



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

July 7, 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. 14-63**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3639.74; Storage: 1,017,309 acre-feet; River Release: 4,500 cfs; Inflow: 7,835 cfs;

GENERAL COMMENTS:

The BIA requested an increase in diversion to the Bighorn Canal. Release to the Bighorn River will be increased to control the rate of fill of Bighorn Lake and evacuate storage out of the exclusive flood pool. Western Area Power Administration (WAPA) requested total generation from Yellowtail Powerplant be limited to 171 MW/hour. In response, the following operations are required at Yellowtail Dam and Powerplant and Yellowtail 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 3186.0 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:

At 1600 hour on Monday, July 7, 2014:

Increase release through river outlet works to approximately 700 cfs.

At 0800 hour on Tuesday, July 8, 2014:

Decrease release through river outlet works to 0 cfs.

Increase release through the spillway gates to approximately 1,200 cfs.

At 1500 hour on Tuesday, July 8, 2014:

Increase release through the spillway gates to approximately 1,700 cfs.

YELLOWTAIL TURBINE RELEASE:

At 1600 hour on Monday, July 7, 2014:

Increase average daily turbine release to 4,750 cfs (\approx 4,100 MW-Hours/day using 27.8 cfs/mw).

At 0800 hour on Tuesday, July 8, 2014:

Maintain average daily turbine release at 4,750 cfs (\approx 4,100 MW-Hours/day using 27.8 cfs/mw).

At 1500 hour on Tuesday, July 8, 2014:

Maintain average daily turbine release at 4,750 cfs (\approx 4,100 MW-Hours/day using 27.8 cfs/mw).

Restrict and limit turbine release to 3-unit capacity.

AFTERBAY RELEASE AND OPERATION:

At 1600 hour on Monday, July 7, 2014:

Increase diversion to the Bighorn Canal to 525 cfs (gage height = 74.14 with -0.22 shift).

Increase river release to 5,000 cfs (gage height = 62.08 with -0.44 shift).

Increase total release from the Afterbay to 5,525 cfs.

At 0800 hour on Tuesday, July 8, 2014:

Maintain diversion to the Bighorn Canal at 525 cfs (gage height = 74.14 with -0.22 shift).

Increase river release to 5,500 cfs (gage height = 62.34 with -0.44 shift).

Increase total release from the Afterbay to 6,025 cfs.

At 1500 hour on Tuesday, July 8, 2014:

Maintain diversion to the Bighorn Canal at 525 cfs (gage height = 74.14 with -0.22 shift).

Increase river release to 6,000 cfs (gage height = 62.58 with -0.44 shift).

Increase total release from the Afterbay to 6,525 cfs.