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 5, 2008

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: Jim Staebler

From: Reservoir and River Operations, Billings, Montana

Subject: **Yellowtail Water Release Order - BHR No. 08-47**

CURRENT RESERVOIR CONDITIONS:
Elevation: 3641.88; Storage: 1,081,253 acre-feet; River Release: 2,500 cfs; Inflow: 1,975 cfs;

GENERAL COMMENTS:
Algae growth in the Bighorn River continues to increase. Power generation indicates actual river flows are lower than anticipated. To continue evacuating storage from the exclusive flood pool as planned, the following operation change is required at Yellowtail Dam and Powerplant.

NOTE: This is the time period when fish are more susceptible to high levels of nitrogen gas super-saturation. To provide a more desirable mixing flow of approximately 75% through the spillway gates and 25% through the sluice gates to maintain the total gas super-saturation levels at safe limits, the minimum Afterbay elevation should be maintained at or above elevation 3183 whenever possible. This is only a soft limit and may be deviated from during special or emergency operations.

YELLOWTAIL TURBINE RELEASE:

At 1700 hour on Wednesday, August 6, 2008:
Maintain average daily turbine release at ≈ 2,880 cfs (≈ 2,065 MW-Hrs/day using 33.5 cfs/mw).

AFTERBAY RELEASE AND OPERATION:

At 1700 hour on Wednesday, August 6, 2008:
Maintain diversions to the Bighorn Canal at 450 cfs (gage height = 74.13 with 0.0 shift).
Maintain river release at 2,500 cfs (increase gage height to 60.49 & apply new shift -0.49).
Maintain total release from the Afterbay at 2,950 cfs.

/S/ Tim H. Felchle