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Your ref:
Our ref: LTR-RAC-22-21

Security Related Information Notice
Enclosure2 to this letter contains security related information which is to be withheld from public disclosure in accordance with RIS 2005-31. The balance of this letter may be considered public upon removal of Enclosure 2

March 21, 2022

SUBJECT: Response to NRC Request for Additional Information associated with the SNM-1107 License Renewal Environmental Impact Statement
(License No. SNM-1107, Docket No. 70-115, EPID L-2017-RNW-0016)

REFERENCE: 1) LTR-RAC-21-57, "Westinghouse Revised SNM-1107 License Renewal Application," (September 2021) (ML21263A217)
2) NRC Letter to Westinghouse, "Request for Additional Information – Renewal of Special Nuclear Materials License SNM-1107" (February 2022) (ML22033A070)

Westinghouse Electric Company LLC ("Westinghouse"), the applicant for license renewal for the Columbia Fuel Fabrication Facility ("CFFF"), in Reference (1), reviewed the Request for Additional Information (RAI) provided in Reference (2). Westinghouse is pleased to provide responses to RAIs 1 through 3 for your review.

Please contact me at 803-647-1957 should you have questions or need any additional information.

Patrick Donnelly

Patrick Donnelly
Regulatory Affairs Manager
Westinghouse Columbia Fuel Fabrication Facility
Docket 70-1151 License SNM-1107

Enclosure 1: Westinghouse Response to NRC Request for Additional Information (Non-Proprietary, 6 pages)
Enclosure 2: Revised Sections of the Integrated Safety Analysis of the CFFF Site and Structure (Security-Related Information, 18 pages)

cc:
Mr. Thomas Vukovinsky
Ms. Jennifer Tobin

Enclosure 1

Westinghouse Response to NRC Request for Additional Information

RAI-1 River Flooding

A. Flood levels and flood events

1. Provide the basis of the 100-yr flood elevation of 39.6 meters (m) (130 feet [ft]) described in WEC Site and Structures Integrated Safety Analysis (ISA) Section 4.2.4, "Floods."

Westinghouse Response:

The WEC Site and Structures ISA Sections 1.4.3, "Surface Water" and 4.2.4, "Floods" have been revised to clarify the design basis flood level at the site. Specifically, the FEMA flood study of the area completed in December of 2017 is the most up-to-date and comprehensive flood study available that corresponds to calculated flood levels at the CFFF property. As described in the ISA and on FEMA Flood Zone Map 45079C0395L, the 100-year flood level at the site is 124' per the North American Datum of 1988 (NAVD 88). In addition, the manufacturing area of the plant is in the area specified by FEMA as Zone X, described on the FEMA Zone Map mentioned above as, "Areas determined to be outside the 0.2% annual chance floodplain." Therefore, the manufacturing areas are above the 500-year flood elevation and are not expected to be impacted by a flood for the life of the plant.

2. Provide a basis for the statement in Section 4.2.4 of the Site and Structures ISA that "the main manufacturing building lies in FEMA Zone X, which is above the 100-year and 500-year flood elevations."

Westinghouse Response:

FEMA Flood Zone Map 45079C0395L depicts the CFFF main manufacturing building in an unshaded part of the map. According to the map legend, the manufacturing building is therefore in Zone X, described as being areas determined to be outside the 0.2% annual chance floodplain. Please refer to Westinghouse Site and Structures ISA Sections 1.4.3 and 4.2.4 for more information.

3. With reference to the Site and Structures ISA, explain whether the recurrence intervals provided in Table 1.13, "Significant Flood Events," were used in evaluating flood hazard at the CFFF site.

Westinghouse Response:

Site and Structures ISA Table 1.13 has been revised to remove the recurrence intervals. Westinghouse did not use these values in evaluating the flood hazard at the CFFF site. As described above, the FEMA flood study completed in December of 2017 defines the design basis flood level for the site.

B. Base flood discharge

1. Provide a reference for the U.S. Geological Survey evaluation of base flooding discharge for the Congaree River, described in the Site and Structures ISA Section 4.2.4.

Westinghouse Response:

Site and Structures ISA Sections 1.4.3 and 4.2.4 has been revised to clarify the design basis flood at the CFFF. The base flooding discharge had no impact on the flood level or the flood risk to the site. As such, all reference to the base flooding discharge has been removed from the Site and Structures ISA.

2. Explain how the base flood discharge estimates (described in the Site and Structures ISA) are used in the evaluation of flood hazards at the CFFF site.

Westinghouse Response:

As described above, the base flooding discharge had no impact on the flood level or the flood risk to the site and has been removed from the Site and Structures ISA.

RAI-2 Upstream Dam Failures

A. Failure estimates

1. Provide the basis for the Lake Murray Dam failure estimate.

Westinghouse Response:

Reference 4.3 of the Site and Structures ISA has been updated to reference the "Dam Break Analysis of the Saluda Dam," prepared by Law Engineering for South Carolina Electric & Gas in June of 1991. The analysis is publicly available through the FERC e-Library, accession number 19911001-344.

2. Explain whether failure of Buzzards Roost Dam (Lake Greenwood), or any other dam(s) upstream from Lake Murray (e.g., North Saluda Reservoir Dam or Table Rock Reservoir Dam), was considered in the failure estimate of Lake Murray Dam.

Westinghouse Response:

As noted in the "Dam Break Analysis of the Saluda Dam", the Buzzards Roost dam was included in the analysis. The analysis is publicly available through the FERC e-Library, accession number 19911001-344.

RAI-3 Precipitation/Local Storm Runoff

A. Precipitation

1. Provide the basis for the probable maximum precipitation estimates listed in the Site and Structures ISA, Table 1.7, "Maximum Precipitation Amounts by Month for Richland County."

Westinghouse Response:

Table 1.7 has been updated with information from the South Carolina State Climatology Office, and the associated Reference 1.13 has been added to the Site and Structures ISA.

2. Provide the basis for the rainfall intensity estimates listed in the Site and Structures ISA, Table 1.11, "Rainfall Intensities for the Columbia Area."

Westinghouse Response:

Table 1.11 has been updated with information from the South Carolina Department of Transportation, and the associated Reference 1.7 has been updated in the Site and Structures ISA.

3. Provide the basis for the International Building Code (IBC) 2015 specified design rainfall event (100-year, 1-hour rainfall of 4 inches) described in Site and Structures ISA Section 4.2.2, "Precipitation."

Westinghouse Response:

Section 4.2.2 of the Site and Structures ISA has been updated with the reference of Section 1611.1 of the IBC 2015 code.

4. Precipitation estimates for Columbia during the 2015 event are provided in the Site and Structures ISA Section 4.2.4, (20.8 centimeters (cm) (8.19 inches[in]) in 12 hours, 31.5 cm (12.4 in) over 4 days). Provide estimates of, and the basis for, precipitation at the CFFF site during the same event.

Westinghouse Response:

Westinghouse does not have precipitation data at the CFFF site from the October 2015 rain event. More recently, Westinghouse installed a rain gage and has been monitoring precipitation at the site since 2021.

5. Provide an evaluation of flooding at the CFFF site resulting from local intense precipitation, including estimates of potential flood hazards and the basis for those estimates.

Westinghouse Response:

The manufacturing facility floor elevation is approximately 4 feet above the adjacent ground elevation. The adjacent ground falls away from the manufacturing building in all directions as depicted in the updated Figure 4.1 of the Site and Structures ISA. Water that drains away from the building will flow over the bluff south of the facility rather than ponding. The only way the facility could be flooded by

intense local precipitation is if the water elevation rises above the bluff. As discussed in Section 4.2.4 of the Site and Structures ISA, this scenario is not expected to occur.

6. Describe the preventive and emergency management measures that would be taken should a large rainfall event result in flooding in the CFFF area.

Westinghouse Response:

As described in the Site and Structures ISA Section 4.2.2, a "large rainfall event" is not expected to result in flooding of manufacturing operations in the CFFF area, which was confirmed during the October 2015 intense local rain event. However, should flooding of CFFF manufacturing operations occur, the site Incident Commander (IC) would be notified to assess the condition and would contact the Emergency Director (ED) if there were a safety concern. As needed, the Emergency Operations Center (EOC) would be activated. The EOC members would provide support to the ED, who communicates with the IC. Emergency response priorities would include (1) placing the plant in a safe condition, (2) taking action to protect plant personnel, the environment and essential equipment, (3) safely evacuating non-essential personnel, should the weather conditions allow safe travel and (4) interfacing with off-site response agencies, if required.