**CENWP-OD-JD 02 November 2015**

**MEMORANDUM FOR THE RECORD**

**SUBJECT: 15JDA12 MFR –** MU1 Digital Governor testing plan.

**PROBLEM:**

In September 2015, MU 1 was taken out of service for digital governor installation. JDA Fisheries believed the sturgeon issues seen at MU15 and MU16 were limited to the north Powerhouse units. Eleven JDA units had already been completed and sturgeon had only been found inside MUs 15 and 16. In addition to the belief that the south powerhouse units would not have the same sturgeon issues, JDA does not have enough tail logs to completely dewater MU1 and still have a set on hand for emergencies. New tail logs are being constructed, however, they will not be ready until after the digital governor testing is completed.

Given those reasons above, tail logs were not installed and the Project is prepared to conduct sturgeon rescue activities if needed.

On 28 October 2015 MU1 returned to service. Sturgeon were seen in the downstream gatewells after the unit returned to service.

On 31 October 2015, the MU1 scroll case was dewatered and a sturgeon salvage was attempted. 50 sturgeon were safely released back to the tailrace in good condition. 25 sturgeon mortalities were recovered. These fish will be scanned for PIT tags at the SMF on 2 November.

 A. Species – 25 small white sturgeon (*Acipenser transmontanus).*

 B. Origin – natural origin fish

 C. Length – 1 – 3 feet.

 D. Marks and tags – No PIT tags detected in any of the morts.

E. Marks and Injuries found on carcass – morts had signs of violent abrasions from being sucked onto the scroll case drain grating.

F. Cause and Time of Death – it is believed these fish died during the draining of the scroll case. All morts were found on the drain grating.

G. Future and Preventative Measures – Modify the digital governor installation schedule to include installing draft tube tail logs.

MU 12 is the next scheduled unit for digital governor installation. JDA will install the tail logs/ dewater it to prevent the sturgeon trapping/ mortality problem from occurring. The emergency set of tail logs will be used. This will leave JDA without the ability to contain an oil spill from a turbine. JDA is in the process of procuring another set of tail logs but those are not expected to arrive until September 2016, at the earliest.

Sincerely,

JDA Fisheries

**Comments:**

**Comments from September:**

**NWP**-----Original Message-----

From: Moynahan, Kevin NWP

Sent: Monday, September 21, 2015 11:17 AM

Subject: RE: FPOM: Official Coordination - MFR 15JDA10 (UNCLASSIFIED)

I back the current plan not to install TLs upfront on MU 1.

Tail logs and head gates are in scarce supply at the project - and we are engaged in numerous activities at the moment that direct the use of this equipment. New tail logs and head gates are on the way, but not expected to be here for the next several years.

The risk assessment on this issue mitigates against putting the tail log in MU 1. At the same time, this should not pose unreasonable risks to sturgeon.

- our biologists do not anticipate sturgeon entering the draft tube - as they did MUs 15 and 16. It is believed the conditions that existed at MUs 15 and 16 do not exist at MU 1 - therefore we do not anticipate sturgeon to enter the unit.

- if sturgeon do enter MU 1, we will spin the unit and remove them similar to actions undertaken at MUs 15 and 16.

- having a spare tail log - the one not installed in MU 1 - makes it easier to respond in the case of an oil spill to entrap any oil that may discharge from a unit.

- we continue to look at other operational options for removing any sturgeon from MU 1 - if necessary - to prevent a repeat of the situation at MUs 15 and 16.

Kevin

**ODFW:** -----Original Message-----
From: Erick VanDyke [mailto:erick.s.vandyke@state.or.us]
Sent: Friday, September 25, 2015 9:06 AM
Subject: [EXTERNAL] RE: FPOM: Official Coordination - MFR 15JDA10 Update (UNCLASSIFIED)

Thanks for providing an update on MU16 dewatering and white sturgeon fish salvage. It is an ever growing concern that The Corps is unresponsive to the inclusion of preventative measures that could address white sturgeon entering the turbine unit environment during digital governor service and installation. The lack of preventative measures between MU15 and MU16 work indicate a continued disregard for implementing recommended measures meant to act on an observed problem. Lack of action between MU15 and MU16 resulted in observed mortalities that may have been prevented if log booms had been installed and if the turbine blades had been flattened. Waiting to see if the geographic position of the power house is related to the entrainment of sturgeon is simply putting more sturgeon at risk. As has been mentioned during the MU15 and MU16 discussions, depending solely on “slow roll” to remove fish from the turbine environment should be the "last step option", which is not preferred. Currently your approach at addressing this problem is inadequate, and appears to be based primarily on a hope that this will not occur in another unit―similar to the rationale taken between MU15 and MU16. Oregon recommends the Corps take action to prevent any further sturgeon entrapment in the turbine environment by including log booms and flattening the turbine blades during every future service, test, or repair action in the future. As has been requested understanding the number, size, biological condition of impacted fish is desired. Given the annual effort to assess stock status in the lower Columbia River, knowing if marked or tagged fish are transferred or lost is important, so scanning fish for presence of a PIT tag or other external mark (i.e., missing scutes) would be necessary information.

Erick