

OFFICIAL COORDINATION REQUEST FOR NON-ROUTINE OPERATIONS AND MAINTENANCE

COORDINATION TITLE – 15-IHR-004 –Ice Harbor Main Unit Digital Governor Upgrades [Revised 24 March 2015](#)

COORDINATION DATE - ~~Feb. 25~~ [March 24](#), 2015

PROJECT - Ice Harbor Dam

RESPONSE DATE – March ~~324~~, 2015.

Description of the problem –

Generator model validation testing is required by The Western Electricity Coordinating Council (WECC) following any major change to the generator. There is a contract underway replacing the existing governors with new digital governors. Unit 1 construction has just been completed, and the unit has been returned to service. Model validation testing must now be completed as required. The purpose of this requirement is to ensure that the mathematical models used by BPA and WECC to model the power grid are accurate and up-to-date.

This testing requirement is covered by the 2015 Fish Passage Plan, Appendix A, Paragraph 6.1.2. Testing is planned for [Friday, March 6](#), between the hours of 0600 and 1800. During the course of this testing, the unit will at times be turned off, operating at speed-no-load, and various loads. Total testing time is expected to be about 6 hours.

[Unit 3 is currently out of service and preparations are occurring to bring it back in service, including model validation testing scheduled for March 25. During the testing, the unit will need to be operated a speed-no-load for approximately 2 hours, and above the 1% peak operating efficiency range for about half an hour. Unit 3 will not be operated out of unit priority, since it is second in priority after unit 1 and unit 1 will be running during the testing.](#)

Below is the text regarding this work from Appendix A of the 2015 Fish Passage Plan.

6.1.2. Ongoing through March 2015: Units 1, 2, 3 Digital Governor Upgrades.

Starting in October 2014 and continuing through March 2015, the Main Unit Digital Governors at Ice Harbor will be replaced starting on Unit 2, followed by Units 1 then 3. Each unit will take about 5 weeks. In March 2015, model validation testing will occur for Units 1, 2 and 3, that will require operation outside of the 1% range and out of FPP unit priority order. This testing will occur prior to the FPP 1% operating constraints that begin April 1.

Type of outage required – No outage required. Operation of turbine unit 1 outside of peak 1% efficiency is required for the successful completion of these tests. Note that when in service, turbine unit 1 is the highest priority unit during the fish passage season.

Impact on facility operation – None except for test operations outside peak 1% operating efficiency.

Dates of impacts/repairs – Friday, March 6, between the hours of 0600 and 1800.
Unit 3 will be tested between the hours of 0700 and 1700 on March 25.

Length of time for repairs – No repairs are necessary.

Expected impacts on fish passage – For adult fish, the impacts should be minimal. Unit 1 will be providing attraction flow to the south ladder (SFE-1) as expected. Juvenile fish may pass through unit 1 or the other operating units (units 2, 4, 5, and 6- have STSs installed and orifices open) during tests. Impacts are expected to be minimal as test are taking place during daylight hours and juvenile fish pass mainly at night. The testing period is also relatively short.

Comments from agencies

From: Trevor Conder - NOAA Federal [<mailto:trevor.conder@noaa.gov>]
Sent: Thursday, February 26, 2015 8:50 AM
To: Bailey, John C NWW
Cc: Trumbo, Bradly A (Bradly) NWW; Setter, Ann L NWW
Subject: [EXTERNAL] Re: MOC 15 IHR 0004 - Ice Harbor Main Unit Digital Governor Upgrades

John,

This looks fine to me except that Brad Trumbo was planning to coordinate a hydroacoustic install on March 4th. Don't think we want to run unit 1 with divers down there so please coordinate with Brad so you guys can find time frames that works for both projects. That is a perfect example of why we need to have these Appendix A items coordinated in season. Thanks

-Trevor

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

From: Bailey, John C NWW
Sent: Friday, February 27, 2015 8:59 AM
To: 'Trevor Conder - NOAA Federal'
Cc: Trumbo, Bradly A (Bradly) NWW; Setter, Ann L NWW
Subject: RE: [EXTERNAL] Re: MOC 15 IHR 0004 - Ice Harbor Main Unit Digital Governor Upgrades

Trevor:

Good catch! I confirmed yesterday morning that Ice Harbor plans to install hydro-acoustic research equipment on March 4. At the time the MOC was written, neither the person requesting the tests or myself realized the hydro-acoustic installation was scheduled for March 4. The Unit 1 WECC validation tests have been rescheduled for Friday, March 6. Thanks for letting me know about the scheduling conflict.

John B.

Final results

Model validation testing occurred on units 1 and 2, one at a time, on March 6.

Please email or call with questions or concerns.

Thank you,

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