

August 31, 2010

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

Limerick Generating Station, Units 1 and 2
Facility Operating License Nos. NPF-39 and NPF-85
NRC Docket Nos. 50-352 and 50-353

SUBJECT: License Amendment Request
Proposed Administrative Changes to Technical Specifications

Pursuant to 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (Exelon), proposes changes to the Technical Specifications (TS), Appendix A of Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station (LGS), Units 1 and 2, respectively.

The proposed amendment involves administrative changes to the TS. The proposed changes involve: (1) making an editorial change to LGS Unit 1 TS 3.3.1, Action b., (2) making an editorial change to LGS Units 1 and 2 TS Table 3.3.1-1, Actions 2 and 9, (3) making the layout and format of LGS Unit 1 TS LCO 3.6.5.3 Action requirements consistent with the LGS Unit 2 LCO Action requirements for the same TS, and (4) adding a reference to the minimum required number of operable main turbine bypass valves and the turbine bypass system response time to the core operating limits documented in the Core Operating Limits Report as specified in LGS, Units 1 and 2, TS 6.9.1.9. Evaluation of the proposed changes is provided in Attachment 1. Markups of the proposed TS changes are provided in Attachment 2.

Exelon has concluded that the proposed changes present no significant hazards consideration under the standards set forth in 10CFR 50.92.

This amendment request contains no regulatory commitments.

Exelon requests approval of the proposed amendment by August 31, 2011. Upon NRC approval, the amendment shall be implemented within 60 days of issuance.

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These proposed changes have been reviewed by the Plant Operations Review Committee and approved in accordance with Nuclear Safety Review Board procedures.

We are notifying the State of Pennsylvania of this application for changes to the Technical Specifications by transmitting a copy of this letter and its attachments to the designated State Official.

If you have any questions or require additional information, please contact Glenn Stewart at 610-765-5529.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 31st day of August 2010.

Respectfully,



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

Attachments: 1. Evaluation of Proposed Changes
 2. Proposed Technical Specifications Markup Pages

cc:	Regional Administrator - NRC Region I	w/ attachments
	NRC Senior Resident Inspector - Limerick Generating Station	"
	NRC Project Manager, NRR - Limerick Generating Station	"
	Director, Bureau of Radiation Protection - Pennsylvania Department of Environmental Protection	"

ATTACHMENT 1

License Amendment Request

Limerick Generating Station, Units 1 and 2

Docket Nos. 50-352 and 50-353

EVALUATION OF PROPOSED CHANGES

Subject: Proposed Administrative Changes to Technical Specifications

1.0 DESCRIPTION

2.0 PROPOSED CHANGES

3.0 BACKGROUND

4.0 TECHNICAL ANALYSIS

5.0 REGULATORY ANALYSIS

6.0 ENVIRONMENTAL CONSIDERATION

7.0 REFERENCES

1.0 DESCRIPTION

Pursuant to 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (Exelon), proposes changes to the Technical Specifications (TS), Appendix A of Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station (LGS), Units 1 and 2, respectively.

The proposed amendment involves administrative changes to the TS. The proposed changes involve: (1) making an editorial change to LGS Unit 1 TS 3.3.1, Action b., (2) making an editorial change to LGS Units 1 and 2 TS Table 3.3.1-1, Actions 2 and 9, (3) making the layout and format of LGS Unit 1 TS Limiting Condition for Operation (LCO) 3.6.5.3 Action requirements consistent with the LGS Unit 2 LCO Action requirements for the same TS, and (4) adding a reference to the minimum required number of operable main turbine bypass valves and the turbine bypass system response time to the core operating limits documented in the Core Operating Limits Report (COLR) as specified in LGS, Units 1 and 2, TS 6.9.1.9. Evaluation of the proposed changes is provided in this attachment. Markups of the proposed TS changes are provided in Attachment 2.

2.0 PROPOSED CHANGES

The changes requested by this amendment application are described below.

1. LGS, Unit 1 - Replace the word "tip" with the word "trip" in TS 3.3.1, Action b. on TS page 3/4 3-1.
2. LGS, Units 1 and 2 - Replace capitalized word "SHUTDOWN" with the word "Shutdown" in TS Table 3.3.1-1, Actions 2 and 9 on TS page 3/4 3-4.
3. LGS, Unit 1 - Revise the layout and format of TS LCO Actions 3.6.5.3.a and 3.6.5.3.b on TS page 3/4 6-52 to be consistent with the layout and format of Unit 2 TS LCO Actions 3.6.5.3.a and 3.6.5.3.b.

NOTE: The capitalized words "IRRADIATED FUEL" in the current TS LCO Action 3.6.5.3.a.2 on TS page 3/4 6-52 will be replaced with lower case words "irradiated fuel" in the proposed TS LCO Action changes described above.

4. LGS, Units 1 and 2 - Add "The minimum required number of operable main turbine bypass valves for Specification 3.7.8 and the TURBINE BYPASS SYSTEM RESPONSE TIME for Specification 4.7.8.c" as new Item "i." to TS 6.9.1.9 on TS page 6-18a as core operating limits to be documented in the COLR.

3.0 BACKGROUND

By letter dated August 23, 2006 (Reference 1), the NRC issued Amendment No. 185 to Facility Operating License No. NPF-39 and Amendment No. 146 to Facility Operating License No. NPF-85 for LGS, Units 1 and 2, respectively. These amendments revised

LGS TS to support application of an alternate source term methodology. These amendments approved changes to TS Section 3.6.5.3, which included the all capitalized words "IRRADIATED FUEL" in LGS Unit 1 TS Action 3.6.5.3.a.2. In addition, because of the layout and format of the LGS Unit 1 TS 3.6.5.3 Actions versus Unit 2 TS 3.6.5.3 Actions, as originally issued, the Unit 1 TS 3.6.5.3 Actions are more difficult to understand with respect to the Applicability requirements for the associated Actions.

By letter dated October 24, 1991 (Reference 2), the NRC issued Amendment No. 52 to Facility Operating License No. NPF-39 and Amendment No. 16 to Facility Operating License No. NPF-85 for LGS, Units 1 and 2, respectively. These amendments revised LGS TS by adding operability requirements, LCOs, and surveillance requirements for the main turbine bypass system (i.e., TS Sections 3.7.8 and 4.7.8), as requested by Philadelphia Electric Company [now Exelon] letter dated August 27, 1991 (Reference 3).

Also, over time, minor inconsistencies or editorial errors that have no safety impact have been introduced into the LGS Unit 1 and Unit 2 TS. The purpose of this amendment request is to correct those inconsistencies or errors.

4.0 TECHNICAL ANALYSIS

The technical justification for each of the changes proposed in Section 2.0 of this request is provided below.

1. The word "tip" in LGS, Unit 1 TS 3.3.1, Action b. should be the word "trip" since this Action requirement is referring to the number of instrumentation channels in the "trip system" for the reactor protection system. The proposed change corrects a typographical error.

This proposed change is administrative in nature and does not involve any physical changes to structures, systems, or components (SSCs) in the plant, or the way SSCs are operated or controlled.

2. All capitalized words in TS indicate terms that are specifically defined in TS Section 1.0, "Definitions." The term "SHUTDOWN" in Actions 2 and 9 of LGS, Units 1 and 2 TS Table 3.3.1-1 is not referring to a particular Operational Condition as defined in TS Table 1.2, e.g., HOT SHUTDOWN or COLD SHUTDOWN, but rather, is referring to the reactor mode switch position as specified in TS Table 1.2, which only has the first letter of the word capitalized, e.g., Shutdown. In addition, this change is consistent with the use of the word in Action 8 of TS Table 3.3.1-1.

This proposed change is administrative in nature and does not involve any physical changes to SSCs in the plant, or the way SSCs are operated or controlled.

3. LGS Unit 1 TS Section 3.6.5.3 differentiates LCO Actions 3.6.5.3.a and 3.6.5.3.b based on one standby gas treatment subsystem inoperable versus two standby gas treatment subsystems inoperable. LGS Unit 2 TS Section 3.6.5.3 differentiates

Actions 3.6.5.3.a and 3.6.5.3.b based on the Applicability requirements. The layout and format of the Unit 2 TS LCO Actions more clearly indicate the specific Operational Conditions to which each Action requirement applies. The Unit 1 TS LCO Actions are much more difficult to determine exactly the Operational Conditions to which each Action applies. This could potentially lead to misinterpretation of TS, and more importantly, could lead operators to believe that a TS Section 3.0.3 entry is not required when both trains of the Standby Gas Treatment System (SGTS) are inoperable in Operational Conditions 1, 2, or 3.

In addition, all capitalized words in TS indicate terms that are specifically defined in TS Section 1.0, "Definitions." The term "IRRADIATED FUEL" is not defined in TS Section 1.0.

The proposed changes are administrative in nature and do not involve any physical changes to SSCs in the plant, or the way SSCs are operated or controlled.

4. Amendment Nos. 52 and 16 (Reference 2) added main turbine bypass system LCO and surveillance requirements to the TS for LGS, Units 1 and 2, respectively. Specifically, TS LCO 3.7.8 states that the main turbine bypass system shall be operable as determined by the number of operable main turbine bypass valves being greater than or equal to that specified in the COLR. In addition, TS Surveillance Requirement 4.7.8.c states that the main turbine bypass system shall be demonstrated operable by determining the turbine bypass system response time to be less than or equal to the value specified in the COLR.

Included with the request for amendment to add the main turbine bypass system LCO and surveillance requirements to TS (Reference 3) were copies of revised COLRs for LGS, Units 1 and 2. The COLRs were revised to provide the operating Minimum Critical Power Ratio (MCPR) limits based on an operable main turbine bypass system, the minimum required number of operable bypass valves, and the maximum turbine bypass system response time. The turbine bypass valve parameters are currently specified in Section 7.0 of the COLR. In particular, turbine bypass system response time limits are specified in Table 7-1, and the minimum required number of operable main turbine bypass valves is specified in Table 7-2. In Reference 3, Philadelphia Electric Company [now Exelon] indicated that the revised COLRs would become effective upon NRC approval of the proposed TS changes (which were approved by Reference 2), and that both the minimum required number of operable main turbine bypass valves and the maximum turbine bypass system response time limits would continue to be specified in all subsequent cycle-specific COLRs for LGS, Units 1 and 2.

TS 6.9.1.9 provides a listing of core operating limits that are required to be documented in the COLR. This list includes various limits such as Average Planar Linear Heat Generation Rate, Minimum Critical Power Ratio, Linear Heat Generation Rate, Rod Block Monitor setpoints, etc., that are referenced in associated TS LCOs. However, due to administrative oversight, the turbine bypass valve parameters

discussed above were not requested to be added to TS 6.9.1.9 as core operating limits to be documented in the COLR as part of the original amendment request (Reference 3). The proposed change would add the minimum required number of operable main turbine bypass valves and the turbine bypass system response time limits as core operating limits to be documented in the COLR consistent with the other core operating limits specified in TS 6.9.1.9.

The proposed change is administrative in nature and does not involve any physical changes to SSCs in the plant, or the way SSCs are operated, maintained, or tested. The turbine bypass valve parameters are specified in the LGS Unit 1 and Unit 2 COLRs, and the main turbine bypass system is currently maintained operable based on these parameters in accordance with TS LCO 3.7.8 and TS Surveillance Requirement 4.7.8.c.

5.0 REGULATORY ANALYSIS

5.1 No Significant Hazards Consideration

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. Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No. The proposed changes are administrative in nature and do not impact the physical configuration or function of plant structures, systems, or components (SSCs) or the manner in which SSCs are operated, maintained, modified, tested, or inspected. The proposed changes do not impact the initiators or assumptions of analyzed events, nor do they impact mitigation of accidents or transient events. Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No. The proposed changes are administrative in nature and do not alter plant configuration, require that new plant equipment be installed, alter assumptions made about accidents previously evaluated, or impact the function of plant SSCs or the manner in which SSCs are operated, maintained, modified, tested, or inspected. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Do the proposed changes involve a significant reduction in a margin of safety?

Response: No. The proposed changes are administrative in nature and do not involve any physical changes to plant SSCs or the manner in which SSCs are operated, maintained, modified, tested, or inspected. The proposed changes do not involve a change to any safety limits, limiting safety system settings, limiting conditions for operation, or design parameters for any SSC. The proposed changes do not impact any safety analysis assumptions and do not involve a change in initial conditions, system response times, or other parameters affecting an accident analysis. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, Exelon concludes 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

In Title 10 of the Code of Federal Regulations (10 CFR) Section 50.36, the Nuclear Regulatory Commission (NRC) established its regulatory requirements related to the content of TSs. Pursuant to 10 CFR 50.36, TSs are required to include items in the following five specific categories: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements (SRs); (4) design features; and (5) administrative controls. The regulation does not specify the particular requirements to be included in a plant’s TSs.

The proposed changes are administrative in nature and do not involve any physical changes to plant SSCs or the manner in which SSCs are operated, maintained, modified, tested, or inspected. The proposed changes do not involve a change to any safety limits, limiting safety system settings, limiting control settings, limiting conditions for operation, surveillance requirements, design features, or administrative controls required by 10 CFR 50.36.

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 CONSIDERATION

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, 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).

In addition, the proposed amendment involves (i) changes to surety, insurance, and/or indemnity requirements, or (ii) changes to recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(10).

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. Letter dated August 23, 2006, from R. Guzman, U.S. Nuclear Regulatory Commission, to C. Crane, Exelon Nuclear, "Limerick Generating Station, Units 1 and 2 - Issuance of Amendments RE: Application of Alternate Source Term Methodology (TAC Nos. MC2295 and MC2296)."
2. Letter dated October 24, 1991, from R. J. Clark, U.S. Nuclear Regulatory Commission, to G. J. Beck, Philadelphia Electric Company [now Exelon], "Main Turbine Bypass System Operability Requirements, Limerick Generating Station, Units 1 and 2 (TSCR No. 90-12) (TAC Nos. 81367 and 81368)."
3. Letter dated August 27, 1991, from G. J. Beck, Philadelphia Electric Company [now Exelon], to U.S. Nuclear Regulatory Commission, "Limerick Generating Station, Units 1 and 2, Technical Specifications Change Request and Submittal of Revised Current Cycle Core Operating Limits Reports."

ATTACHMENT 2

License Amendment Request

**Limerick Generating Station, Units 1 and 2
Docket Nos. 50-352 and 50-353**

Proposed Administrative Changes to Technical Specifications

Proposed Technical Specifications Markup Pages

Unit 1 TS Pages

3/4 3-1
3/4 3-4
3/4 6-52
6-18a

Unit 2 TS Pages

3/4 3-4
6-18a

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR PROTECTION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1 As a minimum, the reactor protection system instrumentation channels shown in Table 3.3.1-1 shall be OPERABLE with the REACTOR PROTECTION SYSTEM RESPONSE TIME as shown in Table 3.3.1-2.

APPLICABILITY: As shown in Table 3.3.1-1.

ACTION:

Note: Separate condition entry is allowed for each channel.

- a. With the number of OPERABLE channels in either trip system for one or more Functional Units less than the Minimum OPERABLE Channels per Trip System required by Table 3.3.1-1, within one hour for each affected functional unit either verify that at least one* channel in each trip system is OPERABLE or tripped or that the trip system is tripped, or place either the affected trip system or at least one inoperable channel in the affected trip system in the tripped condition.
- b. With the number of OPERABLE channels in either ~~trip~~ trip system less than the Minimum OPERABLE Channels per Trip System required by Table 3.3.1-1, place either the inoperable channel(s) or the affected trip system** in the tripped conditions within 12 hours.***
- c. With the number of OPERABLE channels in both trip systems for one or more Functional Units less than the Minimum OPERABLE Channels per Trip System required by Table 3.3.1-1, place either the inoperable channel(s) in one trip system or one trip system in the tripped condition within 6 hours**.***
- d. If within the allowable time allocated by Actions a, b or c, it is not desired to place the inoperable channel or trip system in trip (e.g., full scram would occur), Then no later than expiration of that allowable time initiate the action identified in Table 3.3.1-1 for the applicable Functional Unit.

*For Functional Units 2.a, 2.b, 2.c, 2.d, and 2.f, at least two channels shall be OPERABLE or tripped. For Functional Unit 5, both trip systems shall have each channel associated with the MSIVs in three main steam lines (not necessarily the same main steam lines for both trip systems) OPERABLE or tripped. For Function 9, at least three channels per trip system shall be OPERABLE or tripped.

**For Functional Units 2.a, 2.b, 2.c, 2.d, and 2.f, inoperable channels shall be placed in the tripped condition to comply with Action b. Action c does not apply for these Functional Units.

***A channel or trip system which has been placed in the tripped condition to satisfy Action b. or c. may be returned to the untripped condition under administrative control for up to two hours solely to perform testing required to demonstrate its operability or the operability of other equipment provided Action a. continues to be satisfied.

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

ACTION STATEMENTS

- ACTION 1 - Be in at least HOT SHUTDOWN within 12 hours.
- ACTION 2 - Verify all insertable control rods to be inserted in the core and lock the reactor mode switch in the ~~SHUTDOWN~~-Shutdown position within 1 hour. |
- ACTION 3 - Suspend all operations involving CORE ALTERATIONS and insert all insertable control rods within 1 hour.
- ACTION 4 - Be in at least STARTUP within 6 hours.
- ACTION 5 - Be in STARTUP with the main steam line isolation valves closed within 6 hours or in at least HOT SHUTDOWN within 12 hours.
- ACTION 6 - Initiate a reduction in THERMAL POWER within 15 minutes and reduce turbine first stage pressure until the function is automatically bypassed, within 2 hours.
- ACTION 7 - Verify all insertable control rods to be inserted within 1 hour.
- ACTION 8 - Lock the reactor mode switch in the Shutdown position within 1 hour.
- ACTION 9 - Suspend all operations involving CORE ALTERATIONS, and insert all insertable control rods and lock the reactor mode switch in the ~~SHUTDOWN~~-Shutdown position within 1 hour. |
- ACTION 10 - a. If the condition exists due to a common-mode OPRM deficiency*, then initiate alternate method to detect and suppress thermal-hydraulic instability oscillations within 12 hours AND restore required channels to OPERABLE status within 120 days,
- OR
- b. Reduce THERMAL POWER to < 25% RATED THERMAL POWER within 4 hours.
- * Unanticipated characteristic of the instability detection algorithm or equipment that renders all OPRM channels inoperable at once.

CONTAINMENT SYSTEMS

STANDBY GAS TREATMENT SYSTEM - COMMON SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.5.3 Two independent standby gas treatment subsystems shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, and when (1) irradiated fuel is being handled in the refueling area secondary containment, or (2) during CORE ALTERATIONS, or (3) during operations with a potential for draining the reactor vessel with the vessel head removed and fuel in the vessel.

ACTION:

- a. **In OPERATIONAL CONDITION 1, 2, or 3** ~~With one standby gas treatment subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days, or:~~
1. ~~In OPERATIONAL CONDITION 1, 2, or 3, With one standby gas treatment subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.~~
 2. ~~When (1) irradiated fuel is being handled in the refueling area secondary containment, or (2) during CORE ALTERATIONS, or (3) during operations with a potential for draining the reactor vessel with the vessel head removed and fuel in the vessel, suspend handling of IRRADIATED FUEL in the secondary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.~~
- b. **When (1) irradiated fuel is being handled in the refueling area secondary containment, or (2) during CORE ALTERATIONS, or (3) during operations with a potential for draining the reactor vessel with the vessel head removed and fuel in the vessel:**
1. **With one standby gas treatment subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days, or suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS, and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.**
 2. **With both standby gas treatment subsystems inoperable, if in progress, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS, or operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3. are not applicable.**

SURVEILLANCE REQUIREMENTS

4.6.5.3 Each standby gas treatment subsystem shall be demonstrated OPERABLE:

- a. In accordance with the Surveillance Frequency Control Program by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the subsystem operates with the heaters OPERABLE.

ADMINISTRATIVE CONTROLS

CORE OPERATING LIMITS REPORT

6.9.1.9 Core Operating Limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the CORE OPERATING LIMITS REPORT for the following:

- a. The AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR) for Specification 3.2.1,
- b. MAPFAC(P) and MAPFAC(F) factors for Specification 3.2.1,
- c. The MINIMUM CRITICAL POWER RATIO (MCPR) for Specification 3.2.3,
- d. The MCPR(P) and MCPR(F) adjustment factors for specification 3.2.3,
- e. The LINEAR HEAT GENERATION RATE (LHGR) for Specification 3.2.4,
- f. The power biased Rod Block Monitor setpoints and the Rod Block Monitor MCPR OPERABILITY limits of Specification 3.3.6,
- g. The Reactor Coolant System Recirculation Flow upscale trip setpoint and allowable value for Specification 3.3.6,
- h. The Oscillation Power Range Monitor (OPRM) period based detection algorithm (PBDA) setpoints for Specification 2.2.1.
- i. **The minimum required number of operable main turbine bypass valves for Specification 3.7.8 and the TURBINE BYPASS SYSTEM RESPONSE TIME for Specification 4.7.8.c.**

6.9.1.10 The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

- a. NEDE-24011-P-A "General Electric Standard Application for Reactor Fuel" (Latest approved revision),*
- b. NEDO-32465-A, "Reactor Stability Detect and Suppress Solutions Licensing Basis Methodology for Reload Applications," August 1996.

6.9.1.11 The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as SHUTDOWN MARGIN, transient analysis limits, and accident analysis limits) of the safety analysis are met.

6.9.1.12 The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the Regional Administrator of the Regional Office of the NRC within the time period specified for each report.

* For Cycle 8, specific documents were approved in the Safety Evaluation dated (5/4/98) to support License Amendment No. (127).

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

ACTION STATEMENTS

- ACTION 1 - Be in at least HOT SHUTDOWN within 12 hours.
- ACTION 2 - Verify all insertable control rods to be inserted in the core and lock the reactor mode switch in the ~~SHUTDOWN~~-Shutdown position within 1 hour.
- ACTION 3 - Suspend all operations involving CORE ALTERATIONS and insert all insertable control rods within 1 hour.
- ACTION 4 - Be in at least STARTUP within 6 hours.
- ACTION 5 - Be in STARTUP with the main steam line isolation valves closed within 6 hours or in at least HOT SHUTDOWN within 12 hours.
- ACTION 6 - Initiate a reduction in THERMAL POWER within 15 minutes and reduce turbine first stage pressure until the function is automatically bypassed, within 2 hours.
- ACTION 7 - Verify all insertable control rods to be inserted within 1 hour.
- ACTION 8 - Lock the reactor mode switch in the Shutdown position within 1 hour.
- ACTION 9 - Suspend all operations involving CORE ALTERATIONS, and insert all insertable control rods and lock the reactor mode switch in the ~~SHUTDOWN~~-Shutdown position within 1 hour.
- ACTION 10 - a. If the condition exists due to a common-mode OPRM deficiency*, then initiate alternate method to detect and suppress thermal-hydraulic instability oscillations within 12 hours AND restore required channels to OPERABLE status within 120 days,
- OR
- b. Reduce THERMAL POWER to < 25% RATED THERMAL POWER within 4 hours.
- * Unanticipated characteristic of the instability detection algorithm or equipment that renders all OPRM channels inoperable at once.

ADMINISTRATIVE CONTROLS

CORE OPERATING LIMITS REPORT

6.9.1.9 Core Operating Limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the CORE OPERATING LIMITS REPORT for the following:

- a. The AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR) for Specification 3.2.1,
- b. MAPFAC(P) and MAPFAC(F) factors for Specification 3.2.1,
- c. The MINIMUM CRITICAL POWER RATIO (MCPR) for Specification 3.2.3,
- d. The MCPR(P) and MCPR(F) adjustment factor for specification 3.2.3,
- e. The LINEAR HEAT GENERATION RATE (LHGR) for Specification 3.2.4,
- f. The power biased Rod Block Monitor setpoints and the Rod Block Monitor MCPR OPERABILITY limits of Specification 3.3.6.
- g. The Reactor Coolant System Recirculation Flow upscale trip setpoint and allowable value for Specification 3.3.6,
- h. The Oscillation Power Range Monitor (OPRM) period based detection algorithm (PBDA) setpoints for Specification 2.2.1.
- i. **The minimum required number of operable main turbine bypass valves for Specification 3.7.8 and the TURBINE BYPASS SYSTEM RESPONSE TIME for Specification 4.7.8.c.**

6.9.1.10 The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

- a. NEDE-24011-P-A "General Electric Standard Application for Reactor Fuel" (Latest approved revision),
- b. NEDO-32465-A, "Reactor Stability Detect and Suppress Solutions Licensing Basis Methodology for Reload Applications," August 1996.

6.9.1.11 The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as SHUTDOWN MARGIN, transient analysis limits, and accident analysis limits) of the safety analysis are met.

6.9.1.12 The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the Regional Administrator of the Regional Office of the NRC within the time period specified for each report.