

From: [Guzman, Richard](#)
To: Shayan.Sinha@dominionenergy.com
Subject: RE: [Identification and Correction in SE] Millstone Power Station, Unit No. 3 - Issuance of Amendment No. 279
Re: Addition of Analytical Methodology to the COLR for a Large Break Loss-of-Coolant Accident (EPID L-2020-LLA-0242)
Date: Tuesday, October 19, 2021 4:05:23 PM

Shayan,

Thanks for providing your feedback on the subject license amendment issued on October 5, 2021. The staff has reviewed your comments dated October 13, 2021 (message below) and acknowledges there were a few inaccuracies in the safety evaluation (SE), resulting in the need for clarification as follows:

1. *[DENC Comment] The SE accurately states that Dominion did not utilize the FSLOCA methodology to demonstrate compliance with 10 CFR 50.46 (b)(5). However, Dominion believes that the characterizations that the ASTRUM methodology addresses 10 CFR 50.46(b)(5) & long term core cooling are not representative of the MPS3 FSAR. The second-to-last paragraph of the Enclosure 2 SE, Section 3.3 (page 8) references MPS3 FSAR Section 15.6.5.2.6. This referenced MPS3 FSAR Section clarifies (emphasis added):*

The actions, automatic or manual, that are currently in place at these plants to maintain long term cooling remain unchanged with the application of ASTRUM methodology (WCAP-16009-P-A).

In other words, the actions mentioned above demonstrate compliance with 10 CFR 50.46(b)(5) rather than application of the ASTRUM methodology. MPS3 Stretch Power Uprate (SPU) LAR, Attachment 5, Section 2.8.5.6.3.2.5.2 and MPS3 Measurement Uncertainty Recapture (MUR) LAR, Attachment 4, Page 57/162 (item #28) provide more detail on the actions to maintain long term cooling. The linkage between 50.46(b)(5) compliance and the ASTRUM methodology appears in the SE Section 3.3 paragraph cited above, Section 3.4 (page 8) and the second bullet of Section 3.5 (page 15).

NRC Staff Response: The NRC staff acknowledges the error in the SE; characterizing that the ASTRUM methodology application demonstrates compliance with 10 CFR 50.46(b)(5) and long term cooling is incorrect and inconsistent with the referenced FSAR Section 15.6.5.2.6. The NRC staff is also in agreement that the referenced FSAR section 15.6.5.2.6 (ADAMS Accession No. ML21201A171), the stated SPU LAR section (ADAMS Accession No. ML072000400) and the MUR LAR section (ADAMS Accession No. ML20324A703) as explained and underscored in your 10/13/2021 comments is the correct rationale for clarifying the identified inaccuracy.

2. *[DENC Comment] SE Section 3.2 (page 5), first and third paragraphs under "Methodology" note that the FSLOCA methodology is applicable to 2-loop PWRs with cold leg injections. However, the FSLOCA Topical Report (WCAP-16996) states that the methodology is applicable to 3- and 4-loop PWRs with cold leg injections.*

NRC Staff Response: The staff agrees; this was a typo and should have been "3-loop" instead of "2-loop" as follows:

The previous NRC-approved best-estimate LBLOCA analysis

(Westinghouse) methodology described in WCAP-16009-P-A (Reference 6) is termed the Automated Statistical Treatment of Uncertainty Method (ASTRUM) EM. This methodology is applicable to the Westinghouse-designed (a) 3-loop and 4-loop PWRs with ECCS injection into the reactor coolant system (RCS) cold legs and...

3. *[DENC Comment] Minor comment on SE Section 3.0 (page 4), bullet (b) says that the Staff evaluated whether the “regulations” in Section 2.3 were satisfied, but Section 2.3 covers regulatory requirements and guidance.*

NRC Staff Response: The NRC staff agrees this is a minor comment as the word “regulations” was intended to refer to the applicable regulatory requirements and guidance listed in Section 2.3. Please note however, the first sentence of Section 2.3 states, “the NRC staff considered the following regulations during its review of the proposed changes,” which is not inconsistent with the subsequent use of the word “regulations” in Section 3.0.

4. *[DENC Comment] Minor comment on SE Section 3.1 (page 4), the third paragraph says that WCAP-12945-P-A was “superseded,” however the term “replaced” is recommended instead. WCAP-12945 is not “superseded” in the sense that it is no longer a valid document, it is simply not currently used at MPS3.*

NRC Staff Response: The NRC staff agrees this is a minor comment and the word “replaced” is the more optimal term (instead of “superseded”) for the reasons stated in your 10/13/2021 message (i.e., WCAP-12945 remains a valid document, but not currently used at MPS3).

The identified discrepancies above are considered minor and do not warrant a formal correction letter as the license and TS pages are not impacted and the staff’s technical basis and safety conclusions in the safety evaluation are not impacted as originally issued in Amendment No. 279. Please consider this e-mail communication as documentation of the inaccuracies and/or minor errors as stated above. This communication will be added to ADAMS as an official agency record. If you have any questions or concerns on this matter, please contact me.

Thank you,

Rich Guzman

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From: Shayan.Sinha@dominionenergy.com <Shayan.Sinha@dominionenergy.com>

Sent: Wednesday, October 13, 2021 3:01 PM

To: Guzman, Richard <Richard.Guzman@nrc.gov>

Subject: [External_Sender] FW: Millstone Power Station, Unit No. 3 - Issuance of Amendment No. 279 Regarding Addition of Analytical Methodology to the Core Operating Limits Report for a Large Break Loss-of-Coolant Accident (EPID L-2020-LLA-0242)

Rich,

Dominion had some feedback on the subject SE for the MPS3 FSLOCA LAR – please see below:

1. The SE accurately states that Dominion did not utilize the FSLOCA methodology to demonstrate compliance with 10 CFR 50.46 (b)(5). However, Dominion believes that the characterizations that the ASTRUM methodology addresses 10 CFR 50.46(b)(5) & long term core cooling are not representative of the MPS3 FSAR. The second-to-last paragraph of the Enclosure 2 SE, Section 3.3 (page 8) references MPS3 FSAR Section 15.6.5.2.6. This referenced MPS3 FSAR Section clarifies (emphasis added):

The actions, automatic or manual, that are currently in place at these plants to maintain long term cooling remain unchanged with the application of ASTRUM methodology (WCAP-16009-P-A).

In other words, the actions mentioned above demonstrate compliance with 10 CFR 50.46(b) (5) rather than application of the ASTRUM methodology. MPS3 Stretch Power Uprate (SPU) LAR, Attachment 5, Section 2.8.5.6.3.2.5.2 and MPS3 Measurement Uncertainty Recapture (MUR) LAR, Attachment 4, Page 57/162 (item #28) provide more detail on the actions to maintain long term cooling. The linkage between 50.46(b)(5) compliance and the ASTRUM methodology appears in the SE Section 3.3 paragraph cited above, Section 3.4 (page 8) and the second bullet of Section 3.5 (page 15).

2. SE Section 3.2 (page 5), first and third paragraphs under “Methodology” note that the FSLOCA methodology is applicable to 2-loop PWRs with cold leg injections. However, the FSLOCA Topical Report (WCAP-16996) states that the methodology is applicable to 3- and 4-loop PWRs with cold leg injections.
3. Minor comment on SE Section 3.0 (page 4), bullet (b) says that the Staff evaluated whether the “regulations” in Section 2.3 were satisfied, but Section 2.3 covers regulatory requirements and guidance.
4. Minor comment on SE Section 3.1 (page 4), the third paragraph says that WCAP-12945-P-A was “superseded,” however the term “replaced” is recommended instead. WCAP-12945 is not “superseded” in the sense that it is no longer a valid document, it is simply not currently used at MPS3.

If you have any questions or need to discuss further, please let me know.

Thanks,
Shayan Sinha