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GO2-19-066

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 EMERGENCY CORE COOLING  
SYSTEM LOSS OF COOLANT ACCIDENT 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 Global Nuclear Fuel GE14 fuel and Global Nuclear Fuel GNF2 fuel. The attached report provides the details related to changes affecting the analysis of record for this reporting period.

Since the last 10 CFR 50.46 report dated April 12, 2018, there were no changes or errors reported to Columbia by the fuel vendor Global Nuclear Fuel. There have been no changes to the evaluation models used for calculating ECCS performance. 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.,  $\leq 2200$  °F).

There are no commitments being made to the Nuclear Regulatory Commission herein. If you have any questions, or require additional information, please contact Mr. S. A. Nappi at (509) 377-4598.

Executed on this 17<sup>th</sup> day of April, 2019

Respectfully,

A. L. Javorik  
Vice President, Engineering

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Attachment: Loss of Coolant Accident Margin Summary Sheet – Annual Report for 2018

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

**Loss of Coolant Accident Margin Summary Sheet – Annual Report for 2018  
(Per NFM-4-1 Table 7-b)**

Plant Name: Columbia Generating Station				
Utility Name: Energy Northwest				
Evaluation Model: (Description or Name) GE14: SAFER/GESTR-LOCA Models, GNF-2: SAFER/PRIME-LOCA Models				
			<b>Net PCT Effect</b>	<b>Absolute PCT Effect</b>
A.	GE14 Fuel – Prior 10 CFR 50.46 Changes or Error Corrections – This Year			
	2018 – GE14 Fuel – No Changes	$\Delta$ PCT =	0 °F	0 °F
	GE14 Fuel - Absolute Sum of 10 CFR 50.46 Changes	$\Delta$ PCT =		0 °F
B.	GNF2 Fuel - Prior 10 CFR 50.46 Changes or Error Corrections - This Year			
	2018 – GNF2 Fuel – No Changes	$\Delta$ PCT =	0 °F	0 °F
	GNF2 Fuel – Absolute Sum of 10 CFR 50.46 Changes	$\Delta$ PCT =		0 °F

The sum of the Peak Cladding Temperature (PCT) 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 °F. PCT prior to this report was 1730 °F for GE14 Fuel and 1700 °F for GNF2 fuel. The current PCT for this report is unchanged for both GE14 fuel and GNF2 fuel.

References:

1. NE-02-03-08 Revision 5, 10 CFR 50.46 Cumulative PCT – Changes in ECCS LOCA Models
2. AR 387871, 10 CFR 50.46 (ECCS) Annual reporting requirements (187662)
3. NFM-4-1 Revision 3, Tracking Changes in ECCS LOCA Analysis