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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



September 11, 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. 08-59**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3639.41; Storage: 1,062,651 acre-feet; River Release: 2,500 cfs; Inflow: 3,545 cfs;

GENERAL COMMENTS:

Due to the large growth of algae in the river, recent flow measurements and power generation indicates actual river and canal flows are lower than anticipated. To adjust for the variation in flows, 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.

YELLOWTAIL TURBINE RELEASE:

At 1700 hour on Thursday, September 11, 2008:

Decrease average daily turbine release to $\approx 2,650$ cfs ($\approx 1,830$ MW-Hrs/day using 34.7 cfs/mw).

AFTERBAY RELEASE AND OPERATION:

At 1700 hour on Thursday, September 11, 2008:

Maintain diversions to the Bighorn Canal at 220 cfs (gage height = 73.24 with -0.84 shift).

Maintain river release at 2,500 cfs (increase gage height to 61.47 & apply new shift of -1.47).

Decrease total release from the Afterbay to 2,720 cfs.

/S/ Tim H. Felchle