

Entergy Nuclear South Entergy Operations, Inc. 17265 River Road Killona, LA 70057-3093 Tel 504 739 6660 Fax 504 739 6678 jkowale@entergy.com

Joseph A. Kowalewski Vice President, Operations Waterford 3

W3F1-2010-0063

July 26, 2010

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

Subject: Technical Specification Amendment 226 Editorial Error Waterford Steam Electric Station Unit 3 Docket No. 50-382 License No. NPF-38

REFERENCES:

- 1. W3F1-2009-0017, License Amendment Request NPF-38-281 to Revise Technical Specification 6.9.1.11, Core Operating Limits Report, 5/22/09 [ADAMS Accession Number ML091470271].
- 2CAN051001, Response to Request for Additional Information Associated With Core Operating Limits Report References, May 17, 2010 [ADAMS Accession Number ML101400028].
- NRC Waterford Steam Electric Station, Unit 3 Issuance of Amendment No. 226 Re: License Amendment Request to Revise Technical Specification 6.6.5, Core Operating Limits Report, May 25, 2010 [ADAMS Accession Number ML101340109].

Dear Sir or Madam:

Entergy Operations, Inc. (Entergy) identified during the Technical Specification Amendment 226 [Reference 3] implementation process that an editorial error existed on the revised Technical Specification pages. The Amendment 226 cover letter and safety evaluation report did not contain this editorial error. This editorial error had also existed in Entergy letter 2CAN051001 [Reference 2]. The editorial error is only associated with a portion of the Technical Specification pages and did not exist in any of the letter material content. This editorial error does not change any of the material information that was submitted to the NRC under letters W3F1-2009-0017 [Reference 1] and 2CAN051001 and correspondingly used in the NRC approval evaluation.

The Technical Specification editorial error was a copy and paste problem from the Arkansas Nuclear One (ANO) specification to the Waterford 3 specification. This was most likely caused by the short response times at the end of the review cycle prior to the issuance of the amendment.

W3F1-2010-0063 Page 2

It is requested that the NRC reissue the Amendment 226 Technical Specification pages with the editorial error corrected. Attachment 1 contains the proposed Technical Specification markup and Attachment 2 contains the Technical Specification clean pages. Amendment 226 is required to be implemented within 90 days of the approval date of May 25, 2010, which corresponds to August 23, 2010. The implementation will be delayed until after the NRC communicates their desired resolution. The Amendment 226 change is administrative in nature so the implementation delay will have no impact on plant or regulatory performance.

This letter contains no new commitments.

If you have any questions or require additional information, please contact William Steelman at 504-739-6685.

I declare under penalty of perjury that the foregoing is true and correct. Executed on July 26, 2010.

Sincerely,

JAK/WJS/ssf

Attachments:

- 1. Proposed Technical Specification Change (mark-up)
- 2. Proposed Technical Specification Change (clean pages)

## W3F1-2010-0063 Page 3

C

cc: Mr. Elmo E. Collins, Jr. Regional Administrator U. S. Nuclear Regulatory Commission Region IV 612 E. Lamar Blvd., Suite 400 Arlington, TX 76011-4125

> NRC Senior Resident Inspector Waterford Steam Electric Station Unit 3 P.O. Box 822 Killona, LA 70066-0751

U. S. Nuclear Regulatory Commission Attn: Mr. N. Kalyanam Mail Stop O-07D1 Washington, DC 20555-0001

## Attachment 1

# W3F1-2010-0063

# Proposed Technical Specification Change (mark-up)

#### ADMINISTRATIVE CONTROLS

### INDUSTRIAL SURVEY OF TOXIC OR HAZARDOUS CHEMICALS REPORT

6.9.1.9 Surveys and analyses of major industries in the vicinity of Waterford 3 which could have significant inventories of toxic chemicals onsite to determine impact on safety shall be performed and submitted to the Commission at least once every 4 years.

6.9.1.10 A survey of major pipelines ( $\geq$  4 inches) within a 2-mile radius of Waterford 3, which contain explosive or flammable materials and may represent a hazard to Waterford 3, including scaled engineering drawings or maps which indicate the pipeline locations, shall be performed and submitted to the Commission at least once every 4 years.

### CORE OPERATING LIMITS REPORT COLR

6.9.1.11 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT prior to each reload cycle or any remaining part of a reload cycle for the following:

- 3.1.1.1 SHUTDOWN MARGIN ANY CEA WITHDRAWN
- 3.1.1.2 SHUTDOWN MARGIN ALL CEAS FULLY INSERTED
- 3.1.1.3 MODERATOR TEMPERATURE COEFFICIENT
- 3.1.2.9 BORON DILUTION
- 3.1.3.1 CEA POSITION
- 3.1.3.6 REGULATING AND GROUP P CEA INSERTION LIMITS
- 3.2.1 LINEAR HEAT RATE
- 3.2.3 AZIMUTHAL POWER TILT T<sub>g</sub>
- 3.2.4 DNBR MARGIN
- 3.2.7 AXIAL SHAPE INDEX
- 3.6.1.5 AIR TEMPERATURE, CONTAINMENT (Linear Heat Rate, 3.2.1)
- 3.9.1 BORON CONCENTRATION

6.9.1.11.1 The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC as follows:

Replace with 3:1.1.3

 "Qualification of the PHOENIX-P/ANC Nuclear Design System for Pressurized Water Reactor Cores" (WCAP-11596-P-A), "ANC: A Westinghouse Advanced Nodal Computer Code" (WCAP-10965-P-A), and "ANC: A Westinghouse Advanced Nodal Computer Code: Enhancements to ANC Rod Power Recovery" (WCAP-10965-P-A Addengunt): (Wethodology for Specifications 3.1.1.1 and 3.1.1.2 for Shutdown "Marging: 3.1.1.4 for MTC, 3.1.3.6 for Regulating and Group P CEA Insertion Limits, 3.2.4.box DABR Margin, 3.1.2.9 for Boron Dilution, and 3.9.1 for Boron Concentrations).

 "CE Method for Control Element Assembly Ejection Analysis," CENPD-0190-A (Methodology for Specification 3.1.3.6 for Regulating and Group P CEA Insertion Limits and 3.2.3 for Azimuthal Power Tilt).

WATERFORD - UNIT 3

6-20 AMENDMENT NO. 68,102,158, 182, 191 226

ß

## ADMINISTRATIVE CONTROLS

## CORE OPERATING LIMITS REPORT COLR (Continued)

Replace	3)	"Modified Statistical Combination of Uncertainties, CEN-356(V)-P-A, Revision 01-P-A (Methodology for Specification 3.2.4.c and 3.2.4.d for DNBR Margin and 3.2.7 for ASI).
with 3.1.1.3	_ 4) ]	"Calculative Methods for the CP barge Break LOCA Evaluation Model," CENPD-132- -P (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for
Replace with	- <sup>5)</sup>	Azimuthal Power Tilt, and 3.2. Koc ASD
3:1.1.3 Réplace	زان	Technical Manual for the CENTS Code," WCAP-1599677-4 Rev.1 (Methodology for
with 3.1.1.3 Replace	رہ _:	Specifications 3.1.1.1 and 3.1.1.2 for Sbutdown Margin, 3.1.1.4 for MTC; 3.1.3.1 for CEA Position, 3.1.3.6 for Regulating and Group P Insertion Limits, and 3.2.4.b for DNBR Margin).
with 3.1.1.3	(7) 	"Implementation of ZIRLO Material Cladding in CE Nuclear Power Pyel Assembly -Designs," CENPD 484 P.A (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.2 for ASI
Replace with 3-1, 1:3	8) ]	"Qualification of the Two-Dimensional Transport Code PARAGON," WCAP-16045-P- A (may be used as a replacement for the PHOENIX-P lattice code as the Company of the PHOENIX-P lattice code as the PHOENIX-P
Replace with 3.1.1.3 Replace	]∳[	"Implementation of Zirconium Diboride Burnable Absorber Coatings in CE Nuclear RoveryPyel Assembly Designs," WCAP-16072-P-A (Methodology for Specification - 3.1.1.4 fet MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Tilt, and 3.2.7 for ASI
with 3.1.1.3 Replace	10	) "CE 16 x 16 Next Generation The Core Reference Report," WCAP-16500-P-A (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, 3.2.4.b 32.4 cland 3.2.4.d for DNBR Margin, and 3.2.7 for ASI).
with 3:1.1:3	<u>]</u>	) "Optimized ZIRLO <sup>TM</sup> ," WCAR 12610 PA and CENPD-404-P-A Addendum 1-A (Wethodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.2 for ASI)
	12	) "Westinghouse Correlations WSSV and WSSV-T for Predicting Critical Heat Flux in Rod Bundles with Side-Supported Mixing Vanes," WCAP- 16523-P-A (Methodology

for Specification 3.2.4.b, 3.2.4.c and 3.2.4.d for DNBR Margin).

13) "ABB Critical Heat Flux Correlations for PWR Fuel," CENPD-387-P-A (Methodology for Specification 3.2.4.b, 3.2.4.c and 3.2.4.d for DNBR Margin and 3.2.7 for ASI).

## WATERFORD - UNIT 3

6-20a

## AMENDMENT NO. <del>102, 146, 158,</del> <del>182, 188, 191, 199, 200, 210, 214</del> 226

I

# Attachment 2

## W3F1-2010-0063

Proposed Technical Specification Change (clean pages)

### ADMINISTRATIVE CONTROLS

#### INDUSTRIAL SURVEY OF TOXIC OR HAZARDOUS CHEMICALS REPORT

6.9.1.9 Surveys and analyses of major industries in the vicinity of Waterford 3 which could have significant inventories of toxic chemicals onsite to determine impact on safety shall be performed and submitted to the Commission at least once every 4 years.

6.9.1.10 A survey of major pipelines ( $\geq$  4 inches) within a 2-mile radius of Waterford 3, which contain explosive or flammable materials and may represent a hazard to Waterford 3, including scaled engineering drawings or maps which indicate the pipeline locations, shall be performed and submitted to the Commission at least once every 4 years.

## CORE OPERATING LIMITS REPORT COLR

6.9.1.11 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT prior to each reload cycle or any remaining part of a reload cycle for the following:

- 3.1.1.1 SHUTDOWN MARGIN ANY CEA WITHDRAWN
- 3.1.1.2 SHUTDOWN MARGIN ALL CEAS FULLY INSERTED
- 3.1.1.3 MODERATOR TEMPERATURE COEFFICIENT
- 3.1.2.9 BORON DILUTION
- 3.1.3.1 CEA POSITION
- 3.1.3.6 REGULATING AND GROUP P CEA INSERTION LIMITS
- 3.2.1 LINEAR HEAT RATE
- 3.2.3 AZIMUTHAL POWER TILT T<sub>g</sub>
- 3.2.4 DNBR MARGIN
- 3.2.7 AXIAL SHAPE INDEX
- 3.6.1.5 AIR TEMPERATURE, CONTAINMENT (Linear Heat Rate, 3.2.1)
- 3.9.1 BORON CONCENTRATION

6.9.1.11.1 The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC as follows:

- "Qualification of the PHOENIX-P/ANC Nuclear Design System for Pressurized Water Reactor Cores" (WCAP-11596-P-A), "ANC: A Westinghouse Advanced Nodal Computer Code" (WCAP-10965-P-A), and "ANC: A Westinghouse Advanced Nodal Computer Code: Enhancements to ANC Rod Power Recovery" (WCAP-10965-P-A Addendum 1) (Methodology for Specifications 3.1.1.1 and 3.1.1.2 for Shutdown Margins, 3.1.1.3 for MTC, 3.1.3.6 for Regulating and Group P CEA Insertion Limits, 3.2.4.b for DNBR Margin, 3.1.2.9 for Boron Dilution, and 3.9.1 for Boron Concentrations).
- "CE Method for Control Element Assembly Ejection Analysis," CENPD-0190-A (Methodology for Specification 3.1.3.6 for Regulating and Group P CEA Insertion Limits and 3.2.3 for Azimuthal Power Tilt).

WATERFORD - UNIT 3

6-20 AMENDMENT NO. 68,102,158, 182, 191 226

1

#### ADMINISTRATIVE CONTROLS

CORE OPERATING LIMITS REPORT COLR (Continued)

- "Modified Statistical Combination of Uncertainties, CEN-356(V)-P-A, Revision 01-P-A (Methodology for Specification 3.2.4.c and 3.2.4.d for DNBR Margin and 3.2.7 for ASI).
- 4) "Calculative Methods for the CE Large Break LOCA Evaluation Model," CENPD-132-P (Methodology for Specification 3.1.1.3 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).
- "Calculative Methods for the CE Small Break LOCA Evaluation Model," CENPD-137-P (Methodology for Specification 3.1.1.3 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).
- "Technical Manual for the CENTS Code," WCAP-15996-P-A, Rev. 1 (Methodology for Specifications 3.1.1.1 and 3.1.1.2 for Shutdown Margin, 3.1.1.3 for MTC, 3.1.3.1 for CEA Position, 3.1.3.6 for Regulating and Group P Insertion Limits, and 3.2.4.b for DNBR Margin).
- 7) "Implementation of ZIRLO Material Cladding in CE Nuclear Power Fuel Assembly Designs," CENPD-404-P-A (Methodology for Specification 3.1.1.3 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).
- "Qualification of the Two-Dimensional Transport Code PARAGON," WCAP-16045-P-A (may be used as a replacement for the PHOENIX-P lattice code as the methodology for Specifications 3.1.1.1 and 3.1.1.2 for Shutdown Margins, 3.1.1.3 for MTC, 3.1.3.6 for Regulating and Group P CEA Insertion Limits, 3.2.4.b for DNBR Margin, 3.1.2.9 for Boron Dilution, and 3.9.1 for Boron Concentrations).
- "Implementation of Zirconium Diboride Burnable Absorber Coatings in CE Nuclear Power Fuel Assembly Designs," WCAP-16072-P-A (Methodology for Specification 3.1.1.3 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Tilt, and 3.2.7 for ASI).
- 10) "CE 16 x 16 Next Generation Fuel Core Reference Report," WCAP-16500-P-A (Methodology for Specification 3.1.1.3 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, 3.2.4.b, 3.2.4.c and 3.2.4.d for DNBR Margin, and 3.2.7 for ASI).
- 11) "Optimized ZIRLO<sup>™</sup>," WCAP-12610-P-A and CENPD-404-P-A Addendum 1-A (Methodology for Specification 3.1.1.3 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).
- 12) "Westinghouse Correlations WSSV and WSSV-T for Predicting Critical Heat Flux in Rod Bundles with Side-Supported Mixing Vanes," WCAP- 16523-P-A (Methodology for Specification 3.2.4.b, 3.2.4.c and 3.2.4.d for DNBR Margin).
- 13) "ABB Critical Heat Flux Correlations for PWR Fuel," CENPD-387-P-A (Methodology for Specification 3.2.4.b, 3.2.4.c and 3.2.4.d for DNBR Margin and 3.2.7 for ASI).

WATERFORD - UNIT 3

AMENDMENT NO. <del>102, 146, 158,</del> 6-20a <del>182, 188, 191, 199, 200, 210, 214</del> 226