NRCREP Resource

From: Markle, Sharon L. [marklesl@westinghouse.com]
Sent: Thursday, February 05, 2009 1:12 PM
To: NRCREP Resource
Cc: Klein, William D; Gresham, James A.
Subject: Westinghouse Comments on U.S. NRC Proposed Revision 1 of Regulatory Guide 1.151. (DG-1178)
Attachments: LTR-NRC-09-10.pdf

Westinghouse Comments on U.S. NRC Proposed Revision 1 of Regulatory Guide 1.151. (DG-1178) are attached.

Sharon Markle
RCPL Administrative Aide
412-374-6529

12/08/08
73 FR 74531
(1)

SUNSI Review Complete
Template = ADM-013

E-RIDS = ADM-03
Add = E. O'Donnell
(EXO)

Westinghouse

Westinghouse Electric Company
Nuclear Services
P.O. Box 355
Pittsburgh, Pennsylvania 15230-0355
USA

Rulemaking, Directives and Editing Branch
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Direct tel: (412) 374-4643
Direct fax: (412) 374-3846
e-mail: greshaja@westinghouse.com

Our ref: LTR-NRC-09-10

February 5, 2009

Westinghouse Comments on U.S. NRC Proposed Revision 1 of Regulatory Guide 1.151. (DG-1178)

Westinghouse appreciates the opportunity to provide comments to the NRC regarding the proposed revision to Regulatory Guide 1.151 in accordance with the Federal Register Volume 73, No. 236, December 8, 2008. Our comments are attached to this letter and include recommendations for some additional information and to modify statements in the proposed revision to improve clarity. These comments endeavor to ensure that the revised Regulatory Guide effectively communicates guidance with regard to the design and installation of safety-related instrument sensing lines.

If you have any questions or require additional information, please contact either me or Dennis Skeers at (724) 374-6714.

Very truly yours,

J. A. Gresham, Manager
Regulatory Compliance and Plant Licensing

Attachment

Westinghouse Comments on U.S. NRC Proposed Revision 1 to Regulatory Guide 1.151, Instrument Sensing Lines (DG-1178)

1. References and citation of the instrument line standard should match the official ANSI/ISA identification, ANSI/ISA-67.02.01-1999. It should not include "S" (as in ANSI/ISA-S67.02.01-1999).

2. Draft guide DG-1178 does not provide guidance regarding design standards to be applied to instrument manifold valve assemblies.

   a. Instrument manifolds and secondary isolation valves were excluded from the ISA-S67.02-1980 scope of providing design requirements and seismic categorization for instrument lines.

   b. In supplementing ISA-S67.02-1980, RG 1.151, (July, 1983) appears to apply ASME III and Seismic Category 1 to manifolds by the language "...from their connection(s) to the process piping or vessel to the *sensing instrumentation*." (Section C, subsections 2.b and 3)

   c. ANSI/ISA-67.02.01-1999 incorporated NRC guidance for the second isolation valve, but in the revised figures, further obscured details of instrument manifolds, and applied no pressure boundary or seismic requirements for them.

   Some clarification should be provided of an acceptable basis for applying design requirements and seismic categorization to instrument manifold assemblies. To clarify this, an additional regulatory position should be stated:

   The definition of sensing line in Section 3.22 of ANSI/ISA-67.02.01-1999 should be supplemented with the following:

   > "The term "sensing line" shall apply to all valves, fittings, tubing and piping used to connect instruments to main piping or to other instruments or apparatus or to measuring equipment."

   This would clarify applicability of the guidance to valves and manifold assemblies, and make the position consistent with Section 122.3 of ASME B31.1, and content originally included in sections of ASME Section III.

3. The term "evolved gas" used in DG-1178, may more appropriately refer to a different physical mechanism than the release upon depressurization of gas dissolved in water-filled instrument lines. Consideration should be given to describing the phenomenon in terms like "dissolved gas," "gas in solution," or "released from solution."

4. There appears to be a typographical error in section C.1., second sentence. Sentence in draft reads: "The original ANSI/ISA-S67.01 covered..." It should read: "The original ANSI/ISA-S67.02 covered..."

5. Regulatory Position 2 implies that root valves and accessible isolation valves are not required if instrument sensing lines do not penetrate the containment boundary. As presently worded, the regulatory position appears to be that an instrument line entirely within containment could be installed with no provision for isolation of the instrument from the process. This was not the intention of ANSI/ISA-67.02.01-1999. Most of the figures in it define requirements independent of the containment boundary. It should not be the regulatory position that isolation capability is

only required to maintain containment integrity. For the same reason, the last sentence of this position should be deleted.

6. One sentence of position 2 is: "Although not specifically addressed in the standard's Section 4.2, 'Mechanical Design Requirements for Sensing,' these drawings and guidance are applicable to sensing lines." The purpose of this sentence is not clear, and doesn't appear to be correct. The correct heading of Section 4.2 in the standard is "Mechanical design requirements for sensing lines." The first sentence of the section specifically addresses "The design of components, parts and appurtenances utilized in the instrument-sensing lines ...." Since the standard Section title and content specifically address applicability to instrument sensing lines, the sentence in the regulatory position is not needed and should be deleted.

7. In the discussion section, Draft guide DG-1178 describes the potential for dissolved gas in water-filled instrument lines to come out of solution under certain circumstances, adversely affecting the accuracy and reliability of level measurements. It further notes that some actions taken to prevent the condition have been deficient. Regulatory position 4 directs that provision shall be made to mitigate this problem, but DG-1178 does not include description of a method acceptable to the NRC to implement the directive.

8. While regulatory position 4 does not make a distinction between BWR and PWR plant designs, the discussion section addresses only BWR experience. Applicability to PWR plants should be clarified. Consideration may be given to including reference to Information Notice 92-54, and as evidence of the presence of dissolved gas in an instrument line, Information Notice 95-20.