



December 14, 2017

ULNRC-06402

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Ladies and Gentlemen:

**DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
UNION ELECTRIC CO.
RENEWED FACILITY OPERATING LICENSE NPF-30
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"

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 the Callaway Plant.

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 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 TP-16-1-112 R4 (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 on whether the coefficient of friction was above or below 0.1.
- Was an initial stem-rotation check performed? If yes, rotation criteria (i.e., ≤ 10 degrees or ≤ 5 degrees) are included.
- Was the diagnostic test data reviewed for failure precursors described in TP-16-1-112 R4 (Reference 3)?
- The valve's repair status (i.e. repaired or not repaired).
- A repair schedule for each susceptible valve.

This letter does not contain new commitments.

Should you have any questions or require additional information, please contact me at (573) 310-7025 or Terry Becker, Supervising Engineer at (573) 659-6068.

Sincerely,



Roger Wink
Manager, Regulatory Affairs

PIN
6381

Attachment: Callaway Plant ADDDGV Valve Listing

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cc: Mr. Kriss M. Kennedy
Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
1600 East Lamar Boulevard
Arlington, TX 76011-4511

Senior Resident Inspector
Callaway Resident Office
U.S. Nuclear Regulatory Commission
8201 NRC Road
Steedman, MO 65077

Mr. L. John Klos
Project Manager, Callaway Plant
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Mail Stop O8H4
Washington, DC 20555-0001

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Callaway Plant ADDDGV Valve Listing

Plant	Callaway	Callaway	Callaway
Unit	Unit 1	Unit 1	Unit 1
Valve ID	EGHV0058	EGHV0059	EGHV0060
System	Component Cooling Water (CCW)	Component Cooling Water (CCW)	Component Cooling Water (CCW)
Valve Functional Description	CCW to Containment Outer Isolation	CCW from Containment Outer Isolation	CCW from Reactor Coolant System from Containment Inner Isolation
Valve Size	12", 150 pressure class	12", 150 pressure class	12", 150 pressure class
Active Safety Function	Close	Close	Close
Multiple Design Basis Post-Accident Strokes Required?	No	No	No
Risk Ranking	Low	Low	Low
Result of Susceptibility Evaluation	Susceptible	Susceptible	Susceptible
Susceptibility Evaluation IAW TP16-1-112R4?	Yes, Priority 3B (Low risk safety related valve with no evidence of separation); pressed on stem collar	Yes, Priority 3B (Low risk safety related valve with no evidence of separation); pressed on stem collar	Yes, Priority 1C (stem/disc connection was assembled by plant maintenance, no record of adequate stem pre-torque); pressed on stem collar
Susceptibility Evaluation Reliant on Thread Friction?	No	Yes, thread friction (COF=0.42) was credited in evaluation showing that torque applied during a 2010 stall event was not adequate to fail the pin. However, the evaluation remains SAT if COF=0.1 is used. Additionally, the pin's shear torque excluding thread friction has 80% margin over design basis torque	No
Initial Stem Rotation Check Performed?	Completed SAT; rotation criteria ≤ 5 degrees	Completed SAT; rotation criteria ≤ 5 degrees	Completed SAT; rotation criteria ≤ 5 degrees
Diagnostic Test Data Reviewed for Failure Precursors IAW TP16-1-112R4?	Test data reviewed SAT; No failure precursors observed	Test data reviewed SAT; No failure precursors observed	Test data reviewed SAT; No failure precursors observed
Repair Status	Not repaired	Not repaired	Not repaired
Repair Schedule	Repairs tentatively planned for next refueling outage in Spring 2019.	Repairs tentatively planned for next refueling outage in Spring 2019.	Repairs tentatively planned for next refueling outage in Spring 2019.