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Westinghouse Electric Company LLC
Columbia Fuel Site
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USA

Director, Office of Nuclear Material Safety and
Safeguards
U. S. Nuclear Regulatory Commission
Washington, DC 20555
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Your ref:
Our ref: LTR-RAC-12-82
October 29, 2012

SUBJECT: WESTINGHOUSE REPORTED EVENT # 48375 30 DAY FOLLOW-UP REPORT

The following information is being provided by Westinghouse Electric Company LLC (Westinghouse) in accordance with 10CFR70.50(c)(2). A copy of the initial notification report, Event Report #48375, pertaining to the Columbia Fuel Fabrication Facility (CFFF) is attached and provides the applicable information required by 10CFR70.50(c)(1). Additional background pertaining to this event report as well as the information required in accordance with 10CFR70.50(c)(2) is provided herein.

Please know that Westinghouse remains deeply committed to continuous compliance with all governing regulations and license commitments. If you have any questions regarding this report, please contact me at (803) 647-2045.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Gerard F. Couture'.

Gerard F. Couture,
Licensing Manager
Westinghouse Columbia Fuel Fabrication Facility
Docket No. 70-1151, License No. SNM-1107

Attachment

cc: U. S. Nuclear Regulatory Commission, Region II
Attn. Ms. Mary Thomas
Atlanta Federal Center
245 Peachtree Center Ave., NE, Suite 1200
Atlanta, Georgia 30303-1257

U. S. Nuclear Regulatory Commission
Attn: Christopher Ryder, Project Manager
Mail Stop: EBB 2C40M
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852-2738

Facility

Westinghouse Electric Company LLC, Commercial Fuel Fabrication Facility, Columbia SC, Low enriched (≤ 5.0 wt. % U-235) fuel fabricator for commercial light water reactors. License: SNM-1107.

Time and Date of Event

October 4, 2012, 10:00 EDT

This notification is based on 10CFR70 Appendix A (b)(1) “Any event or condition that results in the facility being in a state that was not analyzed, was improperly analyzed, or is different from that analyzed in the Integrated Safety Analysis (ISA), and which results in failure to meet the performance requirements of 10CFR70.61.”

Westinghouse Columbia Fuel Fabrication Facility routinely enters external NRC event notifications and issues into the Corrective Actions Program (CAPs) for external operating experience. Westinghouse Environment, Health and Safety (EHS) staff and the Issue Review Committee evaluated the AREVA NP Inc. Richland NRC Event Report #48366 for applicability and impact on compliance for the Columbia plant.

This evaluation identified a regulatory noncompliance. The ISA currently identifies Items Relied on for Safety (IROFS) for scenarios based on Emergency Response Planning Guidelines (ERPG) (i.e., airborne concentration criteria) for chemical consequences. However, the Process Hazards Analysis (PHA) conducted for the ISA, with minor exceptions, did not specifically identify high or intermediate events that may or may not require additional IROFS for dermal or ocular exposures from the plant's chemical processes subject to 10 CFR 70 requirements. This report is intended to cover all potential chemical dermal or ocular exposures within those systems covered by the plant's ISA.

There is no actual safety significance, and the potential safety significance of this issue is low due to the following:

- An extensive number of IROFS are currently in place to prevent chemical spills that could lead to airborne concentrations above ERPG limits, and these same IROFS can be readily utilized to prevent most dermal/ocular exposure accident sequences.
- SNM-1107 License Application Section 7.0 Chemical Safety Program, as well as the governing Occupational Health and Safety (OSHA) regulations, already contains requirements for worker protection from these hazards. The Columbia plant recognizes these hazards through its PHA and Job Safety Analysis (JSA) processes and identified the need for controls, where applicable.
- Robust procedures, training and appropriate Personal Protective Equipment (PPE) are in place to ensure worker safety from these types of hazards.

However, failure to specifically identify the dermal/ocular exposure as potentially high or intermediate consequence events in accident sequences in the framework of the ISA process led to these sequences not being included in the ISA Summary, and therefore, IROFS were not designated for these sequences as required by 10 CFR 70.61. As noted above, this issue has been entered into CAPs (IR 12-277-C001). Until the PHA and JSA are reviewed for identification of specific IROFS, the applicable elements of our license-required Chemical Safety Program will be treated as IROFS for purposes of compliance with 10CFR70.61 and reporting under 10CFR 70 Appendix A.

Background Information

Westinghouse and other fuel cycle facilities have engaged the Nuclear Regulatory Commission (NRC) staff in discussions on the correct and compliant treatment of dermal exposures in the context of the Integrated Safety Analysis (ISA). [ADAMS Accession Numbers ML083360632, ML082900889, ML090690732 and ML090920296] The SNM-1107 license application was approved by the NRC including the specific criteria Westinghouse would utilize to address worker chemical exposure hazards in development and maintenance of the ISA, which did not include criteria for dermal exposures as potential High or Intermediate consequence events. Due to the absence of any scientifically based or regulatory-endorsed standard, methodology, or guidance to perform this evaluation, this exposure pathway has been difficult to address in the context of the performance requirements. Nonetheless, Westinghouse recognizes that compliance with the governing regulations must be assured, or an exemption must be requested and approved. Concurrent with the compliance path described below, Westinghouse is considering requesting an exemption for this issue.

10CFR70.50 (c)(2) Information:

(2) Written report. Each licensee that makes a report required by paragraph (a) or (b) of this section, or by § 70.74 and Appendix A of this part, if applicable, shall submit a written follow-up report within 30 days of the initial report. Written reports prepared pursuant to other regulations may be submitted to fulfill this requirement if the report contains all the necessary information, and the appropriate distribution is made. These written reports must be sent to the NRC's Document Control Desk, using an appropriate method listed in § 70.5(a), with a copy to the appropriate NRC regional office listed in appendix D to part 20 of this chapter. The reports must include the following:

(i) Complete applicable information required by § 70.50(c)(1);

This information has been provided on page 2 of this correspondence.

(ii) The probable cause of the event, including all factors that contributed to the event and the manufacturer and model number (if applicable) of any equipment that failed or malfunctioned;

The SNM-1107 license application was approved including the specific criteria Westinghouse would utilize to address worker chemical exposure hazards in development and maintenance of the ISA, which did not include dermal exposures as potential High or Intermediate exposure events in the context of compliance with 10 CFR Part 70 performance requirements. The cause of this event as noted in the initial report was the failure to address such exposures in the context of establishing Items Relied on For Safety.

(iii) Corrective actions taken or planned to prevent occurrence of similar or identical events in the future and the results of any evaluations or assessments;

Corrective Actions:

- Immediate corrective actions noted in the initial event report are complete. This conservative approach restored compliance for establishing Items Relied on For Safety.
- Commitments are established to review the applicable hazards analysis, which will include consulting medical and industrial hygienists where necessary, eventually leading to modifications of the ISA and ISA Summary accident sequences where specific scenarios warrant inclusion. These revised analyses incorporation into the ISA Summaries is currently expected to be included in the January 2014 annual submittal.
- These commitments are being tracked to completion by management in the corrective action system.

(iv) For licensees subject to Subpart H of this part, whether the event was identified and evaluated in the Integrated Safety Analysis.

The Columbia Fuel Fabrication Facility is subject to Subpart H and the report dealt with activities that are analyzed in the hazards analysis process conducted for the Integrated Safety Analysis, but was not necessarily documented in the ISA Summaries.