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Subject: Commitments to Address the Columbia Fuel Fabrication Facility Scrubber Event

Westinghouse Electric Company ("Westinghouse") is submitting this letter to describe the actions it is taking to address the unexpected accumulation of uranium material in a scrubber at the Columbia Fuel Fabrication Facility ("Columbia"). As you know, Westinghouse has shut down uranium Conversion Area operations at Columbia and the Nuclear Regulatory Commission ("NRC") staff has sent an Augmented Inspection Team ("AIT") to the Columbia site. Our top priority is to protect the health and safety of the public and site personnel by ensuring the causes of this event are fully understood and to take corrective actions to address those causes, both in the immediate and longer term.

By way of background, last month Westinghouse determined that clean-out material in the inlet transition section of the S-1030 scrubber, operating in the uranium Conversion Area of the Columbia facility, contained a greater uranium mass than the limit in the Columbia licensing safety basis analysis. There were no injuries, and no impact to public health, employee health, or the environment from this event. Westinghouse stopped Conversion Area operations at that time, and plant personnel worked to complete internal analysis of the composition of the material found in the scrubber transition. Site representatives notified the NRC of the issue on July 14, 2016, and updated that notification on July 26, to confirm that the accumulated material was greater than the licensing safety basis uranium mass limit.

After confirming the safe restart of the S-1030 scrubber, Columbia temporarily resumed Conversion Area operations until further testing and sampling were conducted. That testing revealed potentially excessive uranium material in the trough area of the same scrubber. On July 31, 2016, Westinghouse updated its notification to the NRC with this new information. In this update, Westinghouse stated that the scrubber process will remain in a safe shutdown mode until further investigation and corrective actions are completed.

Conversion Area operations at Columbia remain shut down at this time as Westinghouse continues to evaluate the conditions found in the S-1030 scrubber, the causes of those conditions, and corrective actions. Pending completion of future restart activities, Columbia has established administrative controls through a Stop Work Order, including the installation of a lockout on the S-1030 scrubber. If the ongoing

extent of condition reviews reveal concerns associated with mass accumulation on other systems or components, then Westinghouse will place those systems or components under these controls.

Westinghouse has put in place a Recovery Manager to manage restart activities and to develop and implement an overall recovery plan. The role will continue until recovery plan actions are completed. In this role, the Recovery Manager reports directly to the Interim Senior Vice President, Nuclear Fuels and Component Manufacturing. Beyond the restart actions specified below, the recovery plan will include restart activities for additional systems and corrective actions identified in the root cause investigation being performed on this event. Recovery plan actions will be tracked in the corrective action program. The Recovery Manager will assign personnel to independently assess objective evidence of the completion of recovery plan activities.

Additionally, Westinghouse is establishing an Oversight Board comprised of executives from Westinghouse Corporate to approve restart and oversee the effectiveness of recovery plan activities. Westinghouse will engage its Nuclear Safety Review Board to independently advise the Oversight Board on the thoroughness and effectiveness of restart and recovery actions.

Based on currently available information, Westinghouse has identified and commits to take the following actions as necessary to assure safety prior to restart of the S-1030 scrubber system. Specifically, Westinghouse will:

1. Complete a Root Cause Analysis ("RCA") investigation for this event. In accordance with the RCA Charter, the RCA will include an assessment of the nuclear safety culture ("NSC") contributors to the event and identify necessary corrective actions to address gaps noted in the NSC at Columbia.

2. If the RCA investigation identifies additional actions necessary to assure safe operations, then Westinghouse will revise its restart plan to include those actions. Additional immediate or compensatory actions will be identified and put in place for any corrective action to prevent recurrence that is not completed prior to restart.

3. The following immediate actions will be taken prior to restart:
    a. The design, operating and maintenance history of the S-1030 scrubber system, including changes to influents to the scrubber system, will be reviewed to understand the impacts on the mass build up noted in this event. Based upon this review, the safety basis for the scrubber system will be revised. Additionally, the following will be performed for the S-1030 scrubber system:
        i. Review and revise procedures that implement administrative items relied on for safety ("IROFS") to ensure administrative limits are properly defined and to ensure inspection methods that validate compliance to the administrative IROFS can be effectively implemented to meet its safety function.
        ii. Review the adequacy of the management measures applied that support the availability and reliability of the administrative IROFS and correct any identified deficiencies.
        iii. Review and approval of the above actions and the identified corrective actions will be performed by independent criticality safety experts.
        iv. Complete the installation of physical modifications needed to support the revised safety basis.
        v. Conduct training on the changes with personnel impacted or involved in the revised IROFS and management measures for this system.

vi. Develop a post-startup monitoring plan to validate the effectiveness of the above actions.

b. Review Criticality Safety Evaluation ("CSE") accident sequences for wet scrubber ventilation systems with non-favorable geometry ("NFG") components to ensure double contingency protection and proper IROFS implementation. For each, perform inspections to validate system design and operating parameters as well as items (i) through (iii) described above and for items (iv) through (vi) as needed.

c. For ventilation systems with NFG components that are permanently removed from service:
   i. Verify the adequacy of isolation to ensure the potential does not exist for Special Nuclear Material mass accumulation or the potential for moderator addition. Any identified deficiencies will be corrected.
   ii. The following systems will be inspected and cleaned as necessary to ensure no mass build up exists in them: S-1056 Scrubber, Ventilation systems 3A, 3B and 7A filter housings.

d. For CSEs with NFG components that have mass limits, ensure IROFS have been flowed down to Integrated Safety Analyses ("ISA"), sketches and implementing documents. Identified deficiencies will be entered into the corrective action program and corrected as necessary to meet the safety basis prior to returning the system to operation. Perform a sample of the remaining CSEs.

e. For administrative IROFS satisfied by inspection, review and revise procedures that implement the inspections to ensure administrative limits are properly defined and to ensure inspection methods can be effectively implemented to meet its safety function. Identified deficiencies will be entered in the corrective action program and corrected.

f. Perform a historical review (previous 10 years) of the corrective action program and Redbook/Greenbook entries to identify any recurring or longstanding issues that identify potential challenges to the safety basis of any CSE. Identified issues will be entered into the corrective action program and will either be corrected prior to restart or adequate compensatory measures put in place.

g. Implement procedure changes to provide an internal escalation protocol to plant management for IROFS violations, including guidance for situations involving uncertainty in compliance to limits.

h. Revise the "Columbia Plant Safety Event Response Guidelines" to strengthen critical decision making based upon event significance by requiring independence of membership on the Safety Event Management Review Team.

i. Retain an external nuclear criticality safety expert who will remain on site at Columbia to assist in the oversight of Nuclear Criticality Safety ("NCS") functions until corrective actions from the RCA related to this function are complete and an effectiveness review is performed to ensure sustainability of corrective actions. Additionally, Columbia has initiated a search for a permanent new manager for the NCS organization.

j. Develop and present training on the lessons learned from this event, including the results of the nuclear safety culture evaluation, to leadership (front line supervisors and above) and to workers impacted or involved in the control of IROFS and management measures. In addition to this training, senior management of the Columbia Fuels Operations will conduct briefings with each work group to reinforce desired standards, behaviors and expectations regarding their role in nuclear safety.

4. For the NCS organization, conduct a work environment assessment and develop needed corrective actions. Additionally, the Interim Vice President, Columbia Fuels Operations will reinforce desired standards, behaviors, expectations and the lessons learned from this event with all personnel in the NCS organization.

5. Upon completion of items (1) through (4) above, the Interim Vice President, Columbia Fuels Operations will determine readiness for restart of the S-1030 scrubber system, with concurrence by the Recovery Manager and approval by the Oversight Board. Westinghouse will then request restart approval from the NRC Region II Administrator.

In addition, to ensure continued safe operations after restart, Westinghouse further commits to take the following actions:

1. Complete all corrective actions to prevent recurrence identified in the RCA that are not completed prior to restart.

2. Implement the remaining corrective actions identified in the RCA or the recovery plan, including those resulting from the evaluation of NSC contributors to this event.

3. In accordance with Westinghouse corrective action program procedures, conduct effectiveness reviews of corrective actions specified in the RCA.

4. Complete corrective actions identified in the NCS organization work environment assessment.

5. Within 9 months, an independent third party nuclear safety culture assessment will be performed at Columbia and any identified deficiencies will be entered into the corrective action program to track to completion.

6. Implement the post-startup monitoring plan described in item (3) of the list of actions to be taken prior to restart.

7. Upon completion of the foregoing actions, Westinghouse will notify the NRC Region II Administrator.

Westinghouse will implement these actions in a deliberate and conservative manner, with safety as our top priority. We will also continue to work closely with the AIT and other NRC staff to keep the NRC informed of our progress and of information developed as Westinghouse continues to investigate these events.

Should you have any questions, please do not hesitate to contact me, Bruce Phillips (803-647-3170, phlliba@westinghouse.com) or Nancy Parr (803-647-3338, parrnb@westinghouse.com).

Sincerely,

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