

Change Request Number: 11BON014

Date: December 17, 2010

Proposed by: CRITFC

Location of Change- BONN- 2.1.2.1 (pg 11) and 5.2 (pg 37)

Current Language: 2.1.2.1. Turbine units should be operated at the mid or upper 1% range whenever possible, during the split flows operation

5.2. Turbine units will operate within 1% of best efficiency and within cavitation limits at various head ranges as shown in **Tables BON-15 through BON-16** for both powerhouses.

Proposed Change: 2.1.2.1. Turbine units at PH2 should be operated at the mid to lower 1% range whenever possible, during the split flows operation unless the Total Dissolved Gas Waivers is exceeded.

2.1.2.2. Turbine units should at PH 1 be operated at the mid or upper 1% range whenever possible, during the split flows operation

5.2. Turbine units at PH1 will operate within 1% of best efficiency and within cavitation limits at various head ranges as shown in **Table BON-15**.

5.2.1. Turbine units at PH2 will operate at the mid to lower 1% range (unless total dissolved gas waivers are exceeded in the tailrace) of best efficiency and within cavitation limits at various head ranges as shown in **Table BON-16**.

Reason for Change: During the past 3 years it has been shown with studies and smolt monitoring data that operation of Powerhouse II units at the upper end of the 1% range increases the level of descaling and mortality, especially during high debris load. The use of the mid to lower 1% range of operation has been shown to help remedy this situation. It would be prudent to operate this way whenever possible instead of waiting for a mortality or descaling spike to occur and then have to react. When flows get to point where there is uncontrolled spill, TMT can decide if continuing the operation makes sense or revert back to the whole 1% range. As structural modifications are made these new limits can be re-evaluated.

Comments from others: This change form may be changed completely since NOAA has some recommendations for operating turbines that are different than current operations.

BPA needs to have further discussion. They are looking for more flexibility, not less.

Record of Final Action: Approved at February FPOM.