



IN REPLY REFER TO: MT-450

United States Department of the Interior

BUREAU OF RECLAMATION

Great Plains Region

Montana Area Office

P.O. Box 30137

Billings, Montana 59107-0137



May 30, 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. 06-22**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3610.84; Storage: 808,582 acre-feet; River Release: 2,250 cfs; Inflow: 4,230 cfs;

GENERAL COMMENTS:

The BIA called and reported the repairs have been completed on the Bighorn Canal and requested diversions to the Bighorn Canal be gradually increased. As a result, 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.

TURBINE RELEASES:

At 1730 hour on Monday, May 29, 2006:

Increase average daily turbine release to 2,430 cfs (\approx 1,620 MW-Hrs/day using 36.0 cfs/mw).

At 0200 hour on Tuesday, May 30, 2006:

Increase average daily turbine release to 2,480 cfs (\approx 1,655 MW-Hrs/day using 36.0 cfs/mw).

At 1000 hour on Tuesday, May 30, 2006:

Increase average daily turbine release to 2,530 cfs (\approx 1,685 MW-Hrs/day using 36.0 cfs/mw).

At 1800 hour on Tuesday, May 30, 2006:

Increase average daily turbine release to 2,580 cfs (\approx 1,720 MW-Hrs/day using 36.0 cfs/mw).

At 0200 hour on Wednesday, May 31, 2006:

Increase average daily turbine release to 2,630 cfs (\approx 1,755 MW-Hrs/day using 36.0 cfs/mw).

At 1000 hour on Wednesday, May 31, 2006:

Increase average daily turbine release to 2,680 cfs (\approx 1,785 MW-Hrs/day using 36.0 cfs/mw).

AFTERBAY RELEASE AND OPERATION:

At 1730 hour on Monday, May 29, 2006:

Increase diversions to the Bighorn Canal to 250 cfs (gage height = 72.66 with 0.0 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 2,500 cfs.

At 0200 hour on Tuesday, May 30, 2006:

Increase diversions to the Bighorn Canal to 300 cfs (gage height = 73.07 with 0.0 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 2,550 cfs.

At 1000 hour on Tuesday, May 30, 2006:

Increase diversions to the Bighorn Canal to 350 cfs (gage height = 73.45 with 0.0 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 2,600 cfs.

At 1800 hour on Tuesday, May 30, 2006:

Increase diversions to the Bighorn Canal to 400 cfs (gage height = 73.80 with 0.0 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 2,650 cfs.

At 0200 hour on Wednesday, May 31, 2006:

Increase diversions to the Bighorn Canal to 450 cfs (gage height = 74.13 with 0.0 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 2,700 cfs.

At 1000 hour on Wednesday, May 31, 2006:

Increase diversions to the Bighorn Canal to 500 cfs (gage height = 74.44 with 0.0 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 2,750 cfs.

/S/ Tim H. Felchle