



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



August 2, 2011

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: Valerie Newman

From: Reservoir and River Operations, Billings, Montana

Subject: **Yellowtail Water Release Order - BHR No. 11-79**

CURRENT RESERVOIR CONDITIONS (August 2, 2011; 08:00 a.m.)

Elevation: 3652.42 Storage: 1,202,071 acre-feet; River Release: 10,000 cfs; Inflow: 7,600 cfs;

GENERAL COMMENTS:

The high elevation snowmelt is essentially over. Streamflows in the Bighorn River Basin continue to decrease. To slow the evacuation rate of storage from the exclusive flood pool and gradually reduce high flow in the Bighorn River, the following operation changes are required at Yellowtail Dam, Powerplant, and Afterbay. The chemical treatment of the heavy algae growth in the Bighorn Canal will also continue as described in Water Release Order BHR No. 11-78.

YELLOWTAIL TURBINE RELEASE:

During 1200 hour on Tuesday, August 2 through 1600 hour on Thursday, August 4, 2011:

Maintain average daily turbine release at 6,935 cfs (\approx 5,880 MW-Hrs/day using 28.2 cfs/mw).

YELLOWTAIL BYPASS RELEASE:

During 1200 hour on Tuesday, August 2 to 1300 hour on Wednesday, August 3, 2011:

Maintain releases through the spillway gates at \approx 3,000 cfs.

Maintain releases through the river outlet gates at 420 cfs.

During 1300 hour on Wednesday, August 3 through 1600 hour on Thursday, August 4, 2011:

Decrease releases through the spillway gates to \approx 2,000 cfs.

Maintain releases through the river outlet gates at 420 cfs.

AFTERBAY RELEASE AND OPERATION:

At 1200 hour on Tuesday, August 2, 2011:

*Decrease diversions to the Bighorn Canal to 300 cfs (gage height = 74.33 with -1.26 shift).
Increase river release to 10,125 cfs (gage height = 63.80 with 0.0 shift).
Maintain total release from the Afterbay at 10,425 cfs.*

At 1600 hour on Tuesday, August 2, 2011:

*Decrease diversions to the Bighorn Canal to 225 cfs (gage height = 73.71 with -1.26 shift).
Increase river release to 10,200 cfs (gage height = 63.82 with 0.0 shift).
Maintain total release from the Afterbay at 10,425 cfs.*

At 0800 hour on Wednesday, August 3, 2011:

*Decrease diversions to the Bighorn Canal to 150 cfs (gage height = 72.97 with -1.26 shift).
Increase river release to 10,275 cfs (gage height = 63.85 with 0.0 shift).
Maintain total release from the Afterbay at 10,425 cfs.*

At 1300 hour on Wednesday, August 3, 2011:

*Maintain diversions to the Bighorn Canal at 150 cfs (gage height = 72.97 with -1.26 shift).
Decrease river release to 9,275 cfs (gage height = 63.50 with 0.0 shift).
Decrease total release from the Afterbay to 9,425 cfs.*

At 1600 hour on Wednesday, August 3, 2011:

*Increase diversions to the Bighorn Canal to 250 cfs (gage height = 73.92 with -1.26 shift).
Decrease river release to 9,175 cfs (gage height = 63.47 with 0.0 shift).
Maintain total release from the Afterbay at 9,425 cfs.*

At 0800 hour on Thursday, August 4, 2011:

*Increase diversions to the Bighorn Canal to 325 cfs (gage height = 74.52 with -1.26 shift).
Decrease river release to 9,100 cfs (gage height = 63.44 with 0.0 shift).
Maintain total release from the Afterbay at 9,425 cfs.*

At 1200 hour on Thursday, August 4, 2011:

*Increase diversions to the Bighorn Canal to 425 cfs (gage height = 75.22 with -1.26 shift).
Decrease river release to 9,000 cfs (gage height = 63.40 with 0.0 shift).
Maintain total release from the Afterbay at 9,425 cfs.*

SPECIAL AFTERBAY OPERATION REQUIREMENT:

Maintain the level of the Afterbay at or above elevation 3185.5 until further notice. It is also extremely important to maintain the river stage within +/- 0.06 feet of the river stage set point value.

/S/ Tim H. Felchle