

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

Comments from November:

ODFW-----Original Message-----

From: Erick VanDyke [mailto:erick.s.vandyke@state.or.us]

Sent: Tuesday, November 03, 2015 6:25 PM

Subject: [EXTERNAL] RE: FPOM: Official Coordination - 15JDA12 MFR MU1 digital governor testing (UNCLASSIFIED)

Thanks for providing the recent update on the MU1 digital governor testing. An initial look at this MFR makes clear, not only was there a failure to take preventative measures to avoid a known problem; but, in this case, it seems that measures may have overlooked earlier protocol (e.g., slow roll, disclosure via FPOM of the problem). It is quite disappointing that simple measures to verify sturgeon presence prior to returning the unit to service were not implemented, and likely led to this preventable mortality event. The magnitude increase in observed mortality is difficult to defend. A similar magnitude of entrainment, let alone any additional mortality, during the remaining digital governor work would be unacceptable. It needs to be reiterated, this reoccurring issue has been handled with seeming indifference to regional fisheries management recommendations. This, on little more than a hope that repeating the process on a different unit would produce a different outcome. This continued status quo approach, especially in-the-face of a known problem, cannot be an accepted management strategy moving forward. It should go without saying that the earlier recommendations for reasonable and achievable preventive actions be treated as a valid fisheries management concern. Failing to address fisheries managers concerns have resulted in preventing interaction between sturgeon and turbine unit environment during the digital governor testing process. As was recommended following MU15 and MU16, and prior to moving to MU1, Oregon re-recommends the Corps not depend solely on "slow roll" to remove fish the turbine environment. It is more apparent than ever, that tail logs need to be used to block access to the turbine environment and that the turbine blades be flattened before any additional digital governor testing occur. Suggesting that holding tail logs idle for a potential and unrealized emergency when a credible real-time need for the tail logs had been identified is not a defensible argument for inaction. A review of the testing protocol should be revisited to assure all has been done to minimize the time required for testing and that all preventative actions have been implemented. As with earlier recommendations 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

FPOM discussion on 12 November:

Lorz asked what the strategy is for going forward. Mackey said tail logs will be installed in the future. Lorz asked if they received any data from the fish. Mackey said they were scanned for PIT tags. Lorz asked why FPOM recommendations were not given more weight. Cordie said he spoke with the maintenance manager, who said there is a long record of the digital governor work and no problems. Cordie said all of TDA and eleven units at JDA were completed without incident, so the thought was there is an anomaly for Units 15 and 16. Cordie said the reluctance to place the tail logs is because it is a hardship; it takes two extra days of labor and a two day delay on the contract, per unit, and requires overtime work. Morrill asked why NWP ignored the FPP and the concerns of FPOM. Mackey said the digital governor testing is not in the FPP. Fredricks said FPOM recommended placing the tail logs and were told it will not be a problem, but it was a problem. Lorz said it was a calculated risk. Mackey said going forward we will be putting in tail logs. Skalicky asked about documentation. Mackey said digital governor testing is not currently in the FPP, so if we want to add digital testing protocol then a change form is needed. Fredricks said what we should learn from this is that we don't know as much about sturgeon. Cordie said sometimes we are surprised because it is infrequent when we see them at the project. Bettin said it goes back to needing something simple, like a chain link fence, to prevent sturgeon from entering the draft tube. **FPOM would like language added to the FPP.**

ODFW-----Original Message-----

From: Erick VanDyke [mailto:erick.s.vandyke@state.or.us]

Sent: Monday, November 23, 2015 12:08 PM

To: Gibbons, Karrie M NWP; Mackey, Tammy M NWP; Cordie, Robert P NWP; Zyndol, Miroslaw A NWP

Cc: Gary Fredricks - NOAA Federal; Trevor Conder - NOAA Federal (Trevor.Conder@noaa.gov); Lorz, Tom; Charles Morrill (charles.morrill@dfw.wa.gov) (charles.morrill@dfw.wa.gov); Joe Skalicky

(joe_skalicky@fws.gov) (joe_skalicky@fws.gov); BPA Scott Bettin
Subject: [EXTERNAL] RE: FPOM: November meeting minutes draft (UNCLASSIFIED)

To a smaller FPOM audience,

Sorry I missed the fun of November's FPOM, seems there is never an FCRPS event-free time to take vacation. None the less, in reviewing the minutes from the November meeting I could not help but ponder a few statements that were presented in the digital governor discussion (paragraph 4.4). Specifically, when Washington inquired about FPP language Mackey responded about lack of digital governor work not being in the FPP. How is it that section 6.4 of the FPP (JDA-27) does not apply broadly when turbine draft tubes are dewater (6.4.2) , partially dewatered or idle (6.4.3)? Digital governor testing is inconsistently described in the current (in Appendix A for some Snake projects, in specific project sections, or not mentioned at all for others). Given the high level description of most of the turbine maintenance and testing (see appendix C paragraph 4.7 and follow the referenced paragraph for content to follow my meaning) it seems less defensible to suggest this topic was not known or informed within this group or this document. Since much of the FPP is filled with high level vagueness, it should be less about the specific moment of the test than the suite of actions that together provided easier access to the draft tube–turbine environment. For this reason it is harder to understand how our common goal did not involve preventing fish from entering the turbine environment to begin with. Seems the Corps, with FPOM recommendations, had a plan that simply was not followed. That decision and the growing explanation for why it was avoid is documented. What seems clear to me is that Indifference led to a significant mortality event that could have been avoid.

Given the current record of impact to sturgeon, I believe more emphasis is needed to address preventative measures in the future. Measures that include looking into more emphasis on fish protection and less emphasis on operational convenience. Seems, based on discussion described by Bob Cordie, other alternative than stop log installation should be investigated, in part to discover more efficient–less time consuming actions that can be applied under more conditions. Some of these ideas have been delivered during earlier FPOM meetings on this top, perhaps the corps can provide some more?

Erick Van Dyke

WDFW-----Original Message-----

From: Morrill, Charles (DFW) [mailto:Charles.Morrill@dfw.wa.gov]

Sent: Monday, December 14, 2015 2:28 PM

To: Erick VanDyke; Gibbons, Karrie M NWP; Mackey, Tammy M NWP; Cordie, Robert P NWP; Zyndol, Miroslaw A NWP

Cc: Gary Fredricks - NOAA Federal; Trevor Conder - NOAA Federal (Trevor.Conder@noaa.gov); Lorz, Tom; Joe Skalicky (joe_skalicky@fws.gov) (joe_skalicky@fws.gov); BPA Scott Bettin; Erick.s.vandyke@state.or.us; Langness, Olaf P (DFW); James, Brad W (DFW); Tweit, William M (DFW); Le Fleur, Cindy (DFW); Norman, Guy R (DFW)

Subject: [EXTERNAL] Concerns over impacts to Sturgeon over the course of Digital Governor Testing at John Day Dam for FPOM and the November FPOM Notes

Importance: High

Folks,

I was quite taken back by the response to my question/comment at Novembers FPOM meeting that the work required for the digital governor testing was not covered in the FPP.

Erick Van Dyke's Nov 23rd reply addresses not only my concerns but those of other managers as well. In the course of discussions over digital governor testing and impacts, Gary Fredricks has noted more than once that if sturgeon were listed that the COE would have been dealing with NOAA enforcement.

The Agencies and Tribes directly involved with Sturgeon management have collectively taken many steps to monitor and manage sturgeon populations that generally are considered at risk. Agency and Tribal FPOM representatives have repeatedly requested the COE to utilize stop logs and other measures to reduce impacts

to sturgeon during the digital governor testing. The lack of response by the COE resulted in the additional handling of over sixty sturgeon and finally the confirmed death of 26 sturgeon.

The COE's response that stop logs were not readily available, take too much time to install and remove, that in most cases, sturgeon were not present, are not satisfactory answers, solutions, to the impacts on sturgeon to those with the responsibility to manage these populations.

That said, it seems appropriate that FPOM activate a Sturgeon sub-group to ensure the language in the FPP makes it clear that stop logs are required during digital governor tests and perhaps even more important, explore alternative approaches to effectively screening sturgeon from entering the turbine scroll case.

I've also attached a summary that includes all of Erick's comments and a summary that we provided to our agency staff prior to the November FPOM meeting.