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L-XE-17-015

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

Prairie Island Nuclear Generating Plant
Units 1 and 2
Docket 50-282 and 50-306
Renewed Facility Operating License Nos.
DPR-42 and DPR-60

Monticello Nuclear Generating Plant
Docket 50-263
Renewed Facility Operating License
No. DPR-22

Anchor Darling Double Disc Gate Valve Information and Status

- References:
- 1) Letter from (NRC) to Greg Krueger (NEI), "Response from the Nuclear Regulatory Commission Regarding the Anchor Darling Double Disc Gate Valve Industry Resolution Plan", dated July 31, 2017
 - 2) Letter from Greg Krueger (NEI) to John Lubinski (NRC), "Anchor Darling Double Disc Gate Valve Industry Resolution Plan Update (Project 689)", dated August 4, 2017
 - 3) Letter from Joe Pollock (NEI) to Brian Holian (NRC), "NSIAC Concurrence on Anchor Darling Double Disc Gate Valve Industry Response Actions (Project 689)", dated October 26, 2017
 - 4) Boiling Water Reactors Owners Group (BWROG), Topical Report TP16-1-112, Revision 4, "Recommendations to Resolve Flowserve 10 CFR Part 21 Notification Affecting Anchor Darling Double Disc Gate Valve Wedge Pin Failures (Revision 4)", dated August 2017

Northern States Power Company, a Minnesota Corporation (NSPM), doing business as Xcel Energy, hereby submits, in accordance with Reference 1, the requested Anchor Darling Double Disc Gate Valve (ADDDGV) information for the Prairie Island Nuclear Generating Plant (PINGP) and the Monticello Nuclear Generating Plant (MNGP).

In Reference 2, the Nuclear Energy Institute (NEI) provided the U.S. Nuclear Regulatory Commission (NRC) a resolution plan for the U.S. nuclear industry to address the known ADDDGV issues. Reference 3 indicated that 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.

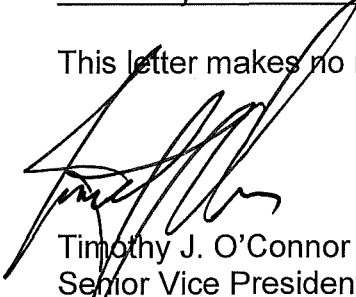
The enclosure to this letter contains the following information for each ADDDGV:

- Plant Name, Unit, and Valve Identification (ID)
- System
- Valve Functional Description
- Valve Size
- Active Safety Function (open, close, both)
- Are multiple design basis post-accident strokes required (yes/no)?
- Motor Operated Valve (MOV) Expert Panel Risk Ranking (high, medium, low)
- Result of susceptibility evaluation (susceptible or not susceptible)
- Is the susceptibility evaluation in general conformance with BWROG TP16-1-112_R4 (Reference 4)?
- Does the susceptibility evaluation rely on thread friction? If yes, was the coefficient of friction (COF) greater than 0.10? For cases where thread-friction was relied upon, information is provided whether the COF 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 BWROG TP16-1-112_R4 (Reference 4)?
- The valve's repair status (i.e., repaired or not repaired)
- A repair schedule for each susceptible valve

Should you have any questions or require additional information, please contact Mr. Richard Loeffler at (612) 342-8981.

Summary of Commitments

This letter makes no new commitments and no revisions to existing commitments.



Timothy J. O'Connor
Senior Vice President and Chief Nuclear Officer
Northern States Power Company – Minnesota

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Enclosure

cc: Administrator, Region III, USNRC
Project Manager, Monticello and Prairie Island, USNRC
Resident Inspector, Monticello, USNRC
Resident Inspector, Prairie Island, USNRC
State of Minnesota

Xcel Energy Monticello (MT) and Prairie Island (PI) ADDEDGV Listing

Plant Name	Unit	Valve ID	System	Valve Functional Description	Valve Size (inches)	Active Safety Function	Are multiple design basis post-accident strokes required?	Expert Panel Risk Ranking	Result of susceptibility evaluation	Is the susceptibility evaluation in general conformance with TP16-1-112R4? ^(A)	Does the susceptibility evaluation rely on thread friction? If yes, was the COF greater than 0.10?	Was an initial stem-rotation check performed? If yes, include rotation criteria	Was the diagnostic test data reviewed for failure precursors described in TP16-1-112R4?	Valve repair status
						(Open, Close, Both)	(Yes/No)	(High, Medium, Low)	(susceptible or not susceptible)	(Yes/No)	(No), (Yes, >0.10), (Yes, ≤0.10)	(No), (Yes, ≤10 deg.), (Yes, ≤5 deg.)	(Yes/ No)	(repaired or not repaired)
MT	N/A	MO-2030	Residual Heat Removal (RHR)	RHR Shutdown Cooling Outboard Isolation Valve	18	Close	No	Low	Not Susceptible	Yes	Yes, ≤0.10	Yes, ≤5 deg	Yes	Not Repaired ⁽³⁾
MT	N/A	MO-2035	High Pressure Coolant Injection (HPCI)	HPCI Steam Line Outboard Isolation Valve	8	Close	No	Low	Not Susceptible	Yes	No	No	Yes	Repaired ⁽¹⁾
MT	N/A	MO-2071	High Pressure Coolant Injection (HPCI)	HPCI Test Return Isolation Valve	8	Close	No	Low	Not Susceptible	Yes	No	No	Yes	Repaired ⁽¹⁾
MT	N/A	MO-2397	Reactor Water Cleanup (RWCU)	RWCU Inlet Inboard Isolation Valve	4	Close	No	Low	Not Susceptible	Yes	No	No	Yes	Repaired ⁽¹⁾
MT	N/A	MO-2398	Reactor Water Cleanup (RWCU)	RWCU Inlet Outboard Isolation Valve	4	Close	No	Low	Not Susceptible	Yes	No	Yes, ≤5 deg	Yes	Repaired ⁽²⁾
PI	1	MV-32115	Component Cooling (CC)	122 Spent Fuel Pool Heat Exchanger Inlet Header Motor Valve	8	Close	No	Low	Not Susceptible	Yes	No	No	Yes	Not Repaired ⁽³⁾
PI	2	MV-32117	Component Cooling (CC)	121 Spent Fuel Pool Heat Exchanger Inlet Header Motor Valve	8	Close	No	Low	Not Susceptible	Yes	No	No	Yes	Not Repaired ⁽³⁾

^(A) Applied Wedge Pin Torque must bound anticipated design basis operating torque requirements and current maximum total torque.

[Table footnotes]

(1) The repair of this MOV occurred in 2013 and included the disassembly of the valve and a re-torque of the upper wedge / stem connection. The pin was not replaced with an Inconel (high strength pin). The original specified pin material was used and the stem was replaced with a two-piece (press-on collar) assembly. Pre-load / torque was applied to ensure the wedge pin was not in the torque load-path. It was confirmed that the applied pre-load was not sufficient to affect the pressed on collar.

(2) The repair of this MOV occurred in 2017 and included a complete valve replacement. The replacement valve was supplied with a one piece (integral) stem. The pin was not replaced with an Inconel (high strength pin). The original specified pin material was used. The valve was supplied by the vendor with sufficient preload on the stem to disc connection to encompass all operational scenarios.

(3) These valves were not repaired as they were deemed “Not Susceptible” to the failure outlined in the 10 CFR Part 21 notification / BWROG TP16-1-112r4 guidance document.