



United States Department of the Interior

BUREAU OF RECLAMATION

Great Plains Region

Montana Area Office

P.O. Box 30137

Billings, Montana 59107-0137



IN REPLY REFER TO: MT-450

October 10, 2014

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-6040
Assistant Superintendent, National Park Service, Lovell, Wyoming
Attention: Valerie Newman

From: Reservoir and River Operations, Billings, Montana /s/ Clayton R. Jordan

Subject: **Yellowtail Water Release Order - BHR No. 15-03**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3638.86; Storage: 1,006,425 acre-feet; River Release: 3,500 cfs; Inflow: 3,040 cfs;

GENERAL COMMENTS:

Staff at the Yellowtail Field Office will be conducting a black start test on Wednesday, October 15, 2014. This will require all four Yellowtail Powerplant units be off line for approximately 4 hours beginning at 0800 hour. Releases will be through the river outlet works to the Yellowtail Afterbay to compensate for loss in turbine flows while the turbines are shut down. If the black start test finishes ahead of schedule, resume normal operations. In addition, releases will be decreased to conserve storage. In response, the following operation change is required at Yellowtail Dam, Powerplant and Afterbay Dam.

SPECIAL NOTE: To provide the proper mixing of water releases to the Bighorn River in attempt to minimize PSAT levels, it is desirable to maintain the Yellowtail Afterbay Reservoir between a maximum elevation of 3192.0 feet and a minimum elevation of 3183.6 feet and provide a mixing flow of approximately 75% through the spillway gates and 25% through the sluice gates, plus or minus 10%.

YELLOWTAIL BYPASS RELEASE:

During 0800 to 1200 hour on Wednesday, October 15, 2014:

Initiate and maintain release through the river outlet works at approximately 3,500 cfs.

At 1200 hour on Wednesday, October 15, 2014:

Decrease release through the river outlet works to 0 cfs.

At 1600 hour on Wednesday, October 15, 2014:

Maintain release through the river outlet works at 0 cfs.

The bypass release may vary to maintain or restore the Yellowtail Afterbay Reservoir elevation as coordinated with WAPA.

YELLOWTAIL TURBINE RELEASE:

During 0800 to 1200 hour on Wednesday, October 15, 2014:

Decrease turbine release to 0 cfs.

At 1200 hour on Wednesday, October 15, 2014:

Increase average daily turbine release to 3,430 cfs (\approx 2,970 MW-Hours/day using 27.7 cfs/mw).

At 1600 hour on Wednesday, October 15, 2014:

Decrease average daily turbine release to 3,180 cfs (\approx 2,970 MW-Hours/day using 27.7 cfs/mw).

Due to major unit re-wind project, restrict and limit turbine release to 3-unit capacity.

AFTERBAY RELEASE AND OPERATION:

During 0800 to 1200 hour on Wednesday, October 15, 2014:

Maintain diversion to the Bighorn Canal at 0.

Maintain river release at 3,500 cfs (gage height = 61.82 with a -1.09 shift).

Maintain total release from the Afterbay at 3,500 cfs.

At 1200 hour on Wednesday, October 15, 2014:

Maintain diversion to the Bighorn Canal at 0.

Maintain river release at 3,500 cfs (gage height = 61.82 with a -1.09 shift).

Maintain total release from the Afterbay at 3,500 cfs.

At 1600 hour on Wednesday, October 15, 2014:

Maintain diversion to the Bighorn Canal at 0.

Decrease river release to 3,250 cfs (gage height = 61.66 with a -1.09 shift).

Decrease total release from the Afterbay to 3,250 cfs.