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10CFR50.90

November 17, 2006

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

Peach Bottom Atomic Power Station, Units 2 and 3
Renewed Facility Operating License Nos. DPR-44 and DPR-56
Docket Nos. 50-277 and 50-278

Subject: License Amendment Request
Revise Local Power Range Monitor Calibration Frequency

Pursuant to 10 CFR 50.90 Exelon Generation Company, LLC, (Exelon) hereby requests the following amendment to the Technical Specifications (TS), Appendix A, of Renewed Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3.

The proposed amendment would increase the interval between Local Power Range Monitor (LPRM) calibrations from 1000 megawatt-days/ton to 2000 megawatt-days/ton. Increasing the frequency interval between required LPRM calibrations is acceptable due to improvements in core monitoring processes and nuclear instrumentation. In addition, this proposed change will reduce the time certain Primary Containment Isolation Valves (PCIVs) are opened and will reduce wear and tear on the Traversing Incore Probe (TIP) system potentially resulting in fewer repairs in a high radiation area.

The NRC has previously approved similar amendment requests to the TS for James A. Fitzpatrick Nuclear Power Plant, Vermont Yankee Nuclear Power Station, and River Bend Station – Unit 1. The subject License Amendment Request proposes to adopt surveillance testing requirements similar to those discussed in the previously approved amendments.

Exelon requests approval of the proposed amendment by November 17, 2007, with the amendment being implemented within 60 days upon issuance. The requested approval date and implementation period will allow sufficient time for effective planning and scheduling of affected activities associated with LPRM calibration.

There are no regulatory commitments contained in this letter.

These proposed changes have been reviewed by the Plant Operations Review Committee, and approved by the Nuclear Safety Review Board.

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Pursuant to 10 CFR 50.91 (b)(1), a copy of this License Amendment Request is being provided to the designated official of the Commonwealth of Pennsylvania.

If any additional information is needed, please contact Mr. Richard Gropp at 610-765-5557.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 17th day of November 2006.

Respectfully,

BAK 

Pamela B. Cowan
Director, Licensing & Regulatory Affairs
Exelon Generation Company, LLC

Attachments: 1 – Evaluation of Proposed Changes
2 – Markup of Proposed Technical Specifications Pages
3 – Markup of Proposed Technical Specifications Bases Pages

cc: S. J. Collins, Administrator, Region I, USNRC
F. L. Bower, USNRC Senior Resident Inspector, PBAPS
J. S. Kim, Project Manager, USNRC
R. R. Janati, Commonwealth of Pennsylvania

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bcc: R. Bell, PSEG
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Vice President, Licensing & Regulatory Affairs
Sr. Vice President, Operations Support
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ATTACHMENT 1

Evaluation of Proposed Changes

**PBAPS, Units 2 and 3
Renewed Facility Operating License Nos. DPR-44 and DPR-56**

“Revise Local Power Range Monitor Calibration Frequency”

- 1.0 DESCRIPTION
- 2.0 PROPOSED CHANGE
- 3.0 BACKGROUND
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 - 5.2 Applicable Regulatory Requirements/Criteria
- 6.0 ENVIRONMENTAL EVALUATION
- 7.0 REFERENCES

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Evaluation of Proposed Changes

1.0 DESCRIPTION

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (Exelon) requests the following amendment to Appendix A, Technical Specifications (TS), of Renewed Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. Specifically, the proposed changes will revise Surveillance Requirement (SR) 3.3.1.1.8 to increase the frequency interval between Local Power Range Monitor (LPRM) calibrations from 1000 megawatt days per ton (MWD/T) average core exposure to 2000 MWD/T average core exposure.

Increasing the frequency interval between required LPRM calibrations is acceptable due to improvements in core monitoring processes and nuclear instrumentation. In addition, this proposed change will reduce the time certain Primary Containment Isolation Valves (PCIVs) are opened and will reduce wear and tear on the Traversing Incore Probe (TIP) system potentially resulting in fewer repairs in a high radiation area.

The NRC has previously approved similar amendment requests to the TS) for James A. Fitzpatrick Nuclear Power Plant (Reference 6), Vermont Yankee Nuclear Power Station (Reference 7), and River Bend Station – Unit 1 (Reference 8). The subject License Amendment Request proposes to adopt surveillance testing requirements similar to those discussed in the previously approved amendments.

We request approval of the proposed license amendment by November 17, 2007. Once approved, the amendment will be implemented within 60 days.

2.0 PROPOSED CHANGE

The purpose of this proposed change is to revise the Technical Specifications (TS) Surveillance Requirement (SR) for periodic calibration of the LPRMs. The current requirement is stipulated by SR 3.3.1.1.8 and is contained in TS 3.3.1.1, "Reactor Protection System (RPS) Instrumentation." SR 3.3.1.1.8 specifies that LPRMs be calibrated at a frequency of every 1000 MWD/T. The proposed change will revise the frequency of the surveillance to every 2000 MWD/T and will read as follows:

SURVEILLANCE	FREQUENCY
SR 3.3.1.1.8 Calibrate the local power range monitors.	2000 MWD/T average core exposure

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Additionally, in support of this proposed TS change, the associated TS Bases Section 3.3.1.1.8 will be revised to reflect the change in the LPRM calibration frequency from 1000 MWD/T average core exposure to 2000 MWD/T average core exposure. The Bases change is being provided for your information only.

3.0 Background

The LPRM subsystem consists of fission chamber detectors, signal conditioning equipment, display and alarm equipment, associated power supplies, cabling, and trip functions. The LPRM system also provides neutron flux signal inputs to the Average Power Range Monitor (APRM) system, Oscillation Power Range Monitor (OPRM) system, Rod Block Monitor (RBM) system, and the 3D MONICORE core monitoring system. The APRM system provides indication of core average thermal power and input to the Reactor Protection System (RPS). The OPRM system is capable of detecting thermal-hydraulic instability by monitoring the local neutron flux within the reactor core. It also provides input to the RPS. The RBM system prevents the withdrawal of selected control rods when local power is above a preset limit. LPRM inputs to the 3D MONICORE system are used to calculate core power distribution and ensure operation within established fuel thermal operating limits.

The LPRM system is comprised of 43 LPRM detector strings radially distributed throughout the core. Each detector string contains four (4) fission chambers located at fixed axial elevations. Each fission chamber produces an output current that is processed by the LPRM signal-conditioning equipment to provide the desired scale indications. Adjacent to each LPRM string is a calibration tube through which Traversing In-Core Probe (TIP) movable gamma detectors are periodically traversed to provide a continuous axial gamma flux profile at each LPRM string location. This data is used in the calibration of the 172 fixed LPRM fission detectors.

LPRM output signals are transmitted to LPRM amplifiers in the Main Control Room. LPRM amplifier output signals are available on the Power Range Neutron Monitoring (PRNM) system displays in the Control Room. LPRM readings are also directly displayed on the reactor control panel for the 16 detectors adjacent to a selected control rod.

The LPRM system is designed to provide a sufficient number of LPRM signals to satisfy the safety design basis of the APRM, OPRM, RBM, and 3D MONICORE systems. This safety design basis is to detect conditions in the core that threaten the overall integrity of the fuel barrier due to excessive power generation and provide signals to the RPS so that the release of radioactive material from the fuel barrier is limited. The LPRM system also incorporates features designed to diagnose and display various system trip and inoperative conditions.

As discussed above, gamma TIP data is used to perform periodic LPRM channel calibrations. These calibrations compensate for small changes in detector sensitivity resulting from the depletion of fissile material lining the individual LPRM fission chambers. LPRM calibrations are performed while the reactor is operating at power due to the limited sensitivity of the LPRM detectors.

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Adjacent to each LPRM string is a calibration tube, through which TIP movable gamma detectors are traversed to provide a continuous gamma flux profile at each LPRM location. From these gamma flux profiles thermal neutron flux profiles are calculated. Appropriate Gain Adjustment Factors (GAFs) are determined for each LPRM detector based on this information. These GAF values are then applied to LPRM signals during the LPRM calibration process.

At rated thermal power (RTP), 1000 MWD/T is approximately 42.84 days for Unit 2 (i.e., 1000 MWD/T x 150.556 tons uranium in Cycle 17 / 3514 MWt RTP), and approximately 42.9 days for Unit 3 (i.e., 1000 MWD/T x 150.739 tons uranium in Cycle 16 / 3514 MWt RTP). The proposed change to the SR frequency will approximately double the effective time interval between successive LPRM calibrations.

The PBAPS, Units 2 and 3, Updated Final Safety Analysis Report (UFSAR) Section 7.5, "Neutron Monitoring System," provides additional discussion on LPRM, APRM, RBM, and TIP systems. The accuracy of the LPRM system and its impact on overall power distribution uncertainty are documented in General Electric (GE) Licensing Topical Report NEDO-10958-P-A (Reference 1).

4.0 TECHNICAL ANALYSIS

LPRM gain settings are determined based upon continuous local neutron flux profiles derived from the TIP system. Appropriately gain adjusted LPRM readings establish the relative local neutron flux profile for input to the APRM, OPRM and RBM systems. The current SR frequency interval between LPRM calibrations is based upon original GE recommendations.

SR 3.3.1 1.8 in TS 3.3.1.1 establishes an LPRM calibration frequency of 1000 MWD/T average core exposure. The proposed change would increase the interval between whole core LPRM calibrations to 2000 MWD/T average core exposure.

The APRM, OPRM, and RBM systems are the only nuclear instrumentation systems that use LPRM readings. In accordance with TS requirements, APRM readings are maintained within $\pm 2\%$ of core thermal power by weekly calibration to heat balance calculations. Since LPRM chamber responses are very linear and do not vary significantly with exposure over the period of a week, the LPRM calibration interval extension will have no significant effect on APRM accuracy during power maneuvers or transients. The OPRM system is used to monitor for thermal-hydraulic instabilities. The system monitors for relative changes in frequency and amplitude of LPRM readings, and is insensitive to the absolute value of individual LPRM readings when the reactor is at equilibrium. The proposed LPRM calibration interval extension will have no significant effect on OPRM accuracy during plant transients. For the RBM, when a rod is selected, the RBM channel readings are automatically nulled to 100% of scale and the rod block trips are set to a percentage calculated during the reload licensing process (typically on the order of 108% of the calibrated value). The system monitors for relative changes in LPRM response in the vicinity of a selected control rod, and is insensitive to the absolute value of individual LPRM readings. Therefore, it is concluded that the performance of the APRM, OPRM, and RBM, Nuclear Instrumentation systems will not be significantly affected by the proposed LPRM surveillance interval increase.

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With regard to the 3D MONICORE core monitoring system, the justification to increase the surveillance interval is based on maintaining the overall uncertainty in power distribution calculation within the limits contained in an NRC-approved Licensing Topical Report, NEDO-10958-A, "General Electric BWR Thermal Analysis Basis (GETAB) Data, Correlation and Design Application," dated January 1977 (Reference 1). The calibration frequency has a small effect on the overall nodal power distribution uncertainty associated with LPRM based operation between successive LPRM calibrations. This small additional uncertainty will not be permitted to increase the total power distribution uncertainty to a value in excess of the 8.7% value allowed by the GE Thermal Analysis Basis (GETAB) safety limit analysis.

The original surveillance frequency (i.e., 1000 MWD/T) was based on using the older GE P-1, Periodic Core Evaluation, software in the evaluation of core power distribution and fuel operating limits. This original software did not contain the sophisticated neutron diffusion and adaptive learning models used by the current 3D MONICORE system. Furthermore, the original GETAB analysis was based on core monitoring with first generation GE LPRM detectors. These older design LPRM chambers for core monitoring experienced certain inaccuracies related to depletion and loss of fissile material and fill gas between calibrations. These detectors introduced larger uncertainties into the GETAB analysis than the LPRM designs (i.e., NA-200 and NA-300 Series) currently in-service in the Peach Bottom, Units 2 and 3, reactors. GE evaluation of data from several plants has confirmed that, given the improved performance of the current generation LPRM chambers and the improved analytical methods incorporated into the 3D MONICORE core monitoring software, the nodal power distribution uncertainty is not substantially dependent upon the exposure interval between LPRM calibrations. The GE evaluation confirms that the LPRM calibration interval may be increased to 2000 MWD/T without exceeding the total power distribution uncertainty limit of 8.7% cited in the original GETAB analysis.

The technical bases for extending the interval between LPRM calibrations to 2000 MWD/T have been previously reviewed and approved by the NRC staff (Reference 2). The licensing topical reports considered in Reference 2, provide detailed statistical evaluations of the uncertainties associated with LPRM-adaptive 3D MONICORE core monitoring calculations. Based on the data examined, it has been shown that the nodal power distribution uncertainty does not significantly change with LPRM exposure. These evaluations provide a basis for confidence that the GETAB equivalent power distribution uncertainty of 8.7% will not be exceeded as a result of extending the LPRM calibration frequency to 2000 MWD/T. This is due to improved performance of current generation LPRM chambers, which consistently exhibit less exposure dependency throughout their useful nuclear life (up to 40,000 MWD/T). Also, Peach Bottom uses the 3D MONICORE core monitoring software which is substantially more accurate, and less dependent on LPRM inputs, than the original GE P-1 power distribution calculation due to incorporation of a more sophisticated methodology (i.e., nodal diffusion theory coupled with plant data and improved nuclear instrumentation). The analysis is inherently conservative for Peach Bottom applications due to the assumed use of neutron TIPs, which are substantially less accurate than gamma TIPs. It should be noted that the analysis also supports LPRM calibration at 2000 MWD/T intervals in the conservative situation of up to one-third of all TIP string data being unavailable. Other bounded conditions in the analysis include: failure of up to 25% of all LPRM detectors, significantly asymmetric control rod patterns and minor core loading

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pattern asymmetries, and significant control rod pattern adjustments in the middle of the LPRM calibration interval. Note that typical PBAPS practice is to operate with most or all LPRM detectors and TIP machines in service, symmetric rod patterns and core loading patterns, and relatively long intervals between significant control rod pattern adjustments.

Conclusion

The performance of the APRM, OPRM, and RBM systems will not be significantly affected by the proposed LPRM calibration surveillance interval increase to 2000 MWD/T. Evaluations previously reviewed and approved by the NRC, as documented in Reference 2, show that the total power distribution uncertainty for the increased calibration interval of 2000 MWD/T will remain bounded by the requirement of 8.7% specified in the Reference 1 GETAB analysis. Improvements in the accuracy of core monitoring methods and the quality of nuclear instrumentation support extending the LPRM calibration frequency from 1000 MWD/T average core exposure to 2000 MWD/T average core exposure for PBAPS, Units 2 and 3.

5.0 REGULATORY ANALYSIS

5.1 No Significant Hazards Consideration

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (EGC) requests the following amendment to Appendix A, Technical Specifications (TS), of Renewed Facility Operating License Nos. DPR-44 and DRP-56 for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. Specifically, the proposed change will revise Surveillance Requirement (SR) 3.3.1.1.8 to increase the frequency interval between Local Power Range Monitor (LPRM) calibrations from 1000 MWD/T average core exposure to 2000 MWD/T average core exposure.

Increasing the frequency interval between required LPRM calibrations is acceptable due to improvements in core monitoring processes and nuclear instrumentation. In addition, this proposed change will reduce the time certain Primary Containment Isolation Valves (PCIVs) are opened and will reduce wear and tear on the Traversing Incore Probe (TIP) system potentially resulting in fewer repairs in a high radiation area.

According to 10 CFR 50.92, "Issuance of amendment," paragraph (c), a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

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In support of this determination, Exelon 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 amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

The proposed amendment revises the surveillance interval for the LPRM calibration from 1000 MWD/T average core exposure to 2000 MWD/T average core exposure. Increasing the frequency interval between required LPRM calibrations is acceptable due to improvements in core monitoring processes and nuclear instrumentation and therefore, the revised surveillance interval continues to ensure that the LPRM detector signal is adequately calibrated.

This change will not alter the operation of process variables, structures, systems, or components as described in the PBAPS Updated Final Safety Analysis Report (UFSAR). The proposed change does not alter the initiation conditions or operational parameters for the LPRM system and there is no new equipment introduced by the extension of the LPRM calibration interval. The performance of the APRM, OPRM and RBM systems is not significantly affected by the proposed surveillance interval increase. As such, the probability of occurrence of a previously evaluated accident is not increased.

The radiological consequences of an accident can be affected by the thermal limits existing at the time of the postulated accident; however, LPRM chamber exposure has no significant effect on the calculated thermal limits since LPRM accuracy does not significantly deviate with exposure. For the LPRM extended calibration interval, the total nodal power uncertainty remains less than the uncertainty assumed in the thermal analysis basis safety limit, maintaining the accuracy of the thermal limit calculation. Therefore, the thermal limit calculation is not significantly affected by LPRM calibration frequency, and thus the radiological consequences of any accident previously evaluated are not increased.

Therefore, based on the above information, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No

The performance of the APRM, OPRM and RBM systems is not significantly affected by the proposed LPRM surveillance interval increase. The proposed change does not affect the control parameters governing unit operation or the response of plant equipment to transient conditions. The proposed change does not change or introduce any new equipment, modes of system operation or failure mechanisms.

Therefore, based on the above information, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

Response: No

The proposed change has no impact on equipment design or fundamental operation, and there are no changes being made to safety limits or safety system allowable values that would adversely affect plant safety as a result of the proposed LPRM surveillance interval increase. The performance of the APRM, OPRM and RBM systems is not significantly affected by the proposed change. The margin of safety can be affected by the thermal limits existing at the time of the postulated accident; however, uncertainties associated with LPRM chamber exposure have no significant effect on the calculated thermal limits. The thermal limit calculation is not significantly affected since LPRM sensitivity with exposure is well defined. LPRM accuracy remains within the total nodal power uncertainty assumed in the thermal analysis basis; thereby maintaining thermal limits and the safety margin. The proposed change does not affect safety analysis assumptions or initial conditions and therefore, the margin of safety in the original safety analyses are maintained.

Therefore, based on the above information, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above evaluation, Exelon concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c).

5.2 Applicable Regulatory Requirements/Criteria

10 CFR 50.36(c)(3), "Surveillance requirements," states that SRs are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

The proposed change involves increasing the surveillance interval of the LPRM calibration frequency from 1000 MWD/T average core exposure to 2000 MWD/T average core exposure. Increasing the frequency interval between required LPRM calibrations is acceptable due to improvements in core monitoring processes and nuclear instrumentation and therefore, the revised surveillance interval continues to ensure that the LPRM detector signal is adequately calibrated. This calibration provides assurance that the LPRM accuracy remains within the total nodal power uncertainty assumed in the thermal analysis basis and therefore, the limiting conditions for operation will be met.

In conclusion, based on the considerations discussed above: (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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ENVIRONMENTAL EVALUATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, "Standards for Protection Against Radiation," 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, "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review," Paragraph (c)(9). Therefore, pursuant to 10 CFR 51.22, Paragraph (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 NEDO-10958-P-A, "General Electric BWR Thermal Analysis Basis (GETAB) Data, Correlation and Design Application," dated January 1977.
2. Letter from F. Akstulewicz (NRR) to G.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), dated March 11, 1999.
3. General Electric Licensing Topical Report NEDC-32601P-A, "Methodology and Uncertainties for Safety Limit MCPR Evaluations," dated August 1999.
4. General Electric Licensing Topical Report NEDC-32694P-A, "Power Distribution Uncertainties for Safety Limit MCPR Evaluations," dated August 1999.
5. General Electric Licensing Topical Report NEDE-32321, "3D MONICORE (RL3D) Performance Evaluation Accuracy," dated January 1994.
6. Letter from U.S. NRC to M. Kansler (Entergy Nuclear Operations, Inc.), "James A. Fitzpatrick Nuclear Power Plant – Amendment No. 277 Re: Regarding local Power Range Monitor Calibration Frequency (TAC No. MB6945), dated May 1, 2003.
7. Letter from U.S. NRC to S. L. Newton (Vermont Yankee Nuclear Power Corporation), "Vermont Yankee Nuclear Power Station – Issuance of Amendment No. 191 Re: Local Power Range Monitor Calibration Frequency (TAC No. MA9053), dated July 18, 2000.
8. Letter from U.S. NRC to R. K. Edington (Entergy Operations, Inc.), River Bend Station, Unit 1, Amendment No. 107, Re: Changes to Local Power Range Monitor (LPRM) Calibration Frequency (TAC No. M98883), dated June 11, 1999.

ATTACHMENT 2

**PBAPS, Units 2 and 3
Renewed Facility Operating License Nos. DPR-44 and DPR-56
“Revise Local Power Range Monitor Calibration Frequency”
Markup of Proposed Technical Specifications Page Changes**

REVISED TS PAGES

<u>Unit 2</u>	<u>Unit 3</u>
3.3-4	3.3-4

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
 SR 3.3.1.1.3 (Not Used.)	
SR 3.3.1.1.4 Perform CHANNEL FUNCTIONAL TEST.	7 days
SR 3.3.1.1.5 -----NOTE----- Not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2. ----- Perform CHANNEL FUNCTIONAL TEST.	31 days
SR 3.3.1.1.6 Perform CHANNEL FUNCTIONAL TEST.	31 days
 SR 3.3.1.1.7 (Not Used.)	
SR 3.3.1.1.8 Calibrate the local power range monitors.	<div data-bbox="1222 1249 1346 1291" style="border: 1px solid black; padding: 2px; display: inline-block;">2000</div> 4000 MWD/T average core exposure

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.3.1.1.3 (Not Used.)</p>	
<p>SR 3.3.1.1.4 Perform CHANNEL FUNCTIONAL TEST.</p>	7 days
<p>SR 3.3.1.1.5 -----NOTE----- Not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2. ----- Perform CHANNEL FUNCTIONAL TEST.</p>	31 days
<p>SR 3.3.1.1.6 Perform CHANNEL FUNCTIONAL TEST.</p>	31 days
<p>SR 3.3.1.1.7 (Not Used.)</p>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">2000</div>
<p>SR 3.3.1.1.8 Calibrate the local power range monitors.</p>	<p>4000 MWD/T average core exposure</p>

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ATTACHMENT 3

**PBAPS, Units 2 and 3
Renewed Facility Operating License Nos. DPR-44 and DPR-56
“Revise Local Power Range Monitor Calibration Frequency”**

Markup of Proposed Technical Specifications Bases Page Changes

REVISED TS BASES PAGES

Unit 2 Unit 3

B 3.3-31 B 3.3-31

BASES

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9

SURVEILLANCE
REQUIREMENTS
(continued)

SR 3.3.1.1.8

LPRM gain settings are determined from the local flux profiles measured by the Traversing Incore Probe (TIP) System. This establishes the relative local flux profile for appropriate representative input to the APRM System. The ~~4000~~ MWD/T Frequency is based on operating experience with LPRM sensitivity changes.

2000

SR 3.3.1.1.9 and SR 3.3.1.1.14

A CHANNEL FUNCTIONAL TEST is performed on each required channel to ensure that the entire channel will perform the intended function. Any setpoint adjustment shall be consistent with the assumptions of the current plant specific setpoint methodology. For Function 5, 7, and 8 channels, verification that the trip settings are less than or equal to the specified Allowable Value during the CHANNEL FUNCTIONAL TEST is not required since the channels consist of mechanical switches and are not subject to drift. An exception to this are two of the Function 7 level switches which are not mechanical. These Scram Discharge Volume (SDV) RPS switches (Fluid Components Inc.) are heat sensitive electronic level detectors which actuate by sensing a difference in temperature. The temperature detectors are permanently affixed within the scram discharge volume piping conservatively below the level (allowable value as measured in gallons) at which an RPS actuation signal will occur. Since there is no drift involved with the physical location of these switches, verifying the trip settings are less than or equal to the specified allowable value during the CHANNEL FUNCTIONAL TEST is not required. Additionally, historical calibration data has indicated that the FCI level switches have not exceeded their Allowable Value when tested.

(continued)

BASES

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9

SURVEILLANCE
REQUIREMENTS
(continued)

SR 3.3.1.1.8

LPRM gain settings are determined from the local flux profiles measured by the Traversing Incore Probe (TIP) System. This establishes the relative local flux profile for appropriate representative input to the APRM System. The 4000 MWD/T Frequency is based on operating experience with LPRM sensitivity changes.

2000

SR 3.3.1.1.9 and SR 3.3.1.1.14

A CHANNEL FUNCTIONAL TEST is performed on each required channel to ensure that the entire channel will perform the intended function. Any setpoint adjustment shall be consistent with the assumptions of the current plant specific setpoint methodology. For Function 5, 7, and 8 channels, verification that the trip settings are less than or equal to the specified Allowable Value during the CHANNEL FUNCTIONAL TEST is not required since the channels consist of mechanical switches and are not subject to drift. An exception to this are two of the Function 7 level switches which are not mechanical. These Scram Discharge Volume (SDV) RPS switches (Fluid Components Inc.) are heat sensitive electronic level detectors which actuate by sensing a difference in temperature. The temperature detectors are permanently affixed within the scram discharge volume piping conservatively below the level (allowable value as measured in gallons) at which an RPS actuation signal will occur. Since there is no drift involved with the physical location of these switches, verifying the trip settings are less than or equal to the specified allowable value during the CHANNEL FUNCTIONAL TEST is not required. Additionally, historical calibration data has indicated that the FCI level switches have not exceeded their Allowable Value when tested.

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