



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



April 6, 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. 09-16**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3627.64; Storage: 937,440 acre-feet; River Release: 2,450 cfs; Inflow: 2,400 cfs;

GENERAL COMMENTS:

Mountain snowpack in the Bighorn River Basin is above normal. Based on the April water supply forecast, releases will be increased to prepare for the snowmelt runoff and also allow for maintenance work to proceed as scheduled regarding seepage on the face of the dam. In response, the following operation 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 1800 hour on Wednesday, April 8, 2009:

Increase average daily turbine release to \approx 2,655 cfs (\approx 1,704 MW-Hrs/day using 37.4 cfs/mw).

At 1800 hour on Thursday, April 9, 2009:

Increase average daily turbine release to \approx 2,930 cfs (\approx 1,880 MW-Hrs/day using 37.4 cfs/mw).

AFTERBAY RELEASE AND OPERATION:

At 1800 hour on Wednesday, April 8, 2009:

Maintain diversions to the Bighorn Canal at 0 cfs (gage height = 69.34 with -0.84 shift).

Increase river release to 2,725 cfs (increase gage height to 60.37 & apply shift of -0.19).

Maintain total release from the Afterbay at 2,725 cfs.

At 1800 hour on Thursday, April 9, 2009:

Maintain diversions to the Bighorn Canal at 0 cfs (gage height = 69.34 with -0.84 shift).

Increase river release to 3,000 cfs (increase gage height to 60.58 & apply shift of -0.19).

Maintain total release from the Afterbay at 3,000 cfs.

/S/ Tim H. Felchle