CP&L
A Progress Energy Company

John S Keenan
Vice President
Brunswick Nuclear Plant

NOV 07 2002

SERIAL: BSEP 02-0174
TSC-2002-10

10 CFR 50.90

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

SUBJECT: Brunswick Steam Electric Plant, Unit No. 2
Docket No. 50-324/License No. DPR-62
Request For License Amendment Regarding
Technical Specification 2.1.1.2, Reactor Core Safety Limits
Minimum Critical Power Ratio Safety Limit

Ladies and Gentlemen:

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, Carolina Power & Light (CP&L) Company is requesting a revision to the Technical Specifications (TSs) for the Brunswick Steam Electric Plant (BSEP), Unit No. 2. The proposed license amendment revises the Minimum Critical Power Ratio (MCPR) Safety Limit values contained in Technical Specification 2.1.1.2 from 1.09 to 1.11 for two recirculation loop operation and from 1.10 to 1.13 for single recirculation loop operation.

An evaluation of the proposed license amendment is provided in Enclosure 1, and is supported by a Global Nuclear Fuel – Americas, LLC (GNF-A) document in Enclosure 2 which provides a summary of analysis input parameters and results of a comparison of the revised Unit 2 Cycle 16 and previous Unit 2 Cycle 15 MCPR Safety Limit values. Some of the information contained in the document is considered proprietary by GNF-A and should be withheld from public disclosure in accordance with 10 CFR 9.17(a)(4) and 10 CFR 2.790(a)(4). An affidavit attesting to this fact is provided in Enclosure 3. A non-proprietary version of the GNF-A document is provided in Enclosure 4.

Refueling Outage 15 for Unit 2 (i.e., designated as B216R1) is scheduled to begin March 8, 2003. Unit 2 will be unable to resume power operation without receipt of approval for the revised MCPR Safety Limit values in Technical Specification 2.1.1.2. Therefore, the NRC is requested to issue the requested license amendment no later than March 1, 2003. CP&L requests that the amendment, once approved, be issued effective immediately, to be implemented prior to resuming operation from Unit 2 Refueling Outage 15 for Cycle 16.

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CP&L has evaluated the proposed change in accordance with 10 CFR 50.91(a)(1), using the criteria in 10 CFR 50.92(c), and determined that this change involves no significant hazards considerations. CP&L has reviewed the proposed license amendment and determined the changes meet the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, in accordance with 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

In accordance with 10 CFR 50.91(b), CP&L is providing the State of North Carolina a copy of the proposed license amendment.

Please refer any questions regarding this submittal to Mr. Edward T. O'Neil, Manager - Regulatory Affairs, at (910) 457-3512.

Sincerely,

John S. Keenan

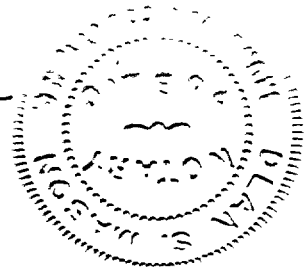
WRM/wrm

Enclosures:

1. Evaluation of Proposed License Amendment Request
2. Global Nuclear Fuel – Americas, LLC Document Entitled "Additional Information Regarding the Cycle Specific SLMCPR for Brunswick Unit 2 Cycle 16" dated October 17, 2002 **(Proprietary Information)**
3. Global Nuclear Fuel – Americas, LLC Affidavit Regarding Withholding from Public Disclosure
4. Global Nuclear Fuel – Americas, LLC Document Entitled "Additional Information Regarding the Cycle Specific SLMCPR for Brunswick Unit 2 Cycle 16" dated October 17, 2002 **(Non-Proprietary Version)**
5. Marked-up Technical Specification Page - Unit 2
6. Typed Technical Specification Page - Unit 2
7. List of Regulatory Commitments

John S. Keenan, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, and agents of Carolina Power & Light Company.

Dana S. Mas
Notary (Seal)



My commission expires: August 29, 2004

cc (with enclosures):

U. S. Nuclear Regulatory Commission, Region II
ATTN: Mr. Luis A. Reyes, Regional Administrator
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cc (without Enclosure 2):

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Radiation Protection Section, Division of Radiation Protection
North Carolina Department of Environment and Natural Resources
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Evaluation of Proposed License Amendment Request

Subject: Technical Specification 2.1.1.2, Reactor Core Safety Limits Minimum Critical Power Ratio Safety Limit

1.0 Description

This letter is a request for approval of an amendment to Operating License DPR-62 for Carolina Power & Light (CP&L) Company's Brunswick Steam Electric Plant (BSEP), Unit No. 2. The proposed change revises the Minimum Critical Power Ratio (MCPR) Safety Limit values contained in Technical Specification 2.1.1.2 for Unit 2 due to the loading of additional GE14 fuel bundles. Specifically, the MCPR Safety Limit values contained in Technical Specification 2.1.1.2 must be revised from 1.09 to 1.11 for two recirculation loop operation and from 1.10 to 1.13 for single recirculation loop operation.

Refueling Outage 15 for Unit 2 is scheduled to begin March 8, 2003. Unit 2 will be unable to resume power operation without receipt of approval for the revised MCPR Safety Limit values in Technical Specification 2.1.1.2. Therefore, the NRC is requested to issue the requested license amendment no later than March 1, 2003.

2.0 Proposed Change

The proposed amendment revises the MCPR Safety Limit values contained in Technical Specification 2.1.1.2 from 1.09 to 1.11 for two recirculation loop operation and from 1.10 to 1.13 for single recirculation loop operation. The MCPR Safety Limit values are being revised for Unit 2 based on the loading of new reload GE14 fuel bundles. The proposed Technical Specification states:

2.0 SAFETY LIMITS (SLs)

2.1 SLs

2.1.1 Reactor Core SLs

2.1.1.2 With the reactor steam dome pressure ≥ 785 psig and core flow ≥ 10% rated core flow:

MCPR shall be ≥ 1.11 for two recirculation loop operation or ≥ 1.13 for single recirculation loop operation.

3.0 Background

Technical Specification 2.1.1.2 establishes MCPR Safety Limit values, which if met, ensure that no mechanistic fuel damage is calculated to occur. Since the parameters which result in fuel damage are not directly observable during reactor operation, the thermal and hydraulic conditions resulting in a departure from nucleate boiling (i.e., transition boiling) have been used to designate the beginning of the region where fuel damage could occur. Although it is recognized that a departure from nucleate boiling would not necessarily result in damage to boiling water reactor fuel rods, the critical power at which boiling transition is calculated to occur has been adopted as a convenient limit. The MCPR Safety Limit is defined as the critical power ratio in the limiting fuel assembly for which more than 99.9 percent of the fuel rods in the core are expected to avoid boiling transition, considering the power distribution within the core and all uncertainties.

The design process for each operating cycle core involves verification that appropriate safety limit values for the MCPR exist. Unit 2 Cycle 15 was the first operating cycle involving the loading of the GE14 fuel. For Unit 2 Cycle 15, the core design did not require the MCPR Safety Limit values in Technical Specification 2.1.1.2 to be revised. For Cycle 16, additional GE14 fuel is being used in the core design as a replacement for some currently loaded GE13 fuel. Evaluation of the Unit 2 Cycle 16 core design has determined that a revision of the MCPR Safety Limit values is necessary.

4.0 Technical Analysis

The Global Nuclear Fuel – Americas, LLC (GNF-A) methodology for MCPR Safety Limit determination for each fuel design is contained in topical report NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel (GESTAR-II)," Revision 14,and U.S. Supplement, NEDE-24011-P-A-14-US, June 2000, which incorporates Amendment 25 (i.e., Reference 1). To address NRC concerns relating to the methodologies and procedures for determining cycle-specific MCPR Safety Limits, GNF-A (i.e., under the corporate name of General Electric) submitted several topical reports for NRC review and approval. These topical reports include: (1) a description of the procedures used to account for the reload-specific core design and operation in determining the cycle-specific MCPR Safety Limit in NEDC-32601P, "Methodology and Uncertainties for Safety Limit MCPR Evaluations;" (2) the power distribution uncertainty for the new General Electric 3D-MONICORE core surveillance system in NEDC-32694P, "Power Distribution Uncertainties for Safety Limit MCPR Evaluation;" and (3) the methodology and uncertainties required for the implementation of cycle-specific MCPR Safety Limits in Amendment 25 to NEDE-24011-P-A. By letter dated March 11, 1999, from Frank Akstulewicz, NRC, to Glen Watford, General Electric (i.e., Reference 2), the NRC approved the use of Amendment 25 to NEDE-24011-P-A.

The revised MCPR Safety Limit analysis for BSEP, Unit 2 has been performed by GNF-A using the NRC-approved methods and procedures described in topical report NEDE-24011-P-A. Use of the NRC-approved methods ensures that the resulting MCPR Safety Limit values satisfy the

fuel design safety criterion that more than 99.9 percent of the fuel rods in the core avoid boiling transition if the safety limit is not violated. As a result, the proposed MCPR Safety Limit value changes do not adversely impact any safety analysis assumptions or results. A summary of the relevant input parameters and results of a comparison of the revised Unit 2 Cycle 16 and previous Unit 2 Cycle 15 MCPR Safety Limit values is provided in Enclosure 2.

5.0 Regulatory Safety Analysis

5.1 No Significant Hazards Consideration

CP&L has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No

   The MCPR Safety Limit values are calculated to ensure that greater than 99.9 percent of the fuel rods in the core avoid transition boiling during any plant operation if the safety limit is not violated. The derivation of the MCPR Safety Limit values specified in the Technical Specifications, and their use to determine cycle-specific thermal limits, has been performed using the methodology discussed in "General Electric Standard Application for Reactor Fuel," NEDE-24011-P-A-14 (i.e., GESTAR-II), and U.S. Supplement, NEDE-24011-P-A-14-US, June 2000, which incorporates Amendment 25. Amendment 25 was approved by the NRC in a March 11, 1999, safety evaluation report. Operational MCPR limits are applied that ensure the MCPR Safety Limit is not exceeded during all modes of operation and anticipated operational occurrences.

   The revised MCPR Safety Limit values do not affect the operability of any plant systems nor do these revised values compromise any fuel performance limits; therefore, the probability of fuel damage will not be increased as a result of this change.

   The MCPR Safety Limit values do not impact the source term or pathways assumed in accidents previously evaluated, and there are no adverse effects on the factors contributing to offsite or onsite radiological doses. In addition, the revised MCPR Safety Limit values do not affect the performance of any equipment used to mitigate the consequences of a previously evaluated accident and do not affect setpoints that initiate protective or mitigative actions.

   Therefore, the proposed Technical Specification change does not involve a significant increase in the probability or consequences of a previously evaluated accident.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

   Response: No

   Creation of the possibility of a new or different kind of accident would require the creation of one or more new precursors of that accident. New accident precursors may be created by modifications of the plant configuration, including changes in allowable modes of operation. The proposed revision of the MCPR Safety Limit values does not involve any facility modifications, and plant equipment will not be operated in a different manner. No new initiating events or transients will result from the revised MCPR Safety Limit values. As a result, no new failure modes are being introduced. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

   Response: No

   The margin of safety is established through the design of the plant structures, systems, and components; through the parameters within which the plant is operated; through the establishment of setpoints for actuation of equipment relied upon to respond to an event; and through margins contained within the safety analyses. The revised MCPR Safety Limit values will not adversely impact the performance of plant structures, systems, components, and setpoints relied upon to respond to mitigate an accident or transient. The MCPR Safety Limit values are calculated to ensure that greater than 99.9 percent of the fuel rods in the core avoid transition boiling during any plant operation if the safety limit is not violated, thereby ensuring that fuel cladding integrity is maintained. The revised MCPR Safety Limit values have been calculated using NRC approved methods and procedures and preserve the existing margin to transition boiling. Based on the assurance that the fuel design criteria are being met, the revised MCPR Safety Limit values do not involve a reduction in a margin of safety.

Based on the above, CP&L has concluded that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Applicable Regulatory Requirements/Criteria

10 CFR 50.36(c)(1) requires that safety limits be included in the plant Technical Specifications. Therefore, the MCPR Safety Limit is included in the BSEP, Unit 2 Technical Specifications. The MCPR Safety Limit values have been determined in accordance with NRC approved methodology described in "General Electric Standard Application for Reactor Fuel,"

NEDE-24011-P-A-14 (i.e., GESTAR-II), and U.S. Supplement, NEDE-24011-P-A-14-US, June 2000.

6.0 Environmental Considerations

A review has determined that the proposed license amendment changes a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

7.0 References

1. General Electric Licensing Topical Report NEDE 24011-P-A, "General Electric Standard Application for Reactor Fuel" (i.e., GESTAR II), Revision 14, and U.S. Supplement, NEDE-24011-P-A-14-US, June 2000, which incorporates Amendment 25.

2. Letter from Mr. Frank Akstulewicz, U. S. Nuclear Regulatory Commission, to Mr. Glen A. Watford, General Electric, "Acceptance for Referencing of Licensing Topical Reports NEDC-32601P, *Methodology and Uncertainties for Safety Limit MCPR Evaluations*; NEDC-32694P, *Power Distribution Uncertainties for Safety Limit MCPR Evaluations*; and Amendment 25 to NEDE-24011-P-A on Cycle Specific Safety Limit MCPR," TAC Nos. M97490, M99069, and M97491, March 11, 1999.

Precedents

3. Letter from the U. S. Nuclear Regulatory Commission to Mr. J. S. Keenan, "Brunswick Steam Electric Plant, Unit 1 – Issuance of Amendment Regarding Revision of Safety Limit Minimum Critical Power Ratio (TAC No. MB2952)," dated March 22, 2002.

Global Nuclear Fuel – Americas, LLC Document Entitled
"Additional Information Regarding the Cycle Specific
SLMCPR for Brunswick Unit 2 Cycle 16" dated October 17, 2002
(Non-Proprietary Version)

Attachment **Additional Information Regarding the Cycle Specific SLMCPR for Brunswick Unit 2 Cycle 16** **17 October 2002**

References

[1] Letter, Frank Akstulewicz (NRC) to Glen A. Watford (GE), "Acceptance for Referencing of Licensing Topical Reports NEDC-32601P, *Methodology and Uncertainties for Safety Limit MCPR Evaluations*; NEDC-32694P, *Power Distribution Uncertainties for Safety Limit MCPR Evaluation*; and Amendment 25 to NEDE-24011-P-A on Cycle Specific Safety Limit MCPR," (TAC Nos. M97490, M99069 and M97491), March 11, 1999.

[2] Letter, Thomas H. Essig (NRC) to Glen A. Watford (GE), "Acceptance for Referencing of Licensing Topical Report NEDC-32505P, Revision 1, *R-Factor Calculation Method for GE11, GE12 and GE13 Fuel*," (TAC Nos. M99070 and M95081), January 11, 1999.

[3] *General Electric BWR Thermal Analysis Basis (GETAB): Data, Correlation and Design Application*, NEDO-10958-A, January 1977.

[4] Letter, Glen A. Watford (GNF-A) to U. S. Nuclear Regulatory Commission Document Control Desk with attention tc R. Pulsifer (NRC), "Confirmation of 10x10 Fuel Design Applicability to Improved SLMCPR, Power Distribution and R-Factor Methodologies", FLN-2001-016, September 24, 2001.

[5] Letter, Glen A. Watford (GNF-A) to U. S. Nuclear Regulatory Commission Document Control Desk with attention to J. Donoghue (NRC), "Confirmation of the Applicability of the GEXL14 Correlation and Associated R-Factor Methodology for Calculating SLMCPR Values in Cores Containing GE14 Fuel", FLN-2001-017, October 1, 2001.

[6] Letter, Glen A. Watford (GNF-A) to U. S. Nuclear Regulatory Commission Document Control Desk with attention to J. Donoghue (NRC), "Final Presentation Material for GEXL Presentation – February 11, 2002", FLN-2002-004, February 12, 2002.

Comparison of Brunswick Unit 2 SLMCPR Values for Cycles 16 and 15

Table 1 summarizes the relevant input parameters and results of the safety limit MCPR (SLMCPR) determination for the Brunswick Unit 2 Cycle 16 and Cycle 15 cores. The SLMCPR evaluations were performed using NRC approved methods and uncertainties[1]. These evaluations yield different calculated SLMCPR values because different inputs were used. The quantities that have been shown to have some impact on the determination of the SLMCPR are provided.

In comparing the Brunswick Unit 2 Cycle 16 and Cycle 15 SLMCPR values it is important to note the impact of the differences in the core and bundle designs. These differences are summarized in Table 1.

In general, the calculated safety limit is dominated by two key parameters: (1) flatness of the core bundle-by-bundle MCPR distributions and (2) flatness of the bundle pin-by-pin power/R-factor distributions. Greater flatness in either parameter yields more rods susceptible to boiling transition and thus a higher calculated SLMCPR.

[[ ]]

The uncontrolled bundle pin-by-pin power distributions were compared between the Brunswick Unit 2 Cycle 16 bundles and the Cycle 15 bundles. Pin-by-pin power distributions are characterized in terms of R-factors using the NRC approved methodology[2]. For the Brunswick Unit 2 Cycle 16 limiting case analyzed at EOR-1K, [[ ]] the Brunswick Unit 2 Cycle 16 bundles are slightly flatter than the bundles used for the Cycle 15 SLMCPR analysis.

The revised power distribution model has been justified, reviewed and approved by the NRC (reference NEDC-32601P-A). The conservatism that remains even when applying the revised model to calculate a lower SLMCPR was documented as part of the NRC review and approval. It was noted on page A-24 of NEDC-32601P-A [[ ]]

Summary

[[ ]] have been used to compare quantities that impact the calculated SLMCPR value. Based on these comparisons, the conclusion is reached that the Brunswick Unit 2 Cycle 16 core/cycle has a significantly flatter core MCPR distribution [[ ]] and slightly flatter pin-by-pin bundle power distributions [[ ]] than what was used to perform the Cycle 15 SLMCPR evaluation.

The calculated 1.11 Monte Carlo SLMCPR for Brunswick Unit 2 Cycle 16 is consistent with what one would expect [[ ]] the 1.11 SLMCPR value is appropriate when the approved methodology given in NEDC-32601P-A is used.

Based on all of the facts, observations and arguments presented above, it is concluded that the calculated SLMCPR value of 1.11 for the Brunswick Unit 2 Cycle 16 core is appropriate. It is reasonable that this value is much larger than the 1.08 value calculated for the previous cycle.

For single loop operations (SLO) the calculated safety limit MCPR for the limiting case is 1.13 as determined by specific calculations for Brunswick Unit 2 Cycle 16.

[[ ]]

Supporting Information

The following information is provided in response to NRC questions on similar submittals regarding changes in Technical Specification values of SLMCPR. NRC questions pertaining to how GE14 applications satisfy the conditions of the NRC SER[1] have been addressed in Reference [4]. Other generically applicable questions related to application of the GEXL14 correlation and the applicable range for the R-factor methodology are addressed in Reference [5]. Only those items that require a plant/cycle specific response are presented below since all the others are contained in the references that have already been provided to the NRC.

The core loading information for Brunswick Unit 2 Cycles 15 and 16 is provided in Figures 1 and 2, respectively. The impact of the fuel loading pattern differences on the calculated SLMCPR is correlated to the values of [[ ]]

The power and non-power distribution uncertainties that are used in the analyses are indicated in Table 1. The referenced document numbers have previously been reviewed and approved by the NRC.

Prepared by:

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Technical Program Manager
Brunswick Unit 2 Project

Verified by:

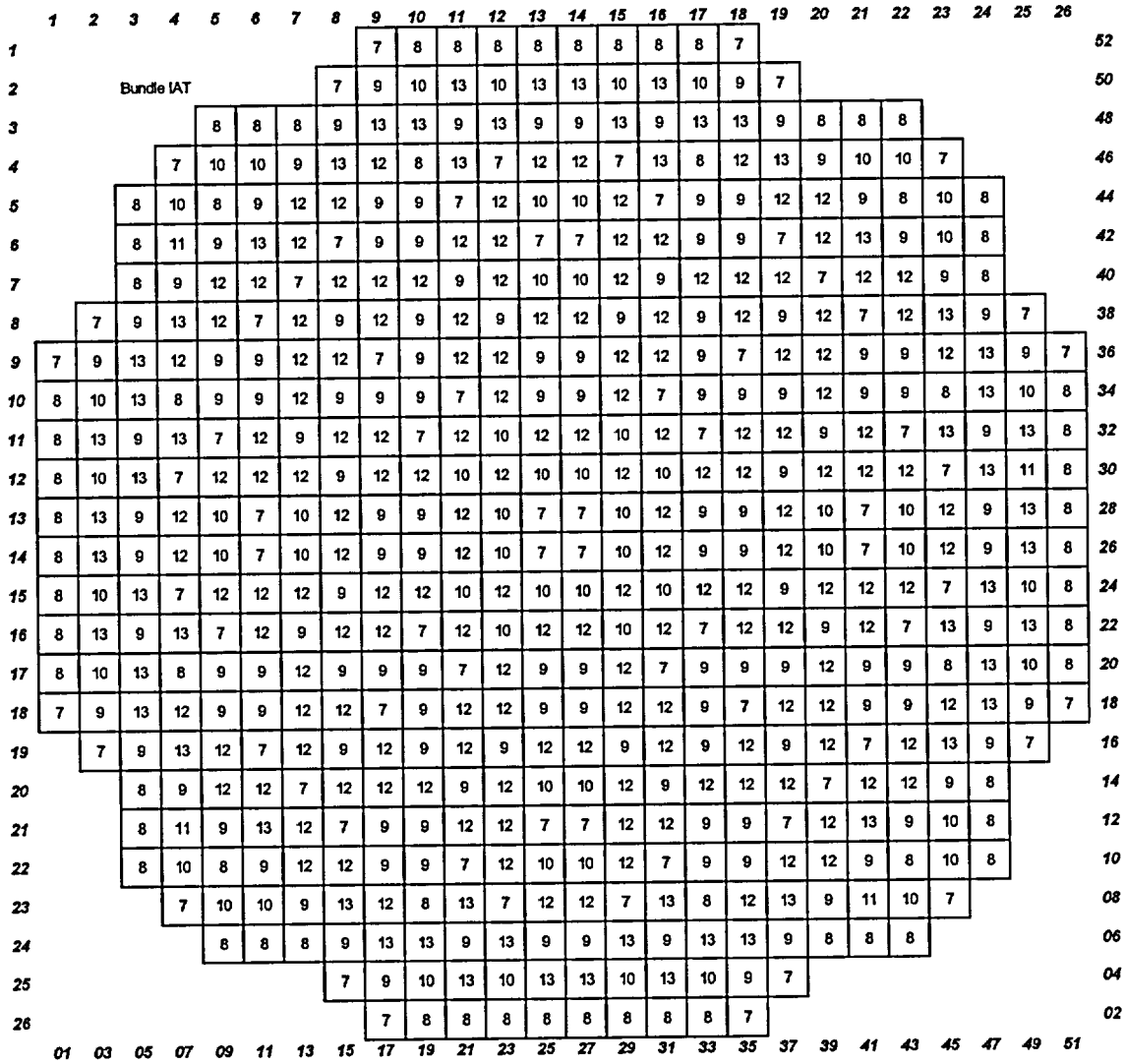
R.H. Szilard
Technical Program Manager
Global Nuclear Fuel - Americas

Table 1

Comparison of the Brunswick Unit 2 Cycle 16 and Cycle 15 SLMCPR

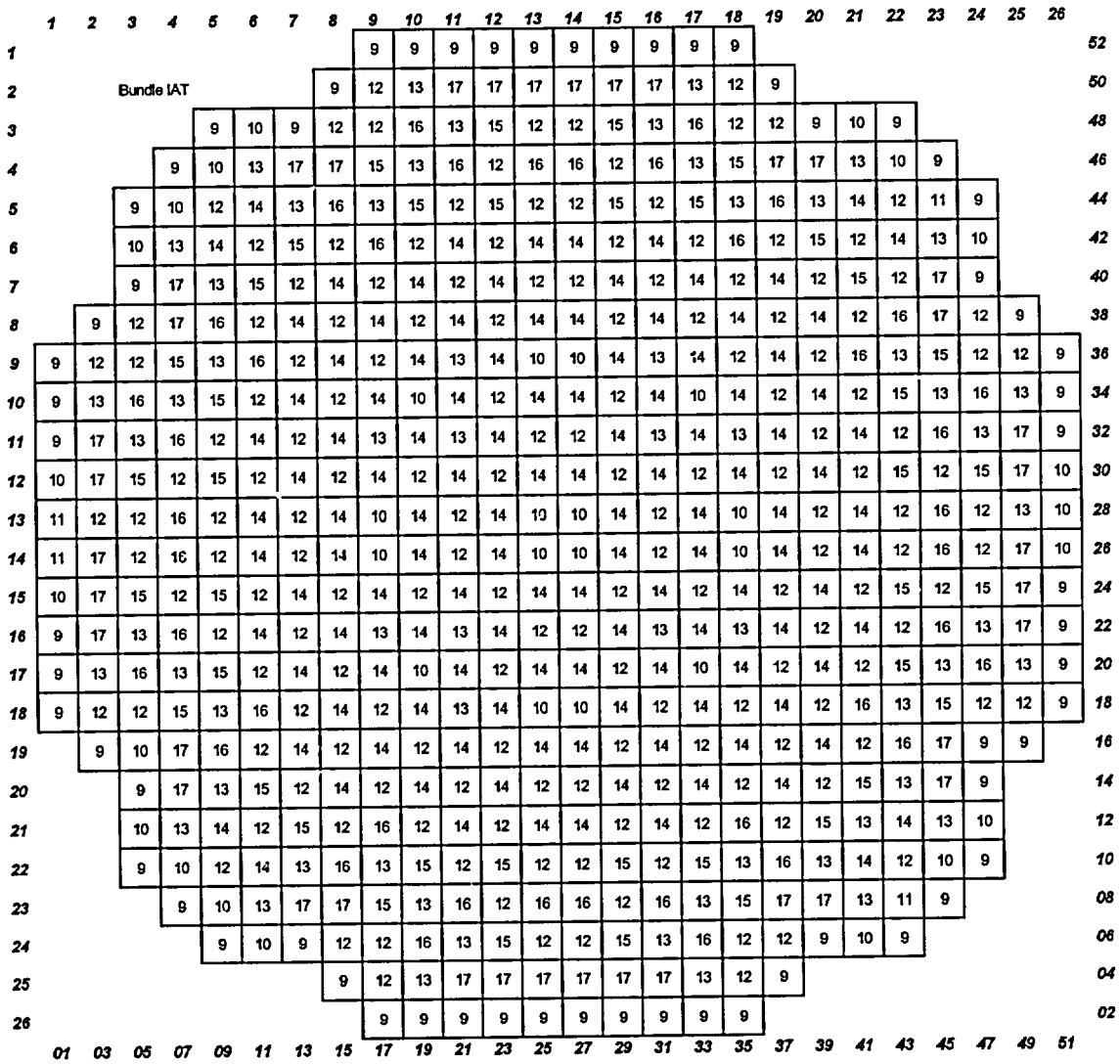
QUANTITY, DESCRIPTION	Brunswick Unit 2 Cycle 15	Brunswick Unit 2 Cycle 16
Number of Bundles in Core	560	560
Limiting Cycle Exposure Point	BOC	EOR-1K
Cycle Exposure at Limiting Point [MWd/STU]	181	15525
Reload Fuel Type	GE14	GE14
Latest Reload Batch Fraction [%]	39.3%	42.5%
Latest Reload Average Batch Weight % Enrichment	3.99%	4.24%
Batch Fraction for GE14	39.3%	81.8%
Batch Fraction for GE13	60.7%	18.2%
Core Average Weight % Enrichment	3.99%	4.10%
Core MCPR (for limiting rod pattern)	1.4205	1.4804
[[		]]
[[		]]
Power distribution methodology	GETAB NEDO-32601P-A	Revised NEDO-32601P-A
Power distribution uncertainty	GETAB NEDO-10958-A	GETAB NEDO-10958-A
Non-power distribution uncertainty	Revised NEDC-32694P-A	Revised NEDC-32694P-A
Calculated Safety Limit MCPR	**1.08**	**1.11**

Figure 1 Reference Core Loading Pattern – Cycle 15



Bundle Name	IAT	# in Core	# Fresh	Cycle Loaded
GE13-P9DTB395-12G5 0-100T-146-T	7	72	0	13
GE13-P9DTB393-4G6 0/9G5 0-100T-146-T	8	68	0	13
GE13-P9DTB403-7G6 0/7G5 0-100T-146-T	9	136	0	14
GE13-P9DTB403-5G6 0/7G5 0-100T-146-T	10	60	0	14
GE13-P9DTB403-5G6 0/7G5 0-100T-146-T	11	4	0	14
GE14-P10DNAB399-16GZ-100T-150-T-2418	12	160	160	15
GE14-P10DNAB398-13GZ-100T-150-T-2417	13	60	60	15
	Total	560	220	

Figure 2 Reference Core Loading Pattern – Cycle 16



Bundle Name	IAT	# In Core	# Fresh	Cycle Loaded
GE13-P9DTB403-7G6 0/7G5 0-100T-146-T	9	62	0	14
GE13-P9DTB403-5G6 0/7G5 0-100T-146-T	10	36	0	14
GE13-P9DTB403-5G6 0/7G5 0-100T-146-T	11	4	0	14
GE14-P10DNAB399-16GZ-100T-150-T-2418	12	160	0	15
GE14-P10DNAB398-13GZ-100T-150-T-2417	13	60	0	15
GE14-P10DNAB420-18GZ-100T-150-T-2572	14	120	120	16
GE14-P10DNAB419-6G7.0/7G6 0/3G2.0-100T-150-T-2573	15	40	40	16
GE14-P10DNAB425-3G7.0/14G6 0/1G2.0-100T-150-T-2574	16	40	40	16
GE14-P10DNAB439-12G6 0-100T-150-T-2575	17	38	38	16
	Total	560	238	

Marked-up Technical Specification Page - Unit 2

2.0 SAFETY LIMITS (SLs)

2.1 SLs

2.1.1 Reactor Core SLs

2.1.1.1 With the reactor steam dome pressure < 785 psig or core flow < 10% rated core flow:

THERMAL POWER shall be ≤ 25% RTP.

2.1.1.2 With the reactor steam dome pressure ≥ 785 psig and core flow ≥ 10% rated core flow:

MCPR shall be ≥ 1.11 for two recirculation loop operation or ≥ 1.13 for single recirculation loop operation.

2.1.1.3 Reactor vessel water level shall be greater than the top of active irradiated fuel.

2.1.2 Reactor Coolant System Pressure SL

Reactor steam dome pressure shall be ≤ 1325 psig.

2.2 SL Violations

With any SL violation, the following actions shall be completed within 2 hours:

2.2.1 Restore compliance with all SLs; and

2.2.2 Insert all insertable control rods.

Typed Technical Specification Page - Unit 2

2.0 SAFETY LIMITS (SLs)

2.1 SLs

2.1.1 Reactor Core SLs

2.1.1.1 With the reactor steam dome pressure < 785 psig or core flow < 10% rated core flow:

THERMAL POWER shall be ≤ 25% RTP.

2.1.1.2 With the reactor steam dome pressure ≥ 785 psig and core flow ≥ 10% rated core flow:

MCPR shall be ≥ 1.11 for two recirculation loop operation or ≥ 1.13 for single recirculation loop operation.

2.1.1.3 Reactor vessel water level shall be greater than the top of active irradiated fuel.

2.1.2 Reactor Coolant System Pressure SL

Reactor steam dome pressure shall be ≤ 1325 psig.

2.2 SL Violations

With any SL violation, the following actions shall be completed within 2 hours:

2.2.1 Restore compliance with all SLs; and

2.2.2 Insert all insertable control rods.

List Of Regulatory Commitments

The following table identifies those actions committed to by Carolina Power & Light (CP&L) Company in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments. Please direct questions regarding these commitments to the Manager - Regulatory Affairs at the Brunswick Steam Electric Plant.

Commitment	Schedule
1. No commitments were made in this request.	N/A