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Ref. # 10CFR50.46

April 13, 2015

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

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT (CPNPP)
DOCKET NOS. 50-445 AND 50-446
ANNUAL REPORT OF CHANGES IN PEAK CLADDING TEMPERATURE

- REF: 1. Letter logged TXX-12146, dated October 18, 2012, from Rafael Flores of Luminant Power to the NRC regarding "30-Day Report for Significant Change in Peak Clad Temperature"
2. Letter logged TXX-14058, dated April 22, 2014, from Rafael Flores of Luminant Power to the NRC regarding "30-Day Report for Significant Change in Peak Clad Temperature"

Dear Sir or Madam:

Pursuant to 10CFR50.46(a)(3)(ii); Luminant Generation Company LLC (Luminant Power) hereby submits the attached peak cladding temperatures (PCT) for Comanche Peak Nuclear Power Plant (CPNPP), Units 1 and 2. The Large-Break Loss-of-Coolant-Accident (LBLOCA) and Small-Break Loss-of-Coolant Accident analysis for Units 1 and 2 were performed for Luminant Power with the approved Westinghouse methodologies listed in Technical Specification 5.6.5. Per Reference 1, Luminant Power previously submitted information regarding fuel pellet thermal conductivity with fuel burnup in the Westinghouse Best Estimate LBLOCA analysis methodology for CPNPP Units 1 and 2. Also, per Reference 2, Luminant Power submitted information regarding an evaluation of revised Heat Transfer Multiplier Distributions, changes to Grid Blockage Ratio and Porosity, and application of a corrected Burst Strain in the Westinghouse Best Estimate LBLOCA analysis methodology for CPNPP Unit 2 and its effect on Peak Cladding Temperature (PCT).

Luminant Power has reviewed the notification of 10CFR50.46 reporting information pertaining to the Emergency Core Cooling System (ECCS) Evaluation Model changes that were implemented by Westinghouse for 2014. The review concludes that the effect of additional changes to, or errors in, the Evaluation Models on the limiting transient PCT were not significant for 2014.

This report of the ECCS Evaluation Model changes provides an update on an annual basis. Attachment 1 provides an assessment of the specific changes and enhancements to the Westinghouse Evaluation Models for 2014.

A-002
NRR

Attachment 2 provides the calculated LBLOCA and Small Break Loss-of-Coolant Accident PCT margin allocations in effect for the 2014 Comanche Peak Units 1 and 2 Evaluation Models. There were no changes, error corrections, or enhancements to the 1985 Westinghouse Small Break Loss-of-Coolant Accident Evaluation Model with NOTRUMP. The PCT values determined in the LBLOCA analysis of record, combined with all of the PCT allocations, remain well below the 10CFR50.46 regulatory limit of 2200 degrees Fahrenheit. Therefore, CPNPP Units 1 and 2 are in compliance with 10CFR50.46 requirements and no other action is required.

This communication contains no new licensing basis commitments regarding CPNPP Units 1 and 2.

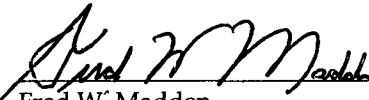
Should you have any questions, please contact Mr. J. D. Seawright at (254) 897-0140.

Sincerely,

Luminant Generation Company LLC

Rafael Flores

By:



Fred W. Madden
Director, External Affairs

- Attachments -
1. Assessment of Specific Changes and Enhancements to the Westinghouse Evaluation Models for 2014
 2. CPNPP Units 1 and 2 Peak Cladding Temperatures

c - Marc L. Dapas, Region IV
Balwant K. Singal, NRR
Resident Inspectors, Comanche Peak

Assessment of Specific Changes and Enhancements to the Westinghouse Evaluation Models for 2014

GENERAL CODE MAINTENANCE

Background

Various changes have been made to enhance the usability of codes and to streamline future analyses. Examples of these changes include modifying input variable definitions, units and defaults; improving the input diagnostic checks; enhancing the code output; optimizing active coding; and eliminating inactive coding. These changes represent Discretionary Changes that will be implemented on a forward-fit basis in accordance with Section 4.1.1 of WCAP-13451, "Westinghouse Methodology for Implementation of 10 CFR 50.46 Reporting."

Affected Evaluation Model(s)

1996 Westinghouse Best Estimate Large Break LOCA Evaluation Model
2004 Westinghouse Realistic Large Break LOCA Evaluation Model Using Automated
Statistical Treatment of Uncertainty Method (ASTRUM)
1985 Westinghouse Small Break LOCA Evaluation Model with NOTRUMP

Estimated Effect

The nature of these changes leads to an estimated Peak Cladding Temperature (PCT) impact of 0 degrees Fahrenheit (°F).

ERRORS IN DECAY GROUP UNCERTAINTY FACTORS

Background

Errors in the calculation of decay heat were discovered in the WCOBRA/TRAC code. The decay group uncertainty factors for each fissile isotope are provided in Table 8-14 of WCAP-16009-P-A. The uncertainty factors for ^{239}Pu were applied to ^{238}U , and those for ^{238}U were applied to ^{239}Pu . This error causes an over-prediction of the uncertainty in decay power from ^{239}Pu and an under-prediction of the uncertainty in decay power from ^{238}U . Further, the decay group uncertainty factor for Decay Group 6 of ^{235}U was erroneously coded as 2.5% instead of 2.25%. Correction of these errors impacts the application of the sampled decay heat uncertainty, which may result in small changes to the decay heat power. These issues have been evaluated to estimate the impact on Automated Statistical Treatment of Uncertainty Method (ASTRUM) Best-Estimate (BE) Large-Break Loss-of-Coolant Accident (LBLOCA) analysis results. The resolution of these issues represents a closely-related group of Non-Discretionary Changes in accordance with Section 4.1.2 of WCAP-13451.

Affected Evaluation Model

2004 Westinghouse Realistic Large Break LOCA Evaluation Model Using ASTRUM

Estimated Effect

The issues described above are judged to have either no effect or a negligible effect on the LBLOCA analysis results, leading to an estimated Peak Cladding Temperature (PCT) impact of 0°F for Comanche Peak Units 1 and 2.

FUEL ROD GAP CONDUCTANCE ERROR

Background

An error was identified in the fuel rod gap conductance model in the NOTRUMP computer code (reactor coolant system response model). The error is associated with the use of an incorrect temperature in the calculation of the cladding emissivity term. This error corresponds to a Non-Discretionary Change as described in Section 4.1.2 of WCAP-13451.

Affected Evaluation Model(s)

1985 Westinghouse Small Break LOCA Evaluation Model with NOTRUMP

Estimated Effect

The estimated effect was determined based on a combination of engineering judgment of the phenomena and physics of a small break LOCA and sensitivity calculations performed with the advanced plant version of NOTRUMP. It was concluded that this error has a negligible effect on small break LOCA analysis results, leading to an estimated Peak Cladding Temperature (PCT) impact of 0°F.

RADIATION HEAT TRANSFER MODEL ERROR

Background

Two errors were discovered in the calculation of the radiation heat transfer coefficient within the fuel rod model of the NOTRUMP computer code (reactor coolant system response model). First, existing logic did not preclude non-physical negative or large (negative or positive) radiation heat transfer coefficients from being calculated. These erroneous calculations occurred when the vapor temperature exceeded the cladding surface temperature or when the predicted temperature difference was less than 1°F. Second, a temperature term incorrectly used degrees Fahrenheit instead of Rankine. These errors represent a closely related group of Non-Discretionary problems in accordance with Section 4.1.2 of WCAP-13451.

Affected Evaluation Model(s)

1985 Westinghouse Small Break LOCA Evaluation Model with NOTRUMP

Estimated Effect

The estimated effect was determined based on a combination of engineering judgment of the phenomena and physics of a small break LOCA and sensitivity calculations performed with the advanced plant version of NOTRUMP. It was concluded that this error has a negligible effect on small break LOCA analysis results, leading to an estimated Peak Cladding Temperature (PCT) impact of 0°F.

SBLOCTA PRE-DNB CLADDING SURFACE HEAT TRANSFER COEFFICIENT CALCULATION

Background

Two errors were discovered in the pre-departure from nucleate boiling (pre-DNB) cladding surface heat transfer coefficient calculation in the SBLOCTA code (cladding heat-up calculations). The first error is a result of inconsistent time units (hours vs. seconds) in the parameters used for the calculation of the Reynolds and Prandtl numbers, and the second error relates to an incorrect diameter used to develop the area term in the cladding surface heat flux calculation. Both of these issues impact the calculation of the pre-DNB convective heat transfer coefficient, representing a closely related group of Non-Discretionary Changes to the Evaluation Model as described in Section 4.1.2 of WCAP-13451.

Affected Evaluation Model(s)

1985 Westinghouse Small Break LOCA Evaluation Model with NOTRUMP

Estimated Effect

These errors have been corrected in the SBLOCTA code. Because this condition occurred prior to DNB, it was judged that these errors had no direct impact on the cladding heat-up related to the core uncover period. A series of validation tests were performed and confirmed that these errors have a negligible effect on SBLOCA analysis results, leading to an estimated Peak Cladding Temperature (PCT) impact of 0°F.

CPNPP Units 1 and 2 Peak Cladding Temperatures

Westinghouse LOCA Peak Clad Temperature Summary for ASTRUM Best Estimate Large Break

Plant Name: Comanche Peak Unit 1
Utility Name: Luminant
Revision Date: 2/5/2015

Analysis Information

EM:	ASTRUM (2004)	Analysis Date:	7/27/2007	Limiting Break Size:	Guillotine
FQ:	2.5	FdH:	1.6		
Fuel:	OFA	SGTP (%):	10		
Notes:					

	Clad Temp (°F)	Ref.	Notes
LICENSIS BASIS			
Analysis-Of-Record PCT	1492	1	
PCT Assessments (Delta PCT)			
A. PRIOR ECCS MODEL ASSESSMENTS			
1. Evaluation of Fuel Pellet Thermal Conductivity Degradation and Peaking Factor Burndown	122	2	(a)
2. Revised Heat Transfer Multiplier Distributions	-6	3	
3. Error in Burst Strain Application	21	4	
B. PLANNED PLANT MODIFICATION EVALUATIONS			
1. None	0		
C. 2014 ECCS MODEL ASSESSMENTS			
1. None	0		
D. OTHER			
1. None	0		
LICENSING BASIS PCT + PCT ASSESSMENTS	PCT = 1629		

References:

1. WCAP-16762-P, Revision 1, "Best-Estimate Analysis of the Large-Break Loss-of-Coolant Accident for the Comanche Peak Nuclear Power Plant Unit 1 Using the ASTRUM Methodology," March 2009.
2. LTR-LIS-12-410, "Comanche Peak Units 1 and 2, 10 CFR 50.46 Notification and Reporting for Fuel Pellet Thermal Conductivity Degradation and Peaking Factor Burndown," September 20, 2012.
3. LTR-LIS-13-359, "Comanche Peak Units 1 and 2 10CFR50.46 Report for Revised Heat Transfer Multiplier Distributions," July 2013.
4. LTR-LIS-14-43, "Comanche Peak Units 1 and 2 10CFR50.46 Report for the HOTSPOT Burst Strain Error Correction," January 2014.

Notes:

- (a) This evaluation credits peaking factor burndown, see Reference 2.

CPNPP Units 1 and 2 Peak Cladding Temperatures

Westinghouse LOCA Peak Clad Temperature Summary for ASTRUM Best Estimate Large Break

Plant Name: Comanche Peak Unit 1
Utility Name: Luminant
Revision Date: 2/5/2015

Cycle 18

Analysis Information

EM: ASTRUM (2004)	Analysis Date: 7/27/2007	Limiting Break Size: Guillotine
FQ: 2.5	FdH: 1.6	
Fuel: OFA	SGTP (%): 10	
Notes:		

	Clad Temp (°F)	Ref.	Notes
LICENSIS BASIS			
Analysis-Of-Record PCT	1492	1	
PCT Assessments (Delta PCT)			
A. PRIOR ECCS MODEL ASSESSMENTS			
1. Evaluation of Fuel Pellet Thermal Conductivity Degradation and Peaking Factor Burndown	122	3	(a)
2. Revised Heat Transfer Multiplier Distributions	-6	4	
3. Error in Burst Strain Application	21	5	
B. PLANNED PLANT MODIFICATION EVALUATIONS			
1. PBOT/PMID Violation	0	2	
C. 2014 ECCS MODEL ASSESSMENTS			
1. None	0		
D. OTHER			
1. None	0		
LICENSING BASIS PCT + PCT ASSESSMENTS	PCT = 1629		

References:

- WCAP-16762-P, Revision 1, "Best-Estimate Analysis of the Large-Break Loss-of-Coolant Accident for the Comanche Peak Nuclear Power Plant Unit 1 Using the ASTRUM Methodology," March 2009.
- LTR-LIS-14-414, "LBLOCA PCT Rackup Sheet Update for the Evaluation of the Comanche Peak Unit 1 Cycle 18 PBOT/PMID Violations," September 2014.
- LTR-LIS-12-410, "Comanche Peak Units 1 and 2, 10 CFR 50.46 Notification and Reporting for Fuel Pellet Thermal Conductivity Degradation and Peaking Factor Burndown," September 20, 2012.
- LTR-LIS-13-359, "Comanche Peak Units 1 and 2 10CFR50.46 Report for Revised Heat Transfer Multiplier Distributions," July 2013.
- LTR-LIS-14-43, "Comanche Peak Units 1 and 2 10CFR50.46 Report for the HOTSPOT Burst Strain Error Correction," January 2014.

Notes:

- (a) This evaluation credits peaking factor burndown, see Reference 3.

CPNPP Units 1 and 2 Peak Cladding Temperatures

Westinghouse LOCA Peak Clad Temperature Summary for ASTRUM Best Estimate Large Break

Plant Name: Comanche Peak Unit 1
Utility Name: Luminant
Revision Date: 2/5/2015

Cycle 17 Retired

Analysis Information

EM: ASTRUM (2004)	Analysis Date: 7/27/2007	Limiting Break Size: Guillotine	
FQ: 2.5	FdH: 1.6		
Fuel: OFA	SGTP (%): 10		
Notes:			

	Clad Temp (°F)	Ref.	Notes
LICENSIS BASIS			
Analysis-Of-Record PCT	1492	1	
PCT Assessments (Delta PCT)			
A. PRIOR ECCS MODEL ASSESSMENTS			
1. Evaluation of Fuel Pellet Thermal Conductivity Degradation and Peaking Factor Burndown	122	3	(a)
2. Revised Heat Transfer Multiplier Distributions	-6	4	
3. Error in Burst Strain Application	21	5	
B. PLANNED PLANT MODIFICATION EVALUATIONS			
1. PBOT/PMID Violation	0	2	
C. 2014 ECCS MODEL ASSESSMENTS			
1. None	0		
D. OTHER			
1. None	0		
LICENSING BASIS PCT + PCT ASSESSMENTS	PCT = 1629		

References:

1. WCAP-16762-P, Revision 1, "Best-Estimate Analysis of the Large-Break Loss-of-Coolant Accident for the Comanche Peak Nuclear Power Plant Unit 1 Using the ASTRUM Methodology," March 2009.
2. LTR-LIS-13-160, "LBLOCA PCT Rackup Sheet Update for the Evaluation of the Comanche Peak Unit 1 Cycle 17 PBOT/PMID Violations," March 2013.
3. LTR-LIS-12-410, "Comanche Peak Units 1 and 2, 10 CFR 50.46 Notification and Reporting for Fuel Pellet Thermal Conductivity Degradation and Peaking Factor Burndown," September 20, 2012.
4. LTR-LIS-13-359, "Comanche Peak Units 1 and 2 10CFR50.46 Report for Revised Heat Transfer Multiplier Distributions," July 2013.
5. LTR-LIS-14-43, "Comanche Peak Units 1 and 2 10CFR50.46 Report for the HOTSPOT Burst Strain Error Correction," January 2014.

Notes:

- (a) This evaluation credits peaking factor burndown, see Reference 3.

CPNPP Units 1 and 2 Peak Cladding Temperatures

Westinghouse LOCA Peak Clad Temperature Summary for Appendix K Small Break

Plant Name: Comanche Peak Unit 1
Utility Name: Luminant
Revision Date: 2/5/2015

Analysis Information

EM:	NOTRUMP	Analysis Date:	6/8/2007	Limiting Break Size:	4 inch
FQ:	2.5	FdH:	1.6		
Fuel:	OFA	SGTP (%):	10		
Notes:					

	Clad Temp (°F)	Ref.	Notes
LICENSIS BASIS			
Analysis-Of-Record PCT	1013	1	
PCT Assessments (Delta PCT)			
A. PRIOR ECCS MODEL ASSESSMENTS			
1. None	0		
B. PLANNED PLANT MODIFICATION EVALUATIONS			
1. None	0		
C. 2014 ECCS MODEL ASSESSMENTS			
1. None	0		
D. OTHER			
1. None	0		
LICENSING BASIS PCT + PCT ASSESSMENTS	PCT = 1013		

References:

1. WCAP-16840-P, "Comanche Peak Nuclear Power Plant Stretch Power Uprate Licensing Report," August 2007. (Results are included in TXX-07107, "Comanche Peak Steam Electric Station (CPSES), Docket Nos. 50-445 and 50-446, Submittal of the CPSES Units 1 and 2 Large and Small Break LOCA Analyses," July 31, 2007.)

Notes:

None

CPNPP Units 1 and 2 Peak Cladding Temperatures

Westinghouse LOCA Peak Clad Temperature Summary for ASTRUM Best Estimate Large Break

Plant Name: Comanche Peak Unit 2
Utility Name: Luminant
Revision Date: 2/5/2015

Analysis Information

EM:	ASTRUM (2004)	Analysis Date:	7/27/2007	Limiting Break Size:	Guillotine
FQ:	2.5	FdH:	1.6		
Fuel:	OFA	SGTP (%):	10		
Notes:					

	Clad Temp (°F)	Ref.	Notes
LICENSIS BASIS			
Analysis-Of-Record PCT	1632	1	
PCT Assessments (Delta PCT)			
A. PRIOR ECCS MODEL ASSESSMENTS			
1. Evaluation of Fuel Pellet Thermal Conductivity Degradation and Peaking Factor Burndown	190	2	(a)
2. Revised Heat Transfer Multiplier Distributions	-17	3	
3. Changes to Grid Blockage Ratio and Porosity	24	4	
4. Error in Burst Strain Application	21	5	
B. PLANNED PLANT MODIFICATION EVALUATIONS			
1. None	0		
C. 2014 ECCS MODEL ASSESSMENTS			
1. None	0		
D. OTHER			
1. None	0		
LICENSING BASIS PCT + PCT ASSESSMENTS	PCT = 1850		

References:

1. WCAP-16763-P, Revision 1, "Best-Estimate Analysis of the Large-Break Loss-of-Coolant Accident for the Comanche Peak Nuclear Power Plant Unit 2 Using the ASTRUM Methodology," March 2009.
2. LTR-LIS-12-410, "Comanche Peak Units 1 and 2, 10 CFR 50.46 Notification and Reporting for Fuel Pellet Thermal Conductivity Degradation and Peaking Factor Burndown," September 20, 2012.
3. LTR-LIS-13-359, "Comanche Peak Units 1 and 2 10CFR50.46 Report for Revised Heat Transfer Multiplier Distributions," July 2013.
4. LTR-LIS-13-472, "Comanche Peak Units 1 and 2 10CFR50.46 Reports for Changes to Grid Blockage Ratio and Porosity," October 2013.
5. LTR-LIS-14-43, "Comanche Peak Units 1 and 2 10CFR50.46 Report for the HOTSPOT Burst Strain Error Correction," January 2014.

Notes:

- (a) This evaluation credits peaking factor burndown, see Reference 2.

CPNPP Units 1 and 2 Peak Cladding Temperatures

Westinghouse LOCA Peak Clad Temperature Summary for ASTRUM Best Estimate Large Break

Plant Name: Comanche Peak Unit 2
Utility Name: Luminant
Revision Date: 2/5/2015

Cycle 15

Analysis Information

EM: ASTRUM (2004)	Analysis Date: 7/27/2007	Limiting Break Size: Guillotine
FQ: 2.5	FdH: 1.6	
Fuel: OFA	SGTP (%): 10	
Notes:		

	Clad Temp (°F)	Ref.	Notes
LICENSIS BASIS			
Analysis-Of-Record PCT	1632	1	
PCT Assessments (Delta PCT)			
A. PRIOR ECCS MODEL ASSESSMENTS			
1. Evaluation of Fuel Pellet Thermal Conductivity Degradation and Peaking Factor Burndown	190	3	(a)
2. Revised Heat Transfer Multiplier Distributions	-17	4	
3. Changes to Grid Blockage Ratio and Porosity	24	5	
4. Error in Burst Strain Application	21	6	
B. PLANNED PLANT MODIFICATION EVALUATIONS			
1. PBOT/PMID Evaluation	0	2	
C. 2014 ECCS MODEL ASSESSMENTS			
1. None	0		
D. OTHER			
1. None	0		
LICENSING BASIS PCT + PCT ASSESSMENTS	PCT = 1850		

References:

1. WCAP-16763-P, Revision 1, "Best-Estimate Analysis of the Large-Break Loss-of-Coolant Accident for the Comanche Peak Nuclear Power Plant Unit 2 Using the ASTRUM Methodology," March 2009.
2. LTR-LIS-14-173, "LBLOCA PCT Rackup Sheet Update for the Evaluation of the Comanche Peak Unit 2 Cycle 15 PBOT/PMID Violations" March 2014.
3. LTR-LIS-12-410, "Comanche Peak Units 1 and 2, 10 CFR 50.46 Notification and Reporting for Fuel Pellet Thermal Conductivity Degradation and Peaking Factor Burndown," September 20, 2012.
4. LTR-LIS-13-359, "Comanche Peak Units 1 and 2 10CFR50.46 Report for Revised Heat Transfer Multiplier Distributions," July 2013.
5. LTR-LIS-13-472, "Comanche Peak Units 1 and 2 10CFR50.46 Reports for Changes to Grid Blockage Ratio and Porosity," October 2013.
6. LTR-LIS-14-43, "Comanche Peak Units 1 and 2 10CFR50.46 Report for the HOTSPOT Burst Strain Error Correction," January 2014.

Notes:

- (a) This evaluation credits peaking factor burndown, see Reference 3.

CPNPP Units 1 and 2 Peak Cladding Temperatures

Westinghouse LOCA Peak Clad Temperature Summary for ASTRUM Best Estimate Large Break

Plant Name: Comanche Peak Unit 2
Utility Name: Luminant
Revision Date: 2/5/2015

**Cycle 14
Retired**

Analysis Information

EM: ASTRUM (2004)	Analysis Date: 7/27/2007	Limiting Break Size: Guillotine
FQ: 2.5	FdH: 1.6	
Fuel: OFA	SGTP (%): 10	

Notes:

	Clad Temp (^o F)	Ref.	Notes
LICENSIS BASIS			
Analysis-Of-Record PCT	1632	1	
PCT Assessments (Delta PCT)			
A. PRIOR ECCS MODEL ASSESSMENTS			
1. Evaluation of Fuel Pellet Thermal Conductivity Degradation and Peaking Factor Burndown	190	3	(a)
2. Revised Heat Transfer Multiplier Distributions	-17	4	
3. Changes to Grid Blockage Ratio and Porosity	24	5	
4. Error in Burst Strain Application	21	6	
B. PLANNED PLANT MODIFICATION EVALUATIONS			
1. PBOT/PMID Evaluation	0	2	
C. 2014 ECCS MODEL ASSESSMENTS			
1. None	0		
D. OTHER			
1. None	0		
LICENSING BASIS PCT + PCT ASSESSMENTS	PCT = 1850		

References:

1. WCAP-16763-P, Revision 1, "Best-Estimate Analysis of the Large-Break Loss-of-Coolant Accident for the Comanche Peak Nuclear Power Plant Unit 2 Using the ASTRUM Methodology," March 2009.
2. LTR-LIS-12-498, "LBLOCA PCT Rackup Sheet Update for the Evaluation of the Comanche Peak Unit 2 Cycle 14 PBOT/PMID Violations" September 2012.
3. LTR-LIS-12-410, "Comanche Peak Units 1 and 2, 10 CFR 50.46 Notification and Reporting for Fuel Pellet Thermal Conductivity Degradation and Peaking Factor Burndown," September 20, 2012.
4. LTR-LIS-13-359, "Comanche Peak Units 1 and 2 10CFR50.46 Report for Revised Heat Transfer Multiplier Distributions," July 2013.
5. LTR-LIS-13-472, "Comanche Peak Units 1 and 2 10CFR50.46 Reports for Changes to Grid Blockage Ratio and Porosity," October 2013.
6. LTR-LIS-14-43, "Comanche Peak Units 1 and 2 10CFR50.46 Report for the HOTSPOT Burst Strain Error Correction," January 2014.

Notes:

- (a) This evaluation credits peaking factor burndown, see Reference 3.

CPNPP Units 1 and 2 Peak Cladding Temperatures

Westinghouse LOCA Peak Clad Temperature Summary for Appendix K Small Break

Plant Name: Comanche Peak Unit 2
Utility Name: Luminant
Revision Date: 2/5/2015

Analysis Information

EM:	NOTRUMP	Analysis Date:	6/8/2007	Limiting Break Size:	4 inch
FQ:	2.5	FdH:	1.6		
Fuel:	OFA	SGTP (%):	10		
Notes:					

	Clad Temp (^o F)	Ref.	Notes
LICENSIS BASIS			
Analysis-Of-Record PCT	1210	1	
PCT Assessments (Delta PCT)			
A. PRIOR ECCS MODEL ASSESSMENTS			
1. None	0		
B. PLANNED PLANT MODIFICATION EVALUATIONS			
1. None	0		
C. 2014 ECCS MODEL ASSESSMENTS			
1. None	0		
D. OTHER			
1. None	0		
LICENSING BASIS PCT + PCT ASSESSMENTS	PCT = 1210		

References:

1. WCAP-16840-P, "Comanche Peak Nuclear Power Plant Stretch Power Uprate Licensing Report," August 2007. (Results are included in TXX-07107, "Comanche Peak Steam Electric Station (CPSES), Docket Nos. 50-445 and 50-446, Submittal of the CPSES Units 1 and 2 Large and Small Break LOCA Analyses," July 31, 2007.)

Notes:

None