

**Comments on NRC's Disposition of Public Comments
Received on Draft NUREG-1520
February 1, 2010**

The following comments on the "Staff Response to Comments Received on Draft NUREG-1520, Revision 1" are offered for your further consideration. They are identified by their reference "ID" on the comment matrix and, in some cases, industry responds to comments made by NRC staff on Draft NUREG-1520.

Int-3; Int-6: *The NRC's comment resolver agrees in part with NRC's staff comment but does not adequately address the question, "So how can the ISA Summary possibly be complete if the set of accident sequences and IROFS is not complete?"* Industry's concern is that the NRC response to the comment sets a standard that is essentially impossible to meet. Specifically, the AIChE Guidelines for Hazard Evaluation Procedures by the Center for Chemical Process Safety second edition pg. 21 states "...for those hazards that have been identified, a hazard analyst can **never** guarantee that all possible causes and effects of potential accidents have been considered." Emphasis added. The guidance should clearly state "The ISA Summary is considered complete if the reviewer has reasonable assurance that all the types of accident sequences have been identified, and that bounding accident sequences have been provided in the ISA Summary." The use of the word "all" or statements that imply "all" is inappropriate in this discussion as it sets up an argument that can never be resolved and establishes unattainable expectations. The ISA/ISA Summary is considered complete by definition when the process is finished.

Int-8: "IROFS boundary packages" is a new, undefined term and an implied new requirement. Such "packages" have not been routinely requested and are not defined in or required by Part 70. Furthermore, in many cases, the essential utilities don't need to be listed in the IROFS boundary because loss of essential utilities places the system in a safe condition at the same time the essential utility is lost.

Another concern with the NRC response is that the regulatory guide is "guidance" and not a requirement. However, industry's experience has demonstrated that often times the examples provided in such guidance documents become "defacto" regulation or NRC's expectation, making the success of licensees offering other options or a deviation from the guidance somewhat rare. This industry concern is not new and has been expressed to NRC, most recently prior to the current version being published. We trust that NRC will not use NUREG-1520 as a strict check list but will conduct its review of licensee submittals from a performance-based approach where alternatives or deviations from suggested guidance language are evaluated for compliance against the applicable requirement.

3-2: Industry continues to believe that the request for information to determine the reliability of an IROFS is excessive. This information is available at the licensee's site and should not be required as part of a license application.

3-5: The factor of "10⁻⁴" that is stated by NRC staff to be a "typo," should have been used throughout the Draft NUREG. This issue was discussed during the October 8, 2009 public meeting where it was acknowledged by NRC to industry that use of the factor of "10⁻⁵" was in error. As such, it was industry's expectation that this error would be corrected in this draft and the final NUREG-1520. This important modification is needed for consistency with current licensee definitions of "highly unlikely" in the ISAs that have been accepted by NRC. Further, without modification, the proposed values will cause significant problems for licensees (i.e., licensees will not be able to meet

the criteria) and unnecessary burden for licensees since the regulatory basis for the proposed changes is unclear.

See related discussion on pages 3-27 and 3-28 of the Draft NUREG. The industry is concerned and does not agree with the NRC designation that "highly unlikely" is defined as having risk index values less than or equal to minus 5, and "unlikely" is defined as having a risk index value less than or equal to minus 4. NRC has previously accepted the designation that "highly unlikely" is defined as having risk index values less than or equal to minus 4 and, "unlikely" is defined as having a risk index value of less than or equal to minus 2. As discussed above, these proposed changes are problematic and need to be modified.

3-7: The NRC staff comment response states, "This is an admission that you can't do that, even if the licensee is in full compliance with the regulations. If the regulatory framework is inadequate, the regulations should be changed." The original NRC staff member's comment on Draft NUREG-1520 deserves a less cryptic staff response.

3-29: Regarding chemical dermal exposure standards, industry does not support modifying the NUREG in such a manner as to imply or state that licensees are required to submit for NRC approval quantitative standards for chemical dermal exposures of workers. This topic has been the subject of four letters between NRC and industry and a November 2009 meeting, where it is clear that there is a lack of alignment on what Part 70 does and does not require. At present, we await an NRC response regarding its final position on this matter and, if needed, would support additional discussion. As such, NRC should not proceed with the current language in the draft guide.

3-32: Industry continues to support its original comment that this issue be clarified. It remains unclear why NRC continues to expect that licensees conduct a safety analysis on a non-existent equipment design. This issue continues to be a source of significant disagreement between industry and the NRC and should be addressed before finalization of the document.

3-34: It is unclear why this response is limited to external events since internal events can also be highly unlikely without the presence of IROFS.

3-35: As stated in the NEI comment on disposition of item 3-5, nearly all licensees have used and NRC has accepted 10^{-4} as acceptable definition of "highly unlikely." Therefore, the basis for the NRC factor of 10^{-5} is unclear.

4-2: Industry appreciates the staff confirmation that NUREG-1520 is not regulation and trusts that staff will endeavor to further support a performance based review of applicant and licensee submittals by allowing deviations from suggested methods and approaches discussed in NUREG-1520 as long as the applicable requirements are met.

4-4: Industry does not support NRC's supplemental "suggestions" on such issues as tracking sealed sources in a licensee-generated database since such discussion goes beyond providing regulatory review criteria and how one might demonstrate that such criteria can be met.

4-5: The clarification offered in the staff response on accident sequence documentation should be included in NUREG-1520. This is a very important clarification that would benefit both licensees and NRC if included. Also, the NRC inference that adding more information to an accident sequence documentation is a "relatively simple practice" is less than accurate since licensees exercise great caution and expend significant

resources, in some cases, to ensure that maintained information is consistent between multiple documents, processes, etc.

5-2: This is an important issue and industry agrees with the NRC Staff's response to this comment. However, the response to this question is not consistent with the response to 3-3.

5-8: The staff disposition of this item is not responsive to industry's comment. For example, licensed sites that have isolated buildings with only minor surface contamination, on the floors or on the surface of equipment, should not be required to be covered by a Criticality Accident Alarm System (CAAS). A reasonable interpretation of the requirement should be included in NUREG-1520. For example, an isolated building at a licensee's site that can be shown to have less than 450 g U-235 should not be required to be covered with a CAAS.

5-9: One very important point to further consider when dispositioning this comment is that the authors of ANSI/ANS 8-3 did not define "credible" in a manner consistent with NRC's more recent definitions. Therefore, any implication that the NRC views this ANSI standard as requiring a "hardened" CAAS capable of withstanding all 10-5 events as the only way to meet the requirement is not consistent with a performance based approach and does not reflect industry's practice.

5-10: The NRC response is not consistent with recent inspection activities nor with the response to 3-34 (10^{-4} not 10^{-5}).

5-20: Industry agrees with a staff reviewer's comment that regulatory citations should be identified for each Request for Additional Information to the licensee or applicant. This approach will result in a more efficient review process for both NRC and industry.

5-35: This staff reviewer comment supports industry's comment on the response to 4-4.

5-36 and 5-37: Industry agrees with the staff reviewer's comment on these two issues. ANSI/ANS standards should not be referred to as regulatory requirements and the guidance relating to subcriticality should be placed in Chapter 4.

7-2: A correction is needed to the comment being referred to by the staff since it is referring to itself.

11-9 through 11-12: These sections are a repeat of 11-5 through 11-8 and should be deleted.