

MEMORANDUM FOR THE RECORD: 22 MCN 11 Missed Sample Due to Brush Failure**SUBJECT:** Missed sample day due to rectangular brush failure

Narrative: The rectangular screen brush failed on Saturday, July 16, at about 1700 hours was operated in manual mode until it was repaired on July 18 at 1430 hours, causing McNary Dam to miss a 24-hour condition sample (FPP, Chapter 5, 2.3.2.5.). The device was found on the downstream limit with the brush still down. There was no alarm. After multiple failed attempts to park the device upstream with the brush raised, an electrician who happened to be on duty for another issue, examined the unit and determined there was a limit switch issue at about 1930 hours. When a limit switch fails, the control program gets false information on the device's location. The electrician was able to park the unit properly and determined the device could be ran manually by using the individual directional switches. After consultation with the project Operations Chief, it was determined the best course would be to replace the limit switch on Monday, July 18. With the unit not functional in automatic mode, the project biologist determined it would be best to not collect a sample from July 17 at 0700 hours to July 18 at 0700 hours as the separator would be routinely unstaffed. The fisheries staff normally monitoring the separator would need to monitor the collection channel and run the rectangular screen cleaning brush manually until the device could be repaired. An electrician replaced the upstream limit switch, which had begun to come apart and removed a piece of metal that was interfering with another magnetic limit switch. The device was set to run in automatic mode every three hours overnight. No further issues occurred and sample collection and GBT monitoring resumed on July 19 at 0700 hours.

- A. Species – N/A.
- B. Origin – N/A.
- C. Length – N/A
- D. Marks and tags – N/A
- E. Marks and Injuries found on carcass – N/A
- F. Cause and Time of Death – N/A
- G. Future and Preventative Measures – Since this failed limit switch was installed, the manufacture has improved the design, which should help to reduce the number of future failures.

Sincerely,
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