

MEMORANDUM FOR THE RECORD

SUBJECT: Possible gate guide or hoist failure in spillbay 15.

Narrative: The morning of May 16, the spillgate in bay 15 began to not respond to automatic adjustment commands. A project engineer examined the gate and found the spillway hoist in bay 15 vibrating excessively and shuddering during operation. This indicates a potentially dangerous situation where the gate's guide wheels are seized and dragging in the slot or some other mechanical issue with the hoist or gearbox. As previously noted, spillway cranes and hoists at McNary Dam have been determined to be underrated for load requirements. Continuing to operate the hoist risks of a catastrophic failure, either dropping the gate or rough locking it in the slot. The hoist was removed from service at 1159 hours May 16, 2022 until the issue can be identified and rectified. The gate, which was at 4 stops, was dogged open at 5 stops, anticipating an increase in river flows in the coming weeks.

Location: McNary spillway.

Method: The gate in bay 15 will remain dogged open at 5 stops. Any spill volume adjustments will occur evenly through the remaining operational bays. May 23 is the first day project staff will be able to take a close look into the issue. The hoist will be removed for inspection and crane 6 or 7 will be used on the gate to determine if the guide and/or guide wheels are the issue. After a determination has been made, a plan will be developed to resolve the issue.

Timeline - Duration: Bay 15 will be dogged open at 5 stops from May 16 until repairs have been made. Limited adjustments to bay 15 settings will be made using a spillway crane as necessary as flow and spill requirements change similar to current operations of bays 2, 6 and 16.

A. Species: NA

B. Origin: NA

C. Length: NA

D. Marks and Tags: NA

E. Marks and Injuries Found on the Carcasses: NA

F. Future and Preventative Measures: Continue to strive to maintain and upgrade the spillway system.

G. Photos Taken: None.

Bobby Johnson
Project Fisheries Biologist
McNary Lock and Dam