

July 26,2006

Ms. Nancy B. Parr, Licensing Project Manager
Westinghouse Electric Company
Nuclear Fuel
Columbia Fuel Site
P.O. Drawer R
Columbia, SC 29250

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING THE
ENVIRONMENTAL ASSESSMENT FOR WESTINGHOUSE
COLUMBIA FUEL FABRICATION FACILITY MATERIALS LICENSE
SNM-1107 RENEWAL (TAC NO. 31911)

Dear Ms. Parr:

By letter dated September 29, 2005, Westinghouse Electric Company (WEC) submitted an application to the U.S. Nuclear Regulatory Commission (NRC) to renew materials license SNM-1107. While preparing the Environmental Assessment to support the evaluation of this license renewal, NRC staff reviewed the submitted application materials and identified several topics requiring clarification. Many of these topics were discussed during the June 21, 2006 site visit and addressed by your post-site visit letter dated June 28, 2006. However, a number of issues remain to be clarified by WEC. Enclosed is a document containing the NRC staff's requests for additional information (RAIs) regarding those topics that were either not addressed or insufficiently addressed in the license application materials and the subsequent June 28, 2006 letter.

Your full and complete responses to the enclosed RAIs are necessary for the staff to complete its review. In order to meet our schedule, we need to receive your RAI responses within 30 days following the date you receive this letter.

If you have any questions, please contact Ms. Johari Moore of my staff by telephone at (301) 415-7694, or by email at jam7@nrc.gov or contact Mr. Neil Haggerty of my staff by telephone at (301)415-5196, or by email at nxh3@nrc.gov. Written response can be provided to: Johari Moore, c/o Document Control Desk, U.S. Nuclear Regulatory Commission, Mailstop T-7J08, Washington DC, 20555-0001. Thank you for your assistance.

Sincerely,

/RA/

Michael R. Gartman, Acting Chief
Environmental Review Section
Division of Waste Management
and Environmental Protection
Office of Nuclear Material Safety
and Safeguards

N. B. Parr

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Docket No.: 70-1151

License No.: SNM-1107

Enclosure: Requests for Additional Information (RAIs) Supporting the Environmental
Assessment for the Westinghouse Columbia Fuel Fabrication Facility License
Renewal Application

cc: Westinghouse Service List

N. B. Parr

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**REQUESTS FOR ADDITIONAL INFORMATION (RAIs) SUPPORTING THE
ENVIRONMENTAL ASSESSMENT FOR THE WESTINGHOUSE COLUMBIA FUEL
FABRICATION FACILITY LICENSE RENEWAL APPLICATION**

RAI 1

Provide Information on Uses and Related Impacts from Site Activities on the Undeveloped Land

Per NUREG–1748, Environmental Review Guidance for Licensing Actions Associated with Nuclear Material Safety and Safeguards Programs, Section 6.4.1, the environmental report (ER) should identify whether any activities (e.g., building or maintaining roads) have occurred in the undeveloped site property and if so, identify any impacts. The description of the Columbia Fuel Fabrication Facility (CFFF) activities in the ER (Westinghouse Electric Company (WEC), 2004) is limited to the 24.3 ha [60 acres] around the fuel fabrication facility. The information provided in the post-site visit letter (WEC, 2006b) states only that “no *licensed* activities have been conducted on the property outside of the 60 acres where the main facilities are.” Therefore, it is still unclear whether any *unlicensed* activities have been conducted in the 445 ha [1,100 acres] of undeveloped land. Please discuss any *unlicensed* activities conducted in the 445 ha [1,000 acres] of undeveloped land on the CFFF site or state that no unlicensed activities exist.

RAI 2

Provide Regional Air Quality Information

Per NUREG–1748, Section 6.3.6, the ER should provide information related to the regional air quality. The information presented in the ER (WEC, 2004) does not identify the air quality region in which the CFFF site is located or indicate whether this region is designated as an attainment, nonattainment, or maintenance area for any of the six National Ambient Air Quality Standards (NAAQS) (40 CFR 81.343). Depending on the attainment status, either General Conformity (40 CFR Part 93) or Prevention of Significant Deterioration (PSD) (40 CFR 52.21) issues may need to be addressed. The region attainment status can affect the permitted emission levels for the CFFF site and is needed to support the description of air quality and assess potential impacts from CFFF activities. Please identify the air quality region in which the CFFF site is located and indicate whether this region is designated as an attainment, nonattainment, or maintenance area for any of the six NAAQS.

RAI 3

Identify Types and Levels of Nonradiological Air Emissions and Compare to Regulatory Limits

Per NUREG–1748, Section 6.4.6, the ER should provide sampling frequency and emission levels over time for NAAQS pollutants and relevant National Emissions Standards for Hazardous Air Pollutants. The ER should compare these levels to the appropriate regulatory limits, or provide justification for the absence of any portion of this information. Although gaseous effluents from the stacks are sampled and analyzed for ammonia and fluoride, and CFFF possesses an air quality permit authorizing the use of boilers, emergency diesel

Enclosure

generators, and an onsite incinerator (WEC, 2006a), environmental air monitoring data presented in the ER (WEC, 2004) are limited to radiological sampling. Nonradiological air emission information is not provided. Please provide sampling frequency and emission levels (over the past 5 years *at minimum*) for NAAQS pollutants and relevant National Emissions Standards for Hazardous Air Pollutants and compare these levels to the appropriate regulatory limits. Alternatively, provide justification for the absence of any portion of this information.

RAI 4

Provide Historical Radiological Air Emissions Exposure Levels and Compare to Regulatory Limits

Per NUREG–1748, Sections 6.3.11 and 6.4.12.2.2, the ER should provide radiological dose information for exposures to gaseous emissions over time for comparison to the appropriate 10 CFR Part 20 regulatory limits. The environmental report (WEC, 2004) provides one dose calculation for exposure to cumulative stack emissions from a typical year. No historical exposure data (dose calculations for several years) are presented. Please provide radiological dose information for exposures to gaseous emissions over the past 5 years *at minimum*.

RAI 5

Clarify and Expand Description of the Liquid Effluent Monitoring and Compliance

The description of the liquid effluent monitoring for regulatory compliance is not adequate. It is unclear whether or where each of the various liquid effluent streams is monitored for regulatory compliance prior to discharge to the Congaree River. Table 1.13 of the environmental report (WEC, 2004) provides typical effluent levels for nonradiological components. This table does not include total residual chlorine, which is one of the parameters with specified discharge limitations in the National Pollutant Discharge Elimination System permit (WEC, 2004). Only one dose calculation for exposure to liquid effluents is provided (WEC, 2005b). No historical exposure data (dose calculations for several years) is presented. Please provide the following:

- (1) Clarify the description of liquid effluent monitoring so that the sampling location for regulatory compliance is identified and **verify that** all the various liquid effluent streams are monitored prior to discharge to the Congaree River (per NUREG–1748, Section 6.6.2).
- (2) Provide liquid effluent emission levels over the past 5 years *at minimum* for regulated nonradiological contaminants for comparison to regulatory limits (per NUREG–1748, Section 6.4.12.1).
- (3) Provide radiological dose information for liquid effluent exposures over the past 5 years *at minimum* and compare these exposures to the regulatory limits (per NUREG–1748, Sections 6.3.11 and 6.4.12.2.2).

RAI 6

Provide Historical Radiological Dose Exposures for Compliance with Public and Occupational Health Regulations

Per NUREG-1748, Sections 6.3.11 and 6.4.12.2.2, the ER should provide historical public and occupational exposure data (dose calculations for several years) for comparison to 10 CFR Part 20 limits. The radiological exposure data provided for the public is limited to a single year (WEC, 2006a). Data for occupational workers are limited to two years and one of the values may be expressed in incorrect units (0.337 rem in 2004 and 0.376 mrem in 2003) (WEC, 2005b). Please provide historical public and occupational exposure data (dose calculations for the last 5 years *at minimum*) for comparison to 10 CFR Part 20 limits. Also, please verify that the intended units were given in Westinghouse License SNM-1107 Renewal Application Supplemental Environmental Report Information (TAC 31911) (WEC, 2005b).

RAI 7

Clarify Existence and Provide Information for Storm Water Monitoring

Per NUREG-1748, Section 6.2.1.2, the ER should provide monitoring information for the proposed action. The post-site visit letter (WEC, 2006b) does not contain any information about *monitoring* specific to storm water management. Please

- (1) Provide a description of any storm water management monitoring and, if applicable, include regulatory limits and compliance data OR
- (2) Provide justification for the absence of this information.

RAI 8

Provide Generation Rates and Storage Capacity for All Waste Streams

Per NUREG-1748, Section 6.3.12, the ER should provide generation rates and site storage capacities for all types of wastes. Generation rates for hazardous waste are identified as small, and no generation rates for low-level radioactive waste and nonhazardous waste are provided in the ER (WEC, 2004). Storage capacity information for these wastes is not provided. Please provide the generation rates and site storage capacities for all types of wastes created by the proposed action.

RAI 9

Expand Description of Nonradiological Contamination and Remediation of Site Groundwater and Surface Water

Information concerning groundwater remediation of volatile organic compounds (VOCs) is not complete. Site groundwater is contaminated with VOCs (WEC, 2006b). There is limited nonradiological data for groundwater and no data provided for surface water. To enable NRC to assess water quality and understand remediation progress and goals, WEC should:

- (1) State whether the source of the contamination has been identified and/or eliminated
- (2) Provide a brief description of the monitoring program associated with the remediation.
- (3) Provide surface water sampling data associated with this remediation and relate the current VOC levels in site surface water and groundwater to target or regulatory limits.
- (4) Explain the conditions that would allow termination of the remediation process.

RAI 10**Clarify the Existence, Levels, Management, and Impacts of Soil Contamination**

It is unclear whether the CFFF site contains contaminated soil. No mention of soil contamination is found in the environmental report (WEC, 2004). However, VOC spills and leaks have resulted in groundwater contamination that is currently undergoing remediation (WEC, 2004). To resolve these uncertainties, please provide the following:

- (1) Identify whether contaminated soil exists onsite.
- (2) Provide data concerning the levels of contamination and, if applicable, relate to target or regulatory limits.
- (3) Provide information on contaminated soil management.
- (4) Describe impacts from the soil contamination.
- (5) Provide information on monitoring plans for early identification of any future inadvertent groundwater contamination.

RAI 11**Expand Description of Water Use in the Congaree Watershed**

The description of water use in the Congaree watershed is not adequately described. Water use data in the ER (WEC, 2004) include numbers for the state and CFFF site but not for other users in the Congaree watershed. Section 26 of the ER (WEC, 2004) states that the current average plant water use is about 5,284,000 L [1,396,000 gal] per month or, dividing by 30, 176,000 L [46,500 gal] per day and Section 5 states that the average liquid effluent discharge is about 492,000 L [130,000 gal] per day (WEC, 2004). This indicates that the discharged volume of liquid effluent is almost three times the amount consumed by the plant. Per NUREG-1748, Section 6.3.4, and to assess potential future cumulative effects on water availability in the study area, please:

- (1) Provide a more detailed breakdown of water users in the Congaree watershed and their current and anticipated levels of usage. Examples of water user categories include municipal, industrial, and agricultural.
- (2) Ensure the CFFF consumption and discharge numbers provided in the ER are correct.

RAI 12

Provide Rationale for Description of Reasonable Foreseeable Future Actions in the CFFF Site Vicinity

The basis for the WEC statements concerning potential for future actions in the CFFF site vicinity is questionable. WEC states that the potential for major development surrounding the CFFF site is not likely during the license renewal period (WEC, 2005b). No reference to information gathered from independent sources such as a Chamber of Commerce or council of governments is provided. A key feature of cumulative effects assessment is the need to address the combined impacts of past, present, and reasonably foreseeable future actions along with impacts resulting from the proposed actions on common resources, ecosystems, and human communities (Council on Environmental Quality, 1997). Please describe the informational basis for the ER statement concerning potential for future actions in the CFFF site vicinity.

RAI 13

Clarify Description of WEC Assessment of Potential Environmental Impacts from Changes to Facilities and Operations

The review process used to assess potential environmental impacts from new or modified operations and facilities is unclear. The configuration management program described in the license application (WEC, 2005a) appears to address some but not all of these changes. Please clarify the review processes used to assess potential environmental impacts from new or modified operations and facilities.

- (1) Verify that the configuration management program covers all types of new operations, new facilities, modified operations, and modified facilities.
- (2) Alternatively, identify and describe any other program (or group of programs) that is used to address those changes not covered by the configuration management program.

RAI 14

Provide Information on the Electrical Substation Being Constructed Adjacent to the CFFF Property

Per NUREG-1748, Section 6.2.3, the ER should discuss any present actions that could result in cumulative impacts when combined with the proposed action. During the June 21 site visit, the NRC staff was shown a new electric substation currently being constructed adjacent to CFFF property.

The ER (WEC, 2004) does not address this substation or the transfer of land to South Carolina Electric and Gas (SCE&G) to enable the construction of this substation, but the post-site visit letter (WEC, 2006b) states that “an environmental report was written by SCANA.” Please provide a brief description of the new SCE&G substation facility to permit an assessment of potential cumulative effects.

References

Council on Environmental Quality. "Considering Cumulative Effects Under the National Environmental Policy Act." Washington, DC: Council on Environmental Quality. 1997.

NRC, 1995. "Environmental Assessment for Renewal of Westinghouse Electric Corporation License SNM-1107." Docket 70-1151. Washington, DC: NRC. 1995.

WEC, 2004. "Environmental Report for SNM 1107/70-1151—Update." Columbia, South Carolina: WEC. 2004.

WEC, 2005a. "Application for Renewal of a Special Nuclear Material License for the Columbia Fuel Fabrication Facility, Columbia, South Carolina." Columbia, South Carolina: WEC. September 29.

WEC, 2005b. "Westinghouse License SNM-1107 Renewal Application Supplemental Environmental Report Information (TAC 31911)." Letter to M. Adams, Fuel Cycle Facilities Branch, Division of Fuel Cycle Safety and Safeguards. Columbia, South Carolina: WEC. December 16.

WEC, 2006a. "Westinghouse License SNM-1107 Renewal Application Supplemental Environmental Report Information (TAC 31911)." Letter to M. Adams, Fuel Cycle Facilities Branch, Division of Fuel Cycle Safety and Safeguards. Columbia, South Carolina: WEC. January 10.

WEC, 2006b. "Additional Information Requested for Environmental Assessment (TAC 31911)." Letter to M. Adams, Fuel Cycle Facilities Branch, Division of Fuel Cycle Safety and Safeguards. Columbia, South Carolina: WEC. June 28.