

July 31, 2017

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SUBJECT: RESPONSE FROM THE NUCLEAR REGULATORY COMMISSION
REGARDING THE ANCHOR DARLING DOUBLE DISC GATE VALVE
INDUSTRY RESOLUTION PLAN

Dear Mr. Krueger:

This letter is to acknowledge receipt of your letter dated July 14, 2017 (ADAMS Package Accession No. ML17209A018), as well as to provide confirmation of the Nuclear Regulatory Commission's (NRC's) understanding of topics raised in your letter and at the June 29, 2017, public meeting.

It is the NRC's understanding that the Nuclear Energy Institute (NEI) is coordinating an industry response, and a potential commitment to, an initiative to address the possibility of stem/disk separations in Anchor/Darling double-disc gate valves. The NRC also understands that the proposal for such actions is not complete, but it is likely to include the following:

1. Industry identification of the population of Anchor/Darling double-disc gate valves at each facility;
2. Determination of valves that are susceptible to stem/disk separation based on the ability of the valve actuator to cause wedge pin failure; and
3. Repair/replace susceptible valve internals with components that are not subject to this failure mode.

Additionally, the NRC understands that repair/replacement of valve internals will be prioritized based on risk and valve function as follows:

Category A – valves that are high or medium risk and traverse multiple times to perform their safety function. Repair next outage/within 2 years;

Category B – valves that are high or medium risk and only traverse once, open or closed, to perform their safety function. Repair at next outage or pass diagnostic test during the next outage and repair within 2 outages/4 years; and

Category C – valves that are low risk. Repair at next outage or pass diagnostic test during each of the next 2 outages and repair within 3 outages/6 years.

The NRC indicated that it would monitor the industry's efforts in developing a voluntary initiative to address these valves while the staff continues to develop a generic communication to address this issue in the absence of a suitable voluntary initiative with regulatory commitments.

With regard to the industry efforts to develop a voluntary initiative, the NRC seeks a better understanding of the following:

1. The industry commitment response strategy. The NRC seeks to understand whether each utility will commit to the potential initiative and when the NRC would be informed of such commitment. As noted in the July letter, industry is scheduled to communicate this to the NRC by August 4, 2017;
2. Whether the details of the initiative will be provided to NRC on the docket. If proprietary material is provided, it may be withheld from public disclosure in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public inspections, exemptions, requests for withholding;" and
3. Whether the initiative, as provided to the NRC, would include:
 - a. Proposed repair/replacement plan (i.e., what actions will be taken to repair the valves including the components to be replaced);
 - b. Proposed schedule for repairs. As part of this response, NRC would need to understand industry's justification for including valves required to open to perform their safety function in Category B;
 - c. Proposed methodology for determining valve risk ranking; and
 - d. Proposed methodology for determining valve susceptibility (i.e., the method by which the susceptibility of the wedge pin failure will be determined).

The NRC currently does not have either a commitment that all plants will implement the initiative or a sufficient understanding of the information identified above which would determine the adequacy of the initiative. The NRC is currently developing a Bulletin to request information that would address the NRC's concerns. The Bulletin may be issued to all operating plants as early as mid-September. The staff anticipates that the type of information required to assess the need for further regulatory action would include the following items:

1. Identify the population of Anchor/Darling double-disc gate valves present at the facility. This would include providing relevant information such as size, system, and safety function (open/close) of the valve.
2. For each of the valves identified in item 1, provide the methodology and results of an analysis of the risk ranking of each valve (i.e., high, medium, low).
3. For each of the valves identified in item 2, provide the methodology and results of an analysis to determine whether each valve is susceptible to wedge pin failure.
4. For each of the valves identified in item 3, describe the repairs that have been completed or are planned and why those repairs are sufficient to address the issue under consideration.
5. For each of the valves identified in item 3, provide a schedule for accomplishing the proposed repairs and describe why the proposed schedule is acceptable.

In keeping with the principles of good regulation, if industry can effectively and efficiently address the overall safety concerns with the Anchor/Darling double-disc gate valves, the NRC will re-evaluate the need to pursue generic communication via Bulletin. In either case, the NRC will provide an independent review of industry's corrective actions for this issue.

If you have questions concerning this letter please contact John Lubinski of my staff at John.Lubinski@nrc.gov or 301-415-3298.

Sincerely,

/RA/

Brian E. Holian, Acting Director
Office of Nuclear Reactor Regulation

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REGARDING THE ANCHOR DARLING DOUBLE DISC GATE VALVE
INDUSTRY RESOLUTION PLAN DATED: JULY 31, 2017

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