

Change Request Number: 11MCN006

Date: December 15, 2010

Proposed by: David Benner, FPC

Location of Change- MCN 3.2.2.3

Proposed Change: South Shore Auxiliary Water Supply System. The south shore auxiliary water is made up of a combination of gravity flow from the forebay and pumped water from the tailrace. The gravity flow supplies the diffusers above weir 253 (diffusers 7 through 14) and the pumps supply the diffusers below weir 253 (diffusers 1 through 7 and the main unit diffusers). Diffuser 7 is where both systems meet and is supplied by either gravity flow or pumped flow. The gravity flow diffusers are regulated by rotovalves and the pumped flow diffusers by sluice gates. If a rotovalve fails, the nearest closed rotovalve will be opened to supply the flow. If more rotovalves fail than there are closed valves the sluice gates in diffusers 3 through 7 will be opened more to provide the required transportation flows. If any sluice gates fail, the sluice gates nearest it will be opened further to make up the water. If one pump fails, the other two pumps will be operated to maintain the facilities within criteria. If two pumps fail, and the outages are expected to be long-term then the middle eight of twelve open floating orifices should be closed and monitored (4,8,14,21,26,32,37,41) before closing main entrances, if extra water is still needed, NFE3 will be closed and SFE1, SFE2, and NFE2 will be operated as deep as possible to maintain the 1' to 2' head differential. . If two pumps fail and the outages are expected to be short-term then NFE3 will be closed and SFE1, SFE2, and NFE2 will be operated as deep as possible to maintain the 1' to 2' head differential. If all three pumps fail and the outage is expected to last six days or longer, the powerhouse transportation channel will be bulkheaded off at the junction pool and SFE1 and SFE2 operated a deep as possible and to maintain the 1' to 2' head differential. If a depth of 6' on both gates cannot be maintained, SFE2 will be closed. If all three pumps fail and the outage is expected to last five days or less, CENWW-OD-T will be notified and in turn will coordinate with NOAA Fisheries and other FPOM participants. If the gravity flow and pumped auxiliary water supply systems both fail, the powerhouse transportation channel will be bulkheaded off at the junction pool, SFE2 closed, and SFE1 operated at 6' below tailwater until repairs can be made.

Reason for Change: McNary has 12 orifice gates operating (1,3,4,8,14,21,26,32,37,41,43,44). Under long-term pump outages, some of these orifices (if not all) should be closed before main entrances.

Comments from others:

USFWS- support

NWW Fisheries- this may work but there are a number of other considerations.

Record of Final Action: approved, with changes, 21 January 2011.