



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

June 5, 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. 14-52**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3614.84; Storage: 793,580 acre-feet; River Release: 7,400 cfs; Inflow: 10,600 cfs;

GENERAL COMMENTS:

Inflows into Bighorn Lake are declining. Releases to the Bighorn River will be reduced to conserve storage and control the rate of fill. The start of the rewind project of Unit 3 of the Yellowtail Powerplant will start on June 9, 2014. WAPA requested total generation from Yellowtail Powerplant be limited to 172 MW/hour for the remaining three units. This will provide 15 MW/hour of upward regulation at the plant for balancing area reliability. As a result, the following operations are required at Yellowtail Dam and Powerplant.

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 at or above elevation 3186.0 feet and provide a mixing flow of approximately 85% through the spillway gates and 15% through the sluice gates, plus or minus 5%.

YELLOWTAIL BYPASS RELEASE:

At 0800 hour on Monday, June 9, 2014:

Increase release through the river outlet works to \approx 1,750 cfs.

At 1600 hour on Monday, June 9, 2014:

Decrease release through the river outlet works to \approx 1,250 cfs.

At 1600 hour on Tuesday, June 10, 2014:

Decrease release through the river outlet works to \approx 875 cfs.

At 1600 hour on Wednesday, June 11, 2014:

Decrease release through the river outlet works to \approx 500 cfs.

At 1600 hour on Thursday, June 12, 2014:

Decrease release through the river outlet works to 0 cfs.

YELLOWTAIL TURBINE RELEASE:

At 0800 hour on Monday, June 9, 2014:

Maintain average daily turbine release at 5,450 cfs (\approx 4,126 MW-Hours/day using 31.7 cfs/mw).

At 1600 hour on Monday, June 9, 2014:

Maintain average daily turbine release at 5,450 cfs (\approx 4,126 MW-Hours/day using 31.7 cfs/mw).

At 1600 hour on Tuesday, June 10, 2014:

Maintain average daily turbine release at 5,450 cfs (\approx 4,126 MW-Hours/day using 31.7 cfs/mw).

At 1600 hour on Wednesday, June 11, 2014:

Maintain average daily turbine release at 5,450 cfs (\approx 4,126 MW-Hours/day using 31.7 cfs/mw).

At 1600 hour on Thursday, June 12, 2014:

Maintain average daily turbine release at 5,450 cfs (\approx 4,126 MW-Hours/day using 31.7 cfs/mw).

Restrict and limit turbine release to 3-unit capacity.

AFTERBAY RELEASE AND OPERATION:

At 0800 hour on Monday, June 9, 2014:

Maintain diversions to the Bighorn Canal at 450 cfs (gage height = 73.70 with a -0.22 shift).

Maintain river release at 6,820 cfs (gage height = 62.41 with a +0.11 shift).

Maintain total release from the Afterbay at 7,270 cfs.

At 1600 hour on Monday, June 9, 2014:

Maintain diversions to the Bighorn Canal at 450 cfs (gage height = 73.70 with a -0.22 shift).

Decrease river release to 6,320 cfs (gage height = 62.18 with a +0.11 shift).

Decrease total release from the Afterbay to 6,770 cfs.

At 1600 hour on Tuesday, June 10, 2014:

Maintain diversions to the Bighorn Canal at 450 cfs (gage height = 73.70 with a -0.22 shift).

Decrease river release to 5,945 cfs (gage height = 62.00 with a +0.11 shift).

Decrease total release from the Afterbay to 6,395 cfs.

At 1600 hour on Wednesday, June 11, 2014:

Maintain diversions to the Bighorn Canal at 450 cfs (gage height = 73.70 with a -0.22 shift).

Decrease river release to 5,570 cfs (gage height = 61.82 with a +0.11 shift).

Decrease total release from the Afterbay to 6,020 cfs.

At 1600 hour on Thursday, June 12, 2014:

Maintain diversions to the Bighorn Canal at 450 cfs (gage height = 73.70 with a -0.22 shift).

Decrease river release to 5,070 cfs (gage height = 61.56 with a +0.11 shift).

Decrease total release from the Afterbay to 5,520 cfs.