

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

**COORDINATION TITLE-** 16BON10 *EAL testing in unit 15*

**COORDINATION DATE-** 14MAR2016

**PROJECT-** Bonneville Powerhouse II

**RESPONSE DATE-** 29 March 2016

**Description of the problem-** The Corps is required by a 2014 Settlement Agreement (Case 2:13-md-02494-LRS filed 8/14/2014) with the Columbia RiverKeeper pursuant to the Clean Water Act to test the feasibility of switching from petroleum based greases to Environmentally Acceptable Lubricants (EAL).

The candidate EAL grease must be tested in a real world environment. Based upon the compatibility testing, four representative units were selected for proof of concept testing (BON15, TDA1, MCN13, and LGN6). These units will be monitored with the current non-EAL grease and with the EAL. The grease will be applied to the wicket gate's grease system. Monitoring of the EAL will be determined by installing transducers on the wicket gate stems, grease lines, servomotor drain lines, and the governor accumulator tank drain. The transducers will measure if the EAL has any adverse effects on the wicket gate system.

**Type of outage required-** EAL testing in unit 15 will require three outages.

The first outage is planned for 01-05 AUG 2016. This outage does NOT require dewatering the unit but the unit will need to be locked out so that transducers can be installed on the wicket gate stems, grease lines, servomotor drain lines, governor accumulator tank drain. This means the unit will be out of service for 5 days while the equipment is being installed.

The work required during the second outage will be done concurrently with an existing maintenance outage already planned for 31 OCT 2016. This means Unit 15 will be out for maintenance and EAL testing from 31 OCT 2016 thru 03NOV2016. A dewatered unit is required in order to purge the grease lines of the non-EAL and measure bushings.

The third outage is currently planned for 04 DEC 2017 and will require dewatering of the unit in order for the bushings to be measured. The unit will need to be dewatered for 10 working days, from 04-15 DEC 2017.

**Impact on facility operation-** Unit 15 will be unavailable for operation during the outage dates listed. Dewatering the unit will require Project support.

**Dates of impacts/repairs-** Testing is planned to begin in August 2016 thru December 2017 and planned to last up to 19 months.

First Outage: 01 AUG 2016 (no dewatering)  
Second Outage: 31 OCT 2016 (extended maintenance outage by 10 days)  
Third Outage: 04 DEC 2017 (dewatered unit)

**Length of time for repairs-** EALs will be applied during the first outage on 01 AUG and the performance of equipment will be monitored for up to 19 months.

**Expected impacts on fish passage-** None. BON 15 is not a priority fish attraction unit.

### **Comments from agencies**

-----Original Message-----

From: Gary Fredricks - NOAA Federal [mailto:gary.fredricks@noaa.gov]  
Sent: Wednesday, March 16, 2016 3:28 PM  
To: Mackey, Tammy M NWP <Tammy.M.Mackey@usace.army.mil>  
Cc: Hausmann, Ben J NWP <Ben.J.Hausmann@usace.army.mil>; Lorz, Tom <lort@critfc.org>  
Subject: [EXTERNAL] Re: FPOM: Official Coordination - 16BON09 EAL testing in U15

Tammy, I agree that it is unlikely that this work would impact fish since it is highly unlikely the unit would be needed to avoid operation of PH1 units in August. That should probably be mentioned in the MOC just to cover the juvenile passage base. Thanks, Gary

**April FPOM: 16BON10 MOC EAL testing U15 – Comment period ended the end of March.  
Approved**

**Final results – approved at the April FPOM meeting.**

Please email or call with questions or concerns.

Thank you,

Ben Hausmann

[Ben.j.hausmann@usace.army.mil](mailto:Ben.j.hausmann@usace.army.mil)

Jane Dalgliesh

NWP Operations Division Fishery Section

Columbia River Coordination Biologist

[Jane.m.dalgliesh@usace.army.mil](mailto:Jane.m.dalgliesh@usace.army.mil)