July 14, 2005

MEMORANDUM TO: Gary S. Janosko, Chief
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards

THRU: John Lubinski, Chief **/RA/**
Fuel Manufacturing Section
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards

FROM: Mary Adams, Senior Project Manager **/RA/**
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards

SUBJECT: TELECON SUMMARY, WESTINGHOUSE ELECTRIC COMPANY LICENSE RENEWAL JUNE 9, 2005 (CORRECTED VERSION JULY 22, 2005)

On Thursday, June 9, 2005, NRC headquarters staff participated in a conference call with Westinghouse Electric Company (WEC) staff to discuss the license renewal application for WEC's Columbia Fuel Fabrication Facility (CFFF) in Columbia, South Carolina. WEC submitted the license renewal application on December 20, 2004 (ML050190022). NRC staff performed a completeness review to determine whether the application was acceptable for a detailed technical review; the conclusion of the completeness review was that the application was missing significant elements necessary to enable a technical review. WEC withdrew the license renewal application in a letter dated May 25, 2005 (ML051510193). WEC's current license expires on November 30, 2005.

During the telecon, NRC technical review staff described the renewal application deficiencies identified in acceptance review and answered any WEC questions clarifying the deficiencies. The major general deficiency was that WEC had provided a fair amount of descriptive material, but the license commitments were too limited to assure compliance with the regulations in 10 CFR Parts 70 and 20. NRC staff informed WEC that if they incorporated all of the descriptive material into commitments, the application would be acceptable for review, recognizing that some of the descriptive material goes beyond what is required. The other more specific comments are summarized in the Attachment to this memo.

CONTACT:
Mary Adams, NMSS/FCSS
(301) 415-7249

Mary Adams described deficiencies in Chapters 1, General Information; 2, Management Organization; 3, Conduct of Operations; and 4, Integrated Safety Analysis. Mike Lamastra described the deficiency in Chapter 5, Radiation Safety Program. Craig Hrabal described a number of deficiencies in Chapter 6, Nuclear Criticality Safety (NCS) Program. Donald Stout described the deficiency in Chapter 7, Chemical Safety Program. And Nick Baker described the deficiencies in Chapter 8, Fire Safety Program. NRC staff determined that subsequent Chapters 9, Emergency Management Program; 10 Environmental Protection; 11, Decommissioning Planning; and 12, Authorizations and Exemptions, were acceptable for review as submitted.

WEC staff asked for clarification of a few of the comments. NRC staff asked when WEC might re-submit the renewal application, reminding WEC that it should be re-submitted no later than 30 days before the current license expires. WEC said they would consider the comments and let Ms. Adams know when they expected to re-submit. (On July 1, 2005, WEC informed Ms. Adams that they expect to re-submit the license renewal application in mid-August or early September).

Docket: 70-1151
License: SNM-1107

Attachment: License Renewal Application Acceptance Review Comments

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DISTRIBUTION:
Docket No. 70-1151 Region II R. Pierson J. Giitter D. Collins, RII D. Seymour, RII
J. Henson, RII T. Decker, RII C. Hrabal D. Stout D. Morey P. Silva
B. Reilly M. Baker M. Lamastra M. Galloway

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OFC	FCFB		FCFB		FCFB	
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DATE	07/12/05		07/13/05		07/14/05	

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SUMMARY OF MISSING ELEMENTS OF
WESTINGHOUSE ELECTRIC COMPANY COLUMBIA FUEL FABRICATION FACILITY
SNM-11-07 LICENSE RENEWAL APPLICATION, DECEMBER 20, 2004

1. Revise Chapter 1 to include institutional information as license commitments. Describe Westinghouse Nuclear Fuel's relationship to other components of BNFL ownership. Identify the other "business group(s)" that comprise BNFL. Identify any other components that are overseen by the Nuclear Utilities Business Group. Indicate whether or not there are other companies present and operating at the Columbia site. This information is necessary to determine conformance with the requirements of 10 CFR 70.22(a).

2. Revise Chapter 1 to include commitments to the building locations of major process components, including Figures 1.3 and 1.4; descriptions of the process steps; chemical forms of special nuclear material in process; maximum amounts of SNM in process in various building locations; and the types, amounts and discharge points of waste materials discharged to the environment from the processes.

3. Revise Chapter 1 commitments to include a summary identification of the raw materials, by-products, wastes, and finished products of the facility. Include expected levels of trace impurities or contaminants, particularly fission products or transuranic elements, characterized by identity and concentration. Identify the possession of any moderator or reflector with special characteristics, such as beryllium or graphite.

4. Revise Chapter 2 commitments to identify the organization groups responsible for operating the facility and managing the development of design changes to the facility. Include organization charts.

5. Revise Chapter 2 commitments to include a simple mechanism, available for use by any person in the plant, for reporting potentially unsafe conditions to the HS&E organization. Include a clearly-defined description of the lines of communication and authority among the organizational units involved in the engineering, HS&E, and operations functions of the CFFF.

6. Revise Chapter 3 commitments to describe a Configuration Management function that is consistent with the requirements of 10 CFR 70.72(a) and assures consistency among the facility design and operational requirements, the physical configuration, and the facility documentation.

7. Revise Chapter 3 commitments to describe a Maintenance function that includes commitments to inspect, calibrate, test, and maintain IROFS to a level commensurate with their ability to perform their safety functions when required.

8. Revise Chapter 3 commitments to describe a Training and Qualification function that assures that personnel who perform activities relied on for safety are trained and tested as necessary to assure that they understand, recognize the importance of, and are

qualified to perform those activities in a manner that adequately protects the health and safety of workers and the public and protects the environment. Revise Chapter 3 commitments to describe a process for the preparation, use, and management control of written procedures.

9. Revise Chapter 4 commitments to define the conditions under which a process could continue to operate with accident sequence(s) in risk zone 2 as it is defined in the ISA Plan.

10. The Radiation Safety program commitments contained in section 5.2 of the renewal application are too general to demonstrate that the radiation safety program meets the requirements of 10 CFR Part 20.

11. Revise the commitment to ANSI/ANS-8.3 to indicate that you are committing to the standard as modified by Regulatory Guide 3.71.

    NUREG-1520, Section 5.4.3.4.3(2), states that the applicant should commit to ANSI/ANS-8.3-1997, as modified by Regulatory Guide 3.71.

12. Justify the statement given in Section 6.2.43 that all movement of SNM will cease if the CAAS is out of service for more than four hours and provide an explanation on how the restriction on SNM movement will be ensured.

    NUREG-1520, Section 5.4.3.4.3(1), states that the applicant should commit to document that the facility CAAS meets the requirements of 10 CFR 70.24.

13. Clarify if you intend to commit to using the ANS-8 series of national standards for NCS that are applicable to CFFF or provide specific justifications for using alternative approaches.

    NUREG-1520, Section 5.4, states that “if an applicant intends to conduct activities to which a standard applies and the standard has been endorsed by an NRC Regulatory Guide, then a commitment to comply with all the requirements (i.e., “shalls”) is necessary but may not be sufficient to meet the acceptance criteria.” In addition, “Any variations from the requirements of the standard should be identified and justified in the application.” There are a large number of industry standards that are endorsed in Regulatory Guide 3.71, but which are not discussed in the license application (e.g., there is no reference to ANS-8.23, “Nuclear Criticality Accident Emergency Planning and Response). If no alternative approaches are provided, then the commitment needs to be to all the requirements and recommendations in the standards, rather than to some of the requirements and recommendations in the standards.

14. In Section 6.2.6, define exactly what is meant by the phrase, "whenever practicable” when referring to the preferred hierarchy of controls. State whether there is a specified procedure for making the determination of practicability. Also, provide explicit criteria explaining who makes the determination whether following a design principle is practicable, and how the determination is made.

SRP Section 5.4.3.4.2(3) recommends that passive geometry control is preferred and justification should be provided for other controls.

15. Provide a commitment to establish limits on controlled parameters assuming credible optimum conditions (i.e., most reactive conditions physically possible or limited by written commitments to regulatory agencies) unless specified controls are implemented to control the limit to a certain range of values. Also, for all controlled parameters (especially mass, volume, and geometry), commit to consider the most reactive combinations of tolerances on the dimensions and material specifications.

    NUREG-1520, Section 5.4.3.4.1(10)(a), states that "NCS safety limits ... and limits on NCS controlled parameters will be established assuming credible optimum conditions ... unless specified controls are implemented to control the limit to a certain range of values."

16. Revise your commitments in Chapter 6 to perform a validation of computer codes used to the guidance in the SRP or justify an alternative. The commitments in this chapter have been significantly reduced from the current license.

    NUREG-1520, Sections 5.4.3.4.1(6-9) state this guidance.

17. Revise your commitments in Chapter 6 to state that when reflection, moderator, or concentration controls are used, the controls to prevent the presence of the potential reflectors, moderators, or concentrating agents are identified as IROFS, or justify not doing so.

    NUREG-1520, Section 5.4.3.4.2(11)(b), states that "after identifying potential reflectors, the controls to prevent the presence of the potential reflectors are identified as IROFS." NUREG-1520, Section 5.4.3.4.2(12)(b), states that "when process variables can affect the moderation, the process variables are shown in the ISA Summary to be controlled by IROFS." NUREG-1520, Section 5.4.3.4.2(13)(a), states that "when process variables can affect the concentration, the process variables are shown in the ISA Summary to be controlled by IROFS."

18. The Nuclear Criticality Safety program commitments contained in section 6.2 of the renewal application are too general to demonstrate that the Nuclear Criticality Safety program meets the requirements of 10 CFR Part 70.

19. WEC commitments for chem safety do not describe a methodology or outline a program that can be evaluated. The 11 commitments listed in section 7.2 are not adequate to form the basis of a chemical process safety approach or program.

20. The application does not commit to any of the most basic NFPA standards, and should include as a minimum, commitment to: NFPA-10, NFPA-13, NFPA-15, NFPA-20, NFPA-25, NFPA-30, NFPA-50B, NFPA-54, NFPA-70, NFPA-72E, NFPA-78, NFPA-101, NFPA-220, NFPA-600, NFPA-801. Chapter 8 of the application has the rudiments of a satisfactory fire protection program, but very little of it is in the commitments section.