinent to potential project impacts. The holder shall conduct and document appropriate consultation with wildlife and fish management agencies. Consultation with the U.S. Fish and Wildlife Service is mandatory for threatened and endangered (T&E) species.

Following are some examples (although not an exhaustive list) of fishery concerns that a plan might include:

- a. Further instream flow evaluation and monitoring.
- b. Flushing flows.
- c. Amount and duration of water level fluctuations.
- d. Water temperature mitigation.
- e. Stream habitat maintenance of improvement measures.
- f. Fish passage.
- g. Fish screen provisions.
- h. Monitoring.

For wildlife, a plan may be needed to refine studies and appropriate mitigation measures. For example, a bald eagle (a T&E species) study plan might be appropriate. It is not necessary to duplicate items included in the FERC license.

15. Water Resources. For exempt projects the applicant may need to prepare a water resources plan. For projects with applications for license, the holder may need to provide similar information in the license application or be required by 4(e) condition to allow proper streamflow releases. The information in a water resources plan could include:

- a. Existing streamflows, including natural extremes.
- b. Instream flows necessary to accomplish the purposes of the National Forest, including but not limited to:
 - (1) Securing favorable conditions of flow.
 - (2) Fish and wildlife.
 - (3) Wild and scenic rivers.
 - (4) Recreation.
 - (5) Wilderness.
- c. The cumulative effects of this and other water projects on the stream system.
- d. Water quality, including but not limited to:
 - (1) Temperature.
 - (2) Sediment concentrations.
 - (3) pH.
 - (4) Total dissolved solids.

16. Sensitive Plants and Animals. These plans may include (1) the need for surveys of the species, (2) studies or evaluation to determine the importance of a population in relation to the survival of the species, and (3) mitigation plans to protect the species.

17. Fire. Specifies that the holder is responsible, not the holder's contractor. The holder, however, may direct the contractor to take all the actions in the fire plan.

Analyze fire prevention needs (patrols, tank trucks, equipment) to ensure that enough prevention equipment and personnel are available to cover the size of the project under construction.

Some standby fire prevention needs may best be handled by the Forest Service through a collection agreement with the holder, in which the holder pays for equipment and manning needs supplied by the Forest Service near or in the project areas. The agreement must not relieve the holder of liability for fire damage or suppression cost, or relieve the holder of any responsibility for supervising the contractors and employees regarding fire restriction compliance.

18. Transportation. Identifies (1) the existing access roads and trails the holder is to use and what improvements, if any, the holder must make to them; (2) the new permanent access roads and trails needed for construction and operation of the project and the construction standards for them; and (3) the new temporary or intermittent roads needed for construction, the construction standards for them, and the methods for closing them.

19. Road Maintenance. Includes (1) identification of all roads needed for the project during construction and/or operation, (2) anticipated road and trail use by project-related and induced traffic, (3) anticipated nonproject traffic, (4) traffic control plan, (5) maintenance standards, (6) responsibilities of all parties for financing the maintenance, (7) provisions for monitoring vehicle use, and (8) provisions for adjusting the plan.

20. Recreation Site. Recreation usually is discussed in the environmental report (Exhibit E) of a Federal Energy Regulatory Commission (FERC) license. If a more detailed plan is needed, the holder should prepare such a plan for the special-use authorization. The holder is responsible for the actual site design plans, which should be prepared with extensive Forest Service consultation, and are subject to Forest Service approval. These plans may be prepared at a later date. The site plans should show exactly what is to be developed, its location, and the method of construction.

21. Public Information. It is useful to prepare a public information plan in order to specify in advance: (1) The individual who answers inquiries from the public for jobs and about work progress; (2) the individual to contact for tours; (3) the press contact; (4) the individual who is to disseminate information about emergencies; (5) any necessary signing to direct the public; (6) credits for use of National Forest land; and (7) dissemination points for information brochures.

22. Safety. Identifies the potential hazard areas, especially for the public, and the measures necessary to protect public safety. The plan should also consider worker safety, especially on FERC-exempted projects. Major areas to consider are construction and operation activities on or near public roads and recreation areas, along with the dangers of public use on or near the actual construction.

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CHAPTER 70 - SPECIAL-USE AUTHORIZATION TERMS AND CONDITIONS

71 - STANDARD SPECIAL-USE PERMIT AND CLAUSES. The special-use permits are designed for operation, with construction stipulations added to control construction impacts. Remove those construction stipulations when the holder has completed construction to the satisfaction of the Forest Service. Reintroduce construction stipulations if the project needs modifications or major repairs.

Clauses 1 through 15 in each permit are mandatory and must not be changed without the permission of the Chief.

Delete the clause numbers (K40 for example) and instructions when actually using the permit.

Exhibit 1 lists the clauses used in the basic permits.

EXHIBIT 1 IS A SEPARATE DOCUMENT

71.1 - Licensed Hydroelectric Project Special-Use Permit. Do not duplicate (conditions in the FERC license that FERC can adequately administer) in the special-use permit for a FERC-licensed project. Leave items dealing with structures and dams to the FERC license for control. Do not include conditions that affect the power production capability of the project (FSM 2773.4 and sec. 55.11).

Exhibit 1 contains the basic permit for a FERC-licensed project. The actual project may require additional clauses.

EXHIBIT 1 IS A SEPARATE DOCUMENT

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SEC. 71-Exhibit 1

LIST OF CLAUSES USED IN HYDROELECTRIC SPECIAL USE PERMITS

CLAUSE

K1	Fire Plan Part of Authorization	I*	E*	L*
K2	Designation of Construction Manager		E	L
K3	Construction Inspections by Holder		E	L
K4	Revised Permit Boundary		E	
K5	Protection of Wildlife and Plant Species	I		L
K6	Esthetics		E	L
K7	Surveys, Land Corners	I	E	L
K8	Traffic Safety	I	E	L
K9	Investigation Operations Inspections by Holder	I		
K10	Damage - High Hazard Clause		E	L
K11	Signs		E	L
K12	Hydroelectric Fee		E	
K13	Project Safety	I	E	L
K14	Site Development Schedule		E	L
K15	Operation Performance Bond Optional		E	L
K16	Building, Facility, and Service System Plans		E	
K17	Timber Cutting by Holder Optional		E	L
K18	Bonds, Performance,		E	L
K19	Water Pollution	I	E	L
K20	Erosion Control, Topsoil, Revegetation	I	E	L
K21	Permit Termination, Exempt Project		E	
K22	Streamflow Release Schedule		E	
K23	Pesticide-Use Restriction		E	L
K24	Plans, Part of Authorization	I	E	L
K25	Right-of-Way Clearing, Powerline		E	
K26	Bonds, Performance, Investigation Permit	I		
K27	Suspension/Revocation		E	L
K28	Water Rights		E	L
K29	Improvement Relocation		E	L
K30	Esthetics, Investigation Permit	I		
K31	Fees, Licensed Project			L
K32	Permit Term, Licensed Project			L
K33	Risks and Hazards		E	L

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

CLAUSE

K34	Fees, Investigation Permit	I		
K35	Suspension/Revocation, Investigation Permit	I		
K36	Business Status and Documentation		E	
K37	Use of Explosives	I	E	L

K38	Road use by Government		E	L
K39	Unattended Construction Equipment	I	E	L
K40	Access to Records; Accounting; Audits		E	
K41	Fish and Wildlife Protection		E	
K42	Nondiscrimination in Employment	I	E	L
K43	Permit Amendment, Exempted Project		E	
K44	Permit Amendment, Licensed Project			L

*I = Investigation Special-Use Permit

*E = Exempted Special-Use Permit

*L = Licensed Special-Use Permit

CLAUSE

A6	Late Payment Interest Charge	I*	E*	
B35 (edit)	Construction Standards, Powerline		E	
E3	Short Term Use	I		
E11 (edit)	Permit Termination on Withdrawn Land		E	
X17 (edit)	Cultural Resource Discoveries	I	E	L
X19	Area Access	I	E	L

*I = Investigation Special-Use Permit

*E = Exempted Special-Use Permit

*L = Licensed Special-Use Permit

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Sec. 71.1-Exhibit 1

Licensed Project Special-Use Permit

USDA - Forest Service	a. Record No. (1-2)	b. Region (3-4)	c. Forest (5-6)
	7 0	0 0	0
SPECIAL USE PERMIT LICENSED PROJECT	d. District (7-8)	e. User No. (9-12)	f. Kind of Us (13-15)
Act of October 21, 1976 (P.L. 94-579) 36 CFR 251.50 et seq.	0 0	0 0 0 0	6
	g. State (16-17)	h. County (18-20)	k. Card No. (21)
	0 0	0 0 0	

Permission is hereby granted to _____ of _____, hereinafter called the Holder, for the non-exclusive use, subject to the conditions set out below, of the following described lands or improvements:

This authorization covers _____ acres and/or _____ miles and is issued for the _____ Project Licensed as Fede Energy Regulatory Commission # _____. The project includes the following faciliti

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Sec. 71.1-Exhibit 1--Continued

This permit is made subject to the following terms, provisions, and conditions.

1. Development plans; layout plans; construction, reconstruction, or alteration of improvements plans; or revision of layout or construction plans for this area must be approved in advance and in writing by the Forest Supervisor. Trees or shrubbery on the permitted area may be removed or destroyed only after the authorized officer has approved, and has marked or otherwise designated that which may be removed or destroyed. Timber cut or destroyed will be paid for by the holder as follows: Merchantable timber at appraised value and young growth timber below merchantable size at current damage appraisal value; provided, that the Forest Service reserves the right to dispose of the merchantable timber to others than the holder at no stumpage cost to the holder. Trees, shrubs, and other plants may be planted in such manner and in such places about the premises as may be approved by the authorized officer. Removal of hazards shall be done after securing approval from the authorized officer.
2. The holder shall maintain the improvements and premises to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the authorized officer. For example, trash, debris, unusable machinery, and so forth, will be disposed of separately; other materials will be stacked, stored neatly, or within buildings. Disposal will be at an approved existing location, except as otherwise agreed to by the authorized officer.
3. This permit is subject to all valid claims and existing rights.
4. The holder, in exercising the privileges granted by this permit, shall comply with the regulations of the Department of Agriculture and all Federal, State, county, and municipal laws, ordinances, or regulations that are applicable to the area or operations covered by this permit.
5. The holder shall take all reasonable precautions to prevent and suppress forest fires. No material shall be disposed of by burning in open fires during the closed season established by law or regulation without a written permit from the authorized officer or his authorized agent.
6. The holder shall exercise diligence in protecting from damage the land and property of the United States covered by and used in connection with this permit, and shall pay the United States for any damage resulting from negligence or from the violation of the terms of this permit or of any law or regulation applicable to the National Forests by the holder, or by any agents or employees of the holder acting within the

scope of their agency or employment.

7. The holder shall fully repair all damage to National Forest roads and trails caused by the holder in the exercise of the privileges granted by this permit.
8. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this agreement or to any benefit that may arise herefrom unless it is made with a corporation for its general benefit.
9. Upon abandonment, termination, revocation, or cancellation of this permit, the holder shall remove within a reasonable time all structures and improvements except those owned by the United States, and shall restore the site, unless otherwise agreed upon in writing or in this permit. If the holder fails to remove all such structures or improvements within a reasonable period, they shall become the property of the United States, but that will not relieve the holder of liability for the cost of their removal and restoration of the site.
10. This permit is transferable in accordance with 36 CFR 251.59.
11. In case of change of address, the holder shall immediately notify the Forest Supervisor.
12. All or part of the use under this permit may be temporarily suspended by the Forest Service for breach of any condition contained herein. Continued use in violation of such suspension shall result in action toward cancellation of the permit. This permit may be terminated with the consent of the Federal Energy Regulatory Commission (FERC) upon breach of any conditions herein, or at the discretion of the Regional Forester or the Chief, Forest Service, for reasons in the public interest. This permit shall terminate if the holder does not have a current valid authorization under the Federal Power Act.
13. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of National Forest lands under this permit.
14. This permit is not exclusive. The Forest Service reserves the right to use or permit others to use any part of the permitted area for any purpose, provided such use does not interfere with the rights and privileges hereby authorized, or authorized under the Federal Power Act. The holder shall allow officers of the United States free and unrestricted access to the project lands and project works in the performance of their official duties.
15. All construction, reconstruction, substantial change, or alteration shall be submitted for approval by the authorized officer issuing this permit; the proposed action may commence only upon approval by said authorized officer of plans, specifications, and written construction stipulations; such construction stipulations shall become part of this permit during the term of the proposed action as long as deemed necessary by said authorized officer.

16. Fees, Licensed project (K31)

The holder shall pay annually, in advance, a sum determined by the Forest Service to be the fair market value of the use rights granted by this permit. As long as the holder makes payments, in accordance with Section 10(e) of the Federal Power Act, to the Federal Energy Regulatory Commission (FERC) for the use of this land in an amount determined to be the approximate fair market rental of the lands, the fee for this permit is waived in its entirety. In the event the Forest Service determines that payments to FERC are significantly less than fair market rental or if the holder discontinues such payments, the Forest Service reserves the right to establish an appropriate fee and appropriate conditions of payment. Any fees paid by the holder to FERC shall be credited toward the fee due from the holder for this permit.

17. Permit Term, Licensed Project (K32)

Unless sooner canceled or terminated by the authorized officer, in accordance with the provisions of the permit, the term of this permit shall be concurrent with Federal Energy Commission (FERC) license No. <number> and become void on <date> ; but the Forest Service may grant a new permit to occupy and use the same National Forest System land, provided that FERC grants a new license under the Federal Power Act. The new permit must comply with the laws and regulations governing the occupancy and use of National Forest System lands at that time.

18. Project Safety (K13)

The holder shall carry out all operations in a skillful manner, having due regard for the safety of employees and the public, and shall safeguard unsafe areas. The holder shall regularly inspect its facilities and provide further effective safety measures as needed for safety protection.

19. Water Pollution (K19)

The holder shall discharge no waste or byproduct if it contains any substances in concentrations that would result in violation of water quality standards set forth by the State; would impair present or future beneficial uses of water; would cause pollution, nuisance, or contamination; or would unreasonably degrade the quality of any waters. During the construction and operation of the project, the holder shall protect project water quality by using the existing Best Management Practices mutually agreed to by the Forest Service and the State.

□

□20. Esthetics (K6)

The holder shall protect the scenic and esthetic values of the area under this permit during construction, operation, and maintenance of the project improvements.

21. Damage - High Hazard Clause (K10)

The holder is hereby made liable for all injury, loss, or damage, including but not limited to, fire suppression costs, directly or indirectly resulting from or caused by the holder's use and occupancy of the area covered by the permit, regardless of whether the holder is negligent or otherwise at fault, provided that the maximum liability without fault shall not exceed \$1,000,000 for any one occurrence, and provided further that the holder shall not be liable when such injury, loss, or damage results wholly, or in part, from a negligent act of the United States, or from an act of a third party not involving the facilities of the holder.

Determination of liability for injury, loss, or damage, including fire suppression costs, in excess of the specified maximum, shall be according to the laws governing ordinary negligence.

[Instructions: Use for project with a pipeline, dam, above-ground powerline, exposed transformers, or powerhouse subject to vandalism. See instructions for similar clause F21 in FSH 2709.11, section 53.6.]

22. Risk and Hazards (K33)

Avalanches, rising waters, high winds, falling limbs or trees, and other hazards are natural phenomena in the forest that present risks to the holder's property that the holder hereby assumes. The holder is responsible for inspecting its site, right-of-way, and the immediate adjoining area for dangerous trees, hanging limbs, and other evidence of hazardous conditions and, after securing permission from the Forest Service, is responsible for removing such hazards.

23. Signs (K11)

The holder shall erect no signs or advertising devices on the area covered by this permit without prior approval of the Forest Service as to location, design, size, color, and message. The holder shall maintain or renew erected signs as necessary to neat and presentable standards.

24. Improvement Relocation (K29)

The Forest Service grants this permit with the express understanding that should future location of Government improvements or road rights-of-way require the relocation or adjustment of the holder's linear-type improvements (such as transmission lines, penstocks, pipelines, ditches, or roads), the holder shall relocate at the holder's expense within 180 days following written request to relocate.

[Instructions: The 180-day time limit may be extended (in writing) at the discretion of the authorizing officer.]

25. Pesticide-Use Restrictions (K23)

Pesticides may not be used to control undesirable woody and herbaceous vegetation, aquatic plants, insects, rodents, trash fish, and so forth, without the prior written approval of the Forest Service. The holder shall submit a request for

approval of planned uses of pesticides. The report must cover annual planned use and be updated as required by the Forest Service. The holder shall provide information essential for review in the form specified. Exceptions to this schedule may be allowed only when unexpected outbreaks of pests require control measures that were not anticipated at the time the report was submitted. In such an instance, an emergency request and approval may be made.

On National Forest System lands the holder shall use only materials registered by the U.S. Environmental Protection Agency for the specific purpose planned. The holder must strictly follow label instructions in the preparation and application of pesticides and disposal of excess materials and containers.

26. Road Use by Government (K38)

The United States shall have unrestricted use of the said right-of-way and any road constructed thereon for all purposes deemed necessary or desirable in connection with the protection, administration, management, and utilization of Federal lands or resources and alone shall have the right to extend rights and privileges for use of the right-of-way and road thereon to States and local subdivisions thereof, as well as to other users, including members of the public, except contractors, agents, and employees of the holder; provided, that the agency having jurisdiction shall control such use so as not unreasonably to interfere with use of the road by the holder or cause the holder to bear a share of the cost of maintenance greater than the holder's use bears to all use of the road.

[Instructions: Use this clause when any power project roads will become part of the forest development road system and when the crest of a dam will function as a roadway. Also use this clause if a subsequent road easement may be issued to the county.]

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27. Area Access (X19)

The holder agrees to permit the free and unrestricted access to and upon the premises at all times for all lawful and proper purposes not inconsistent with the intent of the permit or with the reasonable exercise and enjoyment by the holder of the privileges thereof.

28. Plans, Part of Authorization (K24)

The holder shall prepare the following plans in consultation with Forest Service and other appropriate agencies.

<plan names>

The holder shall submit these plans for Forest Service approval by <date> . Said plans shall be attached hereto and marked as Exhibits <letters> , respectively.

[Instructions: See section 62 for types of operation plans to consider.]

29. Nondiscrimination in Employment (K42)

In connection with the performance of work under this permit, including construction, maintenance, and operation of the facility, the holder shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, or handicap in accordance with the Civil Rights Act of 1964, as amended.

30. Permit Amendment, Licensed Project (K44)

The Regional Forester may review the terms and conditions of this permit upon any modification of project facilities or after 30 years from the date of issuance. At such time, the Regional Forester may incorporate in the permit such new terms, conditions, and stipulations as existing or prospective conditions may warrant; provided, that such modification shall not unreasonably reduce the use herein authorized.

In Witness Whereof, the parties hereto have caused this permit to be duly executed on this _____ day of _____ 19__.

Permittee

USDA - Forest Service

by _____ by _____
 <Name> <Name>
 <Title> Forest Supervisor
 <Company> <Name> National Forest

CONSTRUCTION STIPULATIONS

The Stipulations, made as of the <day> day of <month>, 19 <year>, by and between <holder> hereinafter referred to as the holder, and U.S. Department of Agriculture, Forest Service, acting by and through its authorized officer, hereinafter referred to as the Forest Service.

Whereas the holder has been issued a special-use authorization dated <date> for the use and occupancy of National Forest land for the use (and maintenance) of a hydroelectric project, and, whereas such authorization requires that all construction conform with approved plans, specifications, and stipulations.

Now, therefore, the holder hereby agrees to the following terms and conditions, and the Forest Service hereby authorizes the construction to proceed in accordance with these terms and conditions.

CS-1. Suspension/Revocation (K27)

The Forest Service may temporarily suspend construction/reconstruction and/or terminate the special-use authorization without administrative proceedings upon breach of any of the conditions herein.

CS-2. Plans, Part of Authorization (K24)

The holder shall prepare the following plans in consultation with Forest Service and other appropriate agencies.

<plan names>

The holder shall submit these plans for Forest Service approval by <date> . Said plans shall be attached hereto and marked as Exhibits <letters> , respectively.

[Instructions: See section 62 for types of construction plans to consider.]

CS-3. Fire Plan Part of Authorization (K1)

A project fire plan describing the holder's responsibilities for prevention and suppression of fires, developed by the holder, and subject to Forest Service approval, <shall

become> <is> part of this authorization, as Exhibit <letter> <to be> attached hereto. The holder shall obtain Forest Service approval for said plan before beginning any on-the-ground construction and shall strictly follow its terms.

CS-4. Designation of Construction Manager (K2)

The holder shall designate a construction manager for the project construction. This individual shall be qualified to represent the holder and shall be present or have a qualified acting representative present at all times while project construction activities are taking place. This individual shall be the person who receives the on-the-ground approvals and directions from the designated Forest Service representative(s).

CS-5. Construction Inspections by Holder (K3)

The holder shall perform daily (or on a schedule otherwise agreed to by the Forest Service in writing) inspections of holder's operations while they are proceeding. The holder shall document these inspections (informal writing sufficient) and shall deliver such documentation to the Forest Service on a weekly basis. The inspections must specifically include fire plan compliance, public safety, and environmental protection. The holder shall act immediately to correct any items found to need correction.

A certified engineer shall regularly conduct construction inspections of structural improvements on a schedule approved by the Forest Service.

[Instructions: Delete the last paragraph for licensed projects.]

CS-6. Site Development Schedule (K14)

As a part of this authorization, the holder shall, in consultation with the Forest Service, prepare a schedule for the progressive development of the permitted site and installation of facilities. Such a schedule shall be prepared by <date> , and shall set forth an itemized priority list of planned improvements and the planned date for completion. This schedule shall be made a part of this authorization. The holder may accelerate the scheduled date for installation of any improvement authorized, provided the holder has met other scheduled priorities; and provided further, that the holder has completed all priority installations authorized to the satisfaction of the Forest Service prior to the scheduled due date.

The holder shall submit all construction plans to the Forest Service for approval a minimum of 45 days before anticipated start of construction. All plans for construction of facilities must have the approval with signature of a registered professional engineer of the appropriate specialty, and must have the approval of the Forest Service prior to the use of these plans in constructing this project. These plans shall then become part of this authorization as Exhibit <letter> , to be attached hereto.

The holder shall ensure that construction bid invitations are in compliance with this authorization and with all applicable environmental protection standards.

In the actual layout on-the-ground, the holder shall use accurate mapping based on an adequate survey of the land, including the location of special areas such as water courses.

The holder shall furnish to officers of the United States such information as may be required concerning the construction, operation, and maintenance of the project, and any alteration thereof.

When asked by the Forest Service, the holder shall provide for an on-the-ground review with the Forest Service of the plans for any area of concern to the Forest Service at least 7 days prior to beginning construction on that area.

CS-7. Bonds, Performance (K18)

As a further guarantee of the faithful performance of the provisions of this permit and these stipulations, the holder agrees to deliver and maintain a surety bond in the amount of <written number> dollars (\$<number>). Before undertaking additional construction or alteration work not provided for at the time the bond amount was set or when the improvements are to be removed and the area restored, the holder shall deliver and maintain a surety bond in an amount set by the Forest Service, which amount shall not be in excess of the estimated loss the Government would suffer upon default in performance of this work. Should the sureties or the bonds delivered under this authorization become unsatisfactory to the Forest Service, the holder shall, within thirty (30) days of demand, furnish a new bond with surety, solvent and satisfactory to the Forest Service.

In lieu of surety bond, and as directed by the Forest Service, the holder may deposit into a Federal depository, and maintain therein, cash in the amounts provided for above, or negotiable securities of the United States having a market value at time of deposit of not less than the dollar amounts provided above.

The Forest Service shall release the holder's surety bond, or return deposits in lieu of bond, thirty (30) days after certification by the Forest Service that installations under the development plan are complete, and upon the holder furnishing proof satisfactory to the Forest Service that all claims for labor and material on said installations have been paid by the holder or released and satisfied. The holder agrees that all moneys deposited under this authorization may, upon failure on holder's part to fulfill all and singular the requirements herein set forth or made a part hereof, be retained by the United States to be applied to the satisfaction of holder's obligations assumed under the authorization and construction stipulations, without prejudice whatever to any other rights and remedies of the United States.

CS-8. Use of Explosives (K37)

- a. The holder shall use only electronic detonators for blasting, except near high-voltage powerlines. The Forest Service may allow specific exceptions when in the public interest.
- b. In the use of explosives, the holder shall exercise the utmost care not to endanger life or property and shall comply with the requirements of the Forest Service. The holder shall be responsible for any all damages resulting from the use of explosives and shall adopt precautions to prevent damage to surrounding objects. The holder shall furnish and erect special signs to warn the public of the holder's blasting operations. The holder shall place and maintain such signs so they are clearly evident to the public during all critical periods of the blasting operations, and shall ensure that they include a warning statement to have radio transmitters turned off.
- c. The holder shall store all explosives in a secure manner, in compliance with State and local laws and ordinances, and shall mark all such storage places "DANGEROUS - EXPLOSIVES." Where no local laws or ordinances apply, the holder shall provide storage that is satisfactory to the authorized officer and in general not closer than 1,000 feet from the road or from any building or camping area.
- d. When using explosives, the holder shall adopt precautions to prevent damage to landscape features and other surrounding objects. When directed by the authorized officer, the holder shall leave trees within an area designated to be cleared as a protective screen for surrounding vegetation during blasting operations. The holder shall remove and dispose of trees so left when blasting is complete. When necessary, and at any point of special danger, the holder shall use suitable mats or some other approved method to smother blasts.

□CS-9. Erosion Control, Topsoil, Revegetation (K20)

The holder shall be responsible for the prevention and control of soil erosion, caused either directly or indirectly by construction or operation of the project, and shall provide preventive and control measures as required by the Forest Service.

The holder shall strip topsoil from construction areas and deposit it in storage piles apart from other excavated material. After removing the desired amount of material, the holder shall evenly spread the stored topsoil over exposed subsoil in appropriate areas to the extent practicable, and shall revegetate the area disturbed.

To the extent practicable on National Forest System lands, the holder shall establish a vegetative cover on all cut and fill slopes, borrow areas, and other disturbed areas capable of growing a vegetative cover of grasses or other suitable

vegetation, as required by the Forest Service. The holder shall seed or plant at a time of the year, in a manner, and with species that the Forest Service considers offer the best chance of success. The holder shall repeat such seeding and planting regularly, as conditions allow, until such areas are accepted in writing by the Forest Service as satisfactorily revegetated and stabilized.

The holder shall install erosion control measures for adverse weather conditions by <date> each year and keep them current with the operation until the Forest Service notifies the holder that the adverse conditions of that season are over.

CS-10. Unattended Construction Equipment (K39)

The holder shall not place construction equipment on National Forest land prior to actual use or allow it to remain on National Forest land subsequent to actual use. The holder shall remove equipment from National Forest System land unless a permit is issued for equipment storage.

CS-11. Protection of Wildlife and Plant Species (K5)

If threatened, endangered, or sensitive (as defined in the Forest Service manual) wildlife and plant species are found during use under this authorization, the holder shall notify the Forest Service and shall take immediate measures to protect said species as directed by the Forest Service.

CS-12. Traffic Safety (K8)

When construction is in progress adjacent to or on Forest Service controlled roads open to public travel, the holder shall furnish, install, and maintain temporary traffic controls to provide the public with adequate warning and protection from hazardous or potentially hazardous conditions associated with the holder's operations. Devices must be appropriate to current conditions and must be covered or removed when not needed. Except as otherwise agreed, flagmen and devices must be as specified in the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD).

CS-13. Surveys, Land Corners (K7)

The holder shall protect, in place, all public land survey monuments, private property corners, and forest boundary markers. In the event that any such land markers or monuments are destroyed in the exercise of the privileges authorized by this authorization, depending on the type of monument destroyed, the holder shall reestablish or reference same in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) the specifications of the County Surveyor, or (3) the specifications of the Forest Service. Further, the holder shall ensure that any official survey records affected are amended as provided by law.

CS-14. Cultural Resource Discoveries (X17 edit)

If, prior to or during excavation work, items of potential cultural, historical, archeological, or paleontological value are reported or discovered, or a known deposit of such items is disturbed, the holder shall immediately cease excavation in the area so affected. The holder shall then notify the Forest Service and shall not resume excavation until it receives written approval from the authorized officer.

If it deems it necessary or desirable, the Forest Service may require the holder to have performed recovery, excavation, and preservation of the site and its artifacts at the holder's expense. At the option of the Forest Service, this authorization may be terminated at no liability by the United States when such revocation is deemed necessary or desirable to preserve or protect archaeological, paleontological, or historic sites and artifacts.

CS-17. Water Rights (K28)

This authorization confers no ownership of the water to the holder. Construction may begin after the holder provides the authorized officer with a sufficient showing that the holder has a right to use the water.

[Instructions: A license gives the licensee the ability to obtain any water necessary to operate the project. An exemption does not give the exemptee that ability.]

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In Witness Whereof, the parties hereto have caused this permit to be duly executed on this _____ day of _____ 19____.

Permittee

USDA - Forest Service

by _____
<Name>
<Title>
<Company>

by _____
<Name>
Forest Supervisor
<Name> National Forest

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71.11 - Other Clauses. If the project involves a Federally owned dam under the jurisdiction of the Forest Service, the following additional standard clauses are necessary (for contents of the following clauses see FSH 2709.11, ch. 50):

1. B37 - Dam Safety
2. X9 - Spillway Log Booms
3. X10 - Reservoir Drainage
4. X20 - Reservoir Storage Increase

Following is a list of clauses that may be used as needed in hydroelectric permits.

1. K15 - Operation Performance Bond
2. K17 - Timber Cutting by Holder
3. L1 - Borrow Pits
4. L2 - Crossings
5. L3 - Winterization
6. L4 - Forest Service Representative
7. L5 - Streamflow and Pool Requirements
8. L6 - Measurements, Water Flow
9. L7 - Road Use
10. L8 - Temporary Roads
11. L9 - Approval of Projects Phases
12. D17 - Timber Payment
13. D20 - Borrow Pit Restoration
14. F7 - Fire Equipment
15. F8 - Slash Cleanup
16. F11 - Spark Arrester on Engine Mufflers
17. F12 - Firebreak
18. F13 - Fire-Tool Caches
19. F14 - Gasoline Powersaws
20. F16 - Firebreak
21. G1 - Private Road, Secondary Use
22. G2 - Road Specifications
23. X5 - Rights Reserved
24. X6 - Mineral, Oil, Gas Rights Reserved
25. X15 - Cooperative Work
26. X63 - Treasure Trove

See FSH 2709.11, Chapter 50, for the wording of the clauses named in 12 through 26.

Exhibit 1 shows the contents of the K and L clauses that are optional for use in the permit or construction stipulations as appropriate and, therefore, not shown in the basic permits displayed in sections 71.1, 71.2, and 71.3.

□
□
□

Exhibit 1

NEW OPTIONAL CLAUSES

K15. Operation Performance Bond

To assure removal of project facilities and site rehabilitation during a critical stage of project operations, should such removal become necessary because of abandonment of the project, the holder shall deliver and maintain, for the period <date> to <date>, a surety bond in the amount of <written number> dollars (\$<number>).

In lieu of surety bond, the holder may deposit into a Federal depository, as directed by the Forest Service, and maintain therein cash in the amounts provided for above, or negotiable securities of the United States having a market value at time of deposit of not less than the dollar amounts provided above.

The Forest Service shall release the holder's surety bond, or return deposits in lieu of bond, thirty (30) days after certification by the Forest Service that facility removal is complete or that the time period for maintaining this bond has elapsed. The holder agrees that all moneys deposited under this permit may, upon failure on its part to fulfill all and singular the requirements herein set forth or made a part hereof, be retained by the United States to be applied to the satisfaction of holder's obligations assumed hereunder, without prejudice whatever to any other rights and remedies of the United States.

[Instructions: Insert the time period (usually 2 to 8 years depending on the construction period and allowing for a few years of operation) and insert the dollar amount that it would cost the Forest Service to remove the facilities.]

K17. Timber Cutting, by Holder

The holder agrees, as directed by the Forest Service, to cut into commercially usable lengths and deck for disposal by the Forest Service any and all merchantable timber not purchased by the holder which is cut from the National Forest lands occupied hereunder. The Forest Service shall dispose of this material, provided that the Forest Service may sell or otherwise dispose of standing merchantable timber to third

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Exhibit 1 - Continued

parties when it is possible to fell and remove such timber without undue interference with the operations of the holder. Unmerchantable material, including tops and branches, shall be disposed of by the holder by <method>.

[Instructions: Add slash disposal method such as burning, burying, removal, and so forth. Use where the Forest Service will not sell the timber separately.]

L1. Borrow Pit

The Forest Service shall restrict borrow pits and other

excavations to locations below the high waterline and limit them to the location and quantities specified in the approved plans and specifications. The holder shall make no additional excavations without advance written approval of the Forest Supervisor. After removal of the desired material, the holder shall grade and shape all excavations as agreed to by the Forest Service.

L2. Crossings

The holder shall build and maintain suitable crossings as required by the Forest Supervisor for all roads and trails that intersect the right-of-way occupied by linear project facilities (powerline, penstock, ditch, pipeline).

L3. Winterization

The holder shall take necessary measures to ensure that a suitable conveyance or channel is adequate to pass the inflow design flood for spring runoff and to prevent erosion or siltation due to the construction.

L4. Forest Service Representative

The Forest Supervisor shall designate the authorized Forest Service representative(s) for this permit in writing.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

L5. Streamflow and Pool Requirements

To protect aquatic ecosystems, and other National Forest values, the Forest Service has established the following streamflow and pool levels (minimum flows are generally to be measured at the holder's point or points of diversion):

<streamflow schedule>

[Instructions: Prepare a table of pool and streamflow releases required. Use for exempt projects only].

L6. Measurements, Water Flow

Prior to operation of the project, the holder shall install and maintain to U.S. Geological Survey standards, a stream gauging station with a continuous water level recorder immediately downstream of the project diversion. The holder shall make all data available to the Forest Service. The holder shall submit daily records of maximum and minimum flows annually by December 31 of each year for the preceding October 1 - September 30 water year, to the <National Forest> and the <other agency as necessary> .

[Instructions: Use for exempt projects only].

L7. Road Use

The holder shall confine all project vehicles, including but not limited to administrative and transportation vehicles and construction and inspection equipment, to roads or specifically designed access routes. The Forest Service reserves the right to close any and all such routes where damage is occurring to the soil or vegetation, or to require reconstruction/construction by the holder to the extent needed to accommodate the use.

L8. Temporary Roads

When the holder's need for temporary roads has ended, the holder shall close all that have been constructed and shall restore the rights-of-way to as near a natural condition as possible, unless the District Ranger has agreed to an exception in writing.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

L9. Approval of Project Phases

All construction conducted under this authorization must have prior written approval of the Forest Supervisor before work is started. The holder shall request approval for each phase of the project described in the plan called for by <clause CS-6> of these stipulations at least one month prior to the desired start-up date.

[Instructions: Clause CS-6 is "Site Development Schedule"]

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

71.2 - Exempted Hydroelectric Project Special-Use Permit. These permits differ from those used for FERC-licensed projects, in that it is necessary to add clauses to these permits to control the things that the license would have addressed (sec. 71.1).

Exhibit 1 shows the basic permit for a FERC-exempted hydroelectric project.

EXHIBIT 1 IS A SEPARATE DOCUMENT

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SEC. 71.2-Exhibit 1

Exempted Project Special-Use Permit

USDA - Forest Service	a. Record No. (1-2)	b. Region (3-4)	c. Forest (5-6)
	7 0	0 0	0 0
SPECIAL USE PERMIT EXEMPTED PROJECT	d. District (7-8)	e. User No. (9-12)	f. Kind of Use (13-15)
Act of October 21, 1976 (P.L. 94-579) 36 CFR 251.50 et seq.	0 0	0 0 0 0	6 1 1
	g. State (16-17)	h. County (18-20)	k. Card No. (21)
	0 0	0 0 0	1

Permission is hereby granted to _____ of _____, hereinafter called the Holder, for the non-exclusive use, subject to the conditions set out below, of the following described lands or improvements:

This authorization covers _____ acres and/or _____ miles and is issued for the _____ Project Exempted as Federal Energy Regulatory Commission # _____. The project includes the following facilities

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

This permit is made subject to the following terms, provisions, and conditions.

1. Development plans; layout plans; construction, reconstruction, or alteration of improvements plans; or revision of layout or construction plans for this area must be approved in advance and in writing by the Forest Supervisor. Trees or shrubbery on the permitted area may be removed or destroyed only after the authorized officer has approved, and has marked or otherwise designated that which may be removed or destroyed. Timber cut or destroyed will be paid for by the holder as follows: Merchantable timber at

appraised value and young growth timber below merchantable size at current damage appraisal value; provided, that the Forest Service reserves the right to dispose of the merchantable timber to others than the holder at no stumpage cost to the holder. Trees, shrubs, and other plants may be planted in such manner and in such places about the premises as may be approved by the authorized officer. Removal of hazards shall be done after securing approval from the authorized officer.

2. The holder shall maintain the improvements and premises to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the authorized officer. For example, trash, debris, unusable machinery, and so forth, will be disposed of separately; other materials will be stacked, stored neatly, or within buildings. Disposal will be at an approved existing location, except as otherwise agreed to by the authorized officer.
3. This permit is subject to all valid claims and existing rights.
4. The holder, in exercising the privileges granted by this permit, shall comply with the regulations of the Department of Agriculture and all Federal, State, county, and municipal laws, ordinances, or regulations that are applicable to the area or operations covered by this permit.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

5. The holder shall take all reasonable precautions to prevent and suppress forest fires. No material shall be disposed of by burning in open fires during the closed season established by law or regulation without a written permit from the authorized officer or his authorized agent.
6. The holder shall exercise diligence in protecting from damage the land and property of the United States covered by and used in connection with this permit, and shall pay the United States for any damage resulting from negligence or from the violation of the terms of this permit or of any law or regulation applicable to the National Forests by the holder, or by any agents or employees of the holder acting within the scope of their agency or employment.
7. The holder shall fully repair all damage to National Forest roads and trails caused by the holder in the exercise of the privileges granted by this permit.
8. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this agreement or to any benefit that may arise herefrom unless it is made with a corporation for its general benefit.
9. Upon abandonment, termination, revocation, or cancellation of this permit, the holder shall remove within a reasonable time

all structures and improvements except those owned by the United States, and shall restore the site, unless otherwise agreed upon in writing or in this permit. If the holder fails to remove all such structures or improvements within a reasonable period, they shall become the property of the United States, but that will not relieve the holder of liability for the cost of their removal and restoration of the site.

10. This permit is transferable in accordance with 36 CFR 251.59.
11. In case of change of address, the holder shall immediately notify the Forest Supervisor.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

12. All or part of the use under this permit may be temporarily suspended by the Forest Service for breach of any condition contained herein. Continued use in violation of such suspension shall result in action toward cancellation of the permit. This permit may be terminated upon breach of any conditions herein, or at the discretion of the Regional Forester or the Chief, Forest Service, for reasons in the public interest. This permit shall terminate if the holder does not have a current valid authorization under the Federal Power Act.
13. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of National Forest lands under this permit.
14. This permit is not exclusive. The Forest Service reserves the right to use or permit others to use any part of the permitted area for any purpose, provided such use does not interfere with the rights and privileges hereby authorized, or authorized under the Federal Power Act. The holder shall allow officers of the United States free and unrestricted access to the project lands and project works in the performance of their official duties.
15. All construction, reconstruction, substantial change, or alteration shall be submitted for approval by the authorized officer issuing this permit; the proposed action may commence only upon approval by said authorized officer of plans, specifications, and written construction stipulations; such construction stipulations shall become part of this permit during the term of the proposed action as long as deemed necessary by said authorized officer.
16. Hydroelectric Fee (K12)

In consideration for this use, the holder shall pay to the Forest Service, U.S. Department of Agriculture, an annual fee equal to the percent shown in Table 1 (below) of that year's (or portion thereof) total gross revenues from the project, except in years where this amount is less than the minimum

amount shown in Table 2 (below), in which case the minimum amount of Table 2 shall be the annual fee for that year. The minimum fee shall be due on <date> and payable by <date> each year based on a fiscal year from <date> to <date> .

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

Operation fees shown in Table 1, due in excess of the minimum fee, are due quarterly for the periods: <date> to <date> ; <date> to <date> ; <date> to <date> ; and <date> to <date> . The holder is responsible for each quarterly calculation of payment and shall make said payment to the Forest Service, U.S. Department of Agriculture, <address> , within 30 days of the close of each quarter listed above. The holder shall submit, annually, within 90 days after the end of the fiscal year, the records of the power produced, to whom it was sold, and gross revenues of that sale.

Provided, however, that the method of minimum fee determination may be adjusted by the Forest Service as of, and effective on, <date> , and each 5 years thereafter, in order to place the charges on a basis commensurate with the value of use authorized by this permit. The Forest Service shall establish fees for year 10 and beyond at that time, based on then current market data.

TABLE 1 - HYDROELECTRIC FEE

Due	Time Period	Date		% of Gross Sales to Forest Service
		From Mo. Day Yr.	To Mo. Day Yr.	
a.	Years 1 - 5	<date>	<date>	3
b.	Years 6 - 10	<date>	<date>	5

TABLE 2 - MINIMUM FEE

Time Period	Date		Amount Due as Minimum if not exceeded by Hydroelectric Fee
	From (Now) Mo. Day Yr.	To (end of 1st fiscal) Mo. Day Yr.	
a. 1st year (partial)	<date>	<date>	\$<dollars>
b. Remainder of year 1 thru year 5	<date>	<date>	\$<dollars>

c. Years 6 - 10 <date> <date> To be given at the time

[Instructions: The dates to insert should correspond to those in Tables 1 and 2. The first full period ("a" in Table 1, and "b" in Table 2), should be at least 5 full years from permit issuance date. The minimum fee is due on the first day of each fiscal year. The actual fiscal year may be set by agreement with the holder.

Annual minimum (also construction fee). \$<dollars>/acre (zone or regional land value) x .05 (5% of land value charged annually) x acres occupied by project (acres will probably change from the construction period to the operating period).]

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SEC. 71.2-Exhibit 1--Continued

17. Late Payment Interest Charge (A6)

Pursuant to the Federal Claims Collection Act of 1966, as amended, 31 USC 3101, et seq., and regulations at 7 CFR Part 3, Subpart E, an interest charge shall be assessed on any payment not made by the payment due date. Interest shall be assessed using the most current rate prescribed by the United States Department of the Treasury's Fiscal Requirements Manual (TFRM-6-8020.20). Interest shall accrue from the date the payment was due. In addition, the cost of processing and handling the overdue payment shall be added to the amount due.

A penalty of 6 percent per year shall be assessed on any payment overdue in excess of 90 days from the payment due date.

Payments will be credited on the date received by the designated collection officer or deposit location. If the payment due date(s) falls on a nonworkday, the interest and penalty charges shall not apply until the close of business of the next workday.

18. Access to Records; Accounting; Audits (K40)

For the purpose of administering this permit (including ascertaining that fees paid were correct and evaluating the propriety of the fee base), the holder agrees to make all of the accounting books and supporting records to the business activities, as well as those of sublessees operating within the authority of this permit, available for analysis by qualified representatives of the Forest Service or other Federal agencies authorized to review the Forest Service activities. Review of accounting books and supporting records will be made at dates convenient to the holder and reviewers. Financial information so obtained will be treated as confidential as provided in regulations issued by the Secretary of Agriculture (36 CFR 200.6(f)).

The holder shall retain the above records and keep them available for review for 5 years after the end of the year involved, unless the Forest Service authorizes other disposition in writing.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

The holder shall follow generally accepted accounting principles in recording sales of power and in reporting results to the Forest Service. When requested by the Forest Service, the holder at own expense, shall have the annual

accounting reports audited by a public accountant acceptable to the Forest Service. The holder shall require sublessees to comply with these same requirements.

19. Permit Termination, Exempt Projects (K21)

Unless sooner terminated by the Forest Service in accordance with the provisions of the permit, this permit shall, subject to annual revalidation by the Forest Service and payment of fees by the holder, expire and become void on

<date> ; but the Forest Service may grant a new permit to occupy and use the same National Forest land for project operation, provided the holder complies with the then existing laws and regulations governing the occupancy and use of National Forest lands.

[Instructions: See section 61.5 for term.]

20. Permit Termination on Withdrawn Land (E11 edit)

Any lands described in this permit that have been withdrawn for waterpower purposes under the Act of March 3, 1879, or the Act of June 25, 1910 (or are embraced in an application or license under the Federal Power Act of June 10, 1920), or have been withdrawn under the Reclamation Act of June 17, 1902, are subject at any time to use in connection with the development of waterpower or for reclamation purposes. The Forest Service, therefore, issues this permit with the specific understanding that (1) its use shall not interfere with such waterpower or reclamation development, and that (2) the permit may be, if necessary, terminated upon ninety (90) days notice when in the judgment of the Federal Energy Regulatory Commission, or of the Bureau of Reclamation in the event of reclamation withdrawals, the lands occupied are needed for use in connection with the generation of hydroelectric power, reclamation developments, or other

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

purposes contemplated by the act or acts under which the lands have been withdrawn. The holder shall make no claim against the United States or power licensees for or on account of prospective profits or for any injury or damage to properties, improvements, or operations due to such development. The holder will be allowed ninety (90) days in which to remove its improvements.

[Instructions: Use if land to be occupied by exempt project was previously withdrawn.]

21. Project Safety (K13)

The holder shall carry out all operations in a skillful manner, having due regard for the safety of employees and the public, and shall safeguard unsafe areas. The holder shall regularly inspect its facilities and provide further

effective safety measures as needed for safety protection.

22. Water Pollution (K19)

The holder shall discharge no waste or byproduct if it contains any substances in concentrations that would result in violation of water quality standards set forth by the State; would impair present or future beneficial uses of water; would cause pollution, nuisance, or contamination; or would unreasonably degrade the quality of any waters. During the construction and operation of the project, the holder shall protect project water quality by using the existing Best Management Practices mutually agreed to by the Forest Service and the State.

23. Esthetics (K6)

The holder shall protect the scenic and esthetic values of the area under this permit during construction, operation, and maintenance of the project improvements.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

24. Damage - High Hazard Clause (K10)

The holder is hereby made liable for all injury, loss, or damage, including but not limited to, fire suppression costs, directly or indirectly resulting from or caused by the holder's use and occupancy of the area covered by the permit, regardless of whether the holder is negligent or otherwise at fault, provided that the maximum liability without fault shall not exceed \$1,000,000 for any one occurrence, and provided further that the holder shall not be liable when such injury, loss, or damage results wholly, or in part, from a negligent act of the United States, or from an act of a third party not involving the facilities of the holder.

Determination of liability for injury, loss, or damage, including fire suppression costs, in excess of the specified maximum, shall be according to the laws governing ordinary negligence.

[Instructions: Use for project with a pipeline, dam, above-ground powerline, exposed transformers, or powerhouse subject to vandalism. See instructions for similar clause F21 in FSH 2709.11, section 53.6.]

25. Risk and Hazards (K33)

Avalanches, rising waters, high winds, falling limbs or trees, and other hazards are natural phenomena in the forest that present risks to the holder's property that the holder hereby assumes. The holder is responsible for inspecting its site, right-of-way, and the immediate adjoining area for dangerous trees, hanging limbs, and other evidence of hazardous conditions and, after securing permission from the

Forest Service, is responsible for removing such hazards.

26. Signs (K11)

The holder shall erect no signs or advertising devices on the area covered by this permit without prior approval of the Forest Service as to location, design, size, color, and message. The holder shall maintain or renew erected signs as necessary to neat and presentable standards.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

27. Improvement Relocation (K29)

The Forest Service grants this permit with the express understanding that should future location of Government improvements or road rights-of-way require the relocation or adjustment of the holder's linear-type improvements (such as transmission lines, penstocks, pipelines, ditches, or roads), the holder shall accomplish such relocation at the holder's expense within 180 days following written request to relocate.

[Instructions: The 180-day time limit may be extended, in writing, at the discretion of the authorizing officer.]

28. Pesticide-Use Restrictions (K23)

Pesticides may not be used to control undesirable woody and herbaceous vegetation, aquatic plants, insects, rodents, trash fish, and so forth, without the prior written approval of the Forest Service. The holder shall submit a request for approval of planned uses of pesticides. The report must cover annual planned use and be updated as required by the Forest Service. The holder shall provide information essential for review in the form specified. Exceptions to this schedule may be allowed only when unexpected outbreaks of pests require control measures that were not anticipated at the time the report was submitted. In such an instance, an emergency request and approval may be made.

The holder shall use on National Forest System lands only those materials registered by the U. S. Environmental Protection Agency for the specific purpose planned. The holder must strictly follow label instructions in the preparation and application of pesticides and disposal of excess materials and containers.

29. Road Use by Government (K38)

The United States shall have unrestricted use of the said right-of-way and any road constructed thereon for all purposes deemed necessary or desirable in connection with the protection, administration, management, and utilization of Federal lands or resources and alone shall have the right to extend rights and privileges for use of the right-

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

of-way and road thereon to States and local subdivisions thereof, as well as to other users, including members of the public, except contractors, agents, and employees of the holder; provided, that the agency having jurisdiction shall control such use so as not unreasonably to interfere with use of the road by the holder or cause the holder to bear a share of the cost of maintenance greater than the holder's use bears to all use of the road.

[Instructions: Use this clause when any power project roads will become part of the forest development road system and when the crest of a dam will function as a roadway. Also use this clause if a subsequent road easement may be issued to the county.]

30. Area Access (X19)

The holder agrees to permit the free and unrestricted access to and upon the premises at all times for all lawful and proper purposes not inconsistent with the intent of the permit or with the reasonable exercise and enjoyment by the holder of the privileges thereof.

31. Plans, Part of Authorization (K24)

The holder shall prepare the following plans in consultation with Forest Service and other appropriate agencies.

<plan names>

The holder shall submit these plans for Forest Service approval by <date> . Said plans shall be attached hereto and marked as Exhibits <letters> , respectively.

[Instructions: See section 62 for types of operation plans to consider.]

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

32. Construction Standards, Powerline (B35 edit)

The holder shall design and construct the transmission line in accordance with accepted standards and specifications for transmission lines of similar voltage, capacity, and purpose. The holder shall place and maintain suitable structures and

devices to reduce to a reasonable degree the likelihood of contact between its transmission line and telegraph, telephone, signal, or other powerlines heretofore constructed and not owned by the holder. The holder shall also place and maintain suitable structures and devices to reduce to a reasonable degree the likelihood of any structures or wires falling and obstructing traffic or endangering life on highways or roads, in a manner satisfactory to the Forest Service.

[Instructions: Delete if no powerline.]

33. Right-of-Way Clearing, Powerline (K25)

The holder shall clear designated parts of the powerline right-of-way and keep them clear as required by the Forest Service; shall trim all branches of trees in contact with or near the line; shall remove all dead snags and all trees on or adjacent to the right-of-way that are leaning toward or in danger of falling on the line; shall observe such other fire precautions as may be required by the Forest Service; and shall burn or otherwise dispose of all waste material to the satisfaction of the Forest Service. The holder shall restrict the clearing width to that necessary for safe transmission, unless it has obtained the specific permission of the Forest Service for a greater clearing width.

[Instructions: Delete if no powerline.]

34. Fish and Wildlife Protection (K41)

The holder shall construct, maintain, and operate such protective devices and comply with such reasonable modifications of the project structures and operation in the interests of fish and wildlife resources as may be prescribed hereafter by the Forest Service upon the recommendation of the Secretary of the Interior or the State fish and game agency.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

[Instructions: Retain to enable resource protection, unless following streamflow release clause is definitely adequate.]

35. Streamflow Release Schedule (K22)

The holder shall bypass the following streamflows from the diversion structure for the specific protection of fish and riparian habitat:

from <date>	to <date>	<number>	cfs or natural flow
from <date>	to <date>	<number>	cfs or natural flow

The holder shall construct, operate, and maintain a guaranteed priority stream maintenance flow device as part of the diversion/intake structure. Required stream maintenance

flows, listed above, will be automatically released before any flow can be diverted into the conduit. Down-stream of the point of release of the bypass flow, the holder shall construct a water control section with a continuously-recording streamgauge to accurately measure the maintenance flow. The holder shall provide the Forest Service with a stage-discharge chart before beginning operation of the project. The design of the bypass mechanism and the design and location of the measuring control section and streamgauge require Forest Service approval. The holder shall file a report by December 31 of each year for the preceding water year (October 1 through September 30), of the streamflow at said gaging station. The holder shall file said report with the Forest Supervisor, <name> National Forest, and the <name> Department of Fish and Game.

[Instructions: Delete or amend streamgauge requirement if there is low risk of damage through noncompliance.]

□

□36. Nondiscrimination in Employment (K42)

In connection with the performance of work under this permit, including construction, maintenance, and operation of the facility, the holder shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, or handicap in accordance with the Civil Rights Act of 1964, as amended.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

37. Business Status and Documentation (K36)

The holder, if a corporation or partnership, shall furnish the Forest Supervisor with a copy of official documentation to establish who has legal interest in the business under permit and to show officially who is authorized by the business to represent the holder in its dealing with the Forest Service. The holder also shall furnish the Forest Supervisor with a list of all officers and directors of the business and their addresses and shall promptly notify the Forest Supervisor of any changes in officers, directors, or persons holding interest in this permit and of any changes in their addresses. Upon request of the Forest Supervisor, the holder shall provide a certified list of the stockholders or partners and amount of stock owned or interest held by each. The holder also shall provide such a list upon any change in anyone's interest that gives them more than 50 percent of the corporate stock or partnership interest.

38. Permit Amendment, Exempted Project (K43)

The Regional Forester may after 90 days written notice to the holder, unilaterally amend, in the public interest, this special-use permit; provided, such amendment shall not unreasonably reduce the use herein authorized. Such modification may be made only after this permit has been in

force for 5 years, or no sooner than 10 years from the date of the last modification. The holder shall have the opportunity to make input to the Regional Forester concerning the proposed change. The Regional Forester shall consider all relevant information concerning the environmental and economic impacts of such an amendment.

[Instructions: See section 61.52i for rules if this clause is invoked.]

In Witness Whereof, the parties hereto have caused this permit to be duly executed on this _____ day of _____ 19__.

Permittee

USDA - Forest Service

by _____
<Name>
<Title>
<Company>

by _____
<Name>
Forest Supervisor
<Name> National Forest

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SEC. 71.2-Exhibit 1--Continued

CONSTRUCTION STIPULATIONS

The Stipulations, made as of the <day> day of <month> , 19 <year>, by and between <holder> , hereinafter referred to as the holder, and U.S. Department of Agriculture, Forest Service, acting by and through its authorized officer, hereinafter referred to as the Forest Service.

Whereas the holder has been issued a special-use authorization dated <date> for the use and occupancy of National Forest land for the use (and maintenance) of a hydroelectric project, and, whereas, such authorization requires that all construction conform with approved plans, specifications, and stipulations.

Now, therefore, the holder hereby agrees to the following terms and conditions, and the Forest Service hereby authorizes the construction to proceed in accordance with these terms and conditions.

CS-1. Suspension/Revocation (K27)

The Forest Service may temporarily suspend construction/reconstruction and/or terminate the special-use authorization without administrative proceedings upon breach of any of the conditions herein.

CS-2. Plans, Part of Authorization (K24)

The holder shall prepare the following plans in consultation with Forest Service and other appropriate agencies.

<plan names>

The holder shall submit these plans for Forest Service approval by <date> . Said plans shall be attached hereto and marked as Exhibits <letters> , respectively.

[Instructions: See section 62 for types of construction plans to consider.]

CS-3. Fire Plan Part of Authorization (K1)

A project fire plan describing the holder's responsibilities for prevention and suppression of fires, developed by the holder, and subject to Forest Service approval, <shall become> <is> part of this authorization, as Exhibit <letter>

<to be> attached hereto. The holder shall obtain Forest Service approval for said plan before beginning any on-the-ground construction and shall strictly follow its terms.

CS-4. Designation of Construction Manager (K2)

The holder shall designate a construction manager for the project construction. This individual shall be qualified to represent the holder and shall be present or have a qualified acting representative present at all times while project construction activities are taking place. This individual shall be the person who receives the on-the-ground approvals and directions from the designated Forest Service representative(s).

CS-5. Construction Inspections by Holder (K3)

The holder shall perform daily (or on a schedule otherwise agreed to by the Forest Service in writing) inspections of holder's operations while they are proceeding. The holder shall document these inspections (informal writing sufficient) and shall deliver such documentation to the Forest Service on a weekly basis. The inspections must specifically include fire plan compliance, public safety, and environmental protection. The holder shall act immediately to correct any items found to need correction.

A certified engineer shall regularly conduct construction inspections of structural improvements on a schedule approved by the Forest Service.

[Instructions: Delete the last paragraph for licensed projects.]

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

CS-6. Site Development Schedule (K14)

As a part of this authorization, the holder shall, in consultation with the Forest Service, prepare a schedule for the progressive development of the permitted site and installation of facilities. Such a schedule shall be prepared by <date> , and shall set forth an itemized priority list of planned improvements and the planned date for completion. This schedule shall be made a part of this authorization. The holder may accelerate the scheduled date for installation of any improvement authorized, provided the holder has met other scheduled priorities; and provided further, that the holder has completed all priority installations authorized to the satisfaction of the Forest Service prior to the scheduled due date.

The holder shall submit all construction plans to the Forest Service for approval a minimum of 45 days before anticipated start of construction. All plans for construction of facilities must have the approval with signature of a

registered professional engineer of the appropriate specialty, and must have the approval of the Forest Service prior to the use of these plans in constructing this project. These plans shall then become part of this authorization as Exhibit <letter> , to be attached hereto.

The holder shall ensure that construction bid invitations are in compliance with this authorization and all applicable environmental protection standards.

In the actual layout on-the-ground, the holder shall use accurate mapping based on an adequate survey of the land, including the location of special areas such as water courses.

The holder shall furnish to officers of the United States such information as may be required concerning the construction, operation, and maintenance of the project, and any alteration thereof.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

When asked by the Forest Service, the holder shall provide for an on-the-ground review of the plans with the Forest Service for any area of concern to the Forest Service at least 7 days prior to beginning construction on that area.

CS-7. Building, Facility, and Service System Plans (K16)

All plans and specifications for buildings or other facilities shall be prepared and signed by an architect or engineer licensed in the State in which the facilities will be located. The plans must be in accordance with the County Building Code. Building plumbing must be in accordance with the National Plumbing Code. The electrical system must be in accordance with the National Electrical Code. Other systems must be designed in accordance with recognized standards.

The holder shall submit plans to the Forest Service for approval before beginning construction.

Before the Forest Service approves the building or other facilities, the holder shall submit to the Forest Service a statement by the architect or engineer who inspected construction certifying that the building or other facilities have been constructed in accordance with the approved plans.

CS-8. Bonds, Performance (K18)

As a further guarantee of the faithful performance of the provisions of this permit of these construction stipulations, the holder agrees to deliver and maintain a surety bond in the amount of <written number> dollars (\$<number>). Before undertaking additional construction or alteration work not provided for at the time the bond amount was set or when the improvements are to be removed and the area restored, the

holder shall deliver and maintain a surety bond in an amount set by the Forest Service, which amount shall not be in excess of the estimated loss the Government would suffer upon default in performance of this work. Should the sureties or the bonds delivered under this authorization become unsatisfactory to the Forest Service, the holder shall, within thirty (30) days of demand, furnish a new bond with surety, solvent and satisfactory to the Forest Service.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

In lieu of surety bond, and as directed by the Forest Service, the holder may deposit into a Federal depository, and maintain therein, cash in the amounts provided for above, or negotiable securities of the United States having a market value at time of deposit of not less than the dollar amounts provided above.

The Forest Service shall release the holder's surety bond, or return deposits in lieu of bond, thirty (30) days after certification by the Forest Service that installations under the development plan are complete, and upon the holder furnishing proof satisfactory to the Forest Service that all claims for labor and material on said installations have been paid by the holder or released and satisfied. The holder agrees that all moneys deposited under this authorization may, upon failure on holder's part to fulfill all and singular the requirements herein set forth or made a part hereof, be retained by the United States to be applied to the satisfaction of holder's obligations assumed under the permit and construction stipulations, without prejudice whatever to any other rights and remedies of the United States.

CS-9. Use of Explosives (K37)

- a. The holder shall use only electronic detonators for blasting, except near high-voltage powerlines. The Forest Service may allow specific exceptions when in the public interest.
- b. In the use of explosives, the holder shall exercise the utmost care not to endanger life or property and shall comply with the requirements of the Forest Service. The holder shall be responsible for any and all damages resulting from the use of explosives and shall adopt precautions to prevent damage to surrounding objects. The holder shall furnish and erect special signs to warn

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

the public of the holder's blasting operations. The holder shall place and maintain such signs so they are

clearly evident to the public during all critical periods of the blasting operations, and shall ensure that they include a warning statement to have radio transmitters turned off.

c. The holder shall store all explosives in a secure manner, in compliance with State and local laws and ordinances, and shall mark all such storage places "DANGEROUS - EXPLOSIVES." Where no local laws or ordinances apply, the holder shall provide storage that is satisfactory to the authorized officer and in general not closer than 1,000 feet from the road or from any building or camping area.

d. When using explosives, the holder shall adopt precautions to prevent damage to landscape features and other surrounding objects. When directed by the authorized officer, the holder shall leave trees within an area designated to be cleared as a protective screen for surrounding vegetation during blasting operations. The holder shall remove and dispose of trees so left when blasting is complete. When necessary, and at any point of special danger, the holder shall use suitable mats or some other approved method to smother blasts.

CS-10. Erosion Control, Topsoil, Revegetation (K20)

The holder shall be responsible for the prevention and control of soil erosion, caused either directly or indirectly by construction or operation of the project, and shall provide preventive and control measures as required by the Forest Service.

The holder shall strip topsoil from construction areas and deposit it in storage piles apart from other excavated material. After removing the desired amount of material, the holder shall evenly spread the stored topsoil over exposed subsoil in appropriate areas to the extent practicable, and shall revegetate the area disturbed.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

To the extent practicable on National Forest System lands, the holder shall establish a vegetative cover on all cut and fill slopes, borrow areas, and other disturbed areas capable of growing a vegetative cover of grasses or other suitable vegetation, as required by the Forest Service. The holder shall seed or plant at a time of the year, in a manner, and with species that the Forest Service considers offer the best chance of success. The holder shall repeat such seeding and planting regularly, as conditions allow, until such areas are accepted in writing by the Forest Service as satisfactorily revegetated and stabilized.

The holder shall install erosion control measures for adverse weather conditions by <date> each year and keep them

current with the operation until the Forest Service notifies the holder that the adverse conditions of that season are over.

CS-11. Unattended Construction Equipment (K39)

The holder shall not place construction equipment on National Forest land prior to actual use or allow it to remain on National Forest land subsequent to actual use. The holder shall remove equipment from National Forest System land unless a permit is issued for equipment storage.

CS-12. Protection of Wildlife and Plant Species (K5)

If threatened, endangered, or sensitive (as defined in the Forest Service manual) wildlife and plant species are found during use under this authorization, the holder shall notify the Forest Service and shall take immediate measures to protect said species as directed by the Forest Service.

CS-13. Traffic Safety (K8)

When construction is in progress adjacent to or on Forest Service controlled roads open to public travel, the holder shall furnish, install, and maintain temporary traffic controls to provide the public with adequate warning and protection from hazardous or potentially hazardous conditions associated with the holder's operations. Devices must be appropriate to current conditions and must be covered or removed when not needed. Except as otherwise agreed, flagmen and devices must be as specified in the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD).

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

CS-14. Revised Permit Boundary (K4)

Within one year of completion of construction, the holder shall provide Forest Service with as-built plans showing right-of-way limits and facility locations of all permitted facilities.

CS-15. Surveys, Land Corners (K7)

The holder shall protect, in place, all public land survey monuments, private property corners, and forest boundary markers. In the event that any such land markers or monuments are destroyed in the exercise of the privileges authorized by this authorization, depending on the type of monument destroyed, the holder shall reestablish or reference same in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) the specifications of the County Surveyor, or (3) the specifications of the Forest Service.

Further, the holder shall ensure that any such official

survey records affected are amended as provided by law.

CS-16. Cultural Resource Discoveries (X17 edit)

If, prior to or during excavation work, items of potential cultural, historical, archeological, or paleontological value are reported or discovered, or a known deposit of such items is disturbed, the holder shall immediately cease excavation in the area so affected. The holder shall then notify the Forest Service and shall not resume excavation until it receives written approval from the authorized officer.

If it deems it necessary or desirable, the Forest Service may require the holder to have performed recovery, excavation, and preservation of the site and its artifacts at the holder's expense. At the option of the Forest Service, this authorization may be terminated at no liability by the United States when such revocation is deemed necessary or desirable to preserve or protect archaeological, paleontological, or historic sites and artifacts.

HYDROELECTRIC HANDBOOK

Exhibit 1 - Continued

CS-17. Water Rights (K28)

This authorization confers no ownership of the water to the holder. Construction may begin after the holder provides the authorized officer with a sufficient showing that the holder has a right to use the water.

[Instructions: A license gives the licensee the ability to obtain any water necessary to operate the project. An exemption does not give the exemptee that ability.]

In Witness Whereof, the parties hereto have caused this permit to be duly executed on this _____ day of _____ 19__.

Permittee

USDA - Forest Service

by _____
<Name>
<Title>
<Company>

by _____
<Name>
Forest Supervisor
<Name> National Forest

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Sec. 71.3-Exhibit 1

Hydroelectric Investigation Special-Use Permit

USDA - Forest Service	a. Record No. (1-2)	b. Region (3-4)	c. Forest (5-6)
	7 0	0 0	0 0
SPECIAL USE PERMIT HYDROELECTRIC INVESTIGATION Act of October 21, 1976 (P.L.94-579) 36 CFR 251.50 et seq.	d. District (7-8)	e. User No. (9-12)	f. Kind of Use (13-15)
	0 0	0 0 0 0	4 1 1
	g. State (16-17)	h. County (18-20)	k. Card No. (21)
	0 0	0 0 0	1

Permission is hereby granted to _____ of _____, hereinafter called the Holder, for the non-exclusive use, subject to the conditions set out below, of the following described lands or improvements:

This authorization covers _____ acres and/or _____ miles and is issued for the _____ Project, Federal Energy Regulatory Commission # _____. The project includes the following:

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Sec. 71.3-Exhibit 1--Continued

This permit is made subject to the following terms, provisions, and conditions.

1. Development plans; layout plans; construction, reconstruction, or alteration of improvements plans; or revision of layout or construction plans for this area must be approved in advance and in writing by the Forest Supervisor. Trees or shrubbery on the permitted area may be removed or destroyed only after the authorized officer has approved, and has marked or otherwise designated that which may be removed or destroyed. Timber cut or destroyed will be paid for by the holder as follows: Merchantable timber at appraised value and young growth timber below merchantable size at current damage appraisal value; provided, that the Forest Service reserves the right to dispose of the merchantable timber to others than the holder at no stumpage cost to the holder. Trees, shrubs, and other plants may be planted in such manner and in such places about the premises as may be approved by the authorized officer. Removal of hazards shall be done after securing approval from the authorized officer.
2. The holder shall maintain the improvements and premises to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the authorized officer. For example, trash, debris, unusable machinery, and so forth, will be disposed of separately; other materials will be stacked, stored neatly, or within buildings. Disposal will be at an approved existing location, except as otherwise agreed to by the authorized officer.
3. This permit is subject to all valid claims and existing rights.
4. The holder, in exercising the privileges granted by this permit, shall comply with the regulations of the Department of Agriculture and all Federal, State, county, and municipal laws, ordinances, or regulations that are applicable to the area or operations covered by this permit.
5. The holder shall take all reasonable precautions to prevent and suppress forest fires. No material shall be disposed of by burning in open fires during the closed season established by law or regulation without a written permit from the authorized officer or his authorized agent.
6. The holder shall exercise diligence in protecting from damage the land and property of the United States covered by and used in connection with this permit, and shall pay the United States for any damage resulting from negligence or from the violation of the terms of this permit or of any law or regulation applicable to the National Forests by the holder, or by any agents or employees of the holder acting within the

scope of their agency or employment.

7. The holder shall fully repair all damage to National Forest roads and trails caused by the holder in the exercise of the privileges granted by this permit.
8. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this agreement or to any benefit that may arise herefrom unless it is made with a corporation for its general benefit.
9. Upon abandonment, termination, revocation, or cancellation of this permit, the holder shall remove within a reasonable time all structures and improvements except those owned by the United States, and shall restore the site, unless otherwise agreed upon in writing or in this permit. If the holder fails to remove all such structures or improvements within a reasonable period, they shall become the property of the United States, but that will not relieve the holder of liability for the cost of their removal and restoration of the site.
10. This permit is transferable in accordance with 36 CFR 251.59.
11. In case of change of address, the holder shall immediately notify the Forest Supervisor.
12. All or part of the use under this permit may be temporarily suspended by the Forest Service for breach of any condition contained herein. Continued use in violation of such suspension shall result in action toward cancellation of the permit. This permit may be terminated upon breach of any conditions herein, or at the discretion of the Regional Forester or the Chief, Forest Service, for reasons in the public interest.
13. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of National Forest lands under this permit.
14. This permit is not exclusive. The Forest Service reserves the right to use or permit others to use any part of the permitted area for any purpose, provided such use does not interfere with the rights and privileges hereby authorized, or authorized under the Federal Power Act. The holder shall allow officers of the United States free and unrestricted access to the project lands and project works in the performance of their official duties.
15. All construction, reconstruction, substantial change, or alteration shall be submitted for approval by the authorized officer issuing this permit; the proposed action may commence only upon approval by said authorized officer of plans, specifications, and written construction stipulations; such construction stipulations shall become part of this permit during the term of the proposed action as long as deemed necessary by said authorized officer.
16. Fees, Investigation Permit (K34)

In consideration for this use, the holder shall pay the

Forest Service, U.S. Department of Agriculture, the sum of <written number> dollars (\$<number>) for the original term of this permit. If this permit is renewed, the Forest Service shall charge the holder the then current fee for the new term.

17. Late Payment Interest Charge (A6)

Pursuant to the Federal Claims Collection Act of 1966, as amended, 31 USC 3101, et seq., and regulations at 7 CFR Part 3, Subpart B, an interest charge shall be assessed on any payment not made by the payment due date. Interest shall be assessed using the most current rate prescribed by the United States Department of the Treasury's Fiscal Requirements Manual (TERM-6-8020.20). Interest shall accrue from the date the payment was due. In addition, the cost of processing and handling the overdue payment shall be added to the amount due.

A penalty of 6 percent per year shall be assessed on any payment overdue in excess of 90 days from the payment due date.

Payments will be credited on the date received by the designated collection officer or deposit location. If the payment due date(s) falls on a nonworkday, the interest and penalty charges shall not apply until the close of business of the next workday.

18. Short Term Use (E3)

This permit is issued for the period ending <date> .

19. Bonds, Performance, Investigation Permit (K26)

As a further guarantee of the faithful performance of the provisions of this permit, and of the construction stipulations when in force, the holder agrees to deliver and maintain a surety bond in the amount of <written number> dollars (\$<number>). Should the sureties or the bonds delivered under this permit become unsatisfactory to the Forest Service, the holder shall, within thirty (30) days of demand, furnish a new bond with surety, solvent and satisfactory to the Forest Service.

In lieu of surety bond, and as directed by the Forest Service, the holder may deposit into a Federal depository and maintain therein, cash in the amounts provided for above, or negotiable securities of the United States having a market value at time of deposit of not less than the dollar amounts provided above.

The Forest Service shall release the holder's surety bond, or return deposits in lieu of bond, thirty (30) days after certification by the Forest Service that restoration of the affected areas is complete, and upon the holder furnishing proof satisfactory to the Forest Service that all claims for labor and material have been paid by the holder or released and satisfied. The holder agrees that all moneys deposited under this permit may, upon failure on holder's part to

fulfill all and singular the requirements herein set forth or made a part hereof, be retained by the United States to be applied to the satisfaction of holder's obligations assumed hereunder, without prejudice whatever to any other rights and remedies of the United States.

20. Water Pollution (K19)

The holder shall discharge no waste or byproduct if it contains any substances in concentrations that would result in violation of water quality standards set forth by the State; would impair present or future beneficial uses of water; would cause pollution, nuisance, or contamination; or would unreasonably degrade the quality of any waters. During the construction and operation of the project, the holder shall protect project water quality by using the existing Best Management Practices mutually agreed to by the Forest Service and the State.

21. Esthetics, Investigation Permit (K30)

The holder shall protect the scenic and esthetic values of the area under this permit and the adjacent land.

22. Area Access (X19)

The holder agrees to permit the free and unrestricted access to and upon the premises at all times for all lawful and proper purposes not inconsistent with the intent of the permit or with the reasonable exercise and enjoyment by the holder of the privileges thereof.

23. Nondiscrimination in Employment (K42)

In connection with the performance of work under this permit, including construction, maintenance, and operation of the facility, the holder shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, or handicap in accordance with the Civil Rights Act of 1964, as amended.)

In Witness Whereof, the parties hereto have caused this permit to be duly executed on this _____ day of _____ 19__.

Permittee

USDA - Forest Service

by _____
<Name>
<Title>
<Company>

by _____
<Name>
Forest Supervisor
<Name> National Forest

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-
-

CONSTRUCTION STIPULATIONS

The Stipulations, made as of the <day> day of <month> , 19

<year>, by and between <holder> ,
hereinafter referred to as the holder, and U.S. Department of
Agriculture, Forest Service, acting by and through its authorized
officer, hereinafter referred to as the Forest Service.

Whereas the holder has been issued a special-use
authorization dated
<date> for the use and occupancy of National Forest land
for the use (and maintenance) of a hydroelectric project, and,
whereas, such authorization requires that all construction
conform with approved plans, specifications, and stipulations.

Now, therefore, the holder hereby agrees to the following
terms and conditions, and the Forest Service hereby authorizes
the construction to proceed in accordance with these terms and
conditions.

CS-1. Suspension /Revocation, Investigation Authorization (K35)

The Forest Service may temporarily suspend ground disturbing
activities and/or terminate the special-use authorization
without administrative proceedings upon breach of any of the
conditions herein.

CS-2. Plans, Part of Authorization (K24)

The holder shall prepare the following plans in consultation
with Forest Service and other appropriate agencies.

<plan names>

The holder shall submit these plans for Forest Service
approval by <date> . Said plans shall be attached hereto
and marked as Exhibits <letters> ,
respectively.

[Instructions: See section 62 for types of construction plans
to consider.]

CS-3. Fire Plan Part of Authorization (K1)

A project fire plan describing the holder's responsibilities
for prevention and suppression of fires, developed by the
holder and subject to Forest Service approval, <shall become>
<is> part of this authorization, as Exhibit <letter> <to be>
attached hereto. The holder shall obtain Forest Service
approval for said plan before beginning any on-the-ground
construction and shall strictly follow its terms.

CS-4. Project Safety (K13)

The holder shall carry out all operations in a skillful
manner, having due regard for the safety of employees and the
public, and shall safeguard unsafe areas. The holder shall
regularly inspect its facilities and provide further
effective safety measures as needed for safety protection.

CS-5. Investigation Operations Inspections by Holder (K9)

The holder shall perform daily (or on a schedule otherwise agreed to by the Forest Service in writing) inspections of holder's operations while they are proceeding. The holder shall document these inspections (informal writing sufficient) and shall deliver such documentation to the Forest Service on a weekly basis. The inspections must specifically include fire plan compliance, public safety, and environmental protection. The holder shall act immediately to correct any items found to need correction.

CS-6. Use of Explosives (K37)

- a. The holder shall use only electronic detonators for blasting, except near high-voltage powerlines. The Forest Service may allow specific exceptions when in the public interest.
- b. In the use of explosives, the holder shall exercise the utmost care not to endanger life or property and shall comply with the requirements of the Forest Service. The holder shall be responsible for any and all damages resulting from the use of explosives and shall adopt precautions to prevent damage to surrounding objects. The holder shall furnish and erect special signs to warn the public of the holder's blasting operations. The holder shall place and maintain such signs so they are clearly evident to the public during all critical periods of the blasting operations, and shall ensure that they include a warning statement to have radio transmitters turned off.
- c. The holder shall store all explosives in a secure manner, in compliance with State and local laws and ordinances, and shall mark all such storage places "DANGEROUS - EXPLOSIVES." Where no local laws or ordinances apply, the holder shall provide storage that is satisfactory to the authorized officer and in general not closer than 1,000 feet from the road or from any building or camping area.
- d. When using explosives, the holder shall adopt precautions to prevent damage to landscape features and other surrounding objects. When directed by the authorized officer, the holder shall leave trees within an area designated to be cleared as a protective screen for surrounding vegetation during blasting operations. The holder shall remove and dispose of trees so left when blasting is complete. When necessary, and at any point of special danger, the holder shall use suitable mats or some other approved method to smother blasts.

CS-7. Erosion Control, Topsoil, Revegetation (K20)

The holder shall be responsible for the prevention and control of soil erosion, caused either directly or indirectly by construction or operation of the project, and shall provide preventive and control measures as required by the

Forest Service.

The holder shall strip topsoil from construction areas and deposit it in storage piles apart from other excavated material. After removing the desired amount of material, the holder shall evenly spread the stored topsoil over exposed subsoil in appropriate areas to the extent practicable, and shall revegetate the area disturbed.

To the extent practicable on National Forest System lands, the holder shall establish a vegetative cover on all cut and fill slopes, borrow areas, and other disturbed areas capable of growing a vegetative cover of grasses or other suitable vegetation, as required by the Forest Service. The holder shall seed or plant at a time of the year, in a manner, and with species that the Forest Service considers offer the best chance of success. The holder shall repeat such seeding and planting regularly, as conditions allow, until such areas are accepted in writing by the Forest Service as satisfactorily revegetated and stabilized.

The holder shall install erosion control measures for adverse weather conditions by <date> each year and keep them current with the operation until the Forest Service notifies the holder that the adverse conditions of that season are over.

CS-8. Unattended Construction Equipment (K39)

The holder shall not place construction equipment on National Forest land prior to actual use or allow it to remain on National Forest land subsequent to actual use. The holder shall remove equipment from National Forest System land unless a permit is issued for equipment storage.

CS-9. Protection of Wildlife and Plant Species (K5)

If threatened, endangered, or sensitive (as defined in the Forest Service manual) wildlife and plant species are found during use under this authorization, the holder shall notify the Forest Service and shall take immediate measures to protect said species as directed by the Forest Service.

CS-10. Traffic Safety (K8)

When construction is in progress adjacent to or on Forest Service controlled roads open to public travel, the holder shall furnish, install, and maintain temporary traffic controls to provide the public with adequate warning and protection from hazardous or potentially hazardous conditions associated with the holder's operations. Devices must be appropriate to current conditions and must be covered or removed when not needed. Except as otherwise agreed, flagmen and devices must be as specified in the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD).

CS-11. Surveys, Land Corners (K7)

The holder shall protect, in place, all public land survey monuments, private property corners, and forest boundary

markers. In the event that any such land markers or monuments are destroyed in the exercise of the privileges authorized by this authorization, depending on the type of monument destroyed, the holder shall reestablish or reference same in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) the specifications of the County Surveyor, or (3) the specifications of the Forest Service.

Further, the holder shall ensure that any such official survey records affected are amended as provided by law.

CS-12. Cultural Resource Discoveries (X17 edit)

If, prior to or during excavation work, items of potential cultural, historical, archeological, or paleontological value are reported or discovered, or a known deposit of such items is disturbed, the holder shall immediately cease excavation in the area so affected. The holder shall then notify the Forest Service and shall not resume excavation until it receives written approval from the authorized officer.

If it deems it necessary or desirable, the Forest Service may require the holder to have performed recovery, excavation, and preservation of the site and its artifacts at the holder's expense. At the option of the Forest Service, this authorization may be terminated at no liability by the United States when such revocation is deemed necessary or desirable to preserve or protect archaeological, paleontological, or historic sites and artifacts.

In Witness Whereof, the parties hereto have caused this permit to be duly executed on this _____ day of _____ 19__.

Permittee

USDA - Forest Service

by _____

by _____

<Name>
<Title>
<Company>

<Name>
Forest Supervisor
<Name> National Forest

FSH 2709.15 - HYDROELECTRIC HANDBOOK
2/87 WO

71.3 - Investigation Special-Use Permit. This permit may be issued with or without the applicant having obtained a Federal Energy Regulatory Commission (FERC) preliminary permit. However, usually the applicant would have previously obtained such a permit from FERC.

The permit is designed for studies with and without ground disturbance. The basic permit is for non-ground-disturbing studies, with construction stipulations added to control ground disturbing impacts, such as core drilling and related access. Add those construction stipulations at the time the holder proposes such ground disturbance, and remove them when the holder has completed the disturbing activity to the satisfaction of the Forest Service. Construction stipulations may be reintroduced at some future date if further ground disturbance becomes necessary.

Exhibit 1 shows the basic hydroelectric investigation permit.

EXHIBIT 1 IS A SEPARATE DOCUMENT

FSH 2709.15 - HYDROELECTRIC HANDBOOK
2/87 WO

71.4 - Adjustments for Single Facility Authorizations. The standard permits for hydroelectric projects may be modified as appropriate when not all facilities of the project are on National Forest System land. For example, delete clauses referring to transmission lines if no transmission lines are being authorized.

72 - EASEMENTS. Easements may be used at the Regional Forester's discretion to authorize hydroelectric developments that hold a license or exemption from the Federal Energy Regulatory Commission (FERC). Easements are assignable grants of right-of-way that appear to be more permanent and therefore easier to finance. It is more difficult to terminate an easement than to terminate a permit. It would be necessary for FERC to be involved in the revocation of either type of authorization for a licensed project.

The special-use permit clauses in section 71.11 may be converted to easement clauses and used as needed.

72.1 - Licensed Hydroelectric Project Easement. Controls similar to those for a special-use permit for a FERC-licensed project are necessary in an easement for the same type of project (sec. 71.1). Other clauses may be created as needed for the specific situation.

72.2 - Exempted Hydroelectric Project Easement. Controls similar to those for a special-use permit for a FERC-exempted project are necessary in an easement for the same type of project (sec. 71.2). Other clauses may be created as needed for the specific situation.