



J. Kent Dittmer  
Columbia Generating Station  
P.O. Box 968, PE01  
Richland, WA 99352-0968  
Ph. 509-377-4248 | F. 509-377-2354  
jkdittmer@energy-northwest.com

March 15, 2021

GO2-21-041

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 attached report provides the details related to changes affecting the analysis of record for this reporting period. 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 Ms. D.M. Wolfgramm, Manager, Regulatory Affairs, at (509) 377-4792.

Executed on this 15 day of March, 2021.

Respectfully,

DocuSigned by:  
  
60D4E7CA44C64D4...

J. Kent Dittmer  
Vice President, Engineering

Attachment: Loss of Coolant Accident Margin Summary Sheet – Annual Report for 2020

cc: NRC Region IV Administrator  
NRC NRR Project Manager  
NRC Senior Resident Inspector  
CD Sonoda – BPA

**GO2-21-041**

Attachment

Page 1 of 1

**LOCA Margin Summary Sheet – Annual Report**

(Per NFM-4-1 Table 7-b)

Plant Name: Columbia Generating Station				
Utility Name: Energy Northwest				
Evaluation Model: (Description or Name)      GNF-2: SAFER/PRIME-LOCA Models				
			<b>Net PCT Effect</b>	<b>Absolute PCT Effect</b>
	<b>GNF2 Fuel - Prior 10 CFR 50.46 Changes or Error Corrections - Prior year (2020)</b>			
	GEH – NL 2020-01 PRIME coding errors	$\Delta$ PCT =	0 °F	0 °F
	GEH – NL 2020-02 Safer04A E4 Revision	$\Delta$ PCT =	0 °F	0 °F
	<b>GNF2 Fuel - Prior 10 CFR 50.46 Changes or Error Corrections - This year (2021)</b>			
	GEH – NL 2021-01 Error in Fuel Pellet to Plenum Spring Conductance	$\Delta$ PCT =	0 °F	0 °F
	GEH – NL 2021-02 Discrepancy in Inner Cladding Surface Roughness	$\Delta$ PCT =	0 °F	0 °F
	<b>GNF2 Fuel -Absolute Sum of 10 CFR 50.46 Changes</b>	<b><math>\Delta</math>PCT =</b>		<b>0 °F</b>

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 °F. PCT prior to this report was 1700 °F for GNF2 fuel.

The current PCT for this report is unchanged for GNF2 fuel.

## References:

1. NE-02-03-08 Revision 8, "10CFR50.46 Cumulative PCT – Changes in ECCS LOCA Models"
2. AR 00414172, "Provide Licensing information per 10 CFR 50.46(a)(3)(ii)"
3. NFM-4-1 Revision 3, "Tracking Changes in ECCS LOCA Analysis"