

MEMORANDUM FOR THE RECORD 22 LMN 04 Spillway gate 4, 5 & 6 couplers**SUBJECT:** Spillway gate 4, 5 & 6 OOS for motor coupler repair

On the afternoon of April 26, 2022, Lower Monumental Dam spillway flow was reduced to allow the juvenile fish transportation towboat and barge to navigate across the tailrace to the Juvenile Fish Facility. When spillway flow was restored, spillway gate 4 would not operate and was declared out of service at 17:22. Initial troubleshooting efforts found the coupler, which connects the electric motor to the gear reducer, had come loose. Repairs could not be conducted immediately due to the need for mechanical, electrical and crane support to remove the spillway gate motor and reattach the coupler. Crews began work immediately on April 27 and were able to return spillway gate 4 to service at 10:53.

Lower Monumental Dam received new preassembled spillway gate motors, which included factory assembled components including the gear box, breaks and coupler in 2021 (21 MOC 03) and were not anticipating failures. Therefore, crews inspected the remaining operational spillway gate motor couplers to determine if future coupler failures would be anticipated. Upon inspection, crews found that the coupler on spillway gate 3 had also started to come loose and decided to proactively repair the remaining operational spillway gate couplers. It appears that the preassembled coupler was improperly fastened from the factory. Spillway gate 3 was taken out of service on April 27 from 12:03 to 12:35 and spillway gate 5 from 12:50 to 12:57 to prevent prolonged outages in the future. The remainder of the spillway gates that are already out of service will also be inspected and repaired as needed.

- 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 – Inspect and tighten spillway gate motor couplers to prevent prolonged spillway outages.

Sincerely,
Scott St. John
NWW OD-T