

## **Pre-Application Conference Call Summary**

### DATE

Thursday, April 4, 2013

### PURPOSE

The purpose of the call was to give the Westinghouse Electric Company (Westinghouse) an opportunity to discuss the expectations of U.S. Nuclear Regulatory Commission (NRC's) staff for a license amendment on graded quality assurance.

### LICENSEE

Westinghouse Electric Company

### ATTENDEES

#### NRC

Christopher Ryder  
Sabrina Atack  
Dennis Damon  
Robert Johnson  
Larry Campbell  
Marvin Sykes  
Mary Thomas  
Thomas Vukovinsky

#### Westinghouse

Nancy Parr  
Pam Bartman  
Ed Byrd

### BACKGROUND

The conference call was open to the public as a Category 1 meeting, where the public is invited to listen to the discussion and view presentations. The public would have an opportunity to communicate with the NRC after the business portion of the conference call but before the call ended. The conference call was publically announced as Reference 1; a bridge line was established for the audio portion of the call; arrangements were made for participants to view the slides on individual computers. A summary of the call would be placed on the Westinghouse docket. Before doing so, Westinghouse will have an opportunity to review and comment.

Participants were reminded that the staff is conveying expectations for an application to modify the Quality Assurance (QA) section of the license application (Ref. 2). The staff would not be giving consultation, making suggestions, or making recommendations. Nothing said by the staff during the conference call would be taken as an indication of the findings that the staff would make, should an application be submitted.

## DISCUSSION

### NRC

The staff stated the regulatory requirements that must be met. Title 10 of the *Code of Federal Regulations* (10 CFR), § 70.65(a) requires that each applicant provide a description of the safety program established under § 70.62. Section 70.62(a) requires that a safety program be established and maintained in to demonstrate compliance with the performance requirements of § 70.61. Section 70.62(d), requires that management measures are established to ensure that items relied on for safety (IROFS) are available and reliable to perform their function when needed.

In addition to the page changes of the license application, the staff expects the license application to consist of two documents. One, a markup up version of the license document showing additions and deletions made since last approved license document, and two, the technical justification describing the requested changes and discussing how the changes continue to ensure that the requirements for "other quality assurance elements" associated with management measures are met.

The licensee is expected to discuss the dedication process that will be used to ensure the availability and reliability of IROFS purchased as commercial grade items. A basis for the request to use nationally recognized laboratories for testing without additional project QA may include reference to established regulatory precedence, providing that the approved precedent is consistent with the intended scope and use at Westinghouse. QA controls should be commensurate with safety significance of items and services. Augmented controls to approve, procure from, and monitor laboratories should be described in license submittal and, as appropriate, technical justification and onsite implementing procedures

The staff expects the licensee to discuss how NQA-1 (Ref. 3), ISO 9001 (Ref. 4), and other standards are used. For example, the licensee may want to consider listing the 18 topics of NQA-1. When a substitution is to be made, such as with ISO 9001, the licensee would so state, giving reasons for the substitution, explaining why the substitution is acceptable. Comparisons of ISO 9001 have been made to other standards, such as NQA-1, Appendix B of Part 50, and Department of Energy Standards; Westinghouse would benefit knowing of such comparison.

The staff explained that the risk tables in the January 30, 2013, application (Ref. 5) are unclear. The risk tables are reminiscent of the language in Subpart H of Part 70, which uses the term "graded", which carries with it the concept of reliability management. The difficulty for the staff is understanding how the tables are implemented. The changes to the tables need to be identified and explained.

The staff stated that for Westinghouse, the amendment is not just about the QA program. The amendment is also about the categorization of IROFS because criteria for crucial and important safety systems were changed.

### Westinghouse

The expectations of the staff appear to challenge the basis of the QA program at the Westinghouse Columbia Fuel Fabrication Facility (CFFF), which was first issued in calendar year 2004. During a 2-year period, Westinghouse staff carefully thought about the development and implementation of the QA program. Westinghouse had several discussions with the NRC

to ensure that the regulatory requirements would be met. The 2007 license renewal application was the first time that Westinghouse voluntarily committed to a QA program the program has been successfully used for five years, from the license renewal to the present. Section 3.3 of the renewal application (Ref. 2) describes the QA program. The categorization of IROFS is discussed in the Integrated Safety Analysis (ISA) summary (Ref. 6).

The QA program has three levels<sup>1</sup>, Level A being items that are crucial to present severe consequences. Westinghouse has a policy of never having controls that are in Level A; at least two IROFS are needed for defense in depth. This was written in a response to requests for additional information in 2006 (Refs. 7 and 8). The Westinghouse QA program was benchmarked with the graded QA programs at other licensees and found to be consistent with those programs.

As a result of an inspection (Ref. 9) during the fourth quarter of 2012, a Severity Level 4 violation was issued for failing to apply all 18 criteria in NQA-1 to Nuclear Criticality Safety IROFS. Westinghouse believes that this resulted from a misunderstanding of the language in the QA program. The application to amend the license (Ref. 2), which was viewed as a page change, is to clarify the language. But the staff at NRC Headquarters viewed the license application (Ref. 2) as more than a simple page change, possibly because insufficient background was given to understand the changes. Westinghouse intends to resubmit the application.

The staff inquired as to when ISO 9001 had been used at the CFFF, to which the licensee replied that this application is the first time. Fuel cycle licensees are in a situation that differs from that of the licensees of nuclear reactors. Vendors of fuel cycle equipment are not Appendix B suppliers. Fuel cycle equipment is not N-stamped<sup>2</sup>. The non-nuclear analogy is the ISO 9001 certification. When a component is purchased, it is functionally verified; each year, the function is verified.

In the QA program, Level A is for systems that are crucial to safety. When asked if ISO 9001 would apply to an IROFS in Level A, the licensee did not know because Westinghouse has a policy of not having sole IROFS. The intent of Level A is for sole IROFS. Westinghouse has at least two IROFS at any given part of the CFFF; therefore, IROFS would not be in Level A. The staff inquired about common cause failure modes of redundant IROFS, to which the licensee stated that common cause failures are addressed.

### CLOSING REMARKS

The staff stated that explicit and precise use of terms is expected in a future application. The terms *system*, *prudent*, and *appropriate*, as used in (Ref. 2) are vague. The staff expects Westinghouse to clearly demonstrate that the effectiveness of the QA program will not decrease, that IROFS will perform their intended safety function, and that the reliability is as stated in the ISA.

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<sup>1</sup> Level A systems are crucial to safety. Levels B systems are important to safety. Level C systems have safety implications, but are neither crucial nor important to safety. During the conference call, only Level A was discussed.

<sup>2</sup> Nuclear accreditation from the American Society of Mechanical Engineers (ASME).

## REFERENCES

1. U.S. NRC, "Public Conference Call Notice", March 22, 2013. ADAMS accession number ML13080A235.
2. Westinghouse Electric Company, "Westinghouse Columbia Plant License Application Page Change Revision" January 30, 2013. ADAMS accession number ML13031A059.
3. The American Society of Mechanical Engineers, "Quality Assurance Requirement for Nuclear Facility Applications," ASME NQA-1-2008. March 14, 2008.
4. International Organization for Standardization (ISO). Standard 9001, 1994.
5. Westinghouse Electric Company, "Westinghouse Columbia Plant License Application Page Change Revision" January 30, 2013. ADAMS accession number ML13031A059.
6. Westinghouse Electric Company, Westinghouse Revised Integrated Safety Analysis (ISA) Summaries, January 23, 2013.
7. Letter to N. Parr, Westinghouse, "Request For Additional Information Westinghouse License Renewal Application (TAC 31911)", April 14, 2006. ADAMS accession number ML061010170.
8. Letter from N. Parr, Westinghouse, "Westinghouse SNM-1 107 license Renewal Request For Additional Information Responses (TAC 31911)", May 12, 2006. ADAMS accession number ML061460118.
9. U.S. NRC, "Westinghouse Electric Company Nuclear Regulatory Commission Integrated Inspection Report Number 70-1151/2012-005 And Notice Of Violation", January 29, 2013. ADAMS accession number ML13029A529.