

**OFFICIAL COORDINATION REQUEST FOR  
NON-ROUTINE OPERATIONS AND MAINTENANCE**

**COORDINATION TITLE-** 14JDA13 SMF Hilton Valve Removal

**COORDINATION DATE-** 25 August 2014

**PROJECT-** John Day Dam

**RESPONSE DATE-** 11 September 2014 (FPOM)

**Description of the problem**

SMF Hilton Valve (brand name) has been unused/kept wide open since 1999, when FPOM approved of this SMF's operational modification. It has recently developed a crack in its housing, and it makes more sense to remove it rather than repair it.

Background: The original/designed purpose of the Hilton Valve was to control water level in the PDS overflow tanks; the screened water was to fall down only 6 feet with no super saturation produced. However, from the very first year of the JD SMF operation in 1998, the sensor measuring the water level was very troublesome/erratic resulting in constant alarms occurring every few minutes. JDA Fisheries found this situation unbearable and started investigating the actual super saturation produced and its potential impacts on the SMF fish passage.

We consulted with the ERDC Water Quality expert, Mr. Joe Carroll (now retired) and conducted the test with the Hilton valve wide open and screened water falling down into the overflow tanks more than 30 feet. The test confirmed an elevated/high super saturation levels, but Mr. Carroll pointed out that time of exposure for passing juvenile fish in our system was much lower than the minimum threshold of one minute (when super saturation is harmful.) In fact, the exposure time in our case is approximately 20 seconds. Furthermore, the approximately 700 cfs flow from the SMF outfall is insignificant in volume, when it enters the mainstream Columbia (its average discharge ranges between 100,000 and 200,000 cfs.) A secondary benefit of this SMF modification is less equipment to maintain and its lower operational cost overall.

**Type of outage required-** No additional outage would be necessary as this work would occur during normal winter maintenance.

**Impact on facility operation-** The work would occur when the system is dewatered for maintenance. Once removed, there would be no change in the operation of the SMF.

**Dates of impacts/repairs-** winter maintenance period for 2014-15.

**Length of time for repairs-** The winter maintenance period is for about three months. The work would be completed within that time.

**Expected impacts on fish passage-** No impacts expected. The removal of the valve would leave the system operating as it currently does.

**Comments from agencies**

**Final results – approved at the 11 September 2014 FPOM meeting.**

Please email or call with questions or concerns.  
Thank you,  
Tammy

Tammy Mackey  
NWP Operations Division Fishery Section  
Columbia River Coordination Biologist  
503-961-5733  
[Tammy.m.mackey@usace.army.mil](mailto:Tammy.m.mackey@usace.army.mil)