

June 21, 2017

NOTE TO: File

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SUBJECT: Summary of Conference Call on February 8, 2017 — Response to Request for  
Additional Information Regarding Management Measures

#### BACKGROUND

Westinghouse submitted an application to renew special nuclear material (SNM) license SNM-1107 (Ref. 1) at the Columbia Fuel Fabrication Facility (CFFF). The U.S. Nuclear Regulatory Commission (NRC) staff submitted Requests for Additional Information (RAIs) by letter dated May 18, 2016 (Ref. 2). Westinghouse responded to the RAIs by letter dated July 29, 2016 (Ref. 3). Westinghouse had since then learned that the responses did not meet the expectations of the NRC staff. The view of the NRC staff stems from the responses themselves, not an event that happened in May 2016 (Ref. 4). The purpose of the conference call was for the NRC staff to communicate their expectations.

To facilitate the discussion, the NRC staff had compiled RAIs that were at issue, the response from Westinghouse, and excerpts from the license application. This document had been sent to Westinghouse in advance of the conference call. The document is included as Enclosure 1.

On May 25, 2017, the NRC staff had subsequent discussions with Westinghouse to refine understandings from the conference call.

#### PARTICIPANTS

Participants of the call are given in Enclosure 2.

#### DISCUSSION

In general, Chapter 3, Conduct of Operations<sup>a</sup>, of the license renewal application includes most of the relevant aspects of an adequate quality assurance (QA) program, but lacks specific key information for the NRC staff to determine and obtain reasonable assurance that the regulatory requirements are met. The following are general comments on specific responses to RAIs, which may also be applicable to the response of other RAIs.

RAI 1. The response from Westinghouse states that when a modification is designated per the CFFF Configuration Management Program, the "change" is reviewed by the various safety disciplines to assure that 10 CFR 70.72 requirements are met.

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<sup>a</sup> "Conduct of Operations" is more commonly referred to as "Management Measures".

To the NRC staff, the phrase "various safety disciplines" lacks specificity. The NRC staff expects a discussion of who, specifically, gives authorizations, and their involvement as such in the review process. The NRC staff expects Westinghouse to clarify how a subsequent reviewer in the process makes a change, how previous reviewers become aware of a subsequent change, how such a change is monitored, and how the change is recorded for future audit purposes.

Westinghouse agreed that some of the language of the response can be made specific. The language is sometimes deliberately non-specific so that a revision does not require an amendment to the license application. In a revision to Chapter 3 of the license application (Ref. 5), the description of the configuration management process is intended to be at a high level.

Every change is subjected to a comprehensive review process, which includes the safety disciplines (e.g., fire safety, chemical safety, criticality safety, radiation safety). The review is not necessarily done in a serial manner; the review process is automated; the structured process has feedback mechanisms. Westinghouse staff in each discipline reviews a static change to ensure that the change is safe to implement.

The NRC staff stated that clarifying information must be provided in writing, either as a response to the RAI or as a revision to Section 3.0 of the license application.

RAI 2. The response from Westinghouse states that the CFFF Configuration Management Program assures that the CFFF maintains current necessary records associated with the design and safe operation of the facility.

The NRC staff stated that the language of the response is not specific. NRC staff asked Westinghouse to clarify and discuss the necessary records, and discuss who oversees the process to ensure that the process is functioning correctly.

Westinghouse explained that specific records are discussed in Section 3.1 of the licensee application. Maintenance records and procedures are managed using software that differs from that used for configuration management. Every relevant person at the CFFF uses the same software. Individual managers are responsible for ensuring that the process is functioning correctly. The Environmental Health and Safety (EH&S) function of the CFFF organization conducts audits and assessments. The NRC staff expects this topic to be clarified.

RAI 3. On lines 81 to 84 of Enclosure 1, Westinghouse states that periodic review and periodic refresher training for administrative items relied on for safety (IROFS) are equivalent to "maintenance" of engineered controls. This periodic review and refresher training assures the availability and reliability of administrative IROFS and is considered part of the "procedure" management measure described in Section 3.4 of the License Application (Ref. 1).

The NRC staff asked for a discussion of what is meant by *periodic*. The way of determining "periodic" is not discussed. Westinghouse stated that implementing procedures discuss *periodic*; additional discussion can be added to the response. Westinghouse stated that language to clarify the term will be included.

RAI 5. Section 3.3, Other Quality Assurance, describes the management measures applied to IROFs to provide reasonable assurance that IROFS are available and reliable to perform their intended functions. NRC staff asked Westinghouse to describe or elaborate on the measures

implemented for the following quality assurance criteria for IROFS and Administrative control IROFS (if applicable). On line 168 of Enclosure 1, Westinghouse responded in part that, "A formal Quality Assurance Program for this element would only apply to sole IROFS at the CFFF, and the CFFF does not have any sole IROFS." The NRC staff expects Westinghouse to clarify the response. This would seem to suggest that for other IROFS, no such documentation exists.

Westinghouse stated that for a sole<sup>b</sup> IROFS, all NQA-1<sup>c</sup> (Ref. 7) requirements would be applied. Otherwise, NQA-1 is applied in a graded manner. NRC inspectors identified similar ambiguities. The statement will be revised. Westinghouse stated that most IROFS are commercially purchased. The specifications of the component and the function are verified. Functional tests are equivalent to commercial grade dedication. Westinghouse stated that they would revise this section to be in accordance with the configuration management requirements and the remainder of the license application. The NRC staff identified ambiguities and discrepancies within subsections of Section 3.0, such as, but not limited to Subsection 3.4.

RAI 6. On lines 107 to 109 of Enclosure 1, Westinghouse states that an IROFS may never be defeated, bypassed, over-ridden, or forced off, unless specifically approved in advance by EH&S. Procedures shall state the required conditions, time limit, and *controls* to be maintained while a control is in By-Pass Operations.

The NRC staff did not understand what *controls* were referred to by the statement. Configuration management measures vary, depending on circumstances. The NRC staff wanted to know whether or not the change-procedures account for employees in nearby and related areas. The NRC staff expects Westinghouse to discuss the key elements and attributes of a structured process to maintain the integrity of the entire system. For example, assurances are needed that the nearby employees, who may be relying on an IROFS, are aware that the IROFS is out of service.

Westinghouse asked for a specific citation to the Standard Review Plan (Ref. 6), to which the NRC staff stated that they would have to get that information later.

RAI 7. The NRC staff asked about the minimum qualifications (i.e., education and experience) for process operators themselves. The NRC staff wanted Westinghouse to explain who has overall responsibility for ensuring that operators are qualified.

Westinghouse explained that the supervisors of each area are responsible for ensuring that their operators are qualified. EH&S has oversight, conducting audits every 3 years. If a supervisor observes an operator struggling, then the supervisor is responsible for ensuring that the operator obtains additional training. The NRC staff expects this topic to be clarified.

RAI 8. The NRC staff asked Westinghouse to describe the review and approval requirements for lesson plans and training guides. Specifically, NRC staff asked Westinghouse to clarify how problem identification and resolution are addressed in lesson plans and training guides.

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<sup>b</sup> The practice at Westinghouse is not to have sole IROFS. As of the date of this note, Westinghouse does not have sole IROFS.

<sup>c</sup> NQA-1 is mentioned in the December 17, 2014, submittal of the license application (Ref. 1). NQA-1 is not mentioned in the revised Chapter 3, submitted by letter dated February 29, 2016 (Ref. 5). The February 2016 revision replaces the December 2014 original chapter for the NRC staff to review.

Westinghouse stated that they have a means to determine the significance of problems and determine how a problem is to be addressed. The NRC staff expects this topic to be clarified.

RAI 11. The NRC staff asked Westinghouse to describe the process used to evaluate training effectiveness and to correct both training identify deficiencies and performance problems. Identify the frequency of such reviews. Identify the qualifications of personnel performing reviews of training effectiveness. If the audit and assessment process will be used to perform a function, identify how the process will apply feedback from trainee performance and trainees to evaluate training effectiveness. Given that a deficiency in training is not evident, the NRC staff expects Westinghouse to discuss how the effectiveness of training is evaluated.

Westinghouse stated that triennial audits and assessments are performed to evaluate training. The audits and assessments are a management measure. The NRC staff asked Westinghouse to clarify this statement given line 291, which states, "Evaluation of training effectiveness is performed on a continuing basis, and when training deficiencies or performance issues are identified, they are corrected immediately." Westinghouse clarified that *continual basis* refers to the implementation of training by supervisors. Performance is always being observed. Westinghouse added that the NRC Region II inspectors have had interest in the topic of RAI 11. Though first-level supervisors evaluate the effectiveness of training, they do not audit the training program; EH&S performs the audits and assessments. If a problem is found to be reoccurring, the EH&S will review the matter. Deficiencies will be entered into the corrective action process. The NRC staff stated that a written description of the process, as just verbally described, would be sufficient to make a regulatory finding.<sup>d</sup> Westinghouse added that a distinction needs to be made between RAI 8, which refers to the training program, and RAI 11, which refers to training itself. Westinghouse stated that they would clarify the periodicity and authority in this area.

RAI 14. Westinghouse described a process where, prior to performing maintenance work activities, a craftsman must be current on associated electronic training and procedure requirements for the work activity. The NRC staff expects Westinghouse to clarify whether or not the response applies to all IROFS.

RAI 15. The NRC staff asked Westinghouse to discuss the threshold to determine how often audits and assessments need to be performed. Westinghouse had responded that the audit and assessment program specifies the frequency for audits completed in accordance with the frequencies stated in the license application and regulatory requirements. Management may direct audits or assessments to be completed more frequently or to be completed in areas other than what is required, based on any performance deficiencies.

The NRC staff would need a discussion about the process in terms of key elements and attributes so as to continue the review and end in making a regulatory finding.

Westinghouse explained that the audit and assessment process does not state time intervals of performing these activities. The frequency of audits and assessment are stated either in the license application or regulations. A deficiency is entered into the Corrective Action Program (CAP) where the resolution is tracked to closure. The CFFF maintains a Corrective Action

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<sup>d</sup> While the NRC staff can visit the CFFF to observe the process, as offered by Westinghouse, a written description is needed to reference in making a finding.

Process that complies<sup>e</sup> with the provisions of Section C of Regulatory Guide 3.75, Revision 0 (Ref. 8). The NRC staff stated that they would look again at the response in the context of Regulatory Guide 3.75, and discuss that matter again if needed.

As discussed during the conference call, the response to RAI 15 is deferred, pending additional discussion.

RAI 16. Section 3.7 states that records of abnormal events are maintained in accordance with the retention requirements, referring to several section of the license application. The NRC staff asked Westinghouse to describe the records retention requirements and clarify the manner in which incident investigation documentation are retained to continuously improve operations.

Westinghouse stated that they committed to RG 3.75 and understand that nothing else was needed. The NRC staff delayed further discussion, pending additional discussion with Westinghouse.

RAI 20. The NRC staff asked Westinghouse to clarify how the CFFF organizational structure takes part in the responsibility of records. The NRC staff wanted to know how EH&S interacts with other components of the CFFF organization, identifying the responsibilities with the organizational components, and accounting for the scheduling of various records.

Westinghouse verbally stated the information; the NRC staff would need a written discussion, either in a response to the RAI or a revision to Section 3.0, to continue the review and make a regulatory finding.

RAI 21. The NRC staff asked Westinghouse to discuss how the CFFF organizational structure enables authority, access, and independence for quality-affecting functions.

Westinghouse clarified that “Quality Assurance” in the CFFF organizational chart refers to product (i.e., fuel assemblies), not to management measures.

#### CLOSING REMARKS

The NRC staff stated that information clarifying or expanding on the discussion must be in writing, either as a response to the RAIs or as revision to Section 3.0. If Section 3.0 is revised, the response to the RAI should so state. The location (i.e., chapter, response) information should be indicated to facilitate the review. The NRC staff needs written information, on the docket of Westinghouse, for referencing in the Safety Evaluation Report so as to continue the review and conclude with making regulatory findings.

The NRC staff will give a specific citation to the Standard Review Plan (Ref. 6), additional and clarification on the CAP expectation based on the review of the updated application (Ref. 5).

The NRC and Westinghouse staffs will discuss RG 3.75, clarifying the intent of Westinghouse to use the RG 3.75 as guidance or as a commitment.

By mid-June 2017, Westinghouse intends to submit a revised Chapter 3.0 informally to determine the extent that the revision will meet the expectations of the NRC staff.

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<sup>e</sup> The NRC and Westinghouse staffs decided to have another discussion about committing to Regulatory Guide 3.75.

## REFERENCES

1. Letter from N. Parr, Westinghouse Electric Company, LLC, "SNM-1107 License Renewal Supplement", December 17, 2014. ADAMS accession number ML14352A111.
2. Letter to N. Parr, Westinghouse Electric Company, LLC, "Request For Additional Information: Management Measures Of The Renewal Of Special Nuclear Materials License SNM-1107 (Cost Accounting Control Number L33317)", May 18, 2016. ADAMS accession number ML16125A383.
3. Letter from N. Parr, Westinghouse Electric Company, LLC, "Westinghouse Renewal Application Management Measures Response To Request For Additional Information (Cost Accounting Code Number L33337)", July 29, 2016. ADAMS accession number ML16215A005.
4. Letter to B. Phillips, Westinghouse Electric Company LLC, "Nuclear Regulatory Commission Augmented Inspection Team Report No. 70-1151/2016-007", October 26, 2016. ADAMS accession number ML16301A001.
5. Letter from N. Parr, Westinghouse Electric Company, LLC, Westinghouse License Renewal Application Revised Management Measures Chapter (TAC #: L33317), February 29, 2016. ADAMS accession number ML16060A464.
6. U.S. NRC, "Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility", NUREG-1520, Rev 1, May 2010. ADAMS accession number ML101390110.
7. The American Society of Mechanical Engineers, "Quality Assurance Requirements for Nuclear Facility Applications," ASME NQA-1–2008.
8. U.S. Nuclear Regulatory Commission, "Corrective Action Programs For Fuel Cycle Facilities", Regulatory Guide 3.75, February 2014. ADAMS accession number ML14139A321.