



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

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November 18, 2021

Diana Diaz-Toro  
Project 23 Manager  
TWFN-7-A60M  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

RE: EPA Comments on the Draft Environmental Impact Statement for the License Renewal of the Columbia Fuel Fabrication Facility, Richland County, South Carolina. Docket ID NRC-2015-0039, CEQ #20010108

Dear Ms. Diaz-Toro:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS), in accordance with Section 309 of the Clean Air Act and Section 102(2)(c) of the National Environmental Policy Act (NEPA). The DEIS evaluates the environmental effects associated with a relicense renewal request for the Columbia Fuel Fabrication Facility (CFFF) in Hopkins, Richland County, South Carolina. The U.S. Nuclear Regulatory Commission (NRC) prepared the DEIS as part of its environmental review of the Westinghouse Electric Company, LLC (WEC) license renewal application to continue operating the CFFF for an additional 40 years. The CFFF has been operating since 1969.

The DEIS considered three alternatives: No Action alternative, License renewal for 20 years alternative, and License renewal for 40 years alternative. Under the No Action alternative, the NRC would deny the WEC's request to renew CFFF's SNM-5 1107 license for an additional 20-40 years. The WEC would continue to operate the CFFF under its current operating license until it expires on September 30, 2027. The NRC staff evaluated a 20-year license renewal alternative based on the effects on the environment from the 2015 historic flooding event and multiple leaks or spills that have resulted in contamination of the subsurface at the CFFF. The DEIS does not include a preferred alternative. However, the proposed action is the continued operation of the CFFF for an additional 40 years.

Based on the review of the DEIS, we have environmental concerns regarding water resources, air quality, climate, environmental justice (EJ) and tribal issues that should be addressed in the Final EIS and the Safety Evaluation Report. The enclosed detailed comments include specific recommendations to protect human health and the environment and improve the NEPA document.

Thank you for the opportunity to review the proposed project. If you have any questions, please contact Mr. Larry Long of the NEPA Section at (404) 562-9460, or by e-mail at [long.larry@epa.gov](mailto:long.larry@epa.gov).

Sincerely,

Mark J. Fite  
Director  
Strategic Programs Office

Enclosure

EPA Detailed Comments on the  
Draft Environmental Impact Statement for the  
License Renewal of the Columbia Fuel Fabrication Facility  
Docket ID NRC-2015-0039, CEQ #20010108

### **Clean Air Act**

The EPA concerns are based on past operational incidents and violations over the last 15 years, including one which occurred as recently as August 2021. A Health and Safety Plan consistent with Occupational Safety and Health Administration guidance was submitted by CFFF to the South Carolina Department of Health and Environmental and Control (SCDHEC) in response to a Compliance Agreement (CA).

On August 17, 2021, CFFF reported to the NRC that an individual working in the facility suffered chemical burns and was contaminated with radioactive material. There have been incidents onsite where radiological contaminants have been released to the environment outside of the production area for reactor fuel fabrication, but no contamination has been detected offsite.

### **Recommendations**

To better understand the overall compliance issues with CFFF over the past 52 years, we recommend that a non-compliance table be developed showing air releases in chronological order. We also provided more specific recommendations to NRC that should be more clearly addressed in the Safety Evaluation Report and summarized in the Final EIS related to uranium concentrations, level of impacts for workers, and updates on reported employee injuries (See EPA Specific Comments dated November 10, 2021). Additionally, the EPA recommends that a more in-depth analysis be conducted to estimate the cumulative impacts from air releases to the environment and local communities (including down-wind communities).

### **Surface and Groundwater**

On June 5, 2020, the NRC prepared an EIS due to new information related to the WEC's remedial investigations conducted under a CA with SCDHEC. These investigations revealed uncertainty related to the source and extent of contamination onsite and the potential future migration pathways offsite that precluded the NRC staff from making a finding of "no significant impact" through the environmental assessment process. The CFFF has a history of non-compliance associated with groundwater and surface water discharges to Waters of the U.S. The EPA's concerns include:

- Preventing uranium and technetium-99 from being discharged to the Congaree River via the submerged pipeline and/or from storm events via the wastewater treatment facility.
- The partial characterization of the contaminated groundwater plume and its containment.
- Unimplemented flood control measures to curtail discharges to the Congaree River from flood/storm events.
- Cumulative effect of discharges to Waters of the U.S. not fully considered.
- Lack of a risk assessment to inform how contamination may affect downstream and surrounding populations.

### **Recommendations**

- The EPA recommends that WEC and the NRC collaborate with the EPA, SCDHEC and Department of the Interior agencies to further discuss our concerns with preventative discharges, groundwater characterization, and cumulative impacts from the hydraulic and hydrological discharges (flood control) to the Congaree River that might result in impacts to terrestrial and/or aquatic species.
- To better understand compliance issues with CFFF and the risk associated with these discharges, we recommend that further discussions include the facility's history of non-compliance with the CA, the

cumulative impacts of these discharges, how these discharges impact surrounding communities, and the need for a plan to resolve these issues.

- The EPA recommends that uncertainties and issues associated with the migration pathways of radioactive materials be resolved prior to the issuance of any new license and that SCDHEC concur on the findings. The EPA also recommends that concurrence with any groundwater monitoring data collected pursuant to the CA, along with a detailed discussion on the monitoring uncertainties and migration issues be included in the Final EIS and Safety Evaluation Report.
- We also recommend that WEC consider implementing best management practices during maintenance of the facility on an as-needed basis for areas greater than one acre per the Clean Water Act National Pollutant Discharge Elimination System Permit for stormwater, where applicable.
- Based on recent discussions with NRC, the EPA understands that a risk assessment to inform impacts to communities will be included in the Safety Evaluation Report; however, it would be helpful to include any summary of the findings in the Final EIS/Record of Decision.

### **Climate Change**

The DEIS states that the CFFF is in an area where climate change is actively impacting the facility from severe weather events by increased temperature and increased precipitation (and floods) from the extreme weather events such as hurricanes. The events are anticipated to occur at greater frequency and magnitude. These effects increase the potential for local flooding, as the flooding event of October 2015 may have demonstrated, and thereby increase the potential of fate and transport of contaminant releases to the surficial aquifer systems and the cumulative impacts to downstream users on the Congaree River.

### **Recommendations**

The EPA recommends that the discussions in Section 3.7.1.6 “Climate Change” about climate events provide a more in-depth discussion for impacts locally at CFFF due to climate change. The EPA recommends the Final EIS, and the Safety Evaluation Report include a more in-depth discussion on the cumulative effects associated with severe weather events that could potentially impact the local and down-stream communities, as well as preventive measures the CFFF can introduce to mitigate the impacts to local and down-stream communities. Specifically, the EPA recommends that the NRC consider in its decision-making:

- (1) the ongoing and long-term risks posed by climate change where nuclear facilities and associated structures are placed, (i.e., floodplains), and
- (2) if such infrastructure is in areas with elevated risk of damage due to climate change, investments should be made to increase the resilience of the facility infrastructure.

The NRC should also consider requiring applicants to develop climate adaptation plans informed by the U.S. Fourth National Climate Assessment. Additionally, the EPA recommends that the NRC consider in the NEPA analysis potential climate impacts, including, but not limited to, rising sea levels, drought, high intensity precipitation events, and increased fire risk.

### **Tribal**

The DEIS states that the CFFF site has a high probability of significant archaeological resources. The DEIS also notes that scoping comments about archaeological resources were received from the Catawba Indian Nation; Waccamaw Indian People; Pine Hill Indian Tribe; Friends of Congaree Swamp; and Hayden. The DEIS indicates that the area where the CFFF site is located and the nearby surrounding area, particularly along the nearby Congaree River and Congaree National Park, is important historically and archaeologically. The EPA acknowledges that archeological resources are of great importance to tribal and indigenous populations surrounding the facility.

Executive Order 13175 of November 6, 2000 (Consultation and Coordination with Indian Tribal Governments), charges all executive departments and agencies with engaging in regular, meaningful, and robust consultation with Tribal Officials, from federally recognized tribes, in the development of federal policies that have Tribal

implications. There also may be tribal governments that are not currently recognized by the federal government that might have archeological resources that could be relevant to the discussion regarding archeological resources.

#### Recommendations

The EPA recommends that the Final EIS include a discussion related to “*How treaty rights may be affected by the proposed action.*” The Final EIS should explain how the proposed action may impact archeological resources, provide any appropriate technical information that is available, and solicit input about any resource-based treaty rights from tribal agencies. It is also appropriate to request the tribe provide recommendations for the lead agency to consider, to ensure a treaty right is protected. A more in-depth archeological survey needs to be conducted to include the Green Hill Mound Cemetery as well as other cemeteries of historical importance to affected tribes. The EPA recommends that these issues be addressed in the Final EIS.

#### **Environmental Justice**

According to Section 3.16.1 “Minority and Low-Income Populations” the NRC identified 189 potentially affected minority and low-income populations within a 20-mile radius of the CFFF site. Section 3.16.2 “Community Engagement” identified several channels through which community engagement is occurring in the vicinity of the CFFF site, related to the CFFF activities. According to the DEIS, these channels provide several methods by which the CFFF operations information can be shared with minority and low-income communities and opportunities for the communities to inquire about the facility’s impacts and have their questions addressed. However, the DEIS does not discuss any activities that were conducted to directly engage these communities in the public participation process for the proposed project. The EPA acknowledges that the NRC has concluded, based on an evaluation of the potential health and environmental impacts, that no disproportionately high and adverse health or environmental effects are expected to affect these communities with environmental justice (EJ) concerns. Nevertheless, meaningful engagement efforts for potentially affected minority and low-income populations can play an important role in leveraging an agency’s ability to collect data used to inform the decision-making process.

#### Recommendations

The EPA recommends that the Final EIS provide information about the implementation of community engagement activities targeted to the potentially affected minority and low-income populations. This should include a discussion about efforts to meaningfully engage these populations early and often during the development of the Final EIS, and the convening of meetings that were local and convenient for the potentially affected EJ populations. The Federal Interagency Working Group on Environmental Justice report, Promising Practices for EJ Methodologies in NEPA Reviews (also known as the Promising Practices Report) serves as a reference for identifying additional activities that should be considered for the discussion, such as the application of adaptive and innovative approaches to public outreach (i.e., disseminating relevant information) and participation (i.e., receiving community input).