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April 28, 2015  
GO2-15-065

10 CFR 50.46(a)(3)(ii)

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555-0001

**Subject: COLUMBIA GENERATING STATION, DOCKET NO. 50-397  
REPORT OF CHANGES OR ERRORS IN ECCS LOCA ANALYSIS  
MODELS PURSUANT TO 10 CFR 50.46**

Dear Sir or Madam:

This report is provided in accordance with 10 CFR 50.46(a)(3)(ii), which requires, in part, annual reporting of changes to or errors in evaluation models used for calculating emergency core cooling system (ECCS) performance and an estimate of their effect on the limiting ECCS analysis.

The Columbia Generating Station (Columbia) core consists of a mixture of AREVA ATRIUM-10 and Global Nuclear Fuels (GNF) GE14 fuel. The attached report provides the details related to changes affecting the analysis of record related to the GE14 fuel for this reporting period. The impact of the absolute change to the peak cladding temperature (PCT) is estimated to be 15°F. Since the last 10 CFR 50.46 report dated April 29, 2014, there were no changes or errors reported to Columbia Generating Station by the fuel vendor AREVA.

The licensing basis Peak Clad Temperature for all fuel types in the core remains within the acceptance criteria set forth in 10 CFR 50.46 (i.e.,  $\leq 2200^{\circ}\text{F}$ ). This letter meets the annual reporting requirements.

There are no commitments being made to the NRC herein. If you have any questions or require additional information, please contact Mr. J. R. Trautvetter at (509) 377-4337.

Respectfully,

A. L. Javorik  
Vice President, Engineering

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Page 2 of 2

Attachment: Loss of Coolant Accident Margin Summary Sheet – Annual Report for 2014

cc: NRC Region IV Administrator  
NRC NRR Project Manager  
NRC Senior Resident Inspector/988C  
CD Sonoda – BPA/1399  
WA Horin – Winston & Strawn

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Attachment 1

Page 1 of 1

**Loss of Coolant Accident Margin Summary Sheet - Annual Report for 2014**

Plant Name: Columbia Generating Station

Utility Name: Energy Northwest

Evaluation Model: (Description or Name) GE14: SAFER/GESTR-LOCA Models,

ATRIUM-10: EXEM BWR-2000 ECCS Evaluation Model

<b>GE14 Fuel – Prior 10 CFR 50.46 Changes or Error Corrections – This Year</b>		<b>Net PCT Effect</b>	<b>Absolute PCT Effect</b>
2014 – GE14 Fuel Change 1	$\Delta PCT =$	0°F	0°F
2014 – GE14 Fuel Change 2	$\Delta PCT =$	0°F	0°F
2014 – GE14 Fuel Change 3	$\Delta PCT =$	-10°F	10°F
2014 – GE14 Fuel Change 4	$\Delta PCT =$	5°F	5°F
GE14 Fuel – Absolute Sum of 10 CFR 50.46 Changes	$\Delta PCT =$		15°F

<b>ATRIUM-10 – Prior 10 CFR 50.46 Changes or Error Corrections – This Year</b>		<b>Net PCT Effect</b>	<b>Absolute PCT Effect</b>
2014 – ATRIUM-10 Fuel – No Changes	$\Delta PCT =$	0°F	0°F
ATRIUM-10 Fuel – Absolute Sum of 10 CFR 50.46 Changes	$\Delta PCT =$		0°F

The sum of the PCT (Peak Cladding Temperature) from the most recent analysis using an acceptable evaluation model and the estimates of PCT impact for changes and errors identified since this analysis is less than 2200 degrees F. PCT prior to report was 1735 °F for GE14 Fuel and 1603 °F for ATRIUM-10 fuel. Current PCT including all changes and errors is 1730 °F for GE14 Fuel and 1603 °F for ATRIUM-10 fuel.

References:

1. GE Hitachi. "10 CFR 50.46 Notification Letter 2014-01", 21 May 2014.
2. GE Hitachi, "10 CFR 50.46 Notification Letter 2014-02", 21 May 2014
3. GE Hitachi, "10 CFR 50.46 Notification Letter 2014-03", 21 May 2014.
4. GE Hitachi, "10 CFR 50.46 Notification Letter 2014-04", 21 May 2014.
5. NE-02-03-08 Revision 2, "10 CFR 50.46 Cumulative PCT - Changes in ECCS LOCA Models"