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

April 13, 2015

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. 15-25**

CURRENT RESERVOIR CONDITIONS:
Elevation: 3623.17; Storage: 853,405 acre-feet; River Release: 2,500 cfs; Inflow: 2,295 cfs;

GENERAL COMMENTS:
The BIA requested a change to the scheduled increases in diversion to Bighorn Canal. This water release order replaces Yellowtail Water Release Order BHR No. 15-24.

The BIA requested an increase in diversions to Bighorn Canal. The water supply forecast indicates river releases need to be reduced. 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 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 TURBINE RELEASE:
At 1600 hour on Monday, April 13, 2015:
Decrease average daily turbine release to 2,480 cfs (≈ 1,500 MW-Hours/day using 39.7 cfs/mw).
At 1600 hour on Tuesday, April 14, 2015:
Decrease average daily turbine release to 2,330 cfs (≈ 1,410 MW-Hours/day using 39.7 cfs/mw).
At 1600 hour on Wednesday, April 15, 2015:
Increase average daily turbine release to 2,380 cfs (≈ 1,440 MW-Hours/day using 39.7 cfs/mw).

Limit turbine release to 3-unit capacity.

<u>AFTERBAY RELEASE AND OPERATION:</u>

At 1600 hour on Monday, April 13, 2015:

Maintain diversion to the Bighorn Canal at 150 cfs (gage height = 71.21 with a 0.0 ft shift).
Decrease river release to 2,400 cfs (gage height = 59.87 with a +0.05 ft shift).
Decrease total release from the Afterbay to 2,550 cfs.

At 1600 hour on Tuesday, April 14, 2015:

Increase diversion to the Bighorn Canal to 200 cfs (gage height = 71.68 with a 0.0 ft shift).
Decrease river release to 2,200 cfs (gage height = 59.71 with a +0.05 ft shift).
Decrease total release from the Afterbay to 2,400 cfs.

At 1600 hour on Wednesday, April 15, 2015:

Increase diversion to the Bighorn Canal to 250 cfs (gage height = 72.10 with a 0.0 ft shift).
Maintain river release at 2,200 cfs (gage height = 59.71 with a +0.05 ft shift).
Increase total release from the Afterbay to 2,450 cfs.