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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



April 21, 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. 08-12**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3609.88; Storage: 802,464 acre-feet; River Release: 1,900 cfs; Inflow: 1,770 cfs;

GENERAL COMMENTS:

In discussions with the BIA, they have requested irrigation deliveries to the Bighorn Canal to begin on April 23, 2008. In response, the following operation changes are required at Yellowtail Dam, Powerplant, and Afterbay.

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 1600 hour on Wednesday, April 23, 2008:

Increase average daily turbine release to 1,630 cfs (\approx 975 MW-Hrs/day using 40.1 cfs/mw).

At 0900 hour on Thursday, April 24, 2008:

Increase average daily turbine release to 1,680 cfs (\approx 1,005 MW-Hrs/day using 40.1 cfs/mw).

At 1600 hour on Thursday, April 24, 2008:

Increase average daily turbine release to 1,730 cfs (\approx 1,035 MW-Hrs/day using 40.1 cfs/mw).

At 0900 hour on Friday, April 25, 2008:

Increase average daily turbine release to 1,780 cfs (\approx 1,065 MW-Hrs/day using 40.1 cfs/mw).

AFTERBAY RELEASE AND OPERATION:

At 1600 hour on Wednesday, April 23, 2008:

*Increase diversions to the Bighorn Canal to 50 cfs (gage height = 68.50 with 0.0 shift).
Maintain river release at 1,650 cfs (gage height = 59.29 with a shift of -0.05).
Increase total release from the Afterbay to 1,700 cfs.*

At 0900 hour on Thursday, April 24, 2008:

*Increase diversions to the Bighorn Canal to 100 cfs (gage height = 68.50 with 0.0 shift).
Maintain river release at 1,650 cfs (gage height = 59.29 with a shift of -0.05).
Increase total release from the Afterbay to 1,750 cfs.*

At 1600 hour on Thursday, April 24, 2008:

*Increase diversions to the Bighorn Canal to 150 cfs (gage height = 68.50 with 0.0 shift).
Maintain river release at 1,650 cfs (gage height = 59.29 with a shift of -0.05).
Increase total release from the Afterbay to 1,800 cfs.*

At 0900 hour on Friday, April 25, 2008:

*Increase diversions to the Bighorn Canal to 200 cfs (gage height = 68.50 with 0.0 shift).
Maintain river release at 1,650 cfs (gage height = 59.29 with a shift of -0.05).
Increase total release from the Afterbay to 1,850 cfs.*

/S/ Tim H. Felchle