Westinghouse

Designated as original



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Director, Office of Nuclear Material Safety and Safeguards
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001
ATTN: Document Control Desk

December 15, 2010

SUBJECT: WESTINGHOUSE LICENSE SNM-1107 AMENDMENT REQUEST
(DOCKET 70-1151)

References: 1) Westinghouse Letter No. LTR-RAC-10-54, Westinghouse Reported Event 30 Day Follow-Up Report, August 26, 2010

Westinghouse Electric Company LLC (Westinghouse) hereby requests an amendment to our Columbia Fuel Fabrication Facility (CFFF) SNM-1107 license application. This page change revision to the SNM-1107 license application is requested to address an identified discrepancy between the currently approved SNM-1107 license application and the regulatory requirements of 10CFR Part 70 (Ref. 1). The enclosed changes to the SNM-1107 license application are identified by revision lines in the margin. Specifically, the definitions of "Credible" and "Incredible" are revised to be consistent with current regulatory interpretations. In addition, Westinghouse requests that a new Safety Condition be established in the SNM-1107 Materials License as follows:

"The licensee shall complete the Nuclear Criticality Safety Improvement Project - II (NCSIP-II) as outlined in LTR-RAC-10-54 by December 31, 2012. The licensee will provide quarterly status reports to the NRC providing the status of key project deliverables. The associated Integrated Safety Analysis Summaries will be revised to reflect the changes resulting from this project by no later than the January 31, 2013 annual submittal in accordance with 10 CFR 70.72(d)(2)."

This change is administrative in nature and reflects an adjustment in the identification of design features (i.e., as Items Relied on For Safety) within the facility for the prevention of potential accidents that could exceed the performance requirements in 10 CFR 70.61. The proposed change does not adversely affect public health and safety or the environment, presents no construction impact, and Westinghouse requests that this amendment may be processed in accordance with the categorical exclusion provisions of 10 CFR 51.22.

If you have any questions or comments regarding the details of this amendment request, please contact me at (803) 647-2045.

Sincerely,

Gerard F. Couture, Manager,
Licensing and Regulatory Programs
Westinghouse Columbia Fuel Fabrication Facility
Docket 70-1151, License SNM-1107

NMSS01

Enclosure: SNM-1107 License Application Page Changes – 6 Pages

cc: U. S. Nuclear Regulatory Commission
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# REVISION RECORD

| REVISION NUMBER | DATE OF REVISION | PAGES REVISED | REVISION REASON |
|---|---|---|---|
| 0.0 | 27 Jun 07 | All | 2007 License Renewal. |
| 0.1 | 17 Mar 08 | ii, v, 102, 103, 104, 105, 106 & 107 | Modify Criticality Safety Requirement for Final Assembly Wash Pit |
| 0.2 | 30 Jun 08 | v, 11 | Change in Principal Officers |
| 0.3 | 10 Apr 09 | v, 123 | Emergency Plan Revision |
| 0.4 | 09 MAR 10 | iv, v, 1, 6, 7, 8 | CAA Expansion |
| 0.5 | N/A | None | Secondary Source Rods License Application was submitted but activity was approved within the existing license with no changes |
| 0.6 | TBD | v, 10, 11, 18 | Change in Principal Officers |
| 0.7 | TBD | v, 13, 15, 16, 17, 73 | Correct the definition of credible, add definition of incredible, adjusted section 4.1.2 to address methodology for designation of Items Relied for Safety. |

### 1.1.6.6 Clean Area

An area where radioactive material, if present, is completely contained; and, there is negligible contamination on floors and accessible surfaces. Examples include the Machining Area, Grid Assembly Area, Final Assembly Area, Office Areas, and the Cafeteria.

### 1.1.6.7 Component

When used in an administrative context, this is an independent organizational unit that is distinguishable by its assigned responsibilities. Examples include the Engineering Component, the Manufacturing Component, the Quality Component, and the Regulatory Component.

### 1.1.6.8 Conduct of Operations

An alternate name for Management Measures, as defined in 10CFR70.4.

### 1.1.6.9 Contamination Controlled Area

An alternate name for the Chemical Area.

### 1.1.6.10 Contingency

Possible, but unlikely, change in a condition/control important to the nuclear criticality safety of a fissile material operation that would, if it were to occur, reduce the number of barriers (either administrative or physical) that are intended to prevent a nuclear criticality accident.

### 1.1.6.11 Controlled Area

The Controlled Area is equivalent to the CFFF site's property boundary. The Controlled Area is controlled in that it is routinely monitored and patrolled and access to this area can be limited by the licensee for any reason.

### 1.1.6.12 Controlled Access Area

The Controlled Access Area is another term equivalent to the "Restricted Area."

### 1.1.6.13 Credible

An event is described as "credible" if it does not satisfy the definition of "incredible" as defined in 1.1.6.22 of this license application.

(f) *Annual* means a period which covers a span of 15-months or less;
(g) *Biennial* means a period which covers a span of 30-months or less; and,
(h) *Triennial* means a period which covers a span of 45-months or less.
(i) For unspecified time periods, an extension of 0.25 times the period will apply.

**1.1.6.21 Function**

When used in an administrative context, an individual (or individuals), designated by the Component Manager, acting in coordination with the other personnel of the component, having the capability, responsibility, and authority to make and implement decisions required to carry out assigned duties. Examples for the Regulatory Component include the Environmental Protection Function, the Radiation Safety Function, the Nuclear Criticality Safety Function, the Chemical Safety Function, the Fire Safety Function, the Safeguards Function, *etc.*

**1.1.6.22 Incredible**

Any one of the following three independent acceptable sets of qualities could define an event as not credible, and therefore do not have to be considered in the Integrated Safety Analysis (ISA) as defined in 10CFR70.4:

- An external event for which the frequency of occurrence can conservatively be estimated as less than once in a million years.
- A process deviation that consists of a sequence of many unlikely upsets, including human actions or errors for which there is no reason or motive. (In determining that there is no reason for such actions, a wide range of possible motives, short of intent to cause harm, must be considered. Necessarily, no such sequence of events can ever have actually happened in any fuel cycle facility).
- Process deviations for which there is a convincing argument, given physical laws, that they are not possible, or are unquestionably extremely unlikely. (The validity of the argument must not depend on any feature of the design or materials controlled by the facility's system of SSCs or management measures).

**1.1.6.23 Integrated Safety Assessment (ISA)**

An alternate name for Integrated Safety Analysis (ISA) as defined in 10CFR70.4.

**1.1.6.24 Integrated Safety Assessment (ISA) Summary**

An alternate name for Integrated Safety Analysis (ISA) Summary as defined in 10CFR70.4.

**1.1.6.25 Items Relied On For Safety (IROFS)**

A subset of Safety Significant Controls (SSCs), disclosed by the Integrated Safety Analysis. IROFS mean structures, systems, equipment, components, and activities of

personnel that are relied on to prevent potential accidents at a facility that could exceed the performance requirements in § 70.61 or to mitigate their potential consequences.

**1.1.6.26 License Annex**

An alternate name for Integrated Safety Analysis (ISA) Summary as defined in 10CFR70.4.

**1.1.6.27 Licensed Activity**

That combination of personnel, plant, and equipment established by Westinghouse to carry out the processing of radioactive material at the CFFF, as authorized by this License Application.

**1.1.6.28 May**

Denotes implied permission by NRC Licensing Staff to take a stated action or course.

**1.1.6.29 Passive Engineered Controls**

Safety Related Controls that require no hardware and/or software assistance, or operator action or other response, to be effective when called upon to ensure health, safety, and/or protection of the environment. Passive Engineered Controls are the most preferred method of control.

**1.1.6.30 Portable Air Sample**

An air sample that is not integrated into the CFFF's central air sample vacuum system.

**1.1.6.31 Process Upset**

An event involving a deviation in a controlled process parameter or a condition outside of the normal operating range.

**1.1.6.32 Radiation Worker**

Any individual who, in the course of employment, is likely to receive an annual occupational dose in excess of 100-millirem.

**1.1.6.33 Regulatory-Significant Procedures**

Those procedures that contain, in whole or in part, actions that are important to environmental protection, health, safety, and/or safeguards.

**1.1.6.34 Restricted Area**

The "Restricted Area" is a physically defined area, represented on three sides by a minimum seven-foot high barrier fence topped by three strands of barbed wire and a coil of razor wire, and represented on the fourth side by the Administration Building and Main Manufacturing Building. This area is the "Controlled Access Area" described in the CFFF Physical Security Plan.

**1.1.6.35 Safety-Related**

Relevant to systems crucial or important to safety; and, those systems that improve the margin of safety (*e.g.*, in the context of maintenance).

**1.1.6.36 Safety Related Controls (SRCs)**

The complete set of CFFF engineered and administrative controls designed to promote health and safety, and protection of the environment.

**1.1.6.37 Safety-Significant**

Relevant to systems crucial or important to safety (*e.g.*, in the context of quality assurance).

**1.1.6.38 Safety Significant Controls (SSCs)**

A subset of Safety Related Controls, as specified by the cognizant Safety Functions, to provide basic health and safety, and/or protection of the environment.

**1.1.6.39 Unlikely Event**

An event is described as "unlikely" if its frequency of occurrence is sufficiently low to exclude it from normal case conditions.

**1.1.6.40 Unrestricted Area**

An Area, access to which is neither limited nor controlled by the Security Function.

**1.1.6.41 Will**

Denotes a mandatory commitment to take a stated course or action.

material, that exceed the criteria stated in 10 CFR 70.61, are "unlikely" or "highly unlikely" to occur, as appropriate. Accident sequences having unmitigated consequences that will not exceed the performance requirements, once identified as such, are not reported in the ISA Summary.

### 4.1.2 The ISA

The Integrated Safety Analysis (ISA) is developed in accordance with methods acceptable to Columbia Fuel Fabrication Facility (CFFF) management, as approved by the Handbook. Depending on when a specific system ISA was developed during the multiyear CFFF ISA development process, any specific ISA may or may not embrace a given activity described in the Handbook. However, if a given activity was embraced, it was performed as described. A notable exception to this latitude is Handbook Subsection 7.2 (*Accident Sequence Evaluation).* Subsection 7.2 activities are defined within this license application and are therefore performed in accordance with the license application requirements for each ISA.

The ISA documents a comprehensive identification of potential accident / event sequences that would result in radiological hazards from possessing and processing licensed material, chemical hazards of licensed material and hazardous chemicals produced from licensed material, including the consequences with expected magnitudes and likelihoods of occurrence.

Table 4.4 is the Risk Analysis Table from the Handbook, and represents the acceptance criteria used in the ISA Documents. The criteria for determining the indices for the likelihood of initiating events and IROFS failures are defined in Table 4.5 and Table 4.6 which are extracted from the Handbook.