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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

May 30, 2006



## **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. 06-23**

### **CURRENT RESERVOIR CONDITIONS:**

Elevation: 3610.84; Storage: 808,582 acre-feet; River Release: 2,250 cfs; Inflow: 4,230 cfs;

### **GENERAL COMMENTS:**

There has been a change in plans from the previous water release order (BHR No. 06-22) issued. BIA called and wishes to closely monitor the gradual increase in diversions to the Bighorn Canal before increasing diversions to 500 cfs. As a result, 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.**

### **TURBINE RELEASES:**

**At 0200 hour on Tuesday, May 30, 2006:**

*Increase average daily turbine release to 2,430 cfs ( $\approx$  1,620 MW-Hrs/day using 36.0 cfs/mw).*

**At 1000 hour on Tuesday, May 30, 2006:**

*Increase average daily turbine release to 2,480 cfs ( $\approx$  1,655 MW-Hrs/day using 36.0 cfs/mw).*

**At 1700 hour on Tuesday, May 30, 2006:**

*Increase average daily turbine release to 2,530 cfs ( $\approx$  1,685 MW-Hrs/day using 36.0 cfs/mw).*

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

**At 0200 hour on Tuesday, May 30, 2006:**

*Increase diversions to the Bighorn Canal to 250 cfs (gage height = 72.66 with 0.0 shift).*

*Maintain river release at 2,250 cfs (gage height = 60.29 with a shift of -0.49).*

*Increase total release from the Afterbay to 2,500 cfs.*

**At 1000 hour on Tuesday, May 30, 2006:**

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

*Maintain river release at 2,250 cfs (gage height = 60.29 with a shift of -0.49).*

*Increase total release from the Afterbay to 2,550 cfs.*

**At 1700 hour on Tuesday, May 30, 2006:**

*Increase diversions to the Bighorn Canal to 350 cfs (gage height = 73.45 with 0.0 shift).*

*Maintain river release at 2,250 cfs (gage height = 60.29 with a shift of -0.49).*

*Increase total release from the Afterbay to 2,600 cfs.*

/S/ Tim H. Felchle