STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
4601 N. Monroe Street • Spokane, Washington 99205-1295 • (509) 456-2926

March 12, 2004

CERTIFIED MAIL (7000 1670 0009 9552 8410)

Department of Ecology
Water Quality Program
MAR 15 2004

Mr. Cliff Sears
Regulatory Compliance Coordinator
Grant County Public Utility District
P.O. Box 878
Ephrata, WA 98823

Dear Mr. Sears:

RE: Installation of New Turbines at Wanapum Dam
Amendment to FERC License No. 2114, Priest Rapids Hydroelectric Project
401 Certification/Order No. 1026

The Department of Ecology has reviewed Grant County PUD's request for certification under Section 401 of the Clean Water Act (33 USC Section 1341). The application proposes an amendment to Grant PUD's current license for the Priest Rapids Hydroelectric Project (FERC no. 2114) for the purpose of replacing the turbines at Wanapum dam. Subject to the conditions in the enclosed Order, Ecology certifies there is reasonable assurance that the proposed amendment will comply with state and federal water quality laws and other appropriate requirements of state law.

This Order only covers the replacement of the turbines at Wanapum dam and any water quality effects resulting from that action. It does not include any other construction or operational measures associated with Wanapum dam, or any other water quality impacts being addressed as part of the re-licensing of the Priest Rapids Hydroelectric Project.

Written comments and correspondence relating to this document should be directed to James Bellatty, Section Manager, Water Quality Program, Department of Ecology, Eastern Regional Office, 4601 N. Monroe Street, Spokane, WA 99205. The enclosed Order may be appealed by following the procedures described in the Order. Please contact Jean Parodi at (509) 329- 3517 if you have any questions.

Sincerely,

James M. Bellatty
Section Manager
Water Quality Program

JMB:JP:slt
Enclosure
cc: Magalie R. Salas, Secretary, FERC
Service/Mailing List

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF GRANTING A WATER QUALITY CERTIFICATION TO Public Utility District No. 2 of Grant County, Washington in accordance with 33 USC 1341 FWPCA Section 401, RCW 90.48.260 and WAC 173-201A	) ORDER NO. 1026) Amending the current license) for the Priest Rapids) Hydroelectric Project (FERC) No. 2114) to install new) turbines at Wanapum dam

TO: Mr. Cliff Sears
Regulatory Compliance Coordinator
Grant County Public Utility District
P.O. Box 878
Ephrata, WA 98823

On October 1, 2003, Grant County Public Utility District (Grant PUD) filed an application with the Washington State Department of Ecology requesting certification under Section 401 of the Clean Water Act (33 USC 1341). This certification needs to be submitted to the Federal Energy Regulatory Commission (FERC) as part of Grant PUD's application for an amendment to the current license for the Priest Rapids Hydroelectric Project, FERC No. 2114.

NATURE OF PROJECT:

Wanapum Dam is one of two dams that make up the Priest Rapids Hydroelectric Project. The dam spans the Columbia River at river mile 415.8 near Vantage, Washington. At this point, the Columbia River forms the border between Grant and Kittitas Counties.

Grant PUD proposes to replace up to ten of the ten existing Kaplan turbines at Wanapum dam with new turbines designed by the Department of Energy Advanced Hydroturbine Program.

Specifically, Grant PUD proposes to install one Advanced Turbine at the dam, and then evaluate both power output and the survival of juvenile salmonids passing through the new turbine as compared to an existing turbine. The remaining nine turbines at Wanapum would also be replaced with Advanced Turbines if tests show that the new turbine meets power production and fish survival criteria. These criteria are detailed in Grant PUD's application to FERC for a non-capacity amendment of their present license for the Priest Rapids Hydroelectric Project.

FINDINGS:

1. Replacing all ten existing turbines at Wanapum dam with Advanced Turbines would increase the power plant's hydraulic capacity from 160,000 cubic feet per second to approximately 188,000 cfs. Increased hydraulic capacity would likely decrease total dissolved gas (TDG) produced by the dam by decreasing the time during which river flows exceed powerhouse capacity, thereby reducing overall spill volumes. The new turbines are not expected to either increase or decrease TDG in the flows passing through the powerhouse.

2. The wicket gates in the Advanced Turbines are equipped with grease-less bearings which will reduce the overall risk of leaking machine oils into the river at the dam.
3. Construction work necessary to remove the existing turbine(s) at Wanapum dam and install the new Advanced Turbine(s) will be done in the dry inside the existing structure of the dam. Discharge to the Columbia River of any construction debris or slurry water can either be avoided or treated so that it meets state water quality standards at the discharge point.

AUTHORITIES:

In exercising authority under Section 401 of the Clean Water Act (33 USC 1341) and RCW 90.48.260, Ecology has investigated this proposal for 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 1311, 1312, 1313, 1316, and 1317);
2. Conformance with the state water quality standards as provided for in Chapter 173-201A WAC and by Chapter 90.48 RCW, and with other appropriate requirements of state law; and,
3. Conformance with all known, available and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010.

WATER QUALITY CERTIFICATION:

In view of the foregoing and in accordance with Section 401 of the Clean Water Act (33 USC 1341), RCW 90.48.260 and Chapter 173-201A, Ecology finds reasonable assurance that the proposed license amendment will comply with state and federal water quality standards and other appropriate requirements of state law if the following conditions are met.

I. GENERAL CONDITIONS

A. This approval is for the replacement of the turbine(s) at Wanapum dam and any water quality effects resulting from that action. It does not cover discharges from Wanapum dam in general, any other construction or operational measures associated with the dam, or any other water quality impacts being addressed as part of the relicensing of the Priest Rapids Hydroelectric Project.
B. All water quality criteria as specified in WAC 173-201A-030 for Class A waters plus specific conditions for the Columbia River [WAC 173-201A-130 (21) apply to this proposal and the applicant must comply with those criteria.
C. In the event of changes in or amendments to the state water quality standards (WAC 173-201A), or changes in or amendments to the state Water Pollution Control Act (RCW 90.48), or changes in or amendments to the Federal Clean Water Act, such provisions, standards, criteria or requirements shall also apply to this proposal and any attendant agreements, orders, or permits.
D. This certification does not exempt compliance with other statutes and codes administered by federal, state and local agencies.
E. Discharge of any solid or liquid waste to the waters of the state of Washington without prior approval from Ecology is prohibited.

F. If five or more years elapse between the date this certification is issued and commencement of work to install the new turbine(s), Grant PUD shall send Ecology an updated 401 application that reflects the current conditions, regulations and technologies. Work may not proceed unless and until Ecology approves the updated application.

G. Grant PUD shall obtain Ecology review and approval before undertaking any change to the license amendment as proposed that might affect water quality or compliance with this certification.

H. Copies of this Order and associated permits, licenses, approvals and other documents shall be kept on site and made readily available for reference by Grant PUD, its contractors, consultants, and by Ecology.

I. Grant PUD shall allow Ecology access to inspect the project and project records required by this certification for the purpose of monitoring compliance with the conditions of this Order.

J. Ecology reserves the right to issue orders or to initiate other legal actions, such as civil and criminal penalties, to enforce the requirements of this Order.

K. Ecology reserves the right to amend this Section 401 water quality certification if the agency determines that the provisions hereof no longer provide reasonable assurance that the proposed license amendment will comply with water quality standards or other appropriate requirements of state law. Any such amended certification shall take effect immediately upon issuance, unless otherwise provided in the amended certification, and may be appealed to the Pollution Control Hearings Board under RCW 43.221B. Ecology shall transmit any amended certification to FERC to update the Commission's records as to the current certification conditions.

II. TOTAL DISSOLVED GAS PRESSURE (TDG) MONITORING CONDITIONS

A. Grant PUD shall monitor for TDG in order to check the effects of the new turbine(s) on total dissolved gas levels at Wanapum Dam. Two different kinds of monitoring shall be conducted in 2005 following completion of the installation of the first of the new turbines:

1. An analysis of TDG levels shall be conducted during the spill season using the data collected from the existing fixed monitoring stations in the forebay and tailrace at Wanapum dam and in the forebay of Priest Rapids dam. This analysis should provide a comparison with the analyses already conducted prior to the application to install new turbines.
2. A transect study to evaluate TDG laterally across the powerhouse channel shall be set up approximately 2000 feet downstream of the powerhouse during periods when the dam is not spilling and all of the river's flow is going through the powerhouse. During the study the new turbine shall be operated between minimum and maximum capacity within the cavitation limits and normal operating elevations. This test will be designed to verify that the new turbine will not materially increase TDG during normal operations.

B. If monitoring indicates that the new turbine does not increase TDG as compared to an existing turbine, then Grant PUD may install the remaining nine new turbines without further approval from Ecology. If monitoring indicates that the new turbine increases TDG as compared to an existing turbine, and the TDG standard is exceeded, then Grant PUD shall file a Total Dissolved Gas Abatement plan for Wanapum dam, subject to Ecology's approval, prior to installing the remaining nine new turbines.

C. The spill season analysis and transect study as described in A1. and A2. above shall be performed again after installation of all ten new turbines is completed.

D. Monitoring shall comply with all state and federal data quality requirements. Prior to beginning TDG monitoring studies, Grant PUD shall prepare and submit to Ecology a monitoring and data quality plan for review and approval. Results from both the spill season analysis and the transect study, including monitoring data and a summary report, shall be submitted to Ecology within three months of completing both studies. Study reports shall be filed with Ecology after the first new turbine is installed and again after all ten new turbines have been installed.

III. CONSTRUCTION ACTIVITIES

A. All construction work associated with removing the old turbine(s) and installing the new one(s) shall be done in the dry. Upstream and downstream bulkhead gates shall be used to isolate the construction site from the Columbia River. The construction site, which is wholly located within the existing structure of the dam, shall also be de-watered.

B. Rubble and other debris created by construction or deconstruction shall be removed from the site and disposed of in a fashion that prevents it from entering state waters.

C. All slurry resulting from the construction work shall be collected in settling ponds. Silt and other debris settled, filtered, etc. from the ponds shall be disposed of off-site in a manner that prevents this material from entering state waters. Any water from the settling ponds that is ultimately returned to the river must meet water quality standards for the Columbia River at the discharge point.

D. At a minimum, the settled water needs to be monitored for pH and turbidity before being discharged to the river. Water from the settling ponds may need to be neutralized in order to meet the standard for pH. Carbon dioxide is commonly used for this purpose; all other methods require prior approval from Ecology.

E. Monitoring shall comply with all state and federal data quality requirements. A monitoring plan shall be prepared by Grant PUD and submitted to Ecology for approval. Any water quality monitoring results shall be submitted annually to Ecology's Eastern Regional Office until the construction work is completed.

F. Wash water containing oils, grease or other hazardous materials resulting from wash down of equipment shall not be discharged into state waters.

IV. SPILL PREVENTION AND CONTROL

A. 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.

B. Grant PUD shall keep records of the amounts of oil used on-site for any oil-using components of the new Advanced Turbine(s). These records shall be made available to Ecology upon request.

C. Grant PUD shall provide Ecology with the latest version of the Spill Prevention Control and Counter Measure Plan for Wanapum dam prior to starting work.

D. Activities causing distressed or dying fish, fish kills, or any discharge of oil, fuel, or chemicals into state waters, or onto land where such contaminants could potentially drain into state waters, are prohibited.

E. In the event of a discharge of oil, fuel or chemicals into state waters, or onto land where such contaminants could potentially drain 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.

F. Spills into state waters, spills onto land where contaminants could potentially drain into state waters, fish kills, and any other significant water quality problems, shall be reported **immediately** to the Department of Ecology Eastern Regional Office at **(509) 329-3400.** Notification shall include a description of the nature and extent of the problem, any actions taken to correct the problem, plus any proposed changes in operations to prevent further problems.

Any person who fails to comply with any provision of this Order shall be liable for a penalty of up to ten thousand dollars for each day of continuing noncompliance.

This Order may be appealed. Your appeal must be filed with the Pollution Control Hearings Board, P.O. Box 40903, Olympia, Washington 98504-0903, within thirty (30) days of the postmarked date of this Order. At the same time, your appeal must also be sent to the Department of Ecology, Eastern Regional Office, 4601 N. Monroe Street, Spokane, WA 99205. Your appeal alone will not stay the effectiveness of this Order. Stay requests must be submitted in accordance with RCW 43.21B.320. These procedures are consistent with Chapter 43.21B RCW.

DATED this 12th day of March 2004 at Spokane, Washington.

James M. Bellatty
Section Manager
Water Quality Program
Eastern Regional Office