Mr. Charles G. Pardee
Chief Nuclear Officer and Senior Vice President
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

November 6, 2007

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3 - ISSUANCE OF AMENDMENTS REGARDING SAFETY LIMIT MINIMUM CRITICAL POWER RATIO (TAC NOS. MD6013 AND MD6602)

Dear Mr. Pardee:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 224 to Renewed Facility Operating License No. DPR-19 and Amendment No. 216 to Renewed Facility Operating License No. DPR-25 for Dresden Nuclear Power Station (DNPS), Units 2 and 3. The amendments are in response to your application dated July 10, 2007.

The amendments revise the value of the safety limit minimum critical power ratio (SLMCPR) for the DNPS, Unit 2 technical specifications (TSs). Although the value of the SLMCPR for DNPS Unit 3 was not changed, conforming changes to wording affecting DNPS, Unit 3 SLMCPR were made to clarify the TSs.

The non-proprietary version of the NRC's safety evaluation (SE) related to this amendment is enclosed. The proprietary version of the SE is being transmitted under separate cover. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Christopher Gratton, Senior Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-237 and 50-249

Enclosures:
1. Amendment No. 224 to DPR-19
2. Amendment No. 216 to DPR-25
3. Safety Evaluation (nonproprietary)

cc w/encls: See next page

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EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-237

DRESDEN NUCLEAR POWER STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 224
Renewed License No. DPR-19

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by the Exelon Generation Company, LLC (the licensee) dated July 10, 2007, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-19 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 224, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Russell Gibbs, Chief
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications and Facility Operating License

Date of Issuance: November 6, 2007

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-249

DRESDEN NUCLEAR POWER STATION, UNIT 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 216
Renewed License No. DPR-25

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by the Exelon Generation Company, LLC (the licensee) dated July 10, 2007, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B. of Renewed Facility Operating License No. DPR-25 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 216, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/
Russell Gibbs, Chief
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications and Facility Operating License

Date of Issuance: November 6, 2007

ATTACHMENT TO LICENSE AMENDMENT NOS. 224 AND 216

RENEWED FACILITY OPERATING LICENSE NOS. DPR-19 AND DPR-25

DOCKET NOS. 50-237 AND 50-249

Replace the following pages of the Facility Operating License and Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change.

Remove	Insert
License DRP-19 Page 3	License DPR-19 Page 3
License DPR-25 Page 4	License DPR-25 Page 4
TSs 2.0-1	TSs 2.0-1

(2) Exelon Generation Company, LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear materials as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Updated Final Safety Analysis Report, as supplemented and amended;

(3) Exelon Generation Company, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(4) Exelon Generation Company, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(5) Exelon Generation Company, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct special nuclear materials as may be produced by the operation of the facility.

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2957 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

(2) Techical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 224, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Operation in the coastdown mode is permitted to 40% power.

f. Surveillance Requirement 4.9.A.10 - Diesel Storage Tank Cleaning (Unit 3 and Unit 2/3 only)

Each of the above Surveillance Requirements shall be successfully demonstrated prior to entering into MODE 2 on the first plant startup following the fourteenth refueling outage (D3R14).

3. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Sections 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

A. Maximum Power Level

The licensee is authorized to operate the facility at steady state power levels not in excess of 2957 megawatts (thermal), except that the licensee shall not operate the facility at power levels in excess of five (5) megawatts (thermal), until satisfactory completion of modifications and final testing of the station output transformer, the auto-depressurization interlock, and the feedwater system, as described in the licensee's telegrams; dated February 26, 1971, have been verified in writing by the Commission.

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 216, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

The licensee shall keep facility operating records in accordance with the requirements of the Technical Specifications.

E. Restrictions

Operation in the coastdown mode is permitted to 40% power.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED

TO AMENDMENT NO. 224 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-19

AND AMENDMENT NO. 216 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-25

EXELON GENERATION COMPANY, LLC

DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3

DOCKET NOS. 50-237 AND 50-249

1.0 INTRODUCTION

By letter to the Nuclear Regulatory Commission (NRC, the Commission) dated July 10, 2007 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML072290546), Exelon Generation Company, LLC (the licensee) requested a change to the technical specifications (TSs) for Dresden Nuclear Power Station (DNPS), Unit 2. The proposed change would revise TS Section 2.1.1, "Reactor Core SLs [Safety Limits]." Specifically, the proposed change would require that for DNPS, Unit 2, the safety limit minimum critical power ratio (SLMCPR) shall be ≥ 1.12 for two recirculation loop operation, and ≥ 1.14 for single recirculation loop operation during the operating conditions described by TS 2.1.1.2.

The licensee is replacing GE14 fuel manufactured by Global Nuclear Fuel (GNF) with Westinghouse SVEA-96 Optima2 fuel assemblies for DNPS, Unit 2. Therefore, the Cycle 21 core will contain both GNF GE14, and Westinghouse SVEA-96 Optima2 fuel. The reference core for Cycle 21 consists of 244 fresh Westinghouse SVEA-96 Optima2 assemblies, and 252 once-burnt, and 228 twice-burnt GNF GE14 fuel assemblies. Note that the reference core contains a larger batch fraction of once-burnt fuel than fresh fuel.

The NRC-approved Westinghouse methodology calculates a unique SLMCPR value for each of the two fuel product lines present in the core. The higher SLMCPR for the Westinghouse fuel will be adopted for all the bundles in the core, including the co-resident fuel.

2.0 REGULATORY EVALUATION

In its regulatory evaluation, the NRC staff considered the applicable General Design Criteria (GDC), the licensee's use and application of NRC-approved methods, and limitations applied thereto. The NRC staff also evaluated the proposed license amendment in terms of conformance with the Standard TSs.

2.1 General Design Criteria

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Appendix A, GDC 10 states that the reactor core and associated coolant, control, and protection systems shall be designed with appropriated margin to assure that specified acceptable fuel design limits are not exceeded

during any condition of normal operation, including the effects of anticipated operational occurrences (AOOs).

Additionally, Section 4.4, “Thermal and Hydraulic Design,” of NUREG-0800, Revision 3, “NRC Standard Review Plant [SRP] for the Review of Safety Analysis Reports for Nuclear Power Plants,” dated June 1996, states, in part, that the critical power ratio (CPR) is to be established such that at least 99.9 percent of the fuel rods in the core would not be expected to experience departure from nucleate boiling or boiling transition during normal operation or AOOs.

The guidance provided by NUREG-0800 forms the basis for the NRC staff's review and ensures that the requirements of GDC 10 are met.

2.2 Conformance with Technical Specifications

Safety limits are required to be in the TS by 10 CFR 50.36(c)(1), “Safety limits, limiting safety system settings, and limiting control settings.” The SLMCPR is calculated on a cycle specific basis, because it is necessary to account for the core configuration-specific neutronic and thermal-hydraulic response. It is calculated using a statistical process that takes into account all operating parameters and associated uncertainties. The SLMCPR is the core-wide critical power ratio at which 99.9 percent of the rods in the core would not be expected to undergo boiling transition during normal operation.

The minimum critical power ration (MCPR) fuel cladding integrity safety limit ensures that during normal operation and during AOOs, a least 99.9 percent of the fuel rods in the core do not experience transition boiling. This is accomplished by the determination of a CPR margin for transients, which is added to the SLMCPR to determine the operating limit MCPR (OLMCPR). At the OLMCPR, at least 99.9 percent of the fuel rods would be expected not to experience transition boiling during normal operations and transients caused by single operator error or equipment malfunction.

2.3 Use of NRC-Approved Methods

The CPR correlation developed for Westinghouse SVEA-96 Optima2 fuel is described in WCAP-16081-P-A, “10x10 SVEA Fuel Critical Power Experiments and CPR Correlation: SVEA-96 Optima2” (ADAMS Accession No. ML051260171), which the NRC staff approved in a safety evaluation (SE) dated May 24, 2000. Westinghouse uses this correlation to model the CPR performance of the Westinghouse SVEA-96 Optima2 fuel that will be loaded into the DNPS, Unit 2 Cycle 21 core. WCAP-16081-P-A presents correlations that are based on methods discussed in topical report CENPD-300-P-A, “Reference Report for Boiling Water Reactor Reload Fuel.” This report was approved by the NRC staff in a SE dated May 24, 1996.

Westinghouse performed the DPNS, Unit 2, Cycle 21 SLMCPR analysis using plant- and cycle-specific parameters based on the core loading pattern as stated in the licensee’s letter dated January 17, 2007. Westinghouse used NRC-approved neutronic methods (POLCA/PHOENIX, discussed in Combustion Engineering Nuclear Power, LLC, report CENPD-390-P-A, “The Advanced PHOENIX and POLCA Codes for Nuclear Design of Boiling Water Reactors [BWRs],” dated December 2000 (ADAMS Accession No. ML010100348), and approved by the NRC for DNPS, Unit 2, in an NRC letter dated April 4, 2006 (ADAMS Accession No. ML060750258), to analyze the planned operating strategy. The licensee confirmed the nuclear design using

CASMO-4/MICROBURN-B2, which is discussed in Siemens Power Corporation Report EMF-2158(P)(A), "Siemens Power Corporation Methodology for Boiling Water Reactors: Evaluation and Validation of CASMO-4/MICROBURN-B2," dated October 1999 (ADAMS Accession No. ML003698553).

The NRC staff understands that CASMO-4/MICROBURN-B2 was used by the licensee as a verification tool, and its analysis does not constitute the analysis of record for the DNPS, Unit 2, Cycle 21 core design. This code system is not explicitly approved by the NRC for modeling Westinghouse fuel, and the uncertainties discussed in EMF-2158(P)(A) are not necessarily applicable to, or used in, the DNPS, Unit 2, Cycle 21 core design. The NRC staff notes, however, that the core design has been verified by the licensee.

2.4 Limitations to NRC-Approved Methods

The Westinghouse methodology determines separate SLMCPR values for different, co-resident fuel. For transient analyses, Westinghouse developed the USAG14 correlation to model the co-resident GNF fuel. USAG14 is used to determine the conservative adder to be applied to the OLMCPR for the legacy fuel that ensures that the legacy fuel operating limits meet the 95/95 statistical criterion required by the NRC staff. The NRC staff did not generically review and approve the Westinghouse CPR correlation for GNF GE14 fuel. Therefore, the use of this method must be reviewed and approved on a plant- and cycle-specific basis.

The Westinghouse methodology does not generate the information necessary to calculate a technically justified SLMCPR value for the co-resident legacy fuel. Therefore, the NRC staff finds that the Westinghouse methodology is not a cycle-specific methodology. In light of the facts that DNPS, Unit 2, Cycle 21 will operate at 120 percent of the plant's originally licensed thermal power, and that there is a larger batch fraction of once-burnt fuel than fresh fuel, the staff reviewed assumptions made in CENPD-300-P-A that pertain to the co-resident fuel, specifically for their continued applicability to these operating conditions. Further discussion is presented in Section 3.2 of this SE.

3.0 Technical Evaluation

The MCPR safety limit is assessed based on core and fuel operating characteristics that are typically determined by a lattice physics code. The operating characteristics are then input to a critical power correlation, which is determined by a fuel vendor, based on extensive experimental data relevant to a particular fuel design. The critical power correlation then yields a minimum critical power ratio for the core.

The core-wide minimum CPR is then increased by a margin. The margin is determined by statistical convolution of uncertainties in the SLMCPR determination process. These uncertainties may include, among other things, experimental CPR correlation uncertainty, uncertainties arising from the use of computer codes, manufacturing uncertainties in the fuel and power distribution uncertainties.

As stated above, many aspects of the method that Westinghouse used to assess the SLMCPR for DNPS, Unit 2, Cycle 21, are generically approved. The sections that follow describe the NRC staff's review of core- and cycle-specific compliance with NRC conditions and limitations applied to those methods.

3.1 SLMCPR for Westinghouse SVEA-96 Optima2 Fuel

The SLMCPR was determined in accordance with the approved methods discussed in Section 2.3 of this SE. WCAP-16081-P-A provides the CPR correlation adaptation and validation for 100x10 SVEA-96 Optima2 fuel for input to the methods described in CENPD-300-P-A. Upon approval of the reports discussed above, the NRC issued several conditions that must be satisfied by the licensee that are relevant to the SLMCPR determination. The NRC staff reviewed conditions applied to the approval of each report. Restrictions imposed on the CPR for Westinghouse SVEA-96 Optima2 fuel apply limitations to the range of parameters over which the CPR correlation is valid. The range of parameters envelops the operating range expected for DNPS, Unit 2, Cycle 21. Therefore, the NRC staff concludes that WCAP-16081-P-A has been applied correctly to model the fresh, Westinghouse SVEA-96 Optima2 fuel that will be in the core.

The Westinghouse BWR licensing methodology described in CENPD-300-P-A presents overall, generic approach for performing the required safety analyses. However, the NRC staff's SE report (SER) and the supporting technical evaluation report for CENPD-300-P-A defined the specific acceptable methodology and delineated the important conditions and limitations.

The NRC staff reviewed the conditions and limitations in the SER approving CENPD-300-P-A and determined that, for DNPS, Unit 2, Cycle 21, conditions 1-6 and 8 are satisfied, because the licensee applied the methods from CENPD-300-P-A consistent with the manner specified in conditions 1-6 and 8 of the SER approving CENPD-300-P-A. The NRC staff also concludes that restriction 7 of the SER relies on evaluation of the core- and cycle-specific conditions, and pertains to legacy fuel, and not Westinghouse fuel. Therefore, Restriction 7 does not apply to the SLMCPR for Westinghouse SVEA-96 Optima2 fuel. The NRC staff concludes that the licensee applied an NRC-approved methodology in an approved manner. The proposed SLMCPR for the Westinghouse SVEA-96 Optima2 fuel is acceptable.

3.2 SLMCPR for Co-Resident GNF GE14 Fuel

The NRC staff reviewed the licensee's submittal regarding the SLMCPR determined by Westinghouse for the GE12 fuel, and the SLMCPR applied to the fuel by the licensee. The NRC staff considered Westinghouse's compliance with restrictions and limitations on the CENPD 300-P-A methodology, and additional information required to validate the assumptions that Westinghouse made regarding the legacy fuel, to determine the acceptability of the SLMCPR as proposed by the licensee.

3.2.1 USAG14 Correlation for Operating Limit Minimum Critical Power Ratio

As discussed in Section 2.4 of this SE, Westinghouse uses a critical power correlation that has been renormalized to predict the performance of legacy fuel. The USAG14 CPR correlation was developed from the Westinghouse CPR correlation by varying key parameters important to the CPR correlation such as mass flux, enthalpy, and pressure. The correlation prediction was corrected using operational and experimental data. The CPR correlation predictions were validated using the results of core-specific GEXL correlation predictions, which were developed from actual, full-scale bundle data. The Westinghouse methodology also adds a multiplicative factor to the USAG14 CPR prediction such that a conservative adder to the OLMCPR is developed.

Limitation 7 of the SE approving CENPD-300-P-A states, “The ABB/CE methodology for determining the operating limit minimum critical power ratio for non-ABB/CE fuel as described in CENPD-300-P and additional submittals is acceptable only when each licensee application of the methodology identifies the value of the conservative adder to the OLMCPR. The correlation applied to the experimental data to determine the value of the adder must be shown to meet the 95/95 statistical criteria. In addition, the licensee’s submittal must include the justification for the adder and reference the appropriate supporting documentation.

The licensee complied with this approach and established the conservative multiplier. As stated in Section 2.4 of this SE, the multiplier used to justify use of the USAG14 correlation has not been generically reviewed and approved by the NRC staff, nor has the USAG14 correlation. While the NRC staff concludes that Limitation 7 of the SER to CENPD-300P-A has been satisfied, this conclusion is specific to this review and not generically applicable. The USAG14 correlation has been applied in an acceptable manner for DNPS, Unit 2, Cycle 21, based on compliance with Restriction 7 of the SER to CENPD-300-P-A.

3.2.2 Variation to Westinghouse Methodology

The Westinghouse SLMCPR methodology for the co-resident GNF GE14 fuel involves assumptions that are intended to yield a bounding SLMCPR value for the legacy fuel. These assumptions result in the application of two separate SLMCPR values for a reload core: the SLMCPR for the legacy fuel, and the SLMCPR for the fresh Westinghouse fuel.

The NRC staff postulates that the operating strategy for the upcoming cycle at DPNS, Unit 2, is different from common operating strategy at the time of the 1996 approval of CENPD-300-P-A. The largest portion of planned DPNS, Unit 2, Cycle 21, fuel is once-burnt legacy fuel. This fuel may have had a larger gadolinia loading than was common at the time CENPD-300-P-A was approved. It will be at its most reactive state at the beginning of Cycle 21, and will be present in many locations throughout the core. Based on these advances in operating strategy, the NRC staff has identified the concern that the Westinghouse reload methodology assumes [[
]] without further analysis.

Due to the nature of the assumptions made by Westinghouse, the licensee elected to adopt the SLMCPR assessed for the Westinghouse SVEA-96 Optima2 fuel core-wide. This will increase the licensed SLMCPR for the GNF GE14 fuel by a value of 0.01 from the previous cycle. Additionally, Westinghouse stated that [[

]]. This increase is sufficiently large to encompass any necessary increases in power distribution uncertainty that may not have been considered in the GE analysis, and still provide enough additional increase to provide the NRC staff with reasonable assurance that the proposed SLMCPR will provide adequate protection of the fuel cladding integrity safety limit for the GNF GE14 fuel. Therefore, although the NRC staff does not agree that Westinghouse’s [[
]] the NRC staff finds that the difference between the previously calculated SLMCPR for GNF GE14 fuel and the proposed TS SLMCPR is large enough that the value will be sufficiently conservative.

3.2.3 Review of Part 21 Issues

Since approval of CENPD-300-P-A, insight gained through operating experience has shown that additional conservatisms must be applied to CPR correlations to obtain SLMCPR values. A notice submitted by GE in accordance with 10 CFR Part 21, "Reporting of Defects and Noncompliance," identified potential non-conservatisms related to the critical power determination for GE14 and GE12 fuel with Zircaloy spacers. The licensee indicated that this 10 CFR Part 21 notification concerns GNF GE14 fuel, and that the Westinghouse correlation used for the GNF GE14 fuel was developed using GE data corrected for the issue identified in the 10 CFR Part 21 notification. The NRC staff finds the licensee's consideration and resolution of the 10 CFR Part 21 issue acceptable.

3.2.4 Summary of SLMCPR for GNF GE14 Fuel

The licensee provided adequate information to justify the treatment of the SLMCPR for GNF GE14 fuel in the core. In consideration of the information provided by the licensee, identification of the OLMCPR adder, and the 10 CFR Part 21 issue resolution, the NRC staff finds that the licensee may implement the proposed SLMCPR for GNF GE14 fuel for DPNS, Unit 2, Cycle 21.

3.3 Single-Loop Operation SLMCPR

During reactor operation with a single recirculation loop in service, the licensee proposed an SLMCPR value of ≥1.14. This valued has additional conservatism beyond that approved for dual recirculation loop operation to account for core flow uncertainty. The NRC staff reviewed the licensee's application of core flow uncertainty to the SLMCPR and found it acceptable because the single recirculation loop SLMCPR provides an adequately conservative margin for core flow uncertainty associated with single recirculation loop operation. Therefore, the single recirculation loop SLMCPR is acceptable and may be implemented for DPNS, Unit 2, Cycle 21.

3.4 Technical Conclusion

In consideration of the information discussed above, the NRC staff finds that the proposed amendment is acceptable. Specifically, the licensee for DPNS, Unit 2, may revise TS 2.1.1.2, to reflect recently analyzed values. These values shall be ≥ 1.12 for two recirculation loop operation, and ≥ 1.14 for single recirculation loop operation.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change the requirements with respect to installation or use of a facility's components located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no

significant hazards consideration, and there has been no public comment on such finding (72 FR 41783 and 72 FR 50986). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: B. Parks, NRR

Date: November 6, 2007

Dresden Nuclear Power Station, Units 2 and 3

cc:

Site Vice President - Dresden
via e-mail

Plant Manager - Dresden Nuclear Power Station
via e-mail

Manager Regulatory Assurance - Dresden
via e-mail

Dresden Senior Resident Inspector
U.S. Nuclear Regulatory Commission
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