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# United States Department of the Interior

BUREAU OF RECLAMATION

Great Plains Region

Montana Area Office

P.O. Box 30137

Billings, Montana 59107-0137



September 23, 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. 11-97**

### **CURRENT RESERVOIR CONDITIONS (September 20, 2011; 12:00 p.m.)**

Elevation: 3640.89 Storage: 1,031,923 acre-feet; River Release: 3,500 cfs; Inflow: 3,360 cfs;

### **GENERAL COMMENTS:**

Staff at the Yellowtail Field Office will be conducting a black start test on September 27, 2011. This will require that all four powerplant units be off line for approximately 3 hours beginning at 0800 hour. The plant will initiate opening of yard breakers YT-482, YT-1462, and YT-128 securing power to all plant station service transformers and allowing the plant Emergency Diesel generator to supply station service power via the automatic transfer switch. Unit 1 will be started and used to energize back to the switchyard. Once this is done, unit 1 will be secured and units 2,3, and 4 will be rolled up to speed, but will not be used to energize lines. All units will be shut down and normal station service power will be aligned by closing in all 3 yard breakers and returning to normal split bus station service configuration before returning unit controls to Casper. Plans are to release water through the hollow-jet valves to the Afterbay to compensate for loss in turbine flows while the turbines are shut down. This should allow Reclamation to maintain a constant water level in the Afterbay during this time. As a result, the following operation changes are required at Yellowtail Dam, Powerplant, and Afterbay.

### **YELLOWTAIL TURBINE RELEASE:**

**During 0800-1100 hour on Tuesday, September 27, 2011:**

*Decrease average daily turbine release to 0 cfs ( $\approx 0$  MW-Hrs/day using 34.0 cfs/mw).*

### **YELLOWTAIL BYPASS RELEASE:**

**During 0800-1100 hour on Tuesday, September 27, 2011:**

*Initiate and maintain releases through the hollow jet gates to  $\approx 3,000$  cfs.*

### **AFTERBAY RELEASE AND OPERATION:**

**During 0800-1100 hour on Tuesday, September 27, 2011:**

*Maintain diversions to the Bighorn Canal at 150 cfs (gage height = 72.53 with -0.82 shift).*

*Maintain river release at 3,500 cfs (gage height = 61.79 with -1.05 shift).*

*Maintain total release from the Afterbay at 3,650 cfs.*

### **SPECIAL AFTERBAY OPERATION REQUIREMENT:**

**During 0700 hour, Wednesday, September 14 through 1700 hour, Wednesday, October 5, 2011:**

*Maintain the level of the Afterbay no higher than elevation 3190 during the inspection and maintenance work on the spillway tunnel and stilling basin.*

**Maintain the level of the Afterbay at or above elevation 3183.5 until further notice. It is also important to maintain the river stage within +/- 0.06 feet of the river stage set point value.**

/S/ Tim H. Felchle