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# United States Department of the Interior

BUREAU OF RECLAMATION

Great Plains Region

Montana Area Office

P.O. Box 30137

Billings, Montana 59107-0137



July 28, 2008

## **FAXOGRAM: Water Order Change**

To: Chief, Power Supply and Billing Division, WAPA, Watertown, South Dakota  
Attention: F-6001  
Chief, Power Dispatching Branch, WAPA, Loveland, Colorado  
Attention: J-4120  
Facilities Manager, Hardin, Montana  
Attention: MT-300: Tom Tauscher  
Project Manager, Mills, Wyoming  
Attention: WY-4000, WY-4100, WY-6400  
Assistant Superintendent, National Park Service, Lovell, Wyoming  
Attention: Jim Staebler

From: Reservoir and River Operations, Billings, Montana

Subject: **Yellowtail Water Release Order - BHR No. 08-44**

### **CURRENT RESERVOIR CONDITIONS:**

Elevation: 3642.17; Storage: 1,098,213 acre-feet; River Release: 3,050 cfs; Inflow: 3,215 cfs;

### **GENERAL COMMENTS:**

Algae growth in the Bighorn River continues to increase. Power generation indicates actual river flows are lower than anticipated. To continue evacuating storage from the exclusive flood pool as planned, the following operation change is required at Yellowtail Dam and Powerplant.

**NOTE: This is the time period when fish are more susceptible to high levels of nitrogen gas super-saturation. To provide a more desirable mixing flow of approximately 75% through the spillway gates and 25% through the sluice gates to maintain the total gas super-saturation levels at safe limits, the minimum Afterbay elevation should be maintained at or above elevation 3183 whenever possible. This is only a soft limit and may be deviated from during special or emergency operations.**

### **YELLOWTAIL TURBINE RELEASE:**

**At 1700 hour on Monday, July 28, 2008:**

*Decrease average daily turbine release to  $\approx 3,355$  cfs ( $\approx 2,250$  MW-Hrs/day using 35.8 cfs/mw).*

### **AFTERBAY RELEASE AND OPERATION:**

**At 1700 hour on Monday, July 28, 2008:**

*Maintain diversions to the Bighorn Canal at 425 cfs (gage height = 73.97 with 0.0 shift).  
Decrease river release to 3,000 cfs (increase gage height to 60.81 & apply new shift -0.42).  
Decrease total release from the Afterbay to 3,425 cfs.*

/S/ Tim H. Felchle