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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 17, 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. 08-27**

### **CURRENT RESERVOIR CONDITIONS:**

Elevation: 3634.54; Storage: 1,006,013 acre-feet; River Release: 8,700 cfs; Inflow: 9,770 cfs;

### **GENERAL COMMENTS:**

Inflows to Bighorn Lake continue to remain well above average and continue to steadily increase due to the recent warmer temperatures. To control the runoff and the rate of fill of storage in Bighorn Lake, 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 1700 hour on Tuesday, June 17, 2008:**

*Increase average daily turbine release to  $\approx 7,900$  cfs ( $\approx 6,280$  MW-Hrs/day using 30.2 cfs/mw).*

### **YELLOWTAIL SPILLWAY RELEASE:**

**At 1700 hour on Tuesday, June 17, 2008:**

*Increase average daily release through the spillway to  $\approx 2,030$  cfs.*

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

**At 1700 hour on Tuesday, June 17, 2008:**

*Increase diversions to the Bighorn Canal to 300 cfs (gage height = 73.07 with 0.0 shift).*

*Increase release to Bighorn River to 9,700 cfs (gage height = 63.58 & apply shift of 0.08).*

*Increase total release from the Afterbay to 10,000 cfs.*

**Note: Turbine releases identified above may be low and may be increased if powerplant turbines do not exceed alarm levels. If turbine releases are increased, the spillway releases shall be reduced by proportional amounts to assure a total discharge of 10,000 cfs continues to be released from the Afterbay.**

/S/ Tim H. Felchle