ASME/ANS RA-S INTERPRETATIONS VOLUME 2

Replies to Technical Inquiries April 2007 Through June 2008

FOREWORD

Each interpretation applies to the edition and supplements listed for that inquiry. Many of the Rules on which the interpretations have been made have been revised in later editions or supplements. Where such revisions have been made, the interpretations may no longer be applicable to the revised requirement.

ASME procedures provide for reconsideration of these interpretations when or if additional information is available which might affect any interpretation.

Further, persons aggrieved by any interpretation may appeal to the cognizant ASME committee or subcommittee. ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity.

An interpretation applies to the edition or addenda stated in the interpretation itself, or, if none is stated, to the latest published edition and addenda at the time it is issued. Subsequent revisions to the rules may have superseded the reply.

For detailed instructions on the preparation of technical inquiries, refer to Preparation of Technical Inquiries to the Committee on Nuclear Risk Management (p. v of ASME/ANS RA-S–2008).

Interpretation: 2-1

Subject: ASME RA-Sb–2005; Table 4.5.1-2(c), Supporting Requirement IE-C4(c)

Date Issued: June 17, 2008

File: CNRM Tracking No. 07-207

Question: In criterion (c), is it the case that the parenthetical "(based on supporting calculations)" may be met through either of the following means of demonstrating that the need to curtail normal plant operation following the initiating event conditions in question would be unlikely:
(a) a formal calculation in the sense generally applied by nuclear power plant licensees (e.g., a documented analysis with formal preparer, reviewer, and acceptance sign-offs), or
(b) through alternative means of establishing the "high degree of certainty" (e.g., documented reference to historical experience with similar events, documented reference to applicable plant procedural guidance for dealing with such initiating event conditions, or similar documented bases for reaching this conclusion)?

Reply: Yes.

Interpretation: 2-2

Subject: ASME RA-Sb–2005, Section 4, Risk Assessment Technical Requirements Table: 4.5.5-2(d), Index number HR-D6

Date Issued: June 17, 2008

File: CNRM Tracking No. 08-506

Question: The basic human error probabilities presented in NUREG/CR-4772 are medians with an associated error factor. These values are known to be conservative with respect to the equivalent values in NUREG/CR-1278. When quantifying the HEPs using the ASEP detailed approach, is it acceptable to treat these median values as mean values to remove some of the conservatism?

Reply: No.

ASME RA-S/ANS INTERPRETATIONS VOLUME 1

Replies to Technical Inquiries April 2006 Through March 2007

FOREWORD

Each interpretation applies to the edition and supplements listed for that inquiry. Many of the Rules on which the interpretations have been made have been revised in later editions or supplements. Where such revisions have been made, the interpretations may no longer be applicable to the revised requirement.

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Interpretation: 1-1

Subject: ASME RA-Sb–2005; Table 4.5.6-2(c), Supporting Requirements for HLR DA-C, Index number DA-C6

Date Issued: April 4, 2006

File: 05-1605

Question: Should the second action verb in Supporting Requirement DA-C6 of RA-S–2002, Addendum a (and unchanged in Addendum b) be interpreted as follows: those (additional) demands that might have been performed during troubleshooting to determine the cause of the fault should not be included, since they are part of the repair process? A single demand related to full functional testing of the component after maintenance, but prior to declaring it operable, may or may not be included, depending on the relationship between the maintenance and the functional test.

Reply: Yes.

Interpretation: 1-2

Subject: ASME RA-Sa–2003, Section 4, Risk Assessment Technical Requirements

Date Issued: April 4, 2006

File: 06-609

Question: Is it a requirement of Table 4.5.4-2(c), Index number SY-C1, Table 4.5.8-2(f), Index number QU-F1, and Table 4.5.9-2(g), Index number LE-G5 that the lists prefaced by "documentation typically includes?" are provided as minimum requirements for documentation?

Reply: No, the lists in SY-C1, QU-F1, and LE-G5 are provided as examples of documentation forms or types that may be used to meet the documentation requirements of the PRA Element. They should not be interpreted as specific requirements for the documentation. This is clarified by the language used in Addendum b; for specific locations, see Note below.

NOTE: When the inquiry was posed, the supporting requirements designator correctly referred to "documentation" lists. With the release of Addendum b, these designators have changed, and there are "documentation" lists in other tables of Section 4. These are as follows:

Table 4.5.1-2(d)	IE-D2
Table 4.5.2-2(c)	AS-C2
Table 4.5.3-2(c)	SC-C2
Table 4.5.4-2(c)	SY-C2
Table 4.5.5-2(i)	HR-I2
Table 4.5.6-2(e)	DA-E2
Table 4.5.7-2(f)	IF-F2
Table 4.5.8-2(f)	QU-F2 (An error in the Standard identifies this as QE-F2.)
Table 4.5.9-2(g)	LE-G2

Interpretation: 1-3

Subject: ASME RA-Sa–2003; Section 4, Risk Assessment Technical Requirements; Table 4.5.5-2(g), Index number HR-G3

Date Issued: April 4, 2006

File: 06-610

Question: Is it the intent of Table 4.5.5-2(g), Index number HR-G3, Capability Categories II and III that an explicit evaluation of the impact for each of the listed performance shaping factors (PSF) is not required if the selected human response analysis methodology addresses these PSFs implicitly and provides a means for establishing reasonable confidence that the results implicitly include these considerations?

Reply: Yes.

Interpretation: 1-4

Subject: RA-Sb–2005; Section 4, Risk Assessment Technical Requirements

Date Issued: February 8, 2007

File: 06-1059

Question: Are interviews with engineering staff an acceptable alternative? Most plants use system engineers to track equipment unavailability for maintenance rule, and the engineers typically work directly with operations and maintenance with decisions that impact equipment unavailability.

Reply: Yes, the intent of the requirement is to provide additional validation from knowledgeable plant personnel for PRA unavailability estimates.

Interpretation: 1-5

Subject: RA-Sb–2005; Section 4, Risk Assessment Technical Requirements

Date Issued: February 8, 2007

File: 06-1060

Question: Is it a requirement to include “non-forced” manual trips that are part of the normal shutdown procedure when counting initiating events?

Reply: No, a normal controlled shutdown would not present the same challenges as a trip from full power. This event is more appropriate for a transition model and outside of the scope of this Standard. If the manual trip was prompted by conditions other than the normal shutdown procedure that could occur at full power, it should be counted. This guidance is consistent with IE-A5(a) and IE-C4.

Interpretation: 1-6

Subject: RA-Sb–2005; Section 4, Risk Assessment Technical Requirements

Date Issued: March 1, 2007

File: 07-213

Question: Is it a requirement to include "forced" (e.g., technical specification 3.03 actions) or "non-forced" (e.g., manual shutdowns for refueling) when the resulting shutdown follows normal plant procedures with no off-normal conditions requiring a reactor scram?

Reply: No, the risk needs to be captured in a transition risk or low power risk model, which is outside the scope of RA-Sb–2005.