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GO2-17-210

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Subject: **COLUMBGIA GENERATING STATION, DOCKET NO. 50-397**
ANCHOR DARLING DOUBLE DISC GATE VALVE INFORMATION AND STATUS

References:
1) Letter from Greg Krueger (NEI) to John Lubinski (U.S. Nuclear Regulatory Commission), Anchor Darling Double Disc Gate Valve Industry Resolution Plan Update (Project 689), dated August 4, 2017

2) Letter from Joe Pollock (NEI) to Brian Holian (U.S. Nuclear Regulatory Commission), NSIAC Concurrence on Anchor Darling Double Disc Gate Valve Industry Response Actions (Project 689), dated October 26, 2017

3) BWROG Topical Report TP-16-1-112, Revision 4, Recommendations to Resolve Flowserve 10 CFR Part 21 Notification Affecting Anchor Darling Double Disc Gate Valve Wedge Pin Failure

Dear Sir or Madam:

In Reference 1, the Nuclear Energy Institute (NEI) provided the NRC a resolution plan for the U.S. Nuclear Industry to address the known Anchor Darling Double Disk Gate Valve (ADDDGV) issues. Reference 2 indicated each utility will provide a listing of their Anchor Darling valve population with active safety functions along with relevant valve information, including the results of susceptibility evaluations, repair status, and a repair schedule for each susceptible valve not yet repaired. This letter serves to provide this information for Columbia Generating Station.

The Attachment to this letter contains the following information for each ADDDGV.

- Plant Name, Unit, and Valve ID.
- System.
- Valve Functional Description.
- Valve Size.
- Active Safety Function (open, close, both).
- Are multiple design basis post-accident strokes are required (yes/no).

- Expert Panel Risk Ranking (high, medium, low).
- Result of susceptibility evaluation (susceptible or not susceptible).
- Is the susceptibility evaluation in general conformance with TP16-1-112R4 (Reference 3)?
- Does the susceptibility evaluation rely on thread friction? If yes, was the COF greater than 0.10? For cases where thread-friction was relied upon, information is provided whether the coefficient of friction was above or below 0.1.
- Was an initial stem-rotation check performed? If yes, include rotation criteria (i.e. ≤10 degrees or ≤5 degrees).
- Was the diagnostic test data reviewed for failure precursors described in TP16-1-112R4 (Reference 3)?
- The valve's repair status (i.e. repaired or not repaired).

There are no commitments being made to the Nuclear Regulatory Commission by this letter. If you have any questions or require additional information, please contact Ms. D.M. Wolfgramm, Regulatory Compliance Supervisor, at (509) 377-4792.

Executed on this 21st day of December, 2017.

Respectfully,

Gregory V Cullen for ALJavorik

A. L. Javorik
Vice President, Engineering

Attachment: Energy Northwest / Columbia Unit 2 ADDDGV Valve Listing

cc: NRC Region IV Regional Admin
NRC Region IV Project Manager
NRC Senior Resident Inspector
C.D. Sonoda – BPA
W.A. Horin – Winston & Strawn

Energy Northwest / Columbia Unit 2 AD DDGV Listing

Plant Name	Unit	Valve ID	System	Valve Functional Description	Valve Size (inches)	Active Safety Function (Open, Close, Both)	Are multiple design basis post-accident strokes required? (Yes/No)	Expert Panel Risk Ranking (High, Medium, Low)	Result of susceptibility evaluation (susceptible or not susceptible)	Is the susceptibility evaluation in general conformance with TP16-1-112R4?[A] (Yes/No)	Does the susceptibility evaluation rely on thread friction? If yes, was the COF greater than 0.10? (No), (Yes, >0.10), (Yes, ≤0.10)	Was an initial stem-rotation check performed? If yes, include rotation criteria (No), (Yes, ≤10 deg.), (Yes, ≤5 deg.)	Was the diagnostic test data reviewed for failure precursors described in TP16-1-112R4? (Yes/ No)	Valve repair status (repaired or not repaired)
Columbia	2	HPCS-V-1	High Pressure Core Spray (HPCS)	HPCS-P-1 Suction from Condensate Storage Tank	14	Close	No	High	Not Susceptible	Yes	No	Yes, ≤ 5 deg	Yes	N/A[2]
Columbia	2	HPCS-V-4	High Pressure Core Spray (HPCS)	HPCS-P-1 Discharge to Reactor Pressure Vessel (Injection Valve)	12	Both	No	High	Susceptible	Yes	No	Yes, ≤ 5 deg	Yes	Repaired[1]
Columbia	2	HPCS-V-12	High Pressure Core Spray (HPCS)	HPCS-P-1 Minimum Flow Valve	4	Both	No	High	Susceptible	Yes	No	Yes, ≤ 5 deg	Yes	Repaired[1]
Columbia	2	HPCS-V-15	High Pressure Core Spray (HPCS)	HPCS-P-1 Suction From The Suppression Pool	18	Both	No	High	Susceptible	Yes	No	Yes, ≤ 5 deg	Yes	Repaired[1]

[A] Applied Wedge Pin Torque must bound anticipated design basis operating torque requirements and current maximum total torque

(1) The repair was performed during R23 refueling outage (Spring 2017) for these MOV's. The repair consisted of a new stem with an integral backseat, upgrading the wedge pin material (Inconel), and torqued the stem/wedge connection to above actuator torque rating & capability:
(2) HPCS-V-1 valve's wedge pin shear is bounding the anticipated design basis operating torque requirements and current maximum total torque.