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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



June 6, 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. 06-27**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3610.93; Storage: 809,161 acre-feet; River Release: 2,250 cfs; Inflow: 2,550 cfs;

GENERAL COMMENTS:

To assist the BIA with de-mossing of the Bighorn Canal, the following operation change is required at Yellowtail Dam and Powerplant. Also, recent flow measurements indicated the actual flow in the Bighorn Canal was lower than anticipated. In response, a new shift of -0.24 will be applied to the canal stage.

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 0700 hour on Wednesday, June 7, 2006:

Decrease average daily turbine release to 2,545 cfs (\approx 1,675 MW-Hrs/day using 36.5 cfs/mw).

At 1700 hour on Wednesday, June 7, 2006:

Decrease average daily turbine release to 2,495 cfs (\approx 1,640 MW-Hrs/day using 36.5 cfs/mw).

At 0700 hour on Thursday, June 8, 2006:

Decrease average daily turbine release to 2,445 cfs (\approx 1,605 MW-Hrs/day using 36.5 cfs/mw).

At 1700 hour on Thursday, June 8, 2006:

Increase average daily turbine release to 2,495 cfs (\approx 1,640 MW-Hrs/day using 36.5 cfs/mw).

At 0700 hour on Monday, June 12, 2006:

Increase average daily turbine release to 2,545 cfs (\approx 1,675 MW-Hrs/day using 36.5 cfs/mw).

At 1700 hour on Monday, June 12, 2006:

Increase average daily turbine release to 2,595 cfs (\approx 1,705 MW-Hrs/day using 36.5 cfs/mw).

AFTERBAY RELEASE AND OPERATION:

At 0700 hour on Wednesday, June 7, 2006:

Decrease diversions to the Bighorn Canal to 365 cfs (gage height = 73.80 with -0.24 shift).

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

Decrease total release from the Afterbay to 2,615 cfs.

At 1700 hour on Wednesday, June 7, 2006:

Decrease diversions to the Bighorn Canal to 315 cfs (gage height = 73.43 with -0.24 shift).

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

Decrease total release from the Afterbay to 2,565 cfs.

At 0700 hour on Thursday, June 8, 2006:

Decrease diversions to the Bighorn Canal to 265 cfs (gage height = 73.03 with -0.24 shift).

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

Decrease total release from the Afterbay to 2,515 cfs.

At 1700 hour on Thursday, June 8, 2006:

Increase diversions to the Bighorn Canal to 315 cfs (gage height = 73.43 with -0.24 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 2,565 cfs.

At 0700 hour on Monday, June 12, 2006:

Increase diversions to the Bighorn Canal to 365 cfs (gage height = 73.80 with -0.24 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 2,615 cfs.

At 0700 hour on Monday, June 12, 2006:

Increase diversions to the Bighorn Canal to 415 cfs (gage height = 74.14 with -0.24 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 2,665 cfs.

/S/ Tim H. Felchle