UNITED STATES
NUCLEAR REGULATORY COMMISSION
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Mr. C. Rick Grantom
C. R. Grantom P.E. & Assoc. LLC
22503 W Shorewood Loop
Huffman, TX 77336-2544

Dr. Robert J. Budnitz
Lawrence Berkeley National Laboratory
MS: 74R0120
Earth Sciences Division
One Cyclotron Road
Berkeley, CA 94720-8099

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION ACCEPTANCE OF ASME/ANS RA- S CASE 1

Dear Mr. Grantom and Dr. Budnitz,

On November 22, 2017, the American Society for Mechanical Engineers (ASME) and the American Nuclear Society (ANS) published ASME/ANS RA-S Case1 "Case for ASME/ANS RA-Sb-2013 Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment of Nuclear Power Plant Applications" (hereafter "the Code Case"). This Code Case is a proposed alternative approach to Part 5, Seismic Probabilistic Risk Assessment (PRA), of the ASME/ANS PRA standard (ASME/ANS RA-Sb-2013). The NRC staff has reviewed this Code Case for use in regulatory applications.

The NRC staff finds the process for developing a PRA for seismic events proposed in ASME/ANS RA-S Case 1 acceptable for the following reasons:

- The NRC staff has determined that the alternative approach described in the Code Case is consistent with Part 5 of the ASME/ANS PRA standard which the staff has reviewed and endorsed in Regulatory Guide 1.200 (ML090410014).

- The NRC staff has participated in the development of the Code Case, reviewed the Code Case provisions, and discussed resolution of staff review comments through public meetings on the Code Case that involved participation of designated members of the ASME/ANS Joint Committee on Nuclear Risk Management (JCNRM), which developed the Code Case.

Subject to the following conditions, the NRC staff does not currently object to licensee's use of the Code Case:

- The licensee should adhere to the Code Case in its entirety. That is, the licensee in

developing their seismic PRA should not use both Part 5 of the standard and the Code Case.

- The licensee should include the staff's clarification comments (see Enclosure 1). These clarifications are necessary to support the peer reviews and reduce potential issues with the interpretation of the intent of the Code Case provisions.

- The licensee, in developing their seismic PRA using the Code Case should identify and document whether a new method has been used. A PRA method is new if it has not been reviewed by the NRC staff. There are two ways new methods are considered accepted by the NRC staff: (1) they have been explicitly accepted by the NRC (i.e., they have been reviewed, and the acceptance has been documented in a safety evaluation, frequently-asked-questions, or other publicly available organizational endorsement), or (2) they have been implicitly accepted by the NRC (i.e., there has been no documented denial) in multiple risk-informed licensing applications.

The staff recognizes that the definition of a new PRA method is currently being assessed separately by the industry and NRC staff. This definition, once finalized, will supersede the definition provided above.

Licensees may use the Code Case on an interim basis. However, the NRC has not endorsed the Code Case. Licensees may choose to retain their facility's current seismic PRA approach, or revise it consistent with the Code Case. Any licensee use of the Code Case is voluntary. Further, the NRC does not plan to endorse the Code Case in the next revision of RG 1.200 (estimated draft revision for public comment 2018 and publication 2019). Instead, the NRC staff currently plans to consider endorsement of Part 5 of the next edition of the ASME/ANS PRA standard in the next revision to RG 1.200. In updating RG 1.200, the staff may ultimately take positions different from those in either the Code Case or Part 5 of the next edition of the ASME/ANS PRA standard. The NRC's ultimate endorsement (or non-endorsement) of concepts or features of the Code Case incorporated into Part 5 of the next edition of the ASME/ANS PRA standard, or parts thereof, would not constitute backfitting.

The NRC may elect to periodically conduct audits of a licensee's implementation of the Code Case. The purpose of the audits is to further NRC confidence in the Code Case and to provide continued monitoring and oversight of PRA acceptability.

The NRC looks forward to continuing to work with ASME and ANS on fostering an environment conducive to achieving the full benefit of risk-informed regulation.

Please contact Mary Drouin at 301-415-2091, mary.drouin@nrc.gov if you have any questions.

Sincerely,

/RA/

Brian E. Thomas, Director
NRC Standards Executive
Division of Engineering
Office of Research

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