

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, D.C. 20314

ER 1110-2-1454

DAEN-CWE-HY

Regulation
No. 1110-2-1454

15 July 1983

Engineering and Design
CORPS RESPONSIBILITIES FOR
NON-FEDERAL HYDROELECTRIC POWER DEVELOPMENT
UNDER THE FEDERAL POWER ACT

1. Purpose. This regulation provides policy and guidance for review of preliminary permit and license applications for non-Federal hydroelectric power development either at or affecting US Army Corps of Engineers (Corps) water resource projects.

2. Applicability. This regulation applies to all field operating activities having civil works responsibilities.

3. References.

a. Federal Power Act (41 Stat. 1063, 16 U.S.C. 791-823) 10 June 1920, as amended (FPA).

b. ER 10-1-41, Corps Wide Centralized Functions and Special Missions Assigned to Divisions and Districts.

c. ER 1105-2-10, Planning Programs.

d. ER 1145-2-303 (33 CFR 320.330), Permits for Activities in Navigable Water or Ocean Waters.

4. Objectives. The objective of this regulation is to prescribe procedures for executing Corps of Engineers functions under the authority of the Federal Power Act administered by the Federal Energy Regulatory Commission (FERC). Based on specific requests from the Commission, these functions include:

a. Review of applications for preliminary permits and licenses filed with FERC for development of hydroelectric power at Corps of Engineers projects or at non-Corps projects to ascertain potential impacts on Corps responsibilities.

b. Review of applications for surrender or termination of license to ascertain impacts on Corps responsibilities.

c. Review of applications for exemption from all or a portion of Part I of the Federal Power Act for "Small Hydroelectric Power Projects," with an installed capacity of 5 megawatts (MW) or less, to ascertain impacts on Corps responsibilities.

5. Definitions. The following definitions are used by the FERC in the administration of the Federal Power Act:

a. Licensed Project. A non-Federal hydroelectric project for which the FERC has issued a license granting authority to construct and operate a proposed project, or continue to operate an existing project.

b. Major Projects. Hydroelectric projects having installed capacity greater than 1.5 MW.

c. Minor Projects. Hydroelectric projects having installed capacity of 1.5 MW or less.

d. Small Hydroelectric Power Projects. For the purpose of exemption from all or a portion of Part I of the Federal Power Act, "Small Projects" means projects having an installed capacity of not more than 5 MW, and that would utilize the water power potential of an existing dam not owned or operated by the United States.

e. Preliminary Permit Application. An application filed by a non-Federal entity with the FERC as a preliminary step in anticipation of filing for a license to construct and operate a hydroelectric project. A preliminary permit does not authorize construction. It merely gives the permittee priority of application for a FERC license over other non-Federal entities for a period of time. The permittee then develops information necessary for inclusion in an application for a license to construct and operate a hydroelectric project. Analysis of this information may result in a decision by the permittee to apply for a license or to withdraw its intent to file.

f. Relicensing. Relicensing is a procedure applicable to projects for which the original license period (usually 50 years) will expire or has expired and an application for new license has been or will be filed with the FERC.

g. Takeover. A procedure whereby the Federal Government assumes project ownership. Upon expiration of a license for a hydroelectric project, the United States, under certain specific conditions set forth in Section 14 of the Federal Power Act may take over, maintain and operate the project. This does not apply to any project owned by a State or local government. Takeover procedures are not applicable to minor projects.

6. Authorities. The Federal Power Act, as amended, (Reference 3a), delegates to the Secretary of the Army and to the Commander, USACE certain functions necessary for the FERC's administration of the Act. Implementation was provided through instructions issued by the President in a letter dated 18 May 1931 to the Secretary of War. These functions are set forth in the following excerpts from the Act:

a. Section 2 of the Act provides in part that:

"The Commission may request the President to detail an officer or officers from the Corps of Engineers, or other branches of the United States Army to serve the Commission as engineer officer or officers . . ."

b. Section 4(e) of the Act provides in part that:

"The Commission is hereby authorized and empowered . . . to issue licenses to citizens of the United States, or to any associations of such citizens, or to any corporation organized under the laws of the United States or any State thereof, or to any State or municipality for the purpose of construction, operating, and maintaining dams, water conduits, reservoirs, powerhouses, transmission lines, or other project works necessary or convenient for the development and improvement of navigation and for development, transmission, and utilization of power across, along, from or in any of the streams or other bodies of water over which Congress has jurisdiction. . ."

". . . 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."

". . . Provided further that no license affecting the navigable capacity of any navigable water of the United States shall be issued until the plans of the dam or other structures affecting navigation have been approved by the Commander, USACE and the Secretary of the Army".

7. Delegation of Authority. Division commanders, having civil works responsibility, are delegated the authority for direct communication with the Washington office of the FERC for all matters relating to FERC applications for preliminary permits, licenses, and headwater benefits data and reports. The delegation of authority includes approval of plans under Section 4(e) of the Federal Power Act insofar as interests of navigation are concerned. The division commanders are responsible for adequacy of design, plans, and construction specifications of licensed non-Federal hydropower facilities that will be an integral part of or that could affect the structural integrity or operation of a Corps project.

8. Statement of Policy. The Corps supports suitable non-Federal hydropower plant construction at its water resources projects. This will be accomplished by adherence to the requirements of this ER and to the provisions of the interagency Memorandum of Understanding (MOU) between the Department of the Army and FERC. (Copy attached as Appendix A).

9. Coordination with the FERC. The referenced MOU dated 2 November 1981, between the Department of the Army and the FERC, provides for coordination in planning, design, and construction activities between the Corps field commanders and FERC regional engineers. This coordination should provide the mechanism to achieve the Corps policy objectives for non-Federal hydropower development at Corps projects. Also, the Corps general requirements indicated in Paragraph 14a of this ER provide a basis for the scope of studies and design considerations by non-Federal entities. These requirements are for safeguarding the public interest at Corps projects relative to water control management for flood control, navigation, water supply, water quality, recreation and other project purposes.

10. FERC Procedure for Corps of Engineers Comments on Applications.

a. Application for major hydroelectric project license.

(1) The FERC will forward a letter to the appropriate division commander accompanied by a public notice of the application.

(2) Within 30 days, thereafter, the applicant will forward copies of the application directly to the division commander.

(3) Division commander comments are to be furnished to the FERC within 60 days of the mailing of application by the applicant.

b. Applications for minor hydroelectric project license, exemption, and preliminary permit. The FERC requests comments on these type of applications through public notices which are mailed to respective Corps division offices. FERC will not make a separate written request to the Corps of Engineers. Normally, the Commission's public notices allow a period from 30-60 days for comments on these type of applications.

11. Review of FERC Applications for Hydropower Development. Upon referral by the FERC Washington office, the division commander will assign the investigation of an application (or public notice thereon) for preliminary permit, license, or exemption from license to the appropriate Corps district commander, who will report back his findings to the division commander. The division commander, in accordance with delegation of authority cited in Paragraph 7, will be responsible for forwarding in a timely manner to the FERC's Washington office, all actions requested by the FERC. Actions and coordination with the FERC will be consistent with the requirements of Part I of the MOU referenced in paragraph 3c. A copy of all division commanders' responses to the FERC will be forwarded to HQ USACE (DAEN-CWH-Y) WASH DC 20314. The division commanders may delegate to district commanders responses to the FERC on hydropower applications or notices that do not affect a Corps project. The nature of review comments and recommendation by the field commanders to the FERC will depend upon the type of request or application received from the FERC. The type of FERC application for hydropower development and the required Corps action on them are discussed in the following paragraphs.

12. Preliminary Permit Applications

a. The Corps will not object to issuance of FERC preliminary permits for hydropower feasibility studies at or affecting Corps projects. Non-Federal entities will be asked to coordinate their studies with any authorized on-going Corps hydropower feasibility studies. Regardless of the status of preliminary permits, the Corps will continue its authorized hydropower feasibility studies with a view toward establishing the best mode of hydropower development consistent with the existing multiple purpose project services to the public.

b. Non-Federal hydropower studies under an active FERC preliminary permit will be addressed in on-going Corps hydropower studies covering the same site. Public announcements, notices and meetings relative to Corps hydropower studies will acknowledge non-Federal hydropower studies under the FERC permit. This acknowledgement will include the Corps recommendation to the FERC for coordination of non-Federal studies with the Corps in order to minimize any unnecessary duplication in hydropower planning and design.

13. License Application for Hydropower Construction at Non-Federal Site.

a. The effect of proposed hydroelectric power plant construction on Corps water control management responsibilities such as flood control, navigation, water supply, low flow augmentation, water quality, and other purposes must be evaluated by the applicant. Appropriate recommendations will be made by the division commander to the FERC for safeguarding all of the above functions that may be affected.

b. Section 4(e) of the Federal Power Act provides for approval of plans for hydroelectric power projects as noted in paragraph 7. If such project facilities affect navigable waters of the United States, the division commander has approval authority. Section 4(e) approval will obviate the need for a Department of the Army permit under Section 10 of the 1899 River and Harbor Act.

c. The division commander will advise the FERC whether non-Federal hydropower proposals are in conflict with any projects constructed or being studied by the Corps.

d. Proposed hydropower development environmental impacts affecting Corps resources must be identified by the applicant, mainly with respect to functions that are the direct responsibility of the Corps such as navigation, flood control, water supply, water quality, etc. The state, local entities and other Federal agencies who are directly responsible for management of functions such as fish and wildlife are offered opportunities by the FERC to comment on their responsibilities. Division commanders will advise the FERC with respect to any environmental impacts on Corps resources and recommend mitigation measures when the impacts are adverse.

e. Consideration of structural safety and inflow design flood adequacy for the FERC licensed projects, not involving a Corps water resource project, are the responsibility of the FERC.

14. License Applications for Hydropower Construction at Corps Projects.

a. General Requirements. In addition to the items discussed in paragraph 13, construction of hydroelectric power facilities (under the FERC license) at a U.S. Army Corps of Engineers water resource project, will be subject to the following general requirements, when applicable:

(1) Hydroelectric power development must be compatible with the authorized purposes of the Federal project and other Congressional Acts applicable to regulation of Federal facilities. Verification of compatibility may, under certain circumstances, require physical and/or mathematical modeling, the cost of which will be borne by the applicant.

(2) Full hydropower potential of the site must be considered in planning, design and construction of power plant.

(3) Design, construction and operation of all power facilities which would affect the structural integrity and operational adequacy of the Federal dam, including construction procedures and sequence, must be approved by the Corps.

(4) In the interest of multiple-purpose water management, the Corps may require a signed memorandum of understanding between the prospective licensee and the Corps specifying the operational procedures and power rule curves consistent with overall project management objectives and efficient system flow regulation.

(5) The prospective licensee must reimburse the Federal government for the use of lands, facilities and an appropriate part of the costs of existing Federal projects which makes the installation of power feasible. Assessment of these costs and development of charges therefrom will be made by the FERC.

(6) Reimbursement to the Federal government will be required for any additional construction costs incurred by the government as a result of installation of the power facilities.

(7) Licensees, in compliance with Section 10(c) of the Federal Power Act, must furnish power, free of cost, to the United States for operation and maintenance of navigation facilities at project site. This power will be provided at the voltage and frequency required for such facilities, whether such facilities are constructed by the licensee or by the United States.

(8) The licensee shall furnish, operate and maintain adequate lights, signals and protective warning devices to provide for safe navigation and for the safety of persons using the Federal project.

(9) In compliance with Section 404 of the Clean Water Act (33 U.S.C. 1344), a Department of the Army permit is required for any discharge of dredged or fill material, including activities associated with hydropower development, into the waters of the United States.

b. Coordination of License Application with Corps Preauthorization Studies.

(1) The Corps' objective in hydropower studies is to recommend to the Administration and the Congress a plan of hydropower construction, considering and seeking potential non-Federal partnership arrangements, that would best use the site power potential that is compatible with the multiple water resources use for the public benefit. Section 10a of the Federal Power Act basically sets the same objective for a non-Federal hydropower development. The division commanders receiving a license application from the FERC for hydropower construction at a Corps project will make appropriate recommendations to the FERC with full consideration of the above objective.

(2) In general, the status of Corps preauthorization hydropower studies should not be an impediment to non-Federal hydropower development at Corps projects. Recommendations on license application to the FERC by the division commanders will be based on the technical and operational merits of the non-Federal hydropower construction proposals. The best available data and information from the Corps' own feasibility study efforts will be used in evaluation of non-Federal hydropower proposal. In cases where the Corps' study is not sufficiently advanced for use in evaluation or as a basis for appropriate recommendations to the FERC, the applicable general requirements in paragraph 14a will be used to establish data or studies from license applicant for hydropower impact evaluation.

(3) Recommendations by the division commanders to the FERC will be based on the merit of the non-Federal hydropower proposal, without regard to completion date of Corps' preauthorization hydropower studies. When a Corps favorable preauthorization report has been submitted by the Commander, USACE, to the Assistant Secretary of the Army (Civil Works), the division commanders will furnish comments on license application to the FERC with a request that the decision by the FERC on issuance of license be deferred pending the Chief of Engineers recommendation to the FERC Chairman. The division commander in this case, will furnish recommendations to the HQ USACE (DAEN-CWH-Y) on the merit of non-Federal hydropower proposal in comparison with the Federal construction proposal expressed in the preauthorization document.

(4) Decisions regarding the continuation of Corps hydropower feasibility studies shall be made on the basis of guidance contained in ER 1105-2-10, paragraph 1-6.

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15. Review and Approval of Non-Federal Hydropower Construction at Corps Projects.

a. Division Commanders will review the proposed overall general plans (license application) for compliance with pertinent Corps policies and general requirements. The commander's review and recommendations to the FERC will cover impacts of the proposed non-Federal hydropower construction on the authorized functions, safety, and operation of Corps projects.

b. In all cases a copy of the division commander's review comments and recommendations to the FERC regarding license applications for development of hydropower affecting Corps projects, will be forwarded to HQ USACE (DAEN-ECE-B) WASH DC 20314 for monitoring purposes. A copy of the license application will be included in the submission.

c. Division commanders, with the exception of the Commanders, Pacific Ocean Division and New England Division, will review and approve the licensee's detailed design analysis and plans and specifications for construction of hydropower facilities that affect the structural integrity or operation of Corps projects. The division commanders, prior to approving the licensee's detailed design, will consult with the appropriate Corps Hydroelectric Design Centers (see ER 10-1-41) with respect to the following hydropower structural and mechanical features that could affect the integrity and safety of Corps projects:

- penstocks
- vents
- bifurcations
- gates and valves
- hydraulic transient analysis of the above facilities

d. The Commanders, Pacific Ocean Division and New England Division, shall submit the licensee's detailed design analysis and plans and specifications to DAEN-ECE-B for approval. Submittals to HQ USACE will include review comments by the appropriate Hydroelectric Design Center and the commander's recommendations.

e. Any disagreement regarding the Corps requirements for design, construction and operation which has not been resolved by the division commander will be referred to DAEN-ECE-B for resolution.

16. Relicensing (New License) Applications.

a. Upon expiration of the original FERC license, an application for relicensing the project, filed with the FERC, will be subject to full review and evaluation consistent with the requirements of this ER.

b. Review comments on a relicense application to the FERC will include a recommendation with respect to possible need for takeover of the project by the Federal Government as described in Section 7(c) of the Federal Power Act.

17. Application for Exemption from Licensing. Exemption from all or a portion of Part I of the Federal Power Act may be provided by the FERC for a proposed installed generating capacity of 5 MW or less at an existing project. The FERC considers such exemptions based on a case-by-case project evaluation. A division commander's review and recommendations on these type of applications will be consistent with the requirements discussed in paragraph 13, as applicable. An exemption is not applicable to existing dams owned or operated by the United States.

18. Department of the Army Permit(s) Requirements. The following procedures will be followed in connection with the Department of the Army permit(s) requirements:

a. Corps permit responsibilities under Section 10 of the River and Harbor Act of 1899, for power related activities will be met through the FERC licensing procedure by including the interests of navigation in the terms and conditions of the license. This is compatible with Section 4(e) of the Federal Power Act, which provides for Corps approval of plans affecting the interests of navigation.

b. Corps permit responsibilities under Section 404 of the Clean Water Act (33 U.S.C. 1344), involving projects under the jurisdiction of the FERC, will be met in coordination with the FERC, as specified in Part II of the MOU between the FERC and the Department of the Army (reference 3c).

c. Application to Corps division commanders for approval of repairs, maintenance or modification of non-Federal water power projects authorized under River and Harbor Acts, as well as special Acts of Congress prior to 1920, or request for advice with respect thereto should be referred to the FERC for consideration in accordance with the provisions of the Federal Power Act. The applicant will be advised that its application is being referred to the FERC for consideration.

19. Investigation of Applications for Surrender or Termination of License. The period of the FERC license for hydropower projects is usually 50 years. During and/or upon the expiration of the period of a license, a licensee may file with the FERC an application for surrender or termination of its license. These applications may encompass requests for physical removal of an existing dam and/or powerhouse structures from a stream. Division commanders will consider the possibility that sediment discharge resulting from removal of a dam structure from a navigable river or from any site that may affect navigable waters could impair the anchorage and navigation and/or flood carrying capacity of the stream. In those cases where there is a possibility of significant downstream shoaling, recommendations may be made to the FERC requiring the licensee to bear the expense

for removal of shoaling determined by the Corps to be detrimental to navigation. Other possible recommendations include gradual lowering of the dam over a period of time and/or possibility of sediment removal prior to dam removal. It should also be noted that a Department of the Army permit under Section 404 of the Clean Water Act (33 U.S.C. 1344) as discussed in paragraph 18, may be needed in connection with removal of dams. When the FERC approves the removal of power facilities at a project licensed by the FERC, continuation of existence of the nonpower project on or affecting navigable waters may require a Department of the Army permit in compliance with Section 10 of the River and Harbor Act of 1899. Furthermore, it should be noted that in the absence of a FERC nonpower use license pursuant to 16 USC 808(b), the structural safety and maintenance of the dam and reservoir will be governed by the laws and regulations of the state in which the project is located.

20. Safety of Licensed Hydroelectric Projects. The FERC is responsible for the safety aspects of projects for which they issued licenses. Review of safety features by the Corps is only required when a non-Federal hydropower project could impact on the safety or operational adequacy of a Corps project.

21. Standard Terms and Conditions Used by the FERC in its Permits and Licenses. Appendix B to this regulation includes a listing of Standard Article forms used by the FERC in prescribing terms and conditions for preliminary permits and licenses for hydroelectric power projects. Standard Articles listed in Appendix B can be obtained directly from the FERC offices. To protect Corps interests in design, construction, and operation of non-Federal hydropower facilities, Corps division commanders will consider the necessity for including, in any preliminary permit or license, special terms and conditions in addition to the FERC requirements articles.

22. Funding of Activities

a. Funding for review and approval activities in connection with all FERC preliminary permit and license applications will be requested by the division commanders, as part of the Civil Works annual budget request, under the line item FERC Licensing Activities (901-172). Request for General Investigation funds will be based on the estimated number of FERC applications, or related cases, that division and district offices expect to review during the fiscal year(s).

b. When a non-Federal hydropower plant is licensed by the FERC for construction at a Corps project, the licensee will be required to reimburse the Corps directly for all reasonable costs associated with the Corps review and approval of the final design, construction, plans, specifications, and inspection of the construction. The cost of modifying the existing Corps project as-built drawings to reflect the power facilities constructed at Corps projects should also be reimbursed by the licensee.

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Arrangement for this purpose will be made with the licensee preferably at an appropriate coordination meeting between the district commander and the FERC licensee.

23. Annual Report. The division commanders will prepare and submit an annual report as follows:

a. Title - Data on Non-Federal Hydropower Development of Corps Projects (RCS: DAEN-CWH-1).

b. Purpose and Scope - The report which is for use in preparation of the Chief of Engineers Annual Report will provide the following data:

(1) Total number of FERC preliminary permit applications (feasibility studies) received and reviewed for hydropower development at:

(a) Corps projects

(b) Non-Corps projects

(2) Total number of FERC license applications received and reviewed for power plant construction at:

(a) Corps projects

(b) Non-Corps projects

(3) Total number of FERC licenses issued, during the preceding Fiscal Year, for construction of hydropower facilities at Corps projects.

(4) Total number of FERC applications for amendment of license, relicense, or exemption of license received and reviewed.

(5) Total number of FERC EIS reports received and reviewed.

(6) A listing of non-Federal licensed hydropower plant installations, existing and under construction, at Corps projects within the respective division. Identify each project by FERC Number, name of the power company, and the name of the Corps project at which the power plant is located or under construction.

(7) For each licensed hydropower plant under design and construction at a Corps project, indicate the total amount of reimbursement for the cost of review and approval of design and construction by the Licensee(s).


c. Reporting Period and Submission Date - The above data will be reported by 15 November of each year for the preceding fiscal year activities. Two copies of the report will be sent to HQ USACE (DAEN-CWH-Y), WASH DC 20314.

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- d. The "as of" date is 30 September of each year.
- e. Security Classification - unclassified.
- f. Source of Data - District & Division's non-Federal hydropower activities file.
- g. Preparation Instruction - The data will be furnished in the format and order described in Paragraph 23b. above.

FOR THE COMMANDER:

2 Appendixes
App A - Copy of FERC/
Army MOU
App B - Listing of FERC
std Forms


For JAMES W. RAY
Colonel, Corps of Engineers
Chief of Staff
A. J. Genetti, Jr.
LTG, CE
Ass't Chief of Staff