NuScaleTRRaisPEm Resource

From: Foster, Rocky
Sent: Tuesday, November 01, 2016 8:18 AM
To: Bergman, Tom
Cc: 'smirsky@nuscalepower.com'; Pope, Steven (spope@nuscalepower.com); Unikewicz, Steve; NuScaleTRRaisPEm Resource; Tonacci, Mark; Gardner, William; Mitchell, Matthew; Cranston, Gregory; Foster, Rocky
Subject: Request for Additional Information Letter No. 7 for the Review of NuScale Topical Report, TR-0915-17565, "Accident Source Term Methodology," Revision 1 (CAC NO. RQ6004)
Attachments: Final RAI 07 eRAI_8694 AST TR.pdf

Tom,

Attached please find NRC staff's request for additional information concerning NuScale topical report entitled, "Accident Source Term Methodology," Revision 1.

Please submit your response by March 1, 2017, to the NRC Document Control Desk. If you have any questions, please feel free to contact me.

Rocky D. Foster
Project Manager
US Nuclear Regulatory Commission
Office of New Reactors
Division of New Reactor Licensing
Licensing Branch 1 (LB1)
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Hearing Identifier: NuScale_SMR_DC_TR_Public
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Subject: Request for Additional Information Letter No. 7 for the Review of NuScale Topical Report, TR-0915-17565, “Accident Source Term Methodology,” Revision 1 (CAC NO. RQ6004)
Sent Date: 11/1/2016 8:17:41 AM
Received Date: 11/1/2016 8:17:42 AM
From: Foster, Rocky

Created By: Rocky.Foster@nrc.gov

Recipients:
"'smirsky@nuscalepower.com'" <smirsky@nuscalepower.com>
Tracking Status: None
"Pope, Steven (spope@nuscalepower.com)" <spope@nuscalepower.com>
Tracking Status: None
"Unikewicz, Steve" <sunikewicz@nuscalepower.com>
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Tracking Status: None

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Options
Priority: Standard
Return Notification: No
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Sensitivity: Normal
Expiration Date:
Recipients Received:

November 1, 2016

Mr. Thomas Bergman
Vice President, Regulatory Affairs
NuScale Power, LLC
1100 NE Circle Boulevard, Suite 200
Corvallis, OR 97330

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 7 FOR THE REVIEW OF NUSCALE TOPICAL REPORT, TR-0915-17565, "ACCIDENT SOURCE TERM METHODOLOGY, REVISION1 (CAC NO. RQ6004)

Dear Mr. Bergman:

In an April 8, 2016, letter, NuScale Power, LLC, submitted for U.S. Nuclear Regulatory Commission (NRC) staff review Topical Report (TR) TR-0915-17565, "Accident Source Term Methodology," Revision 1. The NRC staff is performing a detailed review of this topical report to enable the staff to reach a conclusion on the safety of the proposed application. The NRC staff has identified that additional information is needed to continue portions of the review. The NRC staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, NuScale is requested to respond within 120 calendar days of the date of this letter. If changes are needed to the topical report, the NRC staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, you may contact me at 301-415-5787.

Sincerely,

/**RA**/

Rocky D. Foster
Project Manager
Licensing Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket No. PROJ0769
eRAI Tracking No. 8694

Enclosure: Request for Additional Information

Request for Additional Information 7
Issue Date: 11/01/2016
Application Title: NuScale Topical Report
Operating Company: NuScale
Docket No. PROJ0769
Review Section: 15.00.03 - Design Basis Accidents Radiological Consequence Analyses for Advanced Light Water Reactors
Application Section:

QUESTIONS

15.00.03-1

10 CFR 52.47(a)(2)(iv) requires that an application for a design certification include a final safety analysis report that provides a description and safety assessment of the facility. The safety assessment analyses are done, in part, to show compliance with the radiological consequence evaluation factors in 52.47(a)(2)(iv)(A) and 52.47(a)(2)(iv)(B) for offsite doses, and 10 CFR 50, Appendix A, GDC 19 for control room radiological habitability, and the requirements related to the technical support center in 10 CFR 52.47(b)(8) and (b)(11) and Paragraph IV.E.8 of Appendix E to 10 CFR Part 50. The radiological consequences of design basis accidents are evaluated against these regulatory requirements and the dose acceptance criteria given in NuScale Design Specific Review Standard Section 15.0.3. Regulatory Guide 1.183 "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors" provides dose assessment guidance.

Question:

Section 4.5 of the Topical Report presents a post-accident pH methodology similar to ones used in previous design certifications. In Section 5.8 the applicant presents the results of an example post-accident pH calculation. However, to determine the acceptability of the applicant's methodology, the staff will perform a sensitivity analysis of the example post-accident pH calculation which will require access to the input values used in the example calculation. Provide the example post-accident pH analysis calculation, including the input values used, such that the staff can confirm the acceptability of the proposed methodology.

ENCLOSURE