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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



June 19, 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. 08-28**

### **CURRENT RESERVOIR CONDITIONS:**

Elevation: 3635.21; Storage: 1,013,358 acre-feet; River Release: 9,665 cfs; Inflow: 11,875 cfs;

### **GENERAL COMMENTS:**

The BIA called and requested an increase in diversions to the Bighorn Canal. In an effort to minimize fluctuations in the levels of the Afterbay and maintain a total release of 10,000 cfs from the Afterbay, the following operation change is required at Yellowtail Dam and Bighorn Lake.

**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 1500 hour on Thursday, June 19, 2008:**

*Maintain average daily turbine release at  $\approx 8,050$  cfs ( $\approx 6,460$  MW-Hrs/day using 29.9 cfs/mw).*

### **YELLOWTAIL SPILLWAY RELEASE:**

**At 1500 hour on Thursday, June 19, 2008:**

*Maintain average daily release through the spillway at  $\approx 1,880$  cfs.*

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

**At 1500 hour on Thursday, June 19, 2008:**

*Increase diversions to the Bighorn Canal to 400 cfs (gage height = 73.80 with 0.0 shift).*

*Decrease release to the Bighorn River to 9,600 cfs (gage height = 63.54 & apply shift of 0.08).*

*Maintain total release from the Afterbay at 10,000 cfs.*

**Note: Turbine releases identified above may be adjusted moderately if necessary, to maintain Afterbay levels at the desired levels required for power production. However, it is important to maintain a total discharge of 10,000 cfs from the Afterbay to control the runoff into Bighorn Lake.**

/S/ Tim H. Felchle