

# United States Department of the Interior

BUREAU OF RECLAMATION Great Plains Region Montana Area Office P.O. Box 30137 Billings, Montana 59107-0137



July 9, 2008

## FAXOGRAM: Water Order Change

**MT-450** 

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. 08-35

#### **CURRENT RESERVOIR CONDITIONS:**

Elevation: 3641.99; Storage: 1,095,811 acre-feet; River Release: 6,200 cfs; Inflow: 8,630 cfs;

### **GENERAL COMMENTS:**

The BIA called and requested changes in diversions to the Bighorn Canal to allow them to chemically treat the algae growth in the 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 0730 hour on Thursday, July 10, 2008:

*Maintain average daily turbine release to*  $\approx$  6,530 cfs ( $\approx$  5,120 MW-Hrs/day using 30.6 cfs/mw). At 1700 hour on Thursday, July 10, 2008:

Maintain average daily turbine release to  $\approx 6,530$  cfs ( $\approx 5,120$  MW-Hrs/day using 30.6 cfs/mw).

### AFTERBAY RELEASE AND OPERATION:

#### At 0730 hour on Thursday, July 10, 2008:

Decrease diversions to the Bighorn Canal to 275 cfs (gage height = 72.87 with 0.0 shift). Increase release to the Bighorn River to 6,325 cfs (gage height = 62.21 & apply shift of 0.08). Maintain total release from the Afterbay at 6,600 cfs.

### At 1700 hour on Thursday, July 10, 2008:

Increase diversions to the Bighorn Canal to 375 cfs (gage height = 73.63 with 0.0 shift). Decrease release to the Bighorn River to 6,225 cfs (gage height = 62.17 & apply shift of 0.08). Maintain total release from the Afterbay at 6,600 cfs.