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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



October 1, 2009

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. 10-01**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3639.25; Storage: 1,060,671 acre-feet; River Release: 2,950 cfs; Inflow: 2,525 cfs;

GENERAL COMMENTS:

Due to reduced irrigation demands, the BIA requested a reduction in diversions to the Bighorn Canal. In response, 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 required to meet energy demands.

YELLOWTAIL TURBINE RELEASE:

At 1030 hour on Thursday, October 1, 2009:

Decrease average daily turbine release to $\approx 3,060$ cfs ($\approx 2,260$ MW-Hrs/day using 32.5 cfs/mw).

AFTERBAY RELEASE AND OPERATION:

At 1030 hour on Thursday, October 1, 2009:

Decrease diversions to the Bighorn Canal to 180 cfs (gage height = 74.00 with a shift of -1.98).

Maintain river release at 2,950 cfs (maintain gage height at 62.18 with a shift of -1.83).

Decrease total release from the Afterbay to 3,130 cfs.

/S/ Tim H. Felchle