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**SUBJECT: Westinghouse Columbia Fuel Fabrication Facility License Renewal  
Environmental Commitments**

**REFERENCES:**

1. Request for Additional Information regarding the Environmental Review for the Proposed Renewal of the Westinghouse Columbia Fuel Fabrication Facility (CFFF) License (Enterprise Project Identifier L-201-RNW-0016) (ML20275A251).
2. SC Department of Health and Environmental Control (DHEC) – Westinghouse Electric Company Consent Agreement [19-02-HW] (Feb 26, 2019).

Through a series of responses to requests for additional information, Westinghouse Electric Company LLC (Westinghouse) has attempted to clarify the requirements of its Consent Agreement (CA) with DHEC and demonstrate that Westinghouse's compliance with the CA, together with certain license renewal commitments, provide an appropriate basis to assess the environmental impacts of continued operation of CFFF during the requested 40-year license term. The purpose of this letter is to describe the substantive aspects of the CA in more detail, its relevance to the NRC's environmental review, and provide a list of commitments that address uncertainty with respect to any current and future groundwater, surface water, and soil impacts from plant operations. Finally, two new commitments are proposed as items 5 and 6 of this letter.

The CA imposes on Westinghouse requirements that comprehensively address existing onsite groundwater, surface water, and soil impacts from past operations. Under the CA, Westinghouse is required by DHEC to fully characterize the existing onsite impacts from prior operations. The CA further requires that Westinghouse either remediate, or justify why remediation can wait until final decommissioning without impact to the environment offsite.<sup>1</sup> The current environmental monitoring program and the significant investigative work completed under the CA to date continue to confirm that there are no existing threats to the offsite

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<sup>1</sup> DHEC/WEC (South Carolina Department of Health and Environmental Control/Westinghouse Electric Company, LLC). 2019. Consent Agreement 19-02-HW. February 26, 2019. Available at: [https://DHEC.gov/sites/default/files/media/document/BLWM\\_WestinghouseCA%2019-2-HW.pdf](https://DHEC.gov/sites/default/files/media/document/BLWM_WestinghouseCA%2019-2-HW.pdf)

environment.<sup>2</sup> The CA represents an enforceable commitment by Westinghouse to DHEC and therefore it is reasonable to assume compliance with the CA as setting the baseline for evaluating environmental impacts of continued operation under a renewed license. This is consistent with the approach the NRC took in the draft Environmental Assessment (sections 2.4.1.2 and 7.1) for CFFF license renewal which the NRC issued in 2019, in which the NRC in part relied on the CA as a basis for concluding that continued operations would not have a significant impact on the environment.<sup>3</sup>

As explained below, in addition to the CA there are several previously proposed license conditions and commitments for the renewed NRC license. These items delineate how any postulated future impacts would be assessed and the basis for future remedial action decisions. Westinghouse is proposing two new, additional license renewal commitments. The first is a commitment to the NRC to complete the CA. The second provides the NRC with another opportunity to review and approve CFFF's environmental monitoring program after the CA final written report to ensure the program fully reflects the information gathered during the CA, including any remedial actions implemented. Collectively, these proposed license renewal commitments provide further assurance that continued operations will not result in significant environmental impacts.

### **Consent Agreement**

The CA is implemented in five key phases, that are taken directly from the standard remediation process delineated in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). At a high level, the five key phases are:

- Remedial Investigation (RI)
- Feasibility Study (FS)
- Final Approval – Record of Decision (ROD)
- Remedial Design/Remediation Action (RD/RA)
- Remedial Action Completion

Environmental risk and uncertainty decline with each of the five phases of the CA. The CA follows a logical path to systematically identify and address any existing impacts. The key expected outcomes or actions for each phase of the CA are further described in Attachment 1. As previously noted, DHEC can enforce compliance with the CA, therefore it is appropriate to expect compliance with the CA as a baseline assumption for the EIS.

### **License Renewal Commitments**

In preparing the draft EA the NRC took credit for a series of proposed license conditions and commitments to support a finding of no significant impact. Westinghouse continues to support the proposed commitments which include the following:

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<sup>2</sup> Westinghouse Phase II Remedial Investigation Work Plan, (ML20353A280)

<sup>3</sup> Environmental Assessment for the Renewal of SNM-1107 Columbia Fuel Fabrication Facility in Richland County, South Carolina. Draft for Comment at i-ii (Oct. 2019) (ML19228A278).

1. NRC review of an updated environmental monitoring program – As described in the draft EA, a proposed license condition requires Westinghouse to submit its environmental monitoring program to the NRC for review and approval upon either DHEC's approval of the RI Report, as required by the CA, or within five years of the license renewal, whichever comes first. The purpose is to ensure that the NRC can review and assess whether new environmental monitoring requirements are needed once the RI and the accompanying risk assessment are complete. Accordingly, this assures that the NRC reviews and approves any changes to the environmental monitoring program with the benefit of information developed in the RI Report, and updated Conceptual Site Model (CSM), which should serve to eliminate any uncertainty regarding environmental monitoring requirements for historical impacts. Westinghouse proposes wording be added to Chapter 10 of the License Renewal Application (LRA) to capture this commitment.
2. Conceptual Site Model (CSM) Procedure (RA-435) – As also noted in the draft EA, Westinghouse states in its LRA that it will use the CSM to inform decisions about its environmental monitoring program and strategy. Westinghouse recognizes the value of maintaining a CSM that is routinely updated over the licensed life of the facility. The CSM is a key tool to describe the physical, chemical, and biological processes that govern the transport, fate, risk, and level of impact of contamination to ecological and/or human receptors at a spatially defined site. To that end, the commitment to maintain a CSM is described in Chapter 10 of the LRA.
3. Site Remediation Procedure (RA-433) – Westinghouse is committing in Chapter 10 of the LRA to establish and maintain a remediation procedure (RA-433). This procedure has been used in assessing data gathered during the RI. The purpose of RA-433 is to prevent migration of licensed material and/or contamination off-site and to minimize contamination to be remediated during decommissioning. The scope includes recent or newly detected spills or releases. The procedure outlines the decision-making process for either remediating the release or documenting the decision not to remediate prior to decommissioning. In each instance, the procedure involves updating and analyzing the data in the CSM, including the migration pathways and potentially affected receptors. The limits established in RA-433 are taken from the Environmental Protection Agency (EPA) regional screening criteria and NUREG-1757 Revision 1.

The requirement to establish this process is addressed in Chapter 10 of the LRA. RA-433 works in conjunction with the CSM to establish a data driven, regulatory based decision-making process for the licensed life of the facility and will provide a comprehensive record for eventual decommissioning activities.

4. Environmental Data Management Procedure (RA-434)

Westinghouse is committing to establish and maintain an environmental data management procedure (RA-434). The purpose of this procedure is to assess and detect potential trends within the CFFF environmental monitoring program. The procedure outlines actions that the site will take based on sample results for various environmental media. Examples of environmental media include:

- Congaree River effluent discharge
- Congaree River fish
- Congaree River surface water
- Groundwater wells
- Sediment
- Site perimeter air sampling stations
- Site surface water locations
- Soil
- Vegetation

The procedure defines how environmental data is managed and controlled at the site, including receipt of field data, laboratory analytical results, and outputs of the CSM. This procedure defines a standard method for documenting and recording the results of the data evaluation, including the output of the CSM. RA-434 also requires that results exceeding predetermined levels be entered into the Corrective Action Program (CAP).

The requirement to establish this process to enter low level exceedances into CAP are addressed in Chapter 10 of the LRA.

Considering the input of all stakeholders during the environmental review for license renewal, Westinghouse is also voluntarily proposing the following two additional commitments:

5. Completion of the CA - To make completion of the CA enforceable by the NRC, Westinghouse proposes adding the following commitment to Chapter 10 of the LRA. "Westinghouse shall complete the South Carolina Department of Health and Environmental Control (DHEC) Consent Agreement (CA) 19-02-HW. Completion is defined as submittal of the final written report to DHEC documenting Remedial Action Completion."
6. Post CA Monitoring - To provide the NRC with a second opportunity to review environmental monitoring plans at completion of the CA, Westinghouse proposes the following the commitment be added to Chapter 10 of the LRA. "Within 90 days of the submittal of the CA final written report to DHEC, Westinghouse will submit its environmental monitoring program described in Chapter 10 of the LRA to the NRC for review and approval."

In summary, the previously proposed license renewal commitments, together with the new proposed commitments provide additional predictability regarding the treatment of existing impacts and Westinghouse's response to any potential future spills or releases. With these requirements, a high level of assurance exists that current and future environmental conditions will be addressed in a predictable manner that protects the health and safety of our employees and the public and minimizes environmental impacts.

Thank you for considering this information in preparation of the draft EIS. Westinghouse believes the new and previously proposed commitments greatly reduce uncertainty and provide assurances to our stakeholders. Please contact me or my staff at (803) 647-1994 should you have questions or need any additional information.

*Annette Pope*

[Annette Pope \(Apr 6, 2021 15:09 EDT\)](#)

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Director Organizational Effectiveness  
Westinghouse Columbia Fuel Fabrication Facility  
Docket 07001151 License SNM-1107

cc:

Ms. Andrea Kock  
Mr. David Tiktinsky  
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Mr. Nicholas Peterka  
Ms. Diana Diaz-Toro

## Attachment 1: Summary of Consent Agreement Key Phases

**Remedial Investigation (RI)**

The RI is designed to provide a comprehensive evaluation of groundwater, surface water, sediment and soils and encompasses all areas that could be affected by releases from the Columbia Fuel Fabrication Facility (CFFF). The RI includes, but is not limited to, provisions for the following: determining the source(s), nature, and extent of existing contamination, including an assessment of surface water, groundwater, and soil underlying the site; and evaluating risks to human health and the environment. The RI requires a Conceptual Site Model (CSM) that incorporates Westinghouse's current understanding of the hydrogeology, known contaminant sources, and potential pathways of contaminant releases. The CSM is a living document that will be updated and refined as new information is developed. Multiple phases of data collection and assessment are necessary to accomplish the objectives of the RI. Upon completion of the investigation phase as determined by Westinghouse and with approval from DHEC, the CFFF will issue a final Remedial Investigation Report.

The final RI Report will include a risk evaluation, and an updated CSM based on information provided by the RI. DHEC will review the final RI Report for determination of completion of the field investigation and sufficiency of the documentation and will approve the final report. If the RI is determined complete by DHEC, then Westinghouse is required to submit a Feasibility Study Work Plan within 90 days of DHEC acceptance of the final RI Report<sup>1</sup>.

**Feasibility Study (FS)**

Westinghouse will submit a FS Work Plan to evaluate remedial alternatives for the site based upon the following criteria:

- Overall protection of human health and the environment
- Compliance with applicable or relevant and appropriate standards
- Long-term effectiveness and permanence
- Reduction of toxicity, mobility or volume
- Short-term effectiveness
- Implementability
- Cost

To complete the FS, fate and transport assessment is necessary to adequately address the criteria listed above. The FS will by nature require Westinghouse to prepare remediation strategies that protect the health and safety of the public and the environment if they are shown to be needed. The remedial actions determined by the FS reduce the risk and uncertainty from any legacy environmental issues.

One of the many processes and tools that Westinghouse will use in preparation of the FS will be the site remediation procedure, RA-433, "Environmental Remediation." This procedure was developed and implemented to ensure that remediation decisions will be made using objective criteria based on EPA screening and NRC decommissioning limits. Any remediation decision made by Westinghouse for legacy Constituents of Potential Concern (COPC)s will also require DHEC approval. To ensure that the same rigor will apply to any spill or release that may occur in the future, the remediation procedure is a commitment in the LRA and a copy has been made publicly available through the December 18, 2020 Requested for Additional Information (RAI) responses.

**Final Approval/ Record of Decision (ROD)**

After final approval of the FS, DHEC will issue a Record of Decision (ROD) specifying the selected remedy or set of remedies for the CFFF. This ROD documents approval of the remediation strategies outlined in the FS.

**Remedial Design/Remediation Action**

Within 90 days of the issuance of the ROD, Westinghouse will submit a Remedial Design/Remedial Action (RD/RA) Work Plan to implement the ROD<sup>1</sup>. The RD/RA may entail a phased approach whereby certain areas of the Site, or Operable Units (OUs), are prioritized based on risk identified in the RI Report.

Within 90 days after DHEC approval of the RD/RA Work Plan, Westinghouse will submit a Remedial Design (RD) including the design of the selected remedy for any given OU and a schedule of implementation<sup>1</sup>. The schedule of implementation must extend through full completion of the remedy. Upon DHEC approval of the RD and the time schedule for implementation, the RD and schedule will become an enforceable part of the CA.

**Remedial Action Completion**

Within 90 days of completion of the RD activities for any given OU, Westinghouse will submit a Remedial Action Completion Report for the OU<sup>1</sup>.

Upon successful completion of the CA, Westinghouse will submit a final written report to DHEC. The final report must contain all necessary documentation supporting Westinghouse's remediation of the site and successful, complete compliance with the CA. Certain contaminants or areas of contamination may be remediated at the time of decommissioning and these contaminants or areas of contamination will be specified in the ROD. For such contaminants or areas of contamination, the CA is completed when all other contaminants or areas of contamination are remediated as specified by the ROD, where the only remaining activity remaining in the RD/RA Work Plan consists of monitoring and reporting.

<sup>1</sup>Unless an alternative schedule is approved by DHEC