

NRC/NEI Meeting on ISA 67.04

NRC Headquarters, Rockville, MD

October 8, 2003, 1 p.m.

Industry Standard & Recommended Practices
for
establishing setpoints for nuclear safety-related instrumentation

OUTLINE

- I. NEI Participation
- II. Technical Specifications
- III. Technical Issues
- IV. Licensing Basis
- V. Resolution Process
- VI. Meeting Summary

I. NEI Participation

NEI facilitates communications between NRC and industry groups:

- Coordinate industry participation:
 - Instrumentation, Systems, & Automation Society (ISA)
 - Commercial Reactor Licensees
 - NSSS Owners Groups
 - NEI Licensing Action Task Force (LATF)
 - Owners Group Tech Spec Task Force (TSTF)
 - Nuclear Utility Backfitting & Reform Group (NUBARG)
- Identify the issue and establish a resolution process.

II. Technical Specifications

Describe the history and philosophy of Technical Specifications for instrumentation:

- Custom Tech Specs (CTS):
 - Single column; the Trip Setpoint (TSP) is the Limiting Safety System Setting (LSSS)¹
- Standard Tech Specs (STS):
 - Two column; the TSP is the LSSS, and the Allowable Value (AV) is an operability criterion for periodic surveillance.
 - or —
 - Five column; the TSP is the LSSS, and the AV is an operability criterion for periodic surveillance; however, when a channel is found beyond the AV, channel operability is re-assessed using information from three of the columns.
- Improved Tech Specs (ITS):
 - One or two column; the TSP and/or the AV may be the LSSS, depending on plant-specific preferences.
- Variations in ITS based on NSSS type.
- ISA-S67.04 & Reg. Guide 1.105 history.
- Interpretation of the LSSS.

¹ Column examples are for Westinghouse Tech Specs

III. Technical Issues

Begin developing a precise statement of the technical issues:

- Supplement previous meetings:
 - ISA, Williamsburg, VA, June 16-17, 2003
 - NRC/ISA, August 13, 2003
 - 9/8/03 NRC summary of August 13 meeting with ISA group
- Terminology:
 - Analytical Limit (AL)
 - Trip Setpoint (TSP)
 - Allowable Value (AV)
 - Total Loop Uncertainty (TLU)
 - Measured Error (ME)
 - Unmeasured Error (UE)
 - Limiting Safety System Setting (LSSS)
- Purpose of the AV
 - Discuss industry positions:
 - That the AV is used during periodic surveillance to demonstrate channel operability by validating the respective TSP.
 - That the TSP protects the AL.
 - Discuss NRC position: – that the AV protects the AL.
- Acceptable methods for determining an AV:
 - Describe statistical methods, in general.
 - Outline the three methods in ISA-RP67.04.
 - Note that other methods are used.
 - All methods should satisfy the criteria in ISA-S67.04.
 - Describe licensee practices in implementing AVs.

IV. Licensing Basis

Establish the continued acceptability of ISA-RP67.04, Method 3, where it is the current licensing basis:

- Regulatory Guide 1.105 endorses ISA-S67.04, Part I-1994.
 - The current edition is ANSI/ISA-67.04.01-2000)
- ISA-S67.04, Section 4.3.2, provides criteria for AV determination:
 - Uncertainties apply to “portion of the instrument channel being tested”
 - “assumptions, data, and methods ... shall be documented”
 - “methods shall be consistent with setpoint determination method”
 - “only applicable to setpoints subjected to periodic surveillance”
- The relationship between Part I and Part II of ISA-67.04:
 - Part II is “Recommended Practice”
 - Method 3 is technically valid
- Plant-specific setpoint uncertainty calculations must support/justify validity of TSP & AV.
- Current plant-specific licensing basis for TSPs and AVs should be maintained.
- NRC has approved current Tech Spec TSPs & AVs.
- The NRC has reviewed and approved plant-specific methodologies that use Method 3.
- Changing the AV methodology will not improve safety margins.
- Estimated initial cost to change AV methodology is approximately \$500,000 to >\$1,000,000 per site.
- NRC should continue to review Proposed License Amendments (PLAs) in accordance the each plant’s current licensing basis.

V. Resolution Process

Begin outlining a process for generic resolution:

- NRC formally define the issue (technical aspects & licensing aspects)
- Relevant information should be made public so it can be used.
- NEI coordinate Industry response to address NRC issue.
- Achieve NRC/Industry consensus on process issues via the NEI/NRC interface.
- Achieve NRC/Industry consensus on technical issues via the normal ISA standards process.
- Achieve NRC/Industry consensus on licensing issues via the normal ITS Tech Spec Task Force (TSTF) Traveler process.
- NRC should continue to review Proposed License Amendments (PLAs) in accordance the each plant's current licensing basis.

VI. Meeting Summary

NRC and NEI summarize the results of today's meeting:

- List any follow-up items.
- Establish responsibilities and schedule for follow-up items.
- Include this issue as an agenda item at the next NRC/NEI senior management meeting.
- Schedule the next NRC/NEI meeting on this issue.