

December 23, 1998



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

Dresden Nuclear Power Station, Units 2 and 3  
Facility Operating License Nos. DPR-19 and DPR-25  
NRC Docket Nos. 50-237 and 50-249

LaSalle County Station, Units 1 and 2  
Facility Operating License Nos. NPF-11 and NPF-18  
NRC Docket Nos. 50-373 and 50-374

Quad Cities Nuclear Power Station, Units 1 and 2  
Facility Operating License Nos. DPR-29 and DPR-30  
NRC Docket Nos. 50-254 and 50-265

**Subject:** Reaffirmation of Compliance with NRC Conditions in Safety Evaluations Associated with Approval of Licensing Topical Reports that Support Transition to Siemens Power Corporation ATRIUM-9B Fuel

- References:**
- 1) Letter from R. M. Krich (ComEd) to U. S. NRC, "Technical Specification Amendment Request to Support Transition to Siemens Power Corporation ATRIUM-9B Fuel," dated August 14, 1998.
  - 2) Letter from R. M. Krich (ComEd) to U. S. NRC, "Revision to Technical Specification Amendment Request to Support Transition to Siemens Power Corporation ATRIUM-9B Fuel," dated October 13, 1998.
  - 3) Letter from H. D. Curet (Siemens) to U. S. NRC, "ANF-1125(P), Supplement 1, Appendix E, ANFB Critical Power Correlation Determination of ATRIUM-9B Additive Constant Uncertainties," dated August 11, 1998.
  - 4) Letter from R. A. Copeland (Siemens) to U. S. NRC, "EMF-1125(P), Supplement 1, Appendix C, ANFB Critical Power Correlation Application for Co-Resident Fuel," dated November 30, 1995.

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Reference 1 transmitted an amendment request for Dresden Nuclear Power Station, Units 2 and 3 Technical Specifications (TS), LaSalle County Station, Units 1 and 2 TS, and the Quad Cities Nuclear Power Station, Units 1 and 2 TS, to facilitate a transition to Siemens Power Corporation (SPC) methodologies and ATRIUM-9B fuel. Reference 2 provided a revision to Reference 1. During a December 16, 1998, teleconference between representatives of the Nuclear Regulatory Commission (NRC) and Commonwealth Edison (ComEd) Company, the NRC requested that we reaffirm our commitment to the conditions in the NRC Safety Evaluations (SE) that approved topical reports submitted by References 3 and 4.

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Our Implementation of Generic Letter 88-16, "Removal of Cycle-Specific Parameter Limits from Technical Specifications," included a new reporting requirement in section 6 of the TS, "Core Operating Limits Report." The Core Operating Limits Report (COLR) TS section requires the licensee to list the NRC approved analytical methods used to determine the core operating limits. The Dresden Nuclear Power Station, LaSalle County Station, and the Quad Cities Nuclear Power Station COLR TS sections will list the Reference 3 and 4 topical reports upon approval of the requested TS amendments. The topical reports in References 3 and 4 each include the respective NRC SE approval and associated conditions. Thus, our TS will require compliance to the conditions in the NRC SEs that approved the topical reports in References 3 and 4. Nevertheless, this letter reaffirms our commitment to the conditions in the NRC SEs that approved the topical reports in References 3 and 4. Accordingly, the need for this letter was discussed with Mr. S. Richards, Project Director, on December 23, 1998.

**ANF-1125(P), Supplement 1, Appendix E**

The conditions in the NRC SE approving the topical report submitted by Reference 3 state the following.

1. *The Additive Constant Uncertainty of 0.027 is applicable to Siemens Power Corporation ATRIUM-9B fuel with a local peaking factor up to and including 1.22.*
2. *For ATRIUM-9B fuel rods with a local peaking factor exceeding 1.22, with a maximum of the design limit specified on page 12 of Appendix E, an additional uncertainty will be imposed on a rod by rod basis such that the ACU value of 0.029 will be used.*
3. *The additive constants and additive constant uncertainties described in Appendix E are applicable to ATRIUM-9B fuel operated within the following parameter ranges.*

<i>Pressure (psia)</i>	<i>600 to 1400</i>
<i>Mass Flow Rate (lb/s)</i>	<i>4.8 to 41.7</i>
<i>Inlet Subcooling (Btu/lb)</i>	<i>8 to 82</i>

Analyses for Dresden Nuclear Power Station, Units 2 and 3, LaSalle County Station, Units 1 and 2, and Quad Cities Nuclear Power Station, Units 1 and 2, will comply with the above conditions.

**EMF-1125(P), Supplement 1, Appendix C**

The conditions in the NRC SE approving the topical report submitted by Reference 4 state the following.

1. *This methodology (as described in this submittal, (Reference 1)) is applicable to once burned co-resident fuel. Lead assemblies are excluded.*
2. *A table comparing MCPDR data throughout the first reload exposure must be submitted to justify each plants application.*

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Analyses for LaSalle County Station, Units 1 and 2, and Quad Cities Nuclear Power Station, Units 1 and 2, will comply with the above conditions. These conditions do not apply to Dresden Nuclear Power Station, Units 2 and 3, since both units' cores contain only SPC fuel, and the topical report submitted by Reference 4 applies to non-SPC co-resident fuel.

Condition 2 has already been met for LaSalle County Station, Unit 2, and Quad Cities Nuclear Power Station, Units 1 and 2. Initial transition to SPC ATRIUM-9B fuel for LaSalle County Station, Unit 1 will occur in late 1999 for Cycle 9 according to the current reload design schedule. The core design for LaSalle County Station, Unit 1 Cycle 9 will be available approximately four months prior to startup of LaSalle County Station, Unit 1, Cycle 9 operation. Once the core design for Cycle 9 is available, the table comparing Minimum Critical Power Ratio (MCPR) data throughout the cycle will be submitted to the NRC in compliance with condition 2.

Should you have any questions concerning this letter, please contact Mr. G. G. Benes at 630-663-7282.

Respectfully,



R. M. Krich  
Vice President - Regulatory Services

cc: Regional Administrator - NRC Region III  
NRC Senior Resident Inspector - Dresden Nuclear Power Station  
NRC Senior Resident Inspector - LaSalle County Station  
NRC Senior Resident Inspector - Quad Cities Nuclear Power Station