

# Agency of Natural Resources Procedure for Processing Certification Applications for Hydroelectric Facilities

December 15, 2009

## 1.0 Purpose and Applicability

This document is the procedure for processing Clean Water Act (CWA) §401 state certification applications for hydroelectric projects. The Federal Power Act requires prospective hydroelectric project developers to obtain a license or an exemption from the Federal Energy Regulatory Commission (FERC). FERC issues licenses for a term of 30 to 50 years, and, upon expiration of the license, the projects are subject to recertification and relicensing. Under §401, projects requiring a FERC license or relicense must first be certified as compliant with state and federal water quality standards, including the anti-degradation provisions. This procedure applies to applications for certification of all hydroelectric projects subject to FERC jurisdiction or the jurisdiction of the U.S. Army Corps of Engineers (USACE) under CWA §404 or §10 of the Rivers and Harbors Act of 1899. Although FERC does not require certifications before acting on an exemption application, the Agency of Natural Resources (Agency) deems the certification as necessary to fulfill its obligations in the FERC process as a fish and wildlife resource agency. The USACE requires certification before authorizing the discharge of dredged or fill material in waters of the U.S. under CWA §404.

Certifications issued in accordance with this procedure shall only apply to the specific activity for which application is being made. Initial certification shall apply to construction and operation of the project. Subsequent activities needing a federal permit at a specific project site shall need a separate certification or amendment, whichever is determined appropriate by the Agency, unless the activity is subject to review and approval under a condition of the initial certification or an amendment of that certification. If the Agency denies certification, then the federal license or permit shall not be granted (33 U.S.C. §1341(a)(1)).

When considering an activity for certification, the Department of Environmental Conservation (Department) considers the numeric and narrative criteria of Vermont Water Quality Standards and the management objectives applicable to the classification of the affected waters. Consequently, the review includes but is not limited to consideration of an activity's effects on chemical and physical water quality, streamflow, habitat for fish and other aquatic biota and wildlife, recreational access and use, aesthetics, erosion, threatened and endangered species, and wetlands and riparian zone values.

## 2.0 Definitions

2.1 *Certification* is a declaration that the project, as proposed and subject to any conditions specified in the certification, will comply with state water quality standards pursuant to §401 of P.L. 92-500, as amended (33 U.S.C. §1341) and any other applicable provisions of federal and state law.

2.2 *Application* is a written request for certification.

2.3 *Administratively complete application* is an application which has been determined by the authorizing program to include all of the initially required documentation for the Department to initiate a technical review of the application. It may or may not include all of the technical information necessary to draft a tentative decision.

2.4 *Substantively complete application* is an application that contains a material record sufficient to support the drafting of a tentative decision for public notice purposes. The Agency will only accept applications for which all identified environmental and recreational studies have been completed, federal and state resource agency comments and recommendations have been provided, and a complete mitigation proposal developed.

### **3.0 Certification**

#### *3.1 Certifying Agent*

The certifying agent shall be the commissioner (hereinafter, the commissioner) of the Department, as delegated by the secretary of the Agency under 10 V.S.A. §1004, or the commissioner's designee.

#### *3.2 Contents of Certification*

(1) Name and address of the applicant.

(2) A statement of the applicable version of Vermont Water Quality Standards.

(3) A statement of the record upon which the decision is based.

(4) A statement that the Department has (i) examined the application made to the Department and bases its decision upon an evaluation of the information contained therein that is relevant to the Department's responsibilities under §401, and/or (ii) examined other pertinent information furnished by the applicant or information not provided by the applicant but deemed relevant by the Department, sufficient to permit the Department to make the statement described in subparagraph (5) of this paragraph.

(5) A statement that the certification is granted or denied and that either there is or is not reasonable assurance that the activity will be conducted in a manner which will not cause a violation of Vermont Water Quality Standards and will be in compliance with §§301, 302, 303, 306, and 307 of the Federal Clean Water Act, 33 U.S.C. §1251 et seq., as amended, and other appropriate requirements of state law.

(6) Conditions needed to assure compliance with standards or other appropriate requirements of federal and state law. Such conditions may include requirements for stream flow and water level management, fish passage, public access and recreation, water quality monitoring and erosion prevention and sediment control measures. Many conditions are site and project specific.

(7) A condition vesting the Department with the authority to alter or amend the certification conditions over the life of the project when such action is necessary to assure compliance with Vermont Water Quality Standards and to respond to any changes in classification or management objectives for the affected waters.

#### **4.0 Timing of Application**

The timing of a certification application should be coordinated with the applicable FERC process.

##### *4.1 FERC licensed projects using the Traditional Licensing Process (TLP)*

Applicants that are using the TLP (18 CFR 4.38 et seq.) shall file a certification application as soon as possible following issuance of a Notice of Ready for Environmental Analysis (NEPA review) by FERC.

##### *4.2 FERC licensed projects using the Integrated Licensing Process (ILP)*

Applicants that are using the ILP (18 CFR 5.1 et seq.) may file a certification application as early as the date the FERC license application is filed.

##### *4.3 FERC exempt projects*

Applicants may only file a certification application after results from any studies necessary to support the application are available and a complete project proposal has been developed.

#### **5.0 Application Requirements**

Application for certification or any amendments to previous certifications shall be made to the director of the Water Quality Division, Department of Environmental Conservation, Vermont Agency of Natural Resources.

Applications shall be submitted on a form approved by the Department. The application shall contain information sufficient to make a determination as to the subject activity's compliance with the applicable provisions of CWA §§301, 302, 303, 306 and 307; the Vermont Water Quality Standards; and other appropriate requirements of state law. Supporting information shall be provided as follows:

*5.1 FERC licensed projects using the TLP:* license application and any responses to any FERC additional information requests.

*5.2 FERC licensed projects using the ILP:* license application.

*5.3 FERC exempt projects:* exemption application or information listed in Appendix A, *Information Supporting a Vermont Water Quality Certification Application for a Hydroelectric Project* and the results of any environmental studies completed as part of the FERC process.

## **6.0 Projects Affecting the Waters of Another State**

For projects on border waters and projects that may affect downstream waters in another state, the Department shall notify the border or downstream state and EPA of the receipt of an application. The Department shall coordinate and consult with that state and EPA as necessary to assure that the project as certified will comply with water quality standards of both states. CWA §401(a)(2) provides for a separate federal process to address interstate water quality issues that remain after certification. Need for use of the (a)(2) process may be avoided by proper coordination between the states during the certification process.

## **7.0 Anti-Degradation Review**

New and modified projects must meet the anti-degradation policy set forth in the Vermont Water Quality Standards §1-03. This procedure will be updated when the Agency's anti-degradation rule is finalized.

## **8.0 Public Notice of Tentative Decision**

The commissioner shall give notice of and provide opportunity for written comments regarding a tentative decision on an application for certification in the manner as provided in Vermont Water Pollution Control Permit Regulation (VWPCPR) 13.3 c.<sup>1</sup> At its discretion, the Department may provide the public comments to the applicant and furnish the applicant with an opportunity to respond before a final decision is made. If it does so, it will formally extend the public comment period and so notify those participating in the process, and those participants may elect to respond to any comments filed by the applicant in the first round. The scope, however, shall not include new issues unless manifest injustice would otherwise occur. The Department may also upon a written request or at its own discretion extend the deadline for comments if such action is deemed to enhance public participation or for other reasonable cause. Any request for an extension must occur during the original comment period, must include a proposed deadline, and include compelling justification.<sup>2</sup>

## **9.0 Public Hearings Notice, Governance and Procedure**

Public notice of any hearing to be held with respect to any application for certification shall be governed by the provisions of VWPCPR 13.3 h. Public hearings with respect to applications for certification shall be governed by VWPCPR 13.3 g. Procedure for public hearings with respect to an application for certification shall be conducted according to the provisions of VWPCPR 13.3i (2) and (3).

## **10.0 Communication**

After a tentative decision has been placed on public notice, discussions of a substantive nature between Agency staff and the applicant or representatives of the applicant shall be considered *ex parte* and shall not occur. Substantive discussions may occur, however, if all interested persons are provided with an opportunity to

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<sup>1</sup> Water Pollution Control Permit Regulations, Chapter 13, February 1974

<sup>2</sup> See *Guidance on Comment Periods and Comment Period Extensions*, Department of Environmental Conservation, May 22, 2006.

participate. This *ex parte* communication rule restriction ends when the final decision is issued.

### **11.0 United States Army Corps of Engineers Permit**

The USACE regulates certain activities at hydroelectric projects, primarily construction, maintenance and repair activities, under CWA §404 or §10 of the Rivers and Harbors Act of 1899. These activities are subject to permitting under either a regional general permit or an individual permit, depending on the scope and impact of the project. Projects with impacts that fall below a defined threshold of minimal impact to the aquatic environment qualify for coverage under the Vermont General Permit, for which the Department has issued a blanket water quality certification. All projects that require an individual permit require a project-specific water quality certification. The Department may also require project-specific certifications for certain projects that qualify for coverage under the Vermont General Permit.

For hydroelectric projects, a single certification will be issued covering both FERC and USACE authorizations. Projects that qualify for coverage under the Vermont General Permit must obtain a project-specific water quality certification, a certification amendment, or approval under the conditions of an existing certification. The Department's blanket water quality certification shall not apply. Notwithstanding this statement, the Department may determine in certain cases that the blanket water quality certification is appropriate but only if the activity is a minor repair or maintenance project, presents a limited risk to water quality, and does not merit any special conditions beyond those contained in the Vermont General Permit and the blanket water quality certification.

For new hydroelectric projects, applicants should include the USACE in the FERC pre-filing consultation process to help assure that the project design will not be subject to significant changes in order to obtain a USACE permit.

### **12.0 Processing Time**

As required under §401, the Department will process applications within a reasonable period of time, not to exceed one year from the date of receipt of a written application. FERC considers the year to begin on the date of receipt of the application. Within a week of receipt of the application, the Department will review the application for administrative completeness and provide a letter acknowledging receipt of application indicating the date of receipt for the record. The Department may deem an application not substantively complete and deny without prejudice if deficiencies are not corrected within a reasonable period of time. Where applicable, the Department will follow an expedited process as set forth in Section 13.0, below.

### **13.0 Expedited Process**

The Department will process certain applications within 120 days after a determination that an application is substantively complete and Agency staff has had an opportunity to conduct a site visit at an appropriate time of year and flow conditions. Projects qualifying for an expedited process are:

1. Run-of-river projects at existing dams (no change to extent of impoundment) where the proposal provides bypass flows consistent with the default hydrologic standards (Vermont Water Quality Standards Section 3-01(C)), and the proposal does not impact on existing or designated uses or water quality criteria;
2. Run-of-river projects at existing dams (no change to extent of impoundment) with short bypasses having the following characteristics:
  - a. very low habitat value (e.g., very steep with prominent ledges), or
  - b. consisting solely of one or more pools with minimal flow needs to provide for movement of fish and to maintain water quality and aquatic habitat, and
  - c. the project site does not have aesthetic or recreational values (e.g., for some waterfalls) or provide habitat for threatened or endangered species.
3. Conduit projects which are physically removed from state and federal waters and have no impact on water quality.

#### **14.0 Effective Date and Expiration**

Certifications become effective on the date of issuance, and the conditions of any certification become conditions of the federal license or permit (33 U.S.C. §1341(d)). If the federal authority denies a license or permit, the certification becomes null and void. Otherwise, it runs for the term of the federal license or permit.

#### **15.0 Appeals**

Appeals of actions taken by the Department are prescribed in 10 V.S.A. §1024.

#### **16.0 Burden of Proof**

The applicant bears the burden of proof in this application process. The applicant must provide the Department with sufficient evidence upon which to make the affirmative findings required by law. The Department may require an applicant to supplement the filing, including the execution of special studies as necessary, to provide sufficient information to support action by the Department after full consideration of the factors enumerated in Section 1 and the anti-degradation provisions of Vermont Water Quality Standards.

## APPENDIX A

### INFORMATION REQUIRED IN A WATER QUALITY CERTIFICATION APPLICATION FOR A HYDROELECTRIC PROJECT

In addition to completing the Agency of Natural Resources application form for hydroelectric facilities, the information listed below is generally necessary to have a substantively complete water quality certification application. Since project sites and designs vary considerably, some information items may not apply to a particular project. Potential applicants should consult with the Agency during preparation of the application to determine if specific items should be included and the level of detail required. Please note that the Agency may request other information and studies as part of the licensing process that are unrelated to water quality (such as flood safety).

#### Site and Infrastructure

- Existing infrastructure – dams (including spillways, gates, flashboards, etc.), headworks, penstocks, channel modifications, powerhouses (include photographs and address how intact the infrastructure is at the time of application)
- History of site development
- Site plan showing features listed above, transmission lines, roads and unrelated but nearby buildings
- Proposed infrastructure – as above (include plans/drawings); specifically describe any changes to existing infrastructure
- Plan showing ownership of all lands affected by project construction or operation and proposed FERC project boundary
- Number, type and operating range (in cfs) of proposed turbine(s)
- Installed capacity of proposed generator(s)
- Measures to avoid impingement and entrainment of fish; any proposed upstream or downstream fish passage facilities
- Site plan showing 1) existing vegetative condition of all areas affected by project construction or operation, especially riparian areas; 2) extent of vegetation removal for construction and operation; and 3) replanting of areas temporarily cleared for construction
- Site grading and location of temporary or permanent access routes (on plans)
- Any proposed channel or tailrace excavation or impoundment dredging

#### Hydrology

- Watershed map and contributing drainage area at project location
- Monthly and annual flow duration curves
- Inventory of upstream and downstream dams, withdrawals and discharges that alter the stream hydrology and the relationship of the project to these facilities and their effects
- Full description of how the proposed project will alter streamflows; proposed conservation flows for the bypass and tailrace reaches
- Full description of headpond water level management, with and without flashboards in place (if used)

- Address impact on flow when the proposed plant is brought on line or taken off line and what measures will be taken to limit related fluctuations in flow
- Address any measures to be included to avoid flow violations caused by equipment malfunctions, station trips, or any other reasonably foreseeable events of that nature (may be addressed in a flow management plan after FERC authorization is received)
- Surface area, upstream extent, elevation (normal and maximum) and storage capacity of impoundment, if any (existing and proposed, highlighting changes that will occur as a result of project development)

### **Project Operation**

- Mode of operation (true run-of-river, daily/weekly cycle, etc.) and method of release (spillway, gates, fishways, turbines) at different flows
- Method of control (manual or automatic)
- Estimate of annual plant factor
- Estimate of dependable capacity and average annual energy production

### **Water Quality**

- Water quality classification for all reaches affected by the project
- Current status of affected reaches with respect to 303(d) list and lists of priority waters
- Available data on existing water quality (temperature, dissolved oxygen, turbidity)
- Explanation of how proposed operation will address water quality criteria and management objectives

### **Aquatic Biota and Habitat**

- Current status of fish and aquatic invertebrate communities
- Fish habitat in affected reaches (upstream, downstream and bypass)
- Fishery management objectives for affected reaches
- Basis for conclusion that the proposed flow regime in bypass and downstream will support aquatic biota and habitat (flow studies)
- Fish movement and passage, under existing and post-project conditions

### **Wetlands and Riparian Habitat**

- Existing wetland and riparian resources in all affected reaches
- Indication of whether construction will have a direct impact on any wetlands or the buffers of any Class 1 or 2 wetlands (Vermont Wetland Rules)
- Assessment of project impact (construction and operation) on wetland functions (Vermont Wetland Rules)
- Assessment of project impact on riparian wildlife habitat

### **Threatened and Endangered Species**

- Listing of listed threatened and endangered species (state and federal) and state species of concern reported in the project area and all reaches affected by the project
- Proposed mitigation, if any, of impacts to listed species

### **Sediment Regime**

- Current stream geomorphic condition (Vermont Stream Geomorphic Assessment Phase 2 and Phase 3) of upstream and downstream affected reaches and whether the project will affect equilibrium conditions in the stream network
- Proposed mitigation, if any, to address anticipated departures from equilibrium conditions, i.e., changes in the nature and rate of bed and bank erosion and the transport and deposition of bed load sediments, that may be induced by the project due to altered water levels and flows
- Erosion prevention and sediment control plan for project construction (may be addressed after a FERC license or exemption is issued but prior to construction)
- Statement indicating whether a NPDES construction stormwater permit will be required
- Description of any proposed de-silting operations

### **Recreation and Aesthetics**

- Current recreational uses of the project area
- Recreation enhancements and mitigation, if any (detailed recreation plan may be prepared following license/exemption issuance)
- Current availability of public access to the project area
- Proposed public access to be provided at the project and explanation of how project boundaries will be sufficient to provide for public use and enjoyment of the waters
- Setting and aesthetic value
- Visual characteristics of existing and proposed structures associated with the project
- Effect of development on aesthetics (infrastructure and flow management)
- Aural impacts of project
- Proposed flow regime and infrastructure designs to address aesthetics criterion (flow study)

### **Anti-Degradation (if review is necessary)**

- Inventory of existing uses
- Explanation of socio-economic benefits of project