

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

COORDINATION TITLE- 16TDA08 EAL testing at The Dalles

COORDINATION DATE- August 9, 2016

PROJECT- The Dalles

RESPONSE DATE- Comments preferred at the August 11th FPOM meeting but requested no later than August 24.

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 grease 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 LWG6). EALs will be applied to these unit's wicket gate grease systems. 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 transducer will measure if the EAL has any adverse effects on the wicket gate system. **16TDA03 EAL Testing in MU 1 was coordinated and approved in April 2016.**

Type of outage required-

This outage will involve the removal of wicket gate link pin and link pin bushings from three wicket gate assemblies so the pins and bushings can be measured. The bushings and pins will be inspected for damage and a sample of the used old grease will be collected at the time of disassembly. Unit 1 will need to be out of service from 29-31 AUG 2016 for this work. This outage will not require the unit to be dewatered. After the measurements are taken the unit will be reassembled and returned to service.

Impact on facility operation- Unit 1 will be unavailable for operation during the outage dates listed. De-energizing the unit will require Project support.

Dates of impacts/repairs-

Outage: 29-31 August 2016

Length of time for repairs- 3 days

Expected impacts on fish passage- None. Unit 1 is the westernmost main unit of the powerhouse lending to its effectiveness. Unit 2 will replace it with its sluiceways open. Flow through the sluiceways will replicate what is normally seen on MU1 sluiceways because they will be westernmost gates open. Past research has shown 'fish will use MU2

and the sluiceway above it if MU1 is closed. We've seen no issues operating MU2 and SL2 when MU1 is out of service.' (pers comm. Fenton Khan, previous PNNL researcher). Results from the PNNL 2005 study 'Hydroacoustic Evaluation of Juvenile Salmonid Passage at The Dalles Dam Sluiceway'; 'At the powerhouse, the horizontal distribution showed fish passage was highest at Sluice (SL) 2 and Main Unit (MU) 8 during spring. During summer, passage at the powerhouse was highest at SL 2 and 5 and MU 8. The horizontal distribution of passage was not skewed to the east during summer, as observed in previous studies.' The largest portion of this operation will be during the latter 30% of sub-yearling outmigration.

Comments from other agencies-

Final Results- 16TDA03 was approved at the April FPOM. This MOC was an update with coordinated dates. Unit 1 was OOS for 1 week longer than anticipated.

Please email or call with questions or concerns.

Thank you,

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