

March 17, 2008

Mr. Gerard F. Couture, Manager
Licensing and Regulatory Programs
Westinghouse Electric Co., LLC
Nuclear Fuel
Columbia Fuel Site
Drawer R
Columbia, SC 29250

SUBJECT: AMENDMENT 2 – MARGIN OF SAFETY FOR NORMAL OPERATIONS FOR
FUEL ASSEMBLIES IN THE WASH PIT – SNM-1107 (TAC L32650)

Dear Mr. Couture:

This letter is in reference to your submittal dated September 13, 2007 (ML072610022), in which you requested a license amendment to reduce the normal condition margin of subcriticality for the processing of pressurized water reactor (PWR) fuel assemblies, in the final assembly wash pit, in order to allow processing of these assemblies without the use of neutron absorbing inserts.

Our review determined that the changes are acceptable. Pursuant to Part 70 of Title 10 of the Code of Federal Regulations (CFR), Materials License SNM-1168 is hereby amended. Accordingly, Safety Condition S-1 has been revised as follows:

S-1 Authorized Use: For use in accordance with statements, representations, and conditions in the license application dated June 27, 2007, or as revised, pursuant to 10 CFR 70.32 or 10 CFR 70.72, and the supplements dated July 18, 2007 and September 13, 2007.

In addition, as a result of the Nuclear Regulatory Commission's (NRC's) review, Safety Condition S-5 will be added as:

S-5 Section 6.1.5.2(4) of the license application, for completed fuel assemblies in the Final Assembly Wash Pit, shall only apply to those fuel assemblies authorized in that area as of February 29, 2008; or to future fuel assembly designs meeting the following criteria:

- (1) Fuel assembly calculations are performed using the same conservative assumptions (enrichment of 5 wt% ²³⁵U, full theoretical UO₂ density, the neglect of neutron absorbers and structural materials, fully flooded and reflected by water) as used for existing fuel designs; and either

- (2) The fuel assembly is demonstrated to be bounded by an existing fuel assembly design; or
- (3) The fuel assembly calculations are within the area of applicability of a validation used for an existing fuel assembly design (without requiring an extension to the area of applicability).

If the new fuel design requires a new validation, or an extension to the area of applicability of an existing validation, the licensee shall submit, along with the validation report submitted in accordance with the July 18, 2007 letter, a demonstration that the validation covers the new fuel calculations.

Future fuel designs not meeting this condition shall be subject to a 95/95 k_{eff} of 0.95 for normal conditions.

With the exceptions of S-1 and S-5, all other license conditions remain the same.

The Nuclear Regulatory Commission (NRC) notes that in both the License Renewal and License Amendment 1, the license pages were incorrectly numbered (the last page is incorrectly numbered as page 9 instead of page 8). The page numbering has been corrected in this license amendment.

Enclosed are copies of the amended Materials License SNM-1107 (Enclosure 1), the redacted amended Materials License SNM-1107 (Enclosure 2), and the Safety Evaluation Report (SER) (Enclosure 3), which includes the Environmental Review.

If you have any questions regarding this letter, please contact Breeda Reilly of my staff at (301) 492-3110, or via e-mail to bmr@nrc.gov.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and the redacted Materials License SNM-1107 (Enclosure 2) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Documents Access System. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

In accordance to the provisions of 10 CFR 2.390(d), Materials License SNM-1107 (Enclosure 1) and the SER (Enclosure 3) contain sensitive, unclassified security information, and are therefore deemed Official Use Only and will not be placed in the Public Document Room nor the Publicly Available Records component of the NRC's Agencywide Documents Access and Management System (ADAMS) document system.

Sincerely,

/RA/

Michael Tschiltz, Deputy Director
Fuel Facility Licensing Directorate
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket No.: 70-1151
License No.: SNM-1107
Amendment 2

Enclosures: 1. Materials License SNM-1107
2. Materials License SNM-1107 (redacted version)
3. Safety Evaluation Report

In accordance to the provisions of 10 CFR 2.390(d), Materials License SNM-1107 (Enclosure 1) and the SER (Enclosure 3) contain sensitive, unclassified security information, and are therefore deemed Official Use Only and will not be placed in the Public Document Room nor the Publicly Available Records component of the NRC's Agencywide Documents Access and Management System (ADAMS) document system.

Sincerely,

/RA/

Michael Tschilitz, Deputy Director
 Fuel Facility Licensing Directorate
 Division of Fuel Cycle Safety
 and Safeguards
 Office of Nuclear Material Safety
 and Safeguards

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CLOSES TAC L32650

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