



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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January 31, 2013

CERTIFIED MAIL NO. 7008 0150 0003 7591 7991

Mr. Paul Wetherbee
Director, Hydroelectric Resources
Puget Sound Energy
P. O. Box 97034
Bellevue, WA 98009-9734

Amended Order Docket #	9311
Previous Order Docket #s	1) Original 401 Certification Order #: <u>DE03WQNR-5410</u> 2) First Amended Order #: <u>1226</u>
Site Location	30 miles east of Seattle, WA on the western slopes of the Cascade Mountains Powerplant 1 tailrace, Lat /Long: 47.54167, -121.839452 Powerplant 2 tailrace, Lat /Long: 47.544400, -121.841598
WRIA	7

RE: Amended Administrative Order

Dear Mr. Wetherbee:

The Department of Ecology has issued the enclosed amended Administrative Order requiring Puget Sound Energy to comply with:

- Chapter 90.48.260 Revised Code of Washington (RCW) – Federal clean water act – Department of Ecology designated as state agency, authority – Delegation of authority – Powers, duties, and functions.
- Chapter 173-201A Washington Administrative Code (WAC) – Water Quality Standards for Surface Waters of the State of Washington.
- 33 U.S.C. 1341, Federal Water Pollution Control Act (FWPCA) § 401 – Certification Authority.

If you have questions please contact Monika Kannadaguli at 425-649-7028 or mkan461@ecy.wa.gov.

Sincerely,

Kevin C. Fitzpatrick
Water Quality Section Manager

KCF:MK:ct

Enclosures: Amended Administrative Order Docket # 9311

cc: Kimberley Bose, FERC Secretary
Thomas LoVullo, Chief Aquatics Resources Branch, FERC, via e-mail: thomas.lovullo@ferc.gov

FERC Service List for Snoqualmie Falls Hydroelectric Project (FERC No. 2493)
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NWRO Files: FERC/Snoqualmie Falls Hydroelectric Project



401 Certification Order,
2nd Amendment
Snoqualmie Falls Hydroelectric Project
Owned and Operated by Puget Sound Energy

Amended Certification Order No. 9311
FERC License No. 2493

By

Monika Kannadaguli
Water Quality Program
Northwest Regional Office/Ecology
3190 160th Ave SE
Bellevue, WA 98008-5452

January 31, 2013

However, in order to address minor discrepancies between the terms and conditions of the amended FERC license and the provisions of the Certification that pertain to monitoring and compliance requirements, Ecology has prepared and hereby issues the following amendment of the Certification.

PROJECT DESCRIPTION

Snoqualmie Falls Hydroelectric Project, located about 30 miles east of Seattle on the western slopes of the Cascade Mountains, is owned and operated by PSE. The project is located on the Snoqualmie River near the city of Snoqualmie, in east King County. The Snoqualmie River flows west and north through the Snoqualmie Valley where it joins the Skykomish River and becomes the Snohomish River.

The project consists of two powerhouses (Plant 1 and Plant 2) and a low-height diversion weir a short distance above the falls. It is operated as a run-of-river facility with minimal storage capacity behind the diversion weir. Plant 1 is a five-generator powerhouse built around 1898-1899 just upstream from the falls and weir. It lies within a bedrock-carved cavity 260 feet below ground, on the south bank, just upstream from the falls. Plant 2 was constructed in 1910 downstream from the falls and expanded from one-to-two-generation units in 1957.

FINDINGS

1) Construction Activities

PSE is currently constructing several capital improvements to the project as authorized by its 2009 amended FERC license. These enhancements to the project are collectively called the Snoqualmie Falls Redevelopment Project. Construction activities began in 2009 and are scheduled to be complete in 2013, when the project will resume operation.

The requirements included in the FERC license authorized PSE to make improvements to the power-generating facilities and perform other resource enhancements. Improvements to the generation facilities included refurbishment of both powerhouses, penstock upgrades, and the installation of an inflatable rubber weir with side spillway. The Snoqualmie Falls Redevelopment Project will not change the project's total generating capacity of approximately 54 MW, while continuing to divert up to 2,500 cfs of river flow consistent with PSE's current water right. The FERC license also included enhancement and protection measures in the areas of fish and wildlife habitat, recreation, cultural and historical resources, water quality, and aesthetics.

Main elements of the Snoqualmie Falls Redevelopment Project, as licensed by FERC and currently under construction, include the following:

- a) PSE is replacing one generator and retrofitting four generators at Plant 1. The change at Plant 1 will decrease power generation capacity from 16.0 MW to 13.7 MW.
- b) PSE is replacing one generator and the main building at Plant 2. The installed capacity at Plant 2 will increase from 38.4 to 40.7 MW.
- c) Replacing the intake structures and penstock upgrades to the Plant 2 turbines.
- d) Refurbishing the existing diversion weir just upstream from the crest of Snoqualmie Falls. The weir is being lowered by two feet and lengthened by approximately 35 feet along the left bank.
- e) Replacing and realigning the Plant 1 intake structure to increase hydraulic efficiencies and replacing the Plant 2 intake structure.
- f) Installing automatic shutoff gates in the gatehouse above Plant 2 to quickly and safely halt the flow of water in case of an emergency.
- g) Installing turbine-bypass valves at Plant 2 to provide full water-flow continuation into the Snoqualmie River during abrupt turbine flow changes to reduce the impacts to fish by minimizing down ramping changes.

- h) PSE has removed contaminated soil within the Plant 1 area in accordance with a voluntary MTCA remedial cleanup action. During the removal of the Plant 1 soils, stormwater was treated using various types of water quality treatment facilities to meet the applicable water quality requirements. These treatment facilities included Chitosan Enhanced Sand Filtration (CESF) combined with cartridge filtration and activated carbon adsorption.

2) Completed Studies and other 401 Certification Conditions

Since the issuance of the Certification in 2003, the following conditions have been satisfied:

- a) **Critical Instream Flow Study** – The Certification (Section II.B) required that PSE complete a study to establish the critical flow for the area of project influence within 2 years of the Certification. The purpose of the study was to establish the flow above which there are no risks of juvenile fish stranding or redd dewatering. PSE completed the Critical Flow Study in 2005 and agreed with the consulting parties' requests for a critical flow of 3,000 cfs. The consulting parties included the Washington Department of Fish and Wildlife (WDFW), Ecology, City of Snoqualmie, National Oceanic and Atmospheric Administration (NOAA) Fisheries, and the US Fish and Wildlife Services. PSE filed the study with FERC on September 29, 2005. FERC approved the study on January 19, 2006.
- b) **Total Dissolved Gas Monitoring Plan** – The Certification (Section III.A.1) required that PSE submit a monitoring plan for Total Dissolved Gas (TDG) to Ecology within 60 days of the issuance of the Certification. PSE submitted a TDG monitoring plan to Ecology on November 21, 2003. Ecology approved the TDG plan on August 17, 2006. FERC approved the TDG monitoring plan on September 6, 2006.
- c) **Water Quality Protection Plan and Water Quality Compliance Monitoring Plan** – The Certification (Section V.A) required PSE to submit to Ecology a Water Quality Protection Plan (WQPP) 30 days prior to construction and a Water Quality Compliance Monitoring Plan prior to construction. The WQPP addressed best management practices (BMPs) for in- and near-water construction activities. The WQPP includes a Water Quality Compliance Monitoring Plan as required by the Certification (Section III.B), and a copy of the Hydraulic Project Approval (HPA) secured from WDFW for the project. Ecology approved the WQPP and Water Quality Compliance Monitoring Plan on October 27, 2008. PSE filed the WQPP and the Water Quality Compliance Monitoring Plan with FERC on May 15, 2009. FERC approved the WQPP and Water Quality Compliance Monitoring Plan on September 3, 2009.

d) Permits

PSE obtained the following permits for the Snoqualmie Falls Redevelopment Project:

- i. FERC License Amendment, " Order Amending License," issued by FERC on June 1, 2009, inclusive of review and/or approvals required under the National Environmental Policy Act, the Clean Water Act, the Coastal Zone Management Act, the Endangered Species Act, the National Historic Preservation Act, the State Environmental Policy Act, and the Shoreline Management Act.
- ii. Hydraulic Project Approval (HPA) was issued on May 19, 2009 (Control #115037-1) by the WDFW.
- iii. Coverage for construction activities under a National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit was confirmed by Ecology on October 6, 2008 (Permit No. WAR-011242).
- iv. The Corps verified that PSE is authorized to conduct the work under Nationwide Permits (NWP) 3, 33 and 39 under the Clean Water Act.

e) HEC – RAS modeling

As part of the NEPA/SEPA environmental assessment undertaken for the 2009 FERC License Amendment, HEC-RAS modeling was conducted to assess the hydraulic effects of the revised lower and wider weir configuration. The results of the modeling indicated that the revised weir configuration would reduce the extent of the backwater and hydraulic residences at low flows. Impacts were found to be limited because the 2-foot reduction in the elevation of the water surface of the backwater is relatively small compared to the annual variation of 12 feet or more in river stages.

3) Opportunity for Stakeholders and Public Participation

A draft copy of this amended order was provided to all the stakeholders listed on FERC website and posted on Ecology's website for public comments. All the comments received during consultations with stakeholders and during public comments period were adequately addressed prior to the issuance of this amended 401 Certification Order.

AUTHORITIES

In exercising authority under Section 401 of the Clean Water Act (33 USC § 1341) and the Washington State Water Pollution Control Act (RCW 90.48.260), Ecology has investigated this application pursuant to the following:

- 1) Conformance with all applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations as provided under Sections 301, 302, 303, 306, and 307 of the Clean Water Act (33 USC Sections 1311, 1312, 1313, 1316, and 1317, FWPCA Sections 301, 302, 303, 306, and 307).
- 2) Conformance with any and all applicable provisions of chapter 90.48 RCW, including the provision to use all known, available, and reasonable technologies (AKART) to prevent and control pollution of state waters as required by RCW 90.48.010.
- 3) Conformance with the state water quality standards as provided for in chapter 173-201A WAC authorized by 33 USC 1313 and by chapter 90.48 RCW, and with other appropriate requirements of state law that are related to compliance with such standards.
- 4) Conformance with RCW 90.56, which prohibits discharge of oil, fuel, or chemicals into state waters or onto land where such contaminants could potentially drain into state waters.
- 5) Conformance with the Minimum Flows and Levels Act, chapter 90.22 RCW and the Water Resources Act, Chapter 90.54.020 RCW.

Certification of this proposal does not authorize PSE to exceed applicable ground water quality standards (Chapter 173-200 WAC) or sediment quality standards (Chapter 173-204 WAC). Furthermore, nothing in this Certification shall absolve PSE from liability for contamination and any subsequent cleanup of surface waters, ground waters, or sediments occurring as a result of Snoqualmie Falls Hydroelectric Project construction or operations.

This Certification will cease to be valid if the project is constructed and operated in a manner not consistent with the FERC license, as amended.

CURRENT STANDARDS

1) Washington State Water Pollution Control Act

The intent of actions required in this Certification is to support the goals of the State of Washington to "maintain the highest possible standards to ensure the purity of all waters of the state consistent with public health and public enjoyment thereof, the propagation and protection of wildlife, birds, game, fish and other aquatic life, and the industrial development of the State, and to that end require the use of all

known, available, and reasonable technologies (AKART) by industries and others to prevent and control the pollution of the waters of the state of Washington” (RCW 90.48.010).

2) Washington State Water Quality Standards (WAC 173-201A, 2006)

Effective December 21, 2006, Washington State revised the surface water quality standards (Chapter 173-201A WAC). Based upon the revised standards, use-based water quality characteristics for Snoqualmie River (WRIA 7) as listed in WAC 173-201A-600 are:

*Core summer habitat, primary contact recreation
and all other water supply and miscellaneous uses.*

Designated freshwater uses in the state standards include subcategories under aquatic life, recreation, water supply, and miscellaneous uses.

Temperature *Total Maximum Daily Load* (TMDL) for Snoqualmie River was approved in 2011. Ecology conducted fieldwork to examine temperature patterns in the Snoqualmie River watershed. Most locations measured during 2005 and 2006 were several degrees warmer than Washington State standards. The Snoqualmie River has three Category 5 (303(d)) listings in the Washington State Water Quality Assessment and 38 additional impaired areas that should be in Category 5. Ecology reviewed the temperature monitoring data provided by PSE and concluded that Snoqualmie Falls Hydroelectric Project is not a significant contributor for elevated temperature.

3) Toxics and Oil Spills [WAC 173-201A-260(2)(a), 2006 and RCW 90.56]

Toxic concentrations shall be below those which have the potential, either singularly or cumulatively, to adversely affect characteristic water uses, cause acute or chronic conditions to the most sensitive biota dependent upon those waters, or adversely affect public health. RCW 90.56 prohibits any discharge of oil, fuel, or chemicals into state waters or onto land where such contaminants could potentially drain into state waters.

COMPLIANCE WITH STANDARDS

Waters of the state are assigned designated uses under WAC 173-201A. The Snoqualmie River is located in WRIA 7 and is protected for the designated uses set forth in WAC 173-201A-602. Snoqualmie River is designated as Core Summer Salmonid Habitat for which specific numerical criteria are established for turbidity, total dissolved gas (TDG), temperature, dissolved oxygen (DO), and pH (Table 1). As per the water quality standards, Snoqualmie Falls Hydroelectric Project shall meet or exceed the requirements for all designated and existing uses.

Table 1. Applicable 2006 numerical water quality criteria for the Snoqualmie River downstream of Snoqualmie Falls Hydroelectric Project.

PARAMETER	CONDITION	VALUE
Temperature	Highest 7-DADMAX	Core summer salmonids habitat: 16°C (60.8°F) as measured by the 7-day average of the daily maximum temperatures (7-DADMax). [When waterbody's temperature is higher than the criteria due to natural conditions, then human actions considered cumulatively may not increase the 7-DADMax temperature more than 0.3°C above natural conditions. All reasonable and feasible measures must be taken to achieve conditions that best protect the designated uses (WAC 173-201A-200(1)(c)(i))].
Dissolved Oxygen	Lowest 1-day minimum	Core summer salmonids habitat: 9.5 mg/l. [When waterbody's DO is lower than the criteria due to natural conditions, then human actions considered cumulatively may not decrease lowest 1-day minimum more than 0.2 mg/L (WAC 173-201A-200(1)(d)(i))].
Turbidity	Turbidity shall	5 NTU over background turbidity when background turbidity is 50 NTU or less,

PARAMETER	CONDITION	VALUE
	not exceed:	-or- 10% increase in turbidity when background turbidity is more than 50 NTU.
TDG	% Saturation	Not to exceed 110% of saturation at any point of sample collection.
pH		pH shall be within the range of 6.5 to 8.5 standard units, with a human caused variation within the above range of less than 0.2 standard units.
Bacteria		Fecal coliform organism levels must not exceed a geometric mean value of 50 colonies/100 ml, with not more than 10% of all samples (or any single sample when less than 10 sample points exist) obtained for calculating the geometric mean value exceeding 100 colonies/100 ml.

SPECIFIC CONDITIONS

S1. Instream Flow

- a) The project shall be operated to ensure that at least the following rates of instream flow, or inflow minus the 30 cfs maintained in the Plant 1 tailrace, whichever is less, pass over Snoqualmie Falls as measured at the crest of the diversion weir, in accordance with the following schedule:

	Time period	Daytime	Night time ¹
1	May 1 – June 30	1000 cfs	1000 cfs
2	July 1 – July 31	200/100 cfs ²	200/25 cfs ²
3	August 1 – August 31	200/100 cfs ²	200/25 cfs ²
4	September 1 – May 15	100 cfs	25 cfs ³

¹ Night-time hours are defined as one hour after sunset to one hour before sunrise.
² Weekends and holidays flat 200 day/night, weekdays 100 day/25 night cfs means cubic feet per second.
³ During Labor Day Weekend, a release of minimum flow over Snoqualmie Falls of 200 cfs or inflow, if less, commencing one hour before sunrise on Saturday and extending to one hour after sunset on Labor Day.

Between the Snoqualmie Falls plunge pool and Plant 2, PSE shall always provide at least a minimum flow of 300 cfs or natural river flow, whichever is less.

Instream flows shall be maintained in any bypass reach and downstream of the project, in a quantity sufficient to meet water quality goals and standards for the waterway, as provided in Chapter 173-201A WAC and RCW 90.48.

In order to assure continuing compliance with Chapter 173-201A WAC, Ecology reserves the right to amend the instream flow requirements specified in this Certification in accordance with the amendment of certification process described in Section VI.

S2. Ramping Rate¹

	Season	Daylight ² rate	Night time
1	February 16 – June 15	No ramping allowed	2 inches per hour
2	June 16 – October 31	1 inch per hour	1 inch per hour
3	November 1 – February 15	2 inches per hour	2 inches per hour

¹ Ramping rate refers to the allowable stage of decline unless otherwise noted.
² Daylight hours are defined as one hour before sunrise to one hour after sunset.

Within two (2) years of the completion of installation of the Snoqualmie Falls Redevelopment Project, PSE shall develop and implement a study to characterize the magnitude in the stage changes (amplitude) and duration of the ramping rate events for the area of project influence. This study shall be developed in consultation with Ecology, WDFW, and the federally recognized Tribes in the watershed, and be approved by WDFW. The results of this ramping rate study shall be used to define the ramp rate excursion reporting requirements for this project which becomes effective immediately upon approval by WDFW.

All established ramp rates must be in compliance for river flows below the critical flow criteria (3,000 cfs), as measured at the USGS Gauging Station 12144500, Snoqualmie River near Snoqualmie or at such other location as may be approved by Ecology.

S3. Water Quality Monitoring and Reporting

a) Long-Term Facility Operations

Temperature measurement and recording devices capable of recording temperatures on an hourly basis shall be installed immediately upstream of the plant # 2 intake, downstream of Plant #2 tailrace and in the plunge pool area mutually agreed upon between Snoqualmie Tribe, PSE and Ecology (See map in appendix B. for details). From June 1 through October 31, PSE shall monitor temperatures on a daily basis to ensure compliance with the water quality standards.

Whenever the diversion of waters from the Snoqualmie River is causing, or may be tending to cause, water temperatures below the diversion dam to exceed the allowable increases set forth in state water quality standards (Chapter 173-201A WAC), PSE shall modify its diversion to the extent necessary to ensure that the project does not cause such exceedences.

PSE shall collect representative water quality samples at upstream and downstream sampling locations approved by Ecology, in accordance with the following methods and schedule:

- i. PSE shall monitor Total Dissolved Gas (TDG) in accordance with the TDG monitoring plan approved by Ecology in 2006. The monitoring shall be initiated within 180 days after the project returns to normal commercial operations.
- ii. Water quality monitoring results obtained shall be reported to Ecology's Water Quality Program, Northwest Regional Office, on an annual basis. Data shall be summarized and reported in a format approved by Ecology. This report shall be submitted no later than January 31st of the following year.
- iii. Suspension or modification of water quality monitoring as described above may be requested if, after a minimum of three (3) years of complete, reliable data collection following the completion of the fixed crest diversion weir, demonstrates that there are no violations of water quality standards.
- iv. Any observed values in excess of the water quality standards for pH, temperature, dissolved oxygen, total dissolved gas, and turbidity, shall be reported to Ecology's Northwest Regional Office within six weeks of obtaining monitoring data for that particular noncompliance event. Noncompliance events must be reported on noncompliance notification form (NNF) provided or approved by Ecology. All noncompliance notification forms must be included in annual water quality monitoring report to Ecology.
- v. Flow monitoring information obtained to validate the instream flow requirements shall be reported to Ecology's Water Quality Program, Northwest Regional Office, on January 31st each year. Data shall be submitted in the format of mean hourly flows, or as specified in any new water right subsequently issued for this project.
- vi. Calibration procedures for flow measurement shall be in accordance with manufacturers' recommendations and be made available to Ecology upon request.

- vii. Ecology may, where necessary to protect water quality, require that PSE implement a more rigorous water quality sampling program for the listed or additional parameters in accordance with the amendment of certification process described under general conditions.

S4. Construction Activities

- a) Construction activities for the redevelopment project will follow the requirements of the WQPP approved by Ecology in 2008.
- b) A full-time Pollution Control Inspector shall be made available to supervise implementation of the WQPP.
- c) All construction contractors working on the project shall use all reasonable measures to minimize the impacts of construction activity on waters of the state. Water quality constituents of particular concern are turbidity, suspended sediment, settleable solids, Total Petroleum Hydrocarbon (TPH), and pH. These measures include use of best management practices (BMPs) to control erosion and sedimentation, proper use of chemicals, oil and chemical spill prevention and control, clean-up of surplus construction supplies and other solid wastes, use of flow deflectors when working within the stream channel, adequate operation and maintenance of sedimentation ponds, and land application of sedimentation pond effluent where possible.
- d) Care must be taken to prevent any petroleum products, paint, chemicals, or other harmful materials from entering the water.
- e) Work in or near the waterway shall be done so as to minimize turbidity, erosion, and other water quality impacts.
- f) Mobile equipment that enters the water shall be maintained such that a visible sheen from petroleum products does not appear.
- g) Any construction-related activities resulting in dead or dying fish are not allowed. Any such activity shall cease immediately and Ecology's Water Quality Program, Northwest Regional Office shall be notified immediately by telephone at (425) 649-7000, a 24-hour number.

S5. Temporary and Emergency Modification to Flows and Ramping Rates

- a) The instream flow and/or ramping requirements of this Certification may be temporarily suspended and modified if and as necessary to accommodate a temporary operational condition or constraint, when the occurrence of such condition or constraint limits PSE's ability to comply with such requirements. In connection with any temporary suspension or modification of such requirements, PSE shall: (i) notify the NOAA Fisheries, USFWS, Ecology WDFW and Snoqualmie Tribe thereof and (ii) obtain Ecology's prior approval.
- b) In the event that either: (i) a natural event outside of the control of PSE, or, (ii) a condition affecting the safety of the project or project works occurs, and under circumstances where such event or condition does not allow for consultation to occur before responding, then the flows and/or ramping rates may be temporarily modified following any consultation with Ecology that is possible given the emergencies of the event. If the flow is so modified, PSE shall notify Ecology, FERC, NOAA Fisheries, Ecology WDFW and Snoqualmie Tribe as soon as practicable after the condition is discovered, without unduly interfering with any necessary or appropriate emergency repair, alarm, or other emergency action procedure. PSE shall document these events in its annual report.

GENERAL CONDITIONS

Certification of this proposal does not authorize the Licensee to exceed applicable state water quality standards approved by the Environmental Protection Agency (currently codified in Chapter 173-201A WAC), ground water quality standards (currently codified in Chapter 173-200 WAC), and sediment

quality standards (currently codified in Chapter 173-204 WAC), and other appropriate requirements of state law. Furthermore, nothing in this Order absolves the Licensee from liability for contamination and any subsequent cleanup of surface waters, ground waters, or sediments occurring as a result of activities associated with project operations and FERC license conditions.

- G1. In the event of changes or amendments to the state water quality, ground water quality, or sediment standards, or changes in or amendments to the State Water Pollution Control Act (RCW 90.48), or changes in or amendments to the Clean Water Act, such provisions, standards, criteria, or requirements shall apply to the Snoqualmie Falls Hydroelectric Project and any attendant agreements, orders, or permits. Ecology will notify PSE through an Administrative Order of any such changes or amendments applicable to Snoqualmie Falls Hydroelectric Project.
- G2. When a construction project meets the coverage requirements of the NPDES permit and State Waste Discharge General permit for stormwater discharges associated with construction activity, PSE shall either, at Ecology's discretion, apply for the general permit and comply with the terms and conditions of the permit or apply for and comply with the terms of an individual NPDES permit.
- G3. Discharge of any solid or liquid waste to the waters of the state of Washington without approval from Ecology is prohibited.
- G4. PSE shall obtain Ecology review and approval before undertaking any change to the Snoqualmie Falls Hydroelectric Project or its operations that might significantly and adversely affect the water quality or compliance with any applicable water quality standard (including designated uses) or other appropriate requirement of state law.
- G5. The Washington State Department of Fish and Wildlife (WDFW) requires a Hydraulic Project Approval (HPA) (under RCW 77.55) for in water work that will use, divert, obstruct, or change the natural flow or bed of state waters. All in-water construction activities or activities resulting in disturbance of the river bed within the project boundaries and scope of Snoqualmie Falls Hydroelectric Project shall obtain HPA coverage as required by WDFW prior to commencing work.
- G6. Ecology retains the right, by further Order, to modify schedules or deadlines provided under this Order or provisions it incorporates.
- G7. Ecology retains the right, by further Order, to amend this Order if it determines that its provisions are no longer adequate to provide reasonable assurance of compliance with applicable water quality standards or other appropriate requirements of state law that are related to protection of water quality or aquatic resources. Amendments of this certification shall take effect immediately upon issuance, unless otherwise provided in the order of amendment, and shall be appealable to the Pollution Control Hearings Board pursuant to RCW 43.21B. Ecology shall transmit such amending orders to FERC to update FERC's records as to the current certification conditions.
- G8. This Order does not exempt, and is provisional upon, compliance with other statutes and codes administered by federal, state, and local agencies, including the state's Coastal Zone Management Act.
- G9. Ecology reserves the right to issue orders, assess or seek penalties, and to initiate legal actions in any court or forum of competent jurisdiction for the purposes of enforcing the requirements of this Order. Failure to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.
- G10. The conditions of this Order shall not be construed to prevent or prohibit PSE from either voluntarily or in response to legal requirements imposed by a court, FERC, or any other body with competent jurisdiction, taking actions which will provide a greater level of protection, mitigation, or enhancement of water quality or of existing or designated uses.

- G11. Copies of this Order and associated permits, licenses, approvals, and other documents shall be kept on the Snoqualmie Falls Hydroelectric Project site and made readily available for reference by PSE, its contractors and consultants.
- G12. PSE shall allow Ecology access to inspect the Snoqualmie Falls Hydroelectric Project and project records required by this Order for the purpose of monitoring and compliance with its conditions. Access shall occur after reasonable notice, except in emergency circumstances.
- G13. PSE shall, upon request by Ecology, fully respond to all reasonable requests for materials to assist Ecology in making determinations under this Order and any resulting rulemaking or other process.
- G14. Any work that is out of compliance with the provisions of this Order, or project operation conditions that result in distressed, dying or dead fish, or any discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, or violation of turbidity criteria is prohibited.

OIL SPILL PREVENTION AND CONTROL

[In the context of this section, "spills" will refer to oil, paint, or chemical spills as opposed to the release of water from the Snoqualmie Falls Hydroelectric Project.]

A Spill Prevention, Containment, and Countermeasure (SPCC) Plan must be prepared that covers, as applicable within the Clean Water Act, any petroleum-based equipment to be used at the site, including the powerhouse and any equipment associated with the powerhouse, that holds or contains oil, fuel, or other petroleum products that are potentially detrimental to water quality and the biota. The plan must be kept on site. The plan shall be submitted to Ecology for approval within one (1) year of license renewal. The plan must include, at a minimum, the following BMPs and spill response requirements.

In addition to fulfilling the requirements under the SPCC regulations, the BMPs and spill response procedures listed below will apply.

Best Management Practices:

- 1) Care must be taken to prevent any petroleum products, paint, chemicals, or other harmful materials from entering waters of the state.
- 2) Visible floating oils released from any project-related construction or Snoqualmie Falls Hydroelectric Project operation shall be immediately contained and removed from the water.
- 3) All oil, fuel, or chemical storage tanks shall be contained and located on impervious surfaces so as to prevent spills from escaping to surface waters or ground waters of the state.
- 4) Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters. Refueling of equipment on land shall occur where there is no potential of spilling fuel into rivers, creeks, wetlands, or other waters of the state. Equipment that requires refueling in-water shall be maintained and operated to prevent any visible sheen from petroleum products from appearing on the water. Proper security shall be maintained to prevent vandalism.
- 5) Oil and grease usage should be regularly monitored. Observation of significant increase in usage should trigger an investigation for leaks, followed by any required maintenance or corrective action.
- 6) No emulsifiers or dispersants are to be used in waters of the state without prior approval from the Department of Ecology, Northwest Regional Office.
- 7) Wash water containing oils, grease, or other hazardous materials resulting from wash down of equipment or working areas shall be contained for proper disposal, and shall not be discharged into state waters.

Spill and Release Response:

- 1) In the event of a discharge or release of oil, fuel, or chemicals into state waters, or onto land with a

potential for entry into state waters, containment and clean-up efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Clean-up shall include proper disposal of any spilled material and used clean-up materials.

- 2) Samples shall be collected and analyzed to assess the extent of the spill and to assure all contaminants have been thoroughly removed.
- 3) Spills into state waters, spills onto land with a potential for entry into state waters, or other significant water quality impacts, shall be reported immediately or no later than 24 hours after discovery to the Department of Ecology, Northwest Regional Office, at 425-649-7000 (24-hour phone number). PSE shall provide a written follow-up report to Ecology within two (2) weeks of the incident stating what occurred, whether the incident was due to natural events or human-related activities, PSE's response, a plan detailing long-term corrective actions and monitoring protocols if needed, any measures PSE proposes to reduce future similar occurrences, results of any samples taken, and any additional pertinent information.

Additional BMPs are listed in Appendix A of this amended certification.

FAILURE TO COMPLY WITH THIS ORDER

Failure to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.

In the event of noncompliance, PSE must immediately take the following actions:

- a) Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance, correct the problem and, if applicable, immediately repeat sampling and analysis of any noncompliance.
- b) Assess the cause of the water quality problem and take appropriate measures to correct the cause of the problem and/or prevent further environmental damage.
- c) Observed violations, including any spill, must be reported in the annual monitoring report. Violation report must include nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.

YOUR RIGHT TO APPEAL

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001 (2).

To appeal you must do both of the following within 30 days of the date of receipt of this Order:

- a) File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- b) Serve a copy of your appeal and this Order on Ecology in paper form – by mail or in person (see addresses below). E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Your appeal alone will not stay the effectiveness of this Order. Stay requests must be submitted in accordance with RCW 43.21B.320.

ADDRESS AND LOCATION INFORMATION FOR APPEAL PROCESS

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel Road SW STE 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

CONTACT INFORMATION

Please direct all questions about this Order to:

Monika Kannadaguli
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452
Phone: 425-649-7028
Email: mkan461@ecy.wa.gov

ADDITIONAL INFORMATION

Pollution Control Hearings Board Website
www.eho.wa.gov/Boards_PCHB.aspx

Chapter 43.21B RCW - Environmental and Land Use Hearings Office – Pollution Control Hearings Board
<http://apps.leg.wa.gov/RCW/default.aspx?cite=43.21B>

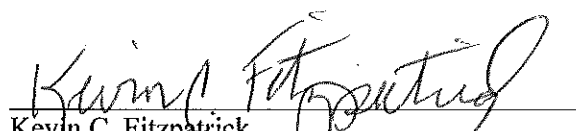
Chapter 371-08 WAC – Practice and Procedure
<http://apps.leg.wa.gov/WAC/default.aspx?cite=371-08>

Chapter 34.05 RCW – Administrative Procedure Act
<http://apps.leg.wa.gov/RCW/default.aspx?cite=34.05>

Laws: www.ecy.wa.gov/laws-rules/ecyrcw.html

Rules: www.ecy.wa.gov/laws-rules/ecywac.html

SIGNATURE


Kevin C. Fitzpatrick
Water Quality Section Manager
Water Quality Program
Northwest Regional Office

January 31, 2013
Date

APPENDIX A
RECOMMENDED SPCC PLAN BMPS FOR
SNOQUALMIE FALLS HYDROELECTRIC PROJECT

Spill Response

- a) Establish in agreement with the Department of Ecology, site oil spill cleanup material inventory and include an inventory list at each site. Snoqualmie Falls Hydroelectric Project operators and any staff required to respond to an oil spill must have input on the inventory levels, type, product brand, and quality of the oil spill cleanup supplies maintained on-site. Purchase good quality spill cleanup supplies.
- b) In the event of an oil spill, properly dispose of used/contaminated materials and oil, and as soon as possible restock new supplies. Include records of proper disposal in the oil consumption records and keep copies of disposal records of contaminated cleanup supplies at the District's office for inspection; provide these records to Ecology immediately upon request.
- c) Ensure that operational work boats and trained boat operators are available at the project. Install mechanisms as appropriate to safely launch or lower work boats into areas where work boats would be deployed in the event of an oil spill.
- d) Install stair cases, permanent ladders, etc. allowing for oil spill response staff to safely reach areas anticipated that could, in the event of an oil spill, need to be accessed to deploy sorbent pads and boom materials.

Oil-Water Separators (OWS)

- a) Have a maintenance plan for the OWS. This maintenance plan must include a process to periodically inspect and ensure quality assurance that they will work as designed.
- b) OWS shall not include rain or other water run-off, except as designed.
- c) Perform periodic and appropriate maintenance and inspection on a schedule to include cleaning of sediment.
- d) Clean and service the OWS in the event of an oil spill incident where oil is introduced into the OWS.
- e) Evaluate each OWS for inflows to account for a total transformer container failure during a major rain event to ensure that oil would not be "washed through" the OWS during such an event.

Transformers

- a) Transformer deck containment area surfaces must be impervious. Conduct periodic inspections and resurfaced areas, fill cracks, caulk metal plate footings, or otherwise ensure that containment areas will contain all spill fluids.
- b) Obtain pre-approval from Ecology before breaching containment areas for reasons other than containment area maintenance.
- c) Remove oil from transformers prior to moving them from the transformer containment area, unless the transformer is continuously monitored during the move. If transformers are moved with oil, keep spill containment equipment handy.

Sumps

- a) Locate oil sensors on the surface of the water in each sump, in addition to the oil sensors located at the bottom of each pumping cycle. Inspect and test these sensors annually or sooner if needed to ensure that they will work as designed. Include in the inspection provisions to verify that the oil sensors located at the bottom of each pumping cycle are properly placed at the proper level. Visually inspect these areas each week if oil is suspected to be present, such as in the event of an oil sensor alarm or the observance of an oil or grease spill in the turbine pit of sufficient volume

to reach the sump. Any oil detected in the sumps requires immediate Ecology (425-649-7000) and NRC notification and cleanup.

- b) Immediately repair those oil leaks in the turbine pit that are of sufficient volume that can reach the sump and that cannot be placed under a containment pan.
- c) Install handrails and mechanisms so the sump covers can be removed for a visual inspection of the sump. Provide waterproof lighting in the sumps or spotlights adequate to view the surface water in the sumps. Provide a mechanism to satisfactorily deploy and recover sorbent boom in the sumps at each project.

Oil, fuel, and chemical storage containers, containment areas, and conveyance systems

- a) Provide proper containment around each storage container (including transformers) or around a combination of storage containers as appropriate and agreed upon by Ecology. Proper containment equals the volume of the container plus 10 per cent.
- b) Recalculate required containment areas to ensure proper containment still exists after major equipment changes. For example, when converting from water cooled transformer to an air cooled unit, re-calculate oil volume and compare to containment area. Calculate containment volumes from *maximum* storage volumes, not normal oil level volumes.
- c) Provide external oil level gauges for governor oil tanks, transformers, and other oil tanks that contain over 100 gallons of oil. Provide appropriate level markings for these gauges.
- d) Regularly check all fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc, for drips or leaks. Maintain and properly store them to prevent spills into state waters.
- e) Do not refuel equipment within 50 feet of rivers, creeks, wetlands, or other waters of the state.
- f) When working on transformers and other equipment that might spill or drip oil, provide full oil spill containment capacity plus 10 per cent.
- g) Inspect containers once per week. Maintain container inspection sheets to include maximum container volume and an exact reading recording of the oil level by the staff/operator conducting the inspection. Weekly inspection readings must be consistent; provide training to the staff/operator to ensure consistent and accurate readings.
- h) Keep oil consumption records maintained at the District office; provide these records to Ecology immediately upon request.
- i) In the event that any Snoqualmie Project modifies the oil transfer operation to include hard-plumbing to reservoirs such as the governor oil tank from the oil tank room, or other extensive modifications, Ecology notification and approval of such modification should be conducted.
- j) Contain wash water containing oils, grease, or other hazardous materials resulting from wash-down of equipment or working areas for proper disposal, and do not discharge this water into state waters.

Other

- a) Identify and map floor drains. Post these maps at the Snoqualmie Project in a conspicuous location for use by operators and other personnel in the event of an oil spill. Seal floor drains that are no longer needed.
- b) Maintain site security at each Snoqualmie Project site to reduce chance of oil spills.
- c) Keep SPCC Plans as required and historical spill records on-site. Provide these to Ecology immediately upon request.

APPENDIX B

Table1. Temperature Monitoring Locations for Snoqualmie Falls Hydroelectric Project:

	Parameter	Monitoring Location	Frequency of monitoring
1	Temperature	T1	Hourly, June 1 – Oct 31
2	Temperature	T2	Hourly, June 1 – Oct 31
3	Temperature	T3	Hourly, June 1 – Oct 31

Map1. Temperature Monitoring Locations for Snoqualmie Falls Hydroelectric Project:

