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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 24, 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. 08-30**

### **CURRENT RESERVOIR CONDITIONS:**

Elevation: 3637.00; Storage: 1,033,676 acre-feet; River Release: 9,415 cfs; Inflow: 11,340 cfs;

### **GENERAL COMMENTS:**

The BIA has requested an increase in diversions to the Bighorn Canal. In response the following operation changes are 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 1100 hour on Tuesday, June 24, 2008:**

*Maintain average daily turbine release at  $\approx 8,020$  cfs ( $\approx 6,440$  MW-Hrs/day using 29.9 cfs/mw).*

**At 1900 hour on Tuesday, June 24, 2008:**

*Maintain average daily turbine release at  $\approx 8,020$  cfs ( $\approx 6,440$  MW-Hrs/day using 29.9 cfs/mw).*

### **YELLOWTAIL SPILLWAY RELEASE:**

**At 1100 hour on Tuesday, June 24, 2008:**

*Maintain average daily spillway release at  $\approx 1,300$  cfs. At no time should the spillway gates be closed to less than 6 inches.*

**At 1900 hour on Tuesday, June 24, 2008:**

*Completely close the Yellowtail Dam spillway gates to maintain an average daily release through the spillway of 0 cfs.*

**AFTERBAY RELEASE AND OPERATION:**

**At 1100 hour on Tuesday, June 24, 2008:**

*Increase diversions to the Bighorn Canal to 450 cfs (gage height = 74.13 with 0.0 shift).*

*Decrease release to the Bighorn River to 8,940 cfs (gage height = 63.30 & apply shift of 0.08).*

*Maintain total release from the Afterbay at 9,390 cfs.*

**At 1900 hour on Tuesday, June 24, 2008:**

*Maintain diversions to the Bighorn Canal at 450 cfs (gage height = 74.13 with 0.0 shift).*

*Decrease release to the Bighorn River to 7,640 cfs (gage height = 62.79 & apply shift of 0.08).*

*Decrease total release from the Afterbay to 8,090 cfs.*

/S/ Tim H. Felchle