



Entergy Nuclear Operations, Inc.
Palisades Nuclear Plant
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Otto W. Gustafson
Licensing Manager

PNP 2013-031

April 11, 2013

10 CFR 50.46

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

Subject: Report of Changes in Emergency Core Cooling System Models

Palisades Nuclear Plant
Docket 50-255
License No. DPR-20

Dear Sir or Madam:

Entergy Nuclear Operations, Inc. (ENO) is submitting the annual report of changes in the emergency core cooling system (ECCS) models for the Palisades Nuclear Plant (PNP). The report is submitted in accordance with 10 CFR 50.46(a)(3)(ii).

Attachment 1 contains the large break loss of coolant accident (LOCA) peak clad temperature (PCT) summary. Attachment 2 contains the small break LOCA PCT summary. There have been no changes to either the small or large break LOCA PCT summary since the previous annual report. This report covers the period from April 12, 2012, through April 11, 2013.

This letter contains no new commitments and no revisions to existing commitments.

Sincerely,

A handwritten signature in black ink, appearing to read "Otto W. Gustafson".

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Attachment 1: Large Break Loss of Coolant Accident Peak Cladding Temperature Summary

Attachment 2: Small Break Loss of Coolant Accident Peak Cladding Temperature Summary

CC Administrator, Region III, USNRC
Project Manager, Palisades, USNRC
Resident Inspector, Palisades, USNRC

**ATTACHMENT 1
LARGE BREAK LOSS OF COOLANT ACCIDENT
PEAK CLADDING TEMPERATURE SUMMARY**

	Δ PCT (°F)	PCT (°F)
PCT (Last Acceptable Model Results) New Cycle 21 Analysis		1740
10 CFR 50.46 Changes		
CR 2009-337 S-RELAP5 Radiation to Fluid Correlation Under Predicts the Radiative Heat Transfer	-27	1713
PCT (2009 Annual Report)		1713
10 CFR 50.46 Changes		
CR 2009-2309 S-RELAP5 Kinetics and Heat Conduction Model	-22	1691
PCT (2010 Annual Report)		1691
PCT (2011 Annual Report)		1691
10 CFR 50.46 Changes		
CR 2011-7155 S-RELAP5 Sleicher-Rouse Correlation	+8	
PCT (2012 Annual and 30-Day Report)		1699
PCT (2013 Annual Report)		1699

**ATTACHMENT 2
SMALL BREAK LOSS OF COOLANT ACCIDENT
PEAK CLADDING TEMPERATURE SUMMARY**

	Δ PCT (°F)	PCT (°F)
PCT (Last Acceptable Model Results) New Cycle 21 Analysis		1734
10 CFR 50.46 Changes		
CR 2009-337 S-RELAP5 Radiation to Fluid Correlation Under Predicts the Radiative Heat Transfer	-64	
PCT (2009 Annual Report)		1670
10 CFR 50.46 Changes		
CR 2009-2309 S-RELAP5 Kinetics Model	+4	
PCT (2009 30-Day Report)		1674
PCT (2010 Annual Report)		1674
PCT (2011 Annual Report)		1674
10 CFR 50.46 Changes		
CR 2011-7155 S-RELAP5 Sleicher-Rouse Correlation	-3	
PCT (2012 Annual and 30-Day Report)		1671
PCT (2013 Annual Report)		1671