



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600  
(360) 407-6000 • TDD Only (Hearing impaired) (360) 407-6001

CERTIFIED MAIL

March 18, 2003

Mr. Michael White  
Director of Civil Works  
US Army Corps of Engineers  
NW Division, PO Box 2870  
Portland, OR 97208-2870

Dear Mr. White:

The state of Washington requires the operators of the federally owned dams on the Columbia and Snake rivers to obtain approval from the Washington Department of Ecology of a gas abatement plan in order to spill water over Columbia and Snake River dams to assist in the passage of juvenile salmonids downstream and thus potentially raise the total dissolved gas saturation level above one hundred and ten percent. This requirement is described in Washington's water quality standards (Chapter 173-201A WAC, under General Water Use and Criteria Classes, section 303; and General Considerations; section 060).

The U.S. Army Corps of Engineers has provided us with information about gas abatement activities and monitoring being undertaken at these dams on the Columbia and Snake rivers. This information meets our requirement. Therefore, **the gas abatement plans for the Snake and Columbia River dams are approved for all activities related to fish passage for the period of one year.**

This means that Bonneville, the Dalles, John Day, McNary, Ice Harbor, Lower Monumental, Little Goose, and Lower Granite dams' spill to aid fish passage, and Chief Joseph operations to manage system spill for improved fish conditions, may raise dissolved gas levels above 110 percent saturation but not to exceed 125 percent saturation as a one hour average. Gas saturation may not exceed 120 percent in the tailrace and 115 percent in the forebay as measured at the fixed monitoring stations as an average of the twelve highest readings in any one day,

Our water quality standards require gas abatement planning, monitoring, and reporting. This approval is further conditioned as follow:



### **Gas Abatement Planning**

Continue to evaluate, refine, and implement gas abatement activities. If in following years, gas abatement efforts are determined by the agency to be sufficient for more than one year, the agency may approve the plan for up to five years. These plans must contain a schedule for taking all reasonable steps toward compliance by reducing total dissolved gas associated with spills:

- a. Operational fish spills
- b. Structural Solutions
- c. Although not strictly pertaining to spill for fish and therefore this approval letter, the Department of Ecology would like the dam owners to include in the gas reduction planning efforts, ways to meet Washington State water quality standards for supersaturated gas during uncontrolled spills up to the ten-year seven-day flood (7Q-10).

The U.S. Army Corps of Engineers staff will be expected to participate in and provide information to regional groups that address system-wide dissolved gas problems.

### **Physical and Biological Monitoring**

Programs for biological trauma monitoring for gas effects and physical monitoring at the fixed monitors shall remain the same as past years except where site-specific changes or additions are needed to obtain better information.

### **Reports**

By August 31, 2003, any changes or modifications to the December 2002 gas abatement plan will be reported to WDOE including:

- Compliance schedule changes regarding specific targets and dates for moving toward meeting water quality standards.
- Forebay and tailrace monitoring plans
  - Quality assurance plans
  - Physical modeling plans
- Structural changes
- Operational changes
- Reduction in spill due to successes of alternative fish passage facilities

### **By February 27, 2004, the Corps will submit:**

1. Revised gas abatement plan. If this plan is approved by Ecology and is sufficiently comprehensive and aggressive in moving toward achieving water quality standards in the longer-term, Ecology will approve the plan for up to five years.
2. Annual report of the physical and biological monitoring.
  - A description of the water year in terms of basin runoff conditions as compared to average years.
  - Table showing dates, times, and amounts (in percent saturation) of dissolved gas when water quality standards are exceeded. Explain reasons for exceedance. Discuss steps taken to fix the problem. The higher gas standard applies only

Mr. Michael White  
Page 3  
March 18, 2003

when spilling water to aid fish passage, and managing system spill for improved fish conditions.

- A table or graph showing the percentage of spill that was voluntary compared to the percentage that was due to other causes such as lack of electric demand, lack of hydraulic capacity or any other reason.

#### Notification

The Department of Ecology must be notified of any exceedances of the adjusted dissolved gas standards due to spill to pass fish within seven days of the exceedance. A weekly notification for the previous seven days will satisfy this. Include in the notification, steps that have been taken to correct the problem. Call by telephone, send by e-mail, or fax to:

Chris Maynard  
Water Quality Program  
Department of Ecology  
PO Box 47600  
Olympia, WA 98504-7600  
Phone: (360) 407-6484  
FAX: (360) 407-6236  
E-mail: [cmay461@wcy.wa.gov](mailto:cmay461@wcy.wa.gov)

Failure to abide by these conditions may result in administrative action if water quality standards are exceeded. The Department of Ecology is authorized to issue Administrative Orders requiring compliance whenever it determines that a person has exceeded or is about to exceed any provision of RCW 90.48.

Please contact me at (360) 407-6405 or Chris Maynard of my staff at (360) 407-6484 if you have any questions or comments regarding this approval.

Sincerely,



Megan White, Manager  
Water Quality Program

cc: Columbia River Water Quality Team  
Columbia River Implementation Team  
Bob Heinith, CRTFIC  
Gary Passmore, Colville Confederated Tribe