

November 3, 2014

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

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

SUBJECT: License Amendment Request
Proposed Change to Add New Limiting Conditions for Operation 3.0.5 and
3.0.6

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

The proposed changes involve the addition of new Limiting Conditions for Operation (LCOs) 3.0.5 and 3.0.6 to the Applicability Section of the LGS TS. LCO 3.0.5 establishes the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with TS Action requirements. LCO 3.0.6 provides appropriate actions to be taken when the inoperability of a support system results in the inoperability of related supported systems. In addition, the proposed changes involve adding new Safety Function Determination Program (SFDP) requirements to the Administrative Section of the LGS TS to ensure that a loss of safety function is detected and appropriate actions are taken when LCO 3.0.6 is entered.

The proposed changes conform to the requirements of 10 CFR 50.36 for the contents of TS, and are consistent with the improved Standard Technical Specifications issued by the NRC in NUREG-1433, "Standard Technical Specifications – General Electric BWR/4 Plants."

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

The proposed changes have been reviewed by the LGS Plant Operations Review Committee and approved by the Nuclear Safety Review Board in accordance with the requirements of the Exelon Quality Assurance Program.

This amendment request contains no regulatory commitments.

U.S. Nuclear Regulatory Commission
License Amendment Request
Addition of New LCO 3.0.5 and 3.0.6 Requirements
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Page 2

Attachment 1 provides the evaluation of the proposed changes. Attachment 2 provides a copy of the marked up TS pages that reflect the proposed changes. Attachment 3 provides a copy of the marked up TS Bases pages that reflect the proposed changes (information only).

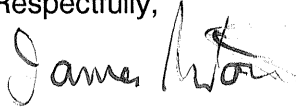
Exelon requests approval of the proposed amendment by November 3, 2015. Upon NRC approval, the amendment shall be implemented within 60 days of issuance.

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b), Exelon is notifying the Commonwealth of Pennsylvania of this application for license amendment 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 Stephanie J. Hanson at 610-765-5143 or Glenn Stewart at 610-765-5529.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 3rd day of November 2014.

Respectfully,



James Barstow
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
 (Information Only)

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 Change to Add New Limiting Conditions for Operation
3.0.5 and 3.0.6**

1.0 SUMMARY DESCRIPTION

2.0 DETAILED DESCRIPTION

3.0 TECHNICAL EVALUATION

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4.1 Applicable Regulatory Requirements/Criteria

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6.0 REFERENCES

1.0 SUMMARY DESCRIPTION

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

The proposed changes involve the addition of new Limiting Conditions for Operation (LCOs) 3.0.5 and 3.0.6 to the Applicability Section of the LGS TS. LCO 3.0.5 establishes the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with TS Action requirements. LCO 3.0.6 provides appropriate actions to be taken when the inoperability of a support system results in the inoperability of related supported systems. In addition, the proposed changes involve adding new Safety Function Determination Program (SFDP) requirements to the Administrative Section of the LGS TS to ensure that a loss of safety function is detected and appropriate actions are taken when LCO 3.0.6 is entered.

The proposed changes conform to the requirements of 10 CFR 50.36 (Reference 1) for the contents of TS, and are consistent with the improved Standard Technical Specifications approved by the NRC in NUREG-1433, "Standard Technical Specifications – General Electric BWR/4 Plants" (Reference 2).

2.0 DETAILED DESCRIPTION

The changes requested by this amendment application are described below.

1. TS Index, page xxviii for LGS, Units 1 and 2, will be revised to reflect the addition of new Section 6.17, "Safety Function Determination Program (SFDP)," to the Administrative Section of TS.
2. New LCO 3.0.5 requirements will be added to TS Section 3/4.0, "Applicability," on TS page 3/4 0-1 for LGS, Units 1 and 2. LCO 3.0.5 will establish the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with TS Action requirements.
3. New LCO 3.0.6 requirements will be added to TS Section 3/4.0, "Applicability," on TS page 3/4 0-1 for LGS, Units 1 and 2. LCO 3.0.6 will provide appropriate actions to be taken when the inoperability of a support system results in the inoperability of related supported systems.
4. LCO 3.0.1 on TS page 3/4 0-1 for LGS, Units 1 and 2, will be revised to add the words "except as provided in Specifications 3.0.5 and 3.0.6" to indicate that new LCOs 3.0.5 and 3.0.6 are an exception to LCO 3.0.1. This will allow the performance of required testing to demonstrate the operability of equipment being returned to service or operability of other equipment. In addition, entering the supported system's Actions is not required under LCO 3.0.1 when entering LCO 3.0.6.

5. LCO 3.0.2 on TS page 3/4 0-1 for LGS, Units 1 and 2, will be revised to add the words "except as provided in Specifications 3.0.5 and 3.0.6" to indicate that new LCOs 3.0.5 and 3.0.6 are an exception to LCO 3.0.2. This will allow the performance of required testing to demonstrate the operability of equipment being returned to service or operability of other equipment. In addition, not entering into the supported system's Actions will not be considered a TS noncompliance under LCO 3.0.2 when entering LCO 3.0.6.
6. New Section 6.17, "Safety Function Determination Program (SFDP)," will be added to the Administrative Section of TS on page 6-23 for LGS, Units 1 and 2. The SFDP ensures that a loss of safety function is detected and appropriate actions are taken when LCO 3.0.6 is entered for the inoperability of a support system.
7. Footnote "****" and its associated references on TS page 3/4 3-1 for LCO 3.3.1, Actions "b" and "c" of LGS, Units 1 and 2, which allows a channel or trip system that has been placed in the tripped condition to be returned to the untripped condition under administrative control solely to perform testing required to demonstrate its operability or the operability of other equipment, will be deleted in its entirety since this footnote is redundant to the new LCO 3.0.5.
8. Bases of new LCOs 3.0.5 and 3.0.6 will be added to the TS Bases on page B 3/4 0-3b.

The marked up pages that reflect the proposed changes are provided in Attachment 2 (TS pages) and Attachment 3 (TS Bases pages - information only).

3.0 TECHNICAL EVALUATION

TS Section 3/4.0, Applicability

LCO 3.0.5

LGS LCO 3.0.1 states: "Compliance with the Limiting Conditions for Operation contained in the succeeding Specifications is required during the OPERATIONAL CONDITIONS or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met."

In addition, LGS LCO 3.0.2 states: "Noncompliance with a Specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required."

Compliance with the above LCOs does not provide adequate operational flexibility during situations when equipment declared inoperable and placed in a specified condition required by TS Action requirements must be returned to service in order to perform testing to demonstrate operability of the equipment being returned to service or operability of other equipment.

An example of demonstrating the operability of the equipment being returned to service is reopening a containment isolation valve that has been closed to comply with required TS Actions and must be reopened to perform the required testing.

An example of demonstrating the operability of other equipment is taking an inoperable channel or trip system out of the tripped condition to prevent the trip function from occurring during the performance of required testing on another channel in the other trip system. A similar example of demonstrating the operability of other equipment is taking an inoperable channel or trip system out of the tripped condition to permit the logic to function and indicate the appropriate response during the performance of required testing on another channel in the same trip system.

To resolve this conflict in TS Action requirements when equipment is returned to service, LCO 3.0.5 is proposed to be added to the Applicability Section (3/4.0) of LGS TS. LCO 3.0.5 establishes the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with TS Action requirements. The sole purpose of this LCO is to provide an exception to LCOs 3.0.1 and 3.0.2, i.e., to not comply with the applicable required TS Action(s), to allow the performance of testing to demonstrate either:

- a. The operability of the equipment being returned to service; or
- b. The operability of other equipment.

Administrative controls, such as test procedures, ensure that the time the equipment is returned to service in conflict with the TS Action requirements is limited to the time necessary to perform the required testing to demonstrate operability. This LCO does not provide time to perform any other preventive or corrective maintenance.

The potential impact of temporarily returning the equipment to service is considered to be insignificant since the equipment will be expected to be able to perform its required safety function. Temporarily returning inoperable equipment to service for the purpose of confirming operability places the plant in a condition which has been previously evaluated in the development of the current TS and determined to be acceptable for short periods. Performance of the operability testing is considered to be a confirmatory check of that capability which demonstrates that the equipment is indeed operable. For those times when equipment which may be temporarily returned to service under administrative controls is subsequently determined to remain inoperable, the resulting condition is comparable to the equipment having been determined to be inoperable during operation, with continued operation for a specified time allowed to complete required TS Actions. In addition, sufficient redundancy exists such that the required function would still occur.

The incorporation of LCO 3.0.5 will allow inoperable equipment to be placed in service in a condition different from that required by the TS Action to demonstrate the operability of that equipment, or other equipment. This provision is provided only to perform operability testing, and not to provide time to perform any other preventive or corrective maintenance. The testing will be performed consistent with the current TS required Actions and will be limited to the necessary time.

LCO 3.0.5 is redundant to footnote "****" on TS page 3/4 3-1. Therefore, footnote "****" and its associated references in LCO 3.3.1, Actions "b" and "c," are proposed to be deleted because they are no longer warranted.

LCO 3.0.6

LCO 3.0.6 is proposed to be added to the Applicability Section (3/4.0) of TS. LCO 3.0.6 establishes an exception to LCOs 3.0.1 and 3.0.2 for supported systems that have a support system LCO specified in the LGS TS. This exception to LCO 3.0.1 is provided because LCO 3.0.1 would require that the Actions of the associated inoperable supported system LCO be entered solely due to the inoperability of the support system. This exception is justified because the actions that are required to ensure the plant is maintained in a safe condition are specified in the support system LCO's Actions. These Actions may include entering the supported system's Actions or may specify other Actions to be entered. The exception to LCO 3.0.2 is provided because LCO 3.0.2 would consider not entering into the Actions for the supported system within the specified time intervals as a TS noncompliance.

When a support system is inoperable and there is an LCO specified for it in the TS, the supported system(s) are required to be declared inoperable if determined to be inoperable as a result of the support system inoperability. However, it is not necessary to enter into the supported systems' Actions unless directed to do so by the support system's Actions. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' LCOs' Actions are eliminated by providing all the actions that are necessary to ensure the plant is maintained in a safe condition in the support system's Actions.

However, there are instances where a support system's Action may either direct a supported system to be declared inoperable or direct entry into Actions for the supported system. This may occur immediately or after some specified delay to perform some other Action. Regardless of whether it is immediate or after some delay, when a support system's Action directs a supported system to be declared inoperable or directs entry into Actions for a supported system, the applicable Actions are entered in accordance with LCO 3.0.1.

Proposed Specification 6.17, "Safety Function Determination Program (SFDP)," as discussed below ensures that a loss of safety function is detected and that appropriate actions are taken. Upon entry into LCO 3.0.6, an evaluation is performed to determine if a loss of safety function exists. Additionally, other limitations, remedial actions, or compensatory actions may be identified as a result of the support system inoperability and corresponding exception to entering supported system Actions. The SFDP implements the requirements of LCO 3.0.6 as discussed below.

If an evaluation determines that a loss of safety function exists, the appropriate Actions of the LCO in which the loss of safety function exists are required to be entered. This loss of safety function does not require the assumption of additional single failures or loss of offsite power. Since operations are being restricted in accordance with the Actions of the support system, any resulting temporary loss of redundancy or single failure protection is taken into account.

When a loss of safety function is determined to exist, and the SFDP requires entry into the appropriate Actions of the LCO in which the loss of safety function exists, consideration is given

to the specific type of function affected. Where a loss of function is solely due to a single TS support system (e.g., loss of automatic start due to inoperable instrumentation, or loss of pump suction source due to low tank level), the appropriate LCO is the LCO for the support system. The Actions for a support system LCO adequately address the inoperabilities of that system without reliance on entering its supported system LCO. When the loss of function is the result of multiple support systems, the appropriate LCO is the LCO for the supported system.

TS Section 6.0, Administrative Controls

Section 6.17, "Safety Function Determination Program (SFDP)," is proposed to be added to the Administrative Controls Section of TS.

The SFDP ensures that a loss of safety function is detected and that appropriate actions are taken. Upon entry into LCO 3.0.6, an evaluation is performed to determine if a loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system Actions. The SFDP implements the requirements of LCO 3.0.6, and contains the following:

- a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,
- b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,
- c. Provisions to ensure that an inoperable supported system's Allowed Outage Time is not inappropriately extended as a result of multiple support system inoperabilities, and
- d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of the SFDP, a loss of safety function may exist when a support system is inoperable, and:

- a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable,
- b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or
- c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate Actions of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the

inoperability of a single TS support system, the appropriate Actions to enter are those of the support system.

TS Bases Section 3/4.0, Applicability

New Sections 3.0.5 and 3.0.6 will be added to the TS Bases Section 3/4.0 to provide a discussion regarding the new TS LCO 3.0.5 and 3.0.6 requirements. The marked up TS Bases pages that reflect the proposed changes are provided in Attachment 3 for information purposes only.

Conclusion

The proposed changes do not alter the physical design of any plant structure, system, or component; therefore, the proposed changes have no adverse effect on plant operation, or the availability or operation of any accident mitigation equipment. The plant response to the design basis accidents does not change. The proposed changes do not require any new or unusual operator actions. The proposed changes do not introduce any new failure modes that could result in a new accident. There is no change being made to safety analysis assumptions, safety limits or limiting safety system settings that would adversely affect plant safety as a result of the proposed changes.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The proposed changes conform to the requirements of 10 CFR 50.36 (Reference 1) for the contents of TS.

4.2 Precedence

The proposed changes are consistent with the improved Standard Technical Specifications approved by the NRC in NUREG-1433, "Standard Technical Specifications – General Electric BWR/4 Plants" (Reference 2).

Additionally, the proposed change to add new LCO 3.0.5 to the Applicability Section of LGS TS is similar to that approved for Turkey Point, Units 3 and 4 in Amendment Nos. 235 and 230, respectively (Reference 3), Donald C. Cook Nuclear Plant, Units 1 and 2 in Amendment Nos. 264 and 264, respectively (Reference 4), and Millstone Nuclear Power Station, Unit No. 3 in Amendment No. 179 (Reference 5).

4.3 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 involve the addition of a new Limiting Condition for Operation (LCO) 3.0.5 to the Applicability Section of the Limerick Generating Station (LGS) Technical Specifications (TS) which allows restoration of equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with TS Action requirements. The potential impact of temporarily returning the equipment to service is considered to be insignificant since the equipment has been restored to a condition which is expected to provide the required safety function.

Returning the equipment to service for operability testing will promote timely restoration of the equipment and reduce the probability of events that may have been prevented or mitigated by such operable equipment. Since the equipment to be restored is already out of service, the availability of the equipment has been previously considered in the evaluation of consequences of an accident. Temporarily returning the equipment to service in a state which is expected to function as required to mitigate the consequences of a previously analyzed accident will promote timely restoration of the equipment and restore the capabilities of the equipment to mitigate the consequences of any events previously analyzed.

Additionally, the proposed changes involve the addition of a new LCO 3.0.6 to the Applicability Section of the LGS TS that provides appropriate actions to be taken when the inoperability of a support system results in the inoperability of related supported systems. Furthermore, the proposed changes involve adding new Safety Function Determination Program (SFDP) requirements to the Administrative Section of the LGS TS to ensure that a loss of safety function is detected and appropriate actions are taken when LCO 3.0.6 is entered.

The proposed changes do not alter the physical design of any plant structure, system, or component; therefore, the proposed changes have no adverse effect on plant operation, or the availability or operation of any accident mitigation equipment. The plant response to the design basis accidents does not change.

Also, the proposed changes conform to NRC regulatory requirements regarding the content of plant TS as identified in 10 CFR 50.36, and also the guidance as approved by the NRC in NUREG-1433, "Standard Technical Specifications-General Electric BWR/4 Plants."

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 include the addition of a new LCO 3.0.5 to the Applicability Section of the LGS TS which allows restoration of equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with TS Action requirements. Operation with the inoperable equipment temporarily restored to service is not considered a new mode of operation since existing procedures and administrative controls prevent the restoration of equipment to service until it is considered capable of providing the required safety function.

Performance of the operability testing is considered to be a confirmatory check of that capability which demonstrates that the equipment is indeed operable. For those times when equipment which may be temporarily returned to service under administrative controls is subsequently determined to be inoperable, the resulting condition is comparable to the equipment having been determined to be inoperable during operation, with continued operation for a specified time allowed to complete required TS Actions. Since this condition has been previously evaluated in the development of the current TS, the possibility of a new or different kind of accident from any accident previously evaluated is not created.

The proposed changes also involve the addition of a new LCO 3.0.6 to the Applicability Section of the LGS TS that provides appropriate actions to be taken when the inoperability of a support system results in the inoperability of related supported systems. Likewise, the proposed changes involve the addition of new Safety Function Determination Program (SFDP) requirements to the Administrative Section of the LGS TS to ensure that a loss of safety function is detected and appropriate actions are taken when LCO 3.0.6 is entered.

The proposed changes do not alter the plant configuration (no new or different type of equipment is being installed) or require any new or unusual operator actions. The proposed changes do not alter the safety limits or safety analysis assumptions associated with the operation of the plant. The proposed changes do not introduce any new failure modes that could result in a new accident. The proposed changes do not reduce or adversely affect the capabilities of any plant structure, system, or component in the performance of their safety function. Also, the response of the plant and the operators following the design basis accidents is unaffected by the proposed changes.

In addition, the proposed changes conform to NRC regulatory requirements regarding the content of plant TS as identified in 10 CFR 50.36, and also the guidance as approved by the NRC in NUREG-1433, "Standard Technical Specifications-General Electric BWR/4 Plants."

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 involve the addition of a new LCO 3.0.5 to the Applicability Section of the LGS TS which allows restoration of equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with TS Action requirements. Temporarily returning inoperable equipment to service for the purpose of confirming operability, places the plant in a condition which has been previously evaluated and determined to be acceptable for short periods. Additionally, the equipment has been determined to be in a condition which provides the previously determined margin of safety. The performance of the operability testing simply confirms the expected result and capability of the equipment.

Additionally, the proposed changes involve the addition of a new LCO 3.0.6 to the Applicability Section of the LGS TS that provides appropriate actions to be taken when the inoperability of a support system results in the inoperability of related supported systems. The proposed changes also involve adding new Safety Function Determination Program (SFDP) requirements to the Administrative Section of the LGS TS to ensure that a loss of safety function is detected and appropriate actions are taken when LCO 3.0.6 is entered.

The proposed changes have no adverse effect on plant operation, or the availability or operation of any accident mitigation equipment. The plant response to the design basis accidents does not change. The proposed changes do not adversely affect existing plant safety margins or the reliability of the equipment assumed to operate in the safety analyses. There is no change being made to safety analysis assumptions, safety limits or limiting safety system settings that would adversely affect plant safety as a result of the proposed changes.

In addition, the proposed changes conform to NRC regulatory requirements regarding the content of plant TS as identified in 10 CFR 50.36, and also the guidance as approved by the NRC in NUREG-1433, "Standard Technical Specifications-General Electric BWR/4 Plants."

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.

4.4 Conclusions

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.

5.0 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). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

1. 10 CFR 50.36, "Technical Specifications."
2. NUREG-1433, "Standard Technical Specifications-General Electric BWR/4 Plants," Revision 4.0, dated April 2012.
3. Letter from B. L. Mozafari (U.S. Nuclear Regulatory Commission) to J. A. Stall (Florida Power and Light Company), "Turkey Point, Units 3 and 4 – Issuance of Amendments Regarding Addition of a New Technical Specification 3.0.6 (TAC Nos. MD5583 AND MD5584)," dated September 5, 2007.
4. Letter from J. F. Stang (U.S. Nuclear Regulatory Commission) to A. C. Bakken III (Indiana Michigan Power Company), "Donald C. Cook Nuclear Plant, Units 1 and 2 – Issuance of Amendments (TAC Nos. MB2738 AND MB2739)," dated February 1, 2002.
5. Letter from V. Nerses (U.S. Nuclear Regulatory Commission) to S. E. Scace (Northeast Nuclear Energy Company), "Millstone Nuclear Power Station, Unit No. 3 – Issuance of Amendments RE: Limiting Conditions for Operations (TAC No. MA8107)," dated April 17, 2000.

ATTACHMENT 2

License Amendment Request

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

Proposed Change to Add New Limiting Conditions for Operation 3.0.5 and 3.0.6

Markup of Proposed Technical Specifications Pages

Unit 1 TS Pages

xxviii
3/4 0-1
3/4 3-1
6-23

Unit 2 TS Pages

xxviii
3/4 0-1
3/4 3-1
6-23

ADMINISTRATIVE CONTROLS

<u>SECTION</u>	<u>PAGE</u>
6.13 PROCESS CONTROL PROGRAM (PCP).....	6-21
6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM).....	6-22
6.15 (Deleted).....	6-22
6.16 CONTROL ROOM ENVELOPE HABITABILITY PROGRAM.....	6-22
6.17 SAFETY FUNCTION DETERMINATION PROGRAM (SFDP).....	6-23

6.17 SAFETY FUNCTION DETERMINATION PROGRAM (SFDP).....6-23

INSERT

3/4.0 APPLICABILITY

Add INSERT A

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding Specifications is required during the OPERATIONAL CONDITIONS or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met:

3.0.2 Noncompliance with a Specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within one hour action shall be initiated to place the unit in an OPERATIONAL CONDITION in which the Specification does not apply by placing it, as applicable, in:

- a. At least STARTUP within the next 6 hours.
- b. At least HOT SHUTDOWN within the following 6 hours, and
- c. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual Specifications.

This Specification is not applicable in OPERATIONAL CONDITION 4 or 5.

3.0.4 When a Limiting Condition for Operation is not met, entry into an OPERATIONAL CONDITION or other specified condition in the Applicability shall only be made:

- a. When the associated ACTION requirements to be entered permit continued operation in the OPERATIONAL CONDITION or other specified condition in the Applicability for an unlimited period of time; or
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the OPERATIONAL CONDITION or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; exceptions to this Specification are stated in the individual Specifications; or
- c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in OPERATIONAL CONDITIONS or other specified conditions in the Applicability that are required to comply with ACTION requirements or that are part of a shutdown of the unit.

Add INSERT B

INSERT A

, except as provided in Specifications 3.0.5 and 3.0.6.

INSERT B

3.0.5 Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to Specifications 3.0.1 and 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

3.0.6 When a supported system Limiting Condition for Operation is not met solely due to a support system Limiting Condition for Operation not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system Limiting Condition for Operation ACTIONS are required to be entered. This is an exception to Specifications 3.0.1 and 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.17, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the Limiting Condition for Operation in which the loss of safety function exists are required to be entered.

When a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with Specification 3.0.1.

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 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.

DELETE

*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.

ADMINISTRATIVE CONTROLS

CONTROL ROOM ENVELOPE HABITABILITY PROGRAM (Continued)

- c. Requirements for (i) determining the unfiltered air leakage past the CRE boundary into the CRE in accordance with the testing methods and at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Revision 0, May 2003, and (ii) assessing CRE habitability at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.
- d. Measurement, at designated locations, of the CRE pressure relative to all external areas adjacent to the CRE boundary during the pressurization mode of operation by one train of the CREFAS, operating at the flow rate required by SR 4.7.2.1.c.1, at a Frequency of 24 months on a STAGGERED TEST BASIS. The results shall be trended and used as part of the 24 month assessment of the CRE boundary.
- e. The quantitative limits on unfiltered air leakage into the CRE. These limits shall be stated in a manner to allow direct comparison to the unfiltered air leakage measured by the testing described in paragraph c. The unfiltered air leakage limit for radiological challenges is the leakage flow rate assumed in the licensing basis analyses of DBA consequences. Unfiltered air leakage limits for hazardous chemicals must ensure that exposure of CRE occupants to these hazards will be within the assumptions in the licensing basis.
- f. The provisions of Specification 4.0.2 are applicable to the Frequencies for assessing CRE habitability, determining CRE unfiltered leakage, and measuring CRE pressure and assessing the CRE boundary as required by paragraphs c and d, respectively.

← Add INSERT C

INSERT C

6.17 Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into Specification 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system ACTIONS. This program implements the requirements of Specification 3.0.6. The SFDP shall contain the following:

- a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,
- b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,
- c. Provisions to ensure that an inoperable supported system's Allowed Outage Time is not inappropriately extended as a result of multiple support system inoperabilities, and
- d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

- a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable,
- b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or
- c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the Limiting Condition for Operation in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate ACTIONS to enter are those of the support system.

INDEX

ADMINISTRATIVE CONTROLS

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INSERT

3/4.0 APPLICABILITY

Add INSERT A

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding Specifications is required during the OPERATIONAL CONDITIONS or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.

3.0.2 Noncompliance with a Specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within one hour action shall be initiated to place the unit in an OPERATIONAL CONDITION in which the Specification does not apply by placing it, as applicable, in:

- a. At least STARTUP within the next 6 hours,
- b. At least HOT SHUTDOWN within the following 6 hours, and
- c. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual Specifications.

This Specification is not applicable in OPERATIONAL CONDITION 4 or 5.

3.0.4 When a Limiting Condition for Operation is not met, entry into an OPERATIONAL CONDITION or other specified condition in the Applicability shall only be made:

- a. When the associated ACTION requirements to be entered permit continued operation in the OPERATIONAL CONDITION or other specified condition in the Applicability for an unlimited period of time; or
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the OPERATIONAL CONDITION or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; exceptions to this Specification are stated in the individual Specifications; or
- c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in OPERATIONAL CONDITIONS or other specified conditions in the Applicability that are required to comply with ACTION requirements or that are part of a shutdown of the unit.

Add INSERT B

INSERT A

, except as provided in Specifications 3.0.5 and 3.0.6.

INSERT B

3.0.5 Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to Specifications 3.0.1 and 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

3.0.6 When a supported system Limiting Condition for Operation is not met solely due to a support system Limiting Condition for Operation not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system Limiting Condition for Operation ACTIONS are required to be entered. This is an exception to Specifications 3.0.1 and 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.17, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the Limiting Condition for Operation in which the loss of safety function exists are required to be entered.

When a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with Specification 3.0.1.

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 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 condition 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.

DELETE

* 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.

ADMINISTRATIVE CONTROLS

CONTROL ROOM ENVELOPE HABITABILITY PROGRAM (Continued)

- c. Requirements for (i) determining the unfiltered air leakage past the CRE boundary into the CRE in accordance with the testing methods and at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Revision 0, May 2003, and (ii) assessing CRE habitability at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.
- d. Measurement, at designated locations, of the CRE pressure relative to all external areas adjacent to the CRE boundary during the pressurization mode of operation by one train of the CREFAS, operating at the flow rate required by SR 4.7.2.1 c.1, at a Frequency of 24 months on a STAGGERED TEST BASIS. The results shall be trended and used as part of the 24 month assessment of the CRE boundary.
- e. The quantitative limits on unfiltered air leakage into the CRE. These limits shall be stated in a manner to allow direct comparison to the unfiltered air leakage measured by the testing described in paragraph c. The unfiltered air leakage limit for radiological challenges is the leakage flow rate assumed in the licensing basis analyses of DBA consequences. Unfiltered air leakage limits for hazardous chemicals must ensure that exposure of CRE occupants to these hazards will be within the assumptions in the licensing basis.
- f. The provisions of Specification 4.0.2 are applicable to the Frequencies for assessing CRE habitability, determining CRE unfiltered leakage, and measuring CRE pressure and assessing the CRE boundary as required by paragraphs c and d, respectively.

← **Add INSERT C**

INSERT C

6.17 Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into Specification 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system ACTIONS. This program implements the requirements of Specification 3.0.6. The SFDP shall contain the following:

- a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,
- b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,
- c. Provisions to ensure that an inoperable supported system's Allowed Outage Time is not inappropriately extended as a result of multiple support system inoperabilities, and
- d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

- a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable,
- b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or
- c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the Limiting Condition for Operation in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate ACTIONS to enter are those of the support system.

ATTACHMENT 3

License Amendment Request

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

Proposed Change to Add New Limiting Conditions for Operation 3.0.5 and 3.0.6

**Markup of Proposed Technical Specifications Bases Pages
(Information Only)**

Unit 1 TS Bases Page

B 3/4 0-3b

Unit 2 TS Bases Page

B 3/4 0-3b

3/4.0 APPLICABILITY
BASES

conditions in the Applicability that result from any unit shutdown. In this context, a unit shutdown is defined as a change in OPERATIONAL CONDITION or other specified condition in the Applicability associated with transitioning from OPERATIONAL CONDITION 1 to OPERATIONAL CONDITION 2, OPERATIONAL CONDITION 2 to OPERATIONAL CONDITION 3, and OPERATIONAL CONDITION 3 to OPERATIONAL CONDITION 4.

Upon entry into an OPERATIONAL CONDITION or other specified condition in the Applicability with the Limiting Condition for Operation not met, Specification 3.0.1 and Specification 3.0.2 require entry into the applicable Conditions and ACTION requirements until the Condition is resolved, until the Limiting Condition for Operation is met, or until the unit is not within the Applicability of the Technical Specification.

Surveillances do not have to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by Specification 4.0.1. Therefore, utilizing Specification 3.0.4 is not a violation of Specification 4.0.1 or Specification 4.0.4 for any Surveillances that have not been performed on inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected Limiting Condition for Operation.

← **Add INSERT D**

Specification 4.0.1 through 4.0.5 establish the general requirements applicable to Surveillance Requirements. These requirements are based on the Surveillance Requirements stated in the Code of Federal Regulations 10 CFR 50.36(c)(3):

"Surveillance requirements are requirements relating to test, calibration, or inspection to ensure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions of operation will be met."

Specification 4.0.1 establishes the requirement that SRs must be met during the OPERATIONAL CONDITIONS or other specified conditions in the Applicability for which the requirements of the Limiting Condition for Operation apply, unless otherwise specified in the individual SRs. This Specification is to ensure that Surveillances are performed to verify the OPERABILITY of systems and components, and that variables are within specified limits. Failure to meet a Surveillance within the specified Surveillance time interval and allowed extension, in accordance with Specification 4.0.2, constitutes a failure to meet the Limiting Condition for Operation.

Systems and components are assumed to be OPERABLE when the associated SRs have been met. Nothing in this Specification, however, is to be construed as implying that systems or components are OPERABLE when:

- a. The systems or components are known to be inoperable, although still meeting the SRs; or
- b. The requirements of the Surveillance(s) are known to be not met between required Surveillance performances.

Surveillances do not have to be performed when the unit is in an OPERATIONAL CONDITION or other specified condition for which the requirements of the associated Limiting Condition for Operation are not applicable, unless otherwise specified. The SRs associated with a Special Test Exception Limiting Condition for Operation are only applicable when the Special Test Exception Limiting Condition for Operation is used as an allowable exception to the requirements of a Specification.

INSERT D

Specification 3.0.5 establishes the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with ACTIONS. The sole purpose of this Specification is to provide an exception to Specifications 3.0.1 and 3.0.2 (e.g., to not comply with the applicable ACTION(s)) to allow the performance of required testing to demonstrate:

- a. The OPERABILITY of the equipment being returned to service, or
- b. The OPERABILITY of other equipment.

The administrative controls ensure the time the equipment is returned to service in conflict with the requirements of the ACTIONS is limited to the time necessary to perform the required testing to demonstrate OPERABILITY. This Specification does not provide time to perform any other preventive or corrective maintenance.

An example of demonstrating the OPERABILITY of the equipment being returned to service is reopening a containment isolation valve that has been closed to comply with required ACTIONS and must be reopened to perform the required testing.

An example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to prevent the trip function from occurring during the performance of required testing on another channel in the other trip system. A similar example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to permit the logic to function and indicate the appropriate response during the performance of required testing on another channel in the same trip system.

Specification 3.0.6 establishes an exception to Specifications 3.0.1 and 3.0.2 for supported systems that have a support system Limiting Condition for Operation specified in the Technical Specifications (TS). The exception to Specification 3.0.1 is provided because Specification 3.0.1 would require that the ACTIONS of the associated inoperable supported system Limiting Condition for Operation be entered solely due to the inoperability of the support system. This exception is justified because the actions that are required to ensure the plant is maintained in a safe condition are specified in the support system Limiting Condition for Operation's ACTIONS. These ACTIONS may include entering the supported system's ACTIONS or may specify other ACTIONS. The exception to Specification 3.0.2 is provided because Specification 3.0.2 would consider not entering into the ACTIONS for the supported system within the specified time intervals as a TS noncompliance.

When a support system is inoperable and there is a Limiting Condition for Operation specified for it in the TS, the supported system(s) are required to be declared inoperable if determined to be inoperable as a result of the support system inoperability. However, it is not necessary to enter into the supported systems' ACTIONS unless directed to do so by the support system's ACTIONS. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' Limiting Condition for Operations' ACTIONS are eliminated by providing all the actions that are necessary to ensure the plant is maintained in a safe condition in the support system's ACTIONS.

However, there are instances where a support system's ACTION may either direct a supported system to be declared inoperable or direct entry into ACTIONS for the supported system. This may occur immediately or after some specified delay to perform some other ACTION. Regardless of whether it is immediate or after some delay, when a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with Specification 3.0.1.

Specification 6.17, "Safety Function Determination Program (SFDP)," ensures loss of safety function is detected and appropriate actions are taken. Upon entry into Specification 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other limitations, remedial actions, or compensatory actions may be identified as a result of the support system inoperability and corresponding exception to entering supported system ACTIONS. The SFDP implements the requirements of Specification 3.0.6.

The following examples use Figure B 3.0-1 to illustrate loss of safety function conditions that may result when a TS support system is inoperable. In this figure, the fifteen systems that comprise Train A are independent and redundant to the fifteen systems that comprise Train B. To correctly use the figure to illustrate the SFDP provisions for a cross train check, the figure establishes a relationship between support and supported systems as follows: the figure shows System 1 as a support system for System 2 and System 3; System 2 as a support system for System 4 and System 5; and System 4 as a support system for System 8 and System 9. Specifically, a loss of safety function may exist when a support system is inoperable and:

- a. A system redundant to system(s) supported by the inoperable support system is also inoperable (EXAMPLE B 3.0.6-1),
- b. A system redundant to system(s) in turn supported by the inoperable supported system is also inoperable (EXAMPLE B 3.0.6-2), or
- c. A system redundant to support system(s) for the supported systems (a) and (b) above is also inoperable (EXAMPLE B 3.0.6-3).

For the following examples, refer to Figure B 3.0-1.

EXAMPLE B 3.0.6-1

If System 2 of Train A is inoperable and System 5 of Train B is inoperable, a loss of safety function exists in Systems 5, 10, and 11.

EXAMPLE B 3.0.6-2

If System 2 of Train A is inoperable, and System 11 of Train B is inoperable, a loss of safety function exists in System 11.

EXAMPLE B 3.0.6-3

If System 2 of Train A is inoperable, and System 1 of Train B is inoperable, a loss of safety function exists in Systems 2, 4, 5, 8, 9, 10 and 11.

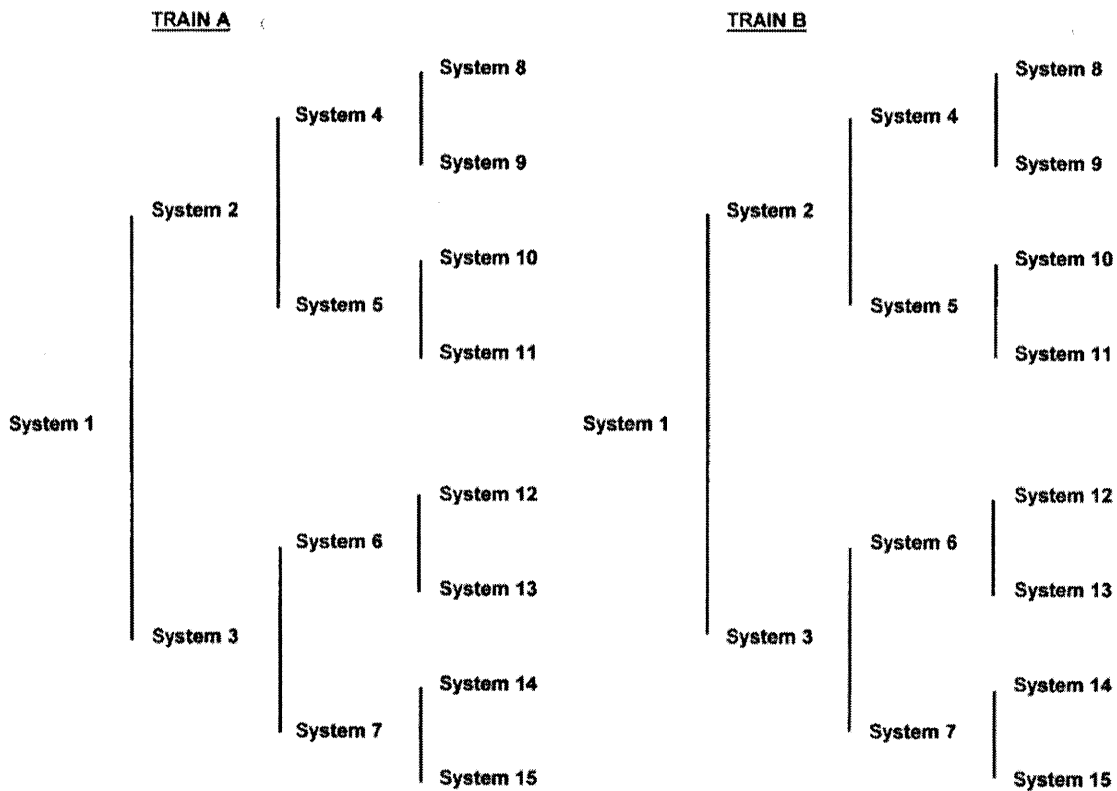


Figure B 3.0-1
Configuration of Trains and Systems

If an evaluation determines that a loss of safety function exists, the appropriate ACTIONS of the Limiting Condition for Operation in which the loss of safety function exists are required to be entered. This loss of safety function does not require the assumption of additional single failures or loss of offsite power. Since operations are being restricted in accordance with the ACTIONS of the support system, any resulting temporary loss of redundancy or single failure protection is taken into account.

When loss of safety function is determined to exist, and the SFDP requires entry into the appropriate ACTIONS of the Limiting Condition for Operation in which the loss of safety function exists, consideration must be given to the specific type of function affected. Where a loss of function is solely due to a single Technical Specification support system (e.g., loss of automatic start due to inoperable instrumentation, or loss of pump suction source due to low tank level), the appropriate Limiting Condition for Operation is the Limiting Condition for Operation for the support system. The ACTIONS for a support system Limiting Condition for Operation adequately address the inoperabilities of that system without reliance on entering its supported system Limiting Condition for Operation. When the loss of function is the result of multiple support systems, the appropriate Limiting Condition for Operation is the Limiting Condition for Operation for the supported system.

APPLICABILITY

BASES

context, a unit shutdown is defined as a change in OPERATIONAL CONDITION or other specified condition in the Applicability associated with transitioning from OPERATIONAL CONDITION 1 to OPERATIONAL CONDITION 2, OPERATIONAL CONDITION 2 to OPERATIONAL CONDITION 3, and OPERATIONAL CONDITION 3 to OPERATIONAL CONDITION 4.

Upon entry into an OPERATIONAL CONDITION or other specified condition in the Applicability with the Limiting Condition for Operation not met, Specification 3.0.1 and Specification 3.0.2 require entry into the applicable Conditions and ACTION requirements until the Condition is resolved, until the Limiting Condition for Operation is met, or until the unit is not within the Applicability of the Technical Specification.

Surveillances do not have to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by Specification 4.0.1. Therefore, utilizing Specification 3.0.4 is not a violation of Specification 4.0.1 or Specification 4.0.4 for any Surveillances that have not been performed on inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected Limiting Condition for Operation.

← Add INSERT D

Specification 4.0.1 through 4.0.5 establish the general requirements applicable to Surveillance Requirements. These requirements are based on the Surveillance Requirements stated in the Code of Federal Regulations 10 CFR 50.36(c)(3):

"Surveillance requirements are requirements relating to test, calibration, or inspection to ensure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions of operation will be met."

Specification 4.0.1 establishes the requirement that SRs must be met during the OPERATIONAL CONDITIONS or other specified conditions in the Applicability for which the requirements of the Limiting Condition for Operation apply, unless otherwise specified in the individual SRs. This Specification is to ensure that Surveillances are performed to verify the OPERABILITY of systems and components, and that variables are within specified limits. Failure to meet a Surveillance within the specified Surveillance time interval and allowed extension, in accordance with Specification 4.0.2, constitutes a failure to meet the Limiting Condition for Operation.

Systems and components are assumed to be OPERABLE when the associated SRs have been met. Nothing in this Specification, however, is to be construed as implying that systems or components are OPERABLE when:

- a. The systems or components are known to be inoperable, although still meeting the SRs; or
- b. The requirements of the Surveillance(s) are known to be not met between required Surveillance performances.

Surveillances do not have to be performed when the unit is in an OPERATIONAL CONDITION or other specified condition for which the requirements of the associated Limiting Condition for Operation are not applicable, unless otherwise specified. The SRs associated with a Special Test Exception Limiting Condition for Operation are only applicable when the Special Test Exception Limiting Condition for Operation is used as an allowable exception to the requirements of a Specification.

INSERT D

Specification 3.0.5 establishes the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with ACTIONS. The sole purpose of this Specification is to provide an exception to Specifications 3.0.1 and 3.0.2 (e.g., to not comply with the applicable ACTION(s)) to allow the performance of required testing to demonstrate:

- a. The OPERABILITY of the equipment being returned to service, or
- b. The OPERABILITY of other equipment.

The administrative controls ensure the time the equipment is returned to service in conflict with the requirements of the ACTIONS is limited to the time necessary to perform the required testing to demonstrate OPERABILITY. This Specification does not provide time to perform any other preventive or corrective maintenance.

An example of demonstrating the OPERABILITY of the equipment being returned to service is reopening a containment isolation valve that has been closed to comply with required ACTIONS and must be reopened to perform the required testing.

An example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to prevent the trip function from occurring during the performance of required testing on another channel in the other trip system. A similar example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to permit the logic to function and indicate the appropriate response during the performance of required testing on another channel in the same trip system.

Specification 3.0.6 establishes an exception to Specifications 3.0.1 and 3.0.2 for supported systems that have a support system Limiting Condition for Operation specified in the Technical Specifications (TS). The exception to Specification 3.0.1 is provided because Specification 3.0.1 would require that the ACTIONS of the associated inoperable supported system Limiting Condition for Operation be entered solely due to the inoperability of the support system. This exception is justified because the actions that are required to ensure the plant is maintained in a safe condition are specified in the support system Limiting Condition for Operation's ACTIONS. These ACTIONS may include entering the supported system's ACTIONS or may specify other ACTIONS. The exception to Specification 3.0.2 is provided because Specification 3.0.2 would consider not entering into the ACTIONS for the supported system within the specified time intervals as a TS noncompliance.

When a support system is inoperable and there is a Limiting Condition for Operation specified for it in the TS, the supported system(s) are required to be declared inoperable if determined to be inoperable as a result of the support system inoperability. However, it is not necessary to enter into the supported systems' ACTIONS unless directed to do so by the support system's ACTIONS. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' Limiting Condition for Operations' ACTIONS are eliminated by providing all the actions that are necessary to ensure the plant is maintained in a safe condition in the support system's ACTIONS.

However, there are instances where a support system's ACTION may either direct a supported system to be declared inoperable or direct entry into ACTIONS for the supported system. This may occur immediately or after some specified delay to perform some other ACTION. Regardless of whether it is immediate or after some delay, when a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with Specification 3.0.1.

Specification 6.17, "Safety Function Determination Program (SFDP)," ensures loss of safety function is detected and appropriate actions are taken. Upon entry into Specification 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other limitations, remedial actions, or compensatory actions may be identified as a result of the support system inoperability and corresponding exception to entering supported system ACTIONS. The SFDP implements the requirements of Specification 3.0.6.

The following examples use Figure B 3.0-1 to illustrate loss of safety function conditions that may result when a TS support system is inoperable. In this figure, the fifteen systems that comprise Train A are independent and redundant to the fifteen systems that comprise Train B. To correctly use the figure to illustrate the SFDP provisions for a cross train check, the figure establishes a relationship between support and supported systems as follows: the figure shows System 1 as a support system for System 2 and System 3; System 2 as a support system for System 4 and System 5; and System 4 as a support system for System 8 and System 9. Specifically, a loss of safety function may exist when a support system is inoperable and:

- a. A system redundant to system(s) supported by the inoperable support system is also inoperable (EXAMPLE B 3.0.6-1),
- b. A system redundant to system(s) in turn supported by the inoperable supported system is also inoperable (EXAMPLE B 3.0.6-2), or
- c. A system redundant to support system(s) for the supported systems (a) and (b) above is also inoperable (EXAMPLE B 3.0.6-3).

For the following examples, refer to Figure B 3.0-1.

EXAMPLE B 3.0.6-1

If System 2 of Train A is inoperable and System 5 of Train B is inoperable, a loss of safety function exists in Systems 5, 10, and 11.

EXAMPLE B 3.0.6-2

If System 2 of Train A is inoperable, and System 11 of Train B is inoperable, a loss of safety function exists in System 11.

EXAMPLE B 3.0.6-3

If System 2 of Train A is inoperable, and System 1 of Train B is inoperable, a loss of safety function exists in Systems 2, 4, 5, 8, 9, 10 and 11.

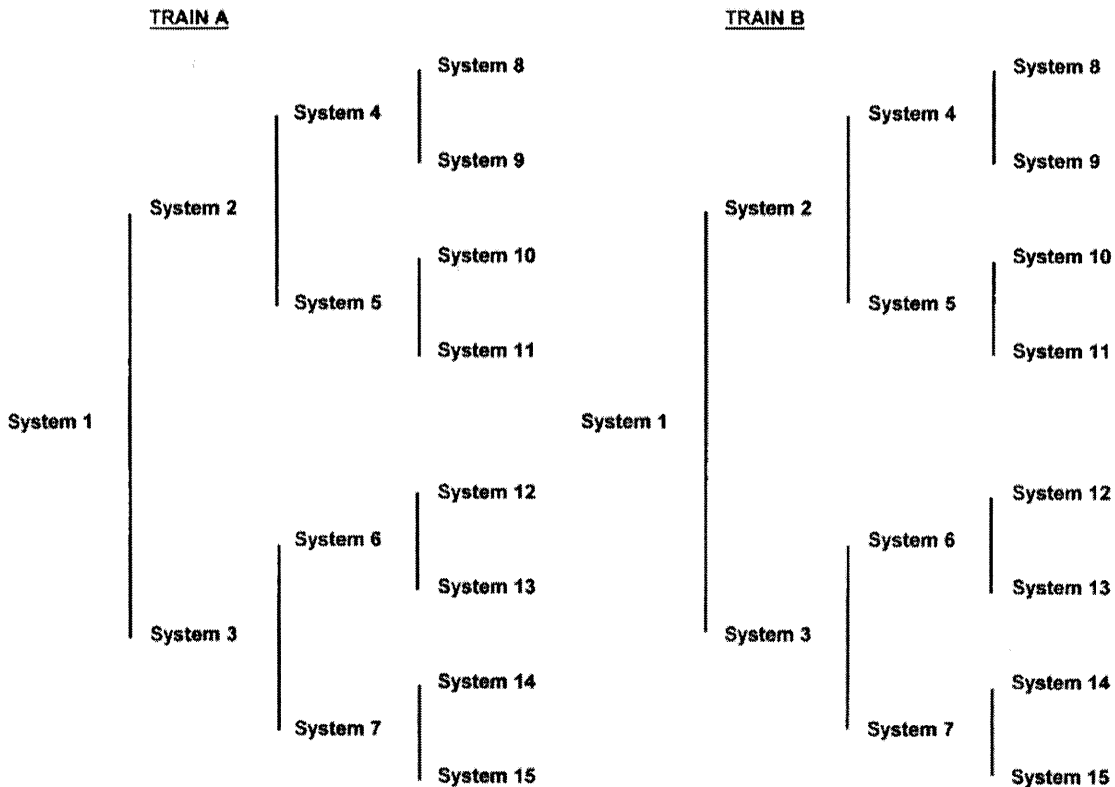


Figure B 3.0-1
Configuration of Trains and Systems

If an evaluation determines that a loss of safety function exists, the appropriate ACTIONS of the Limiting Condition for Operation in which the loss of safety function exists are required to be entered. This loss of safety function does not require the assumption of additional single failures or loss of offsite power. Since operations are being restricted in accordance with the ACTIONS of the support system, any resulting temporary loss of redundancy or single failure protection is taken into account.

When loss of safety function is determined to exist, and the SFDP requires entry into the appropriate ACTIONS of the Limiting Condition for Operation in which the loss of safety function exists, consideration must be given to the specific type of function affected. Where a loss of function is solely due to a single Technical Specification support system (e.g., loss of automatic start due to inoperable instrumentation, or loss of pump suction source due to low tank level), the appropriate Limiting Condition for Operation is the Limiting Condition for Operation for the support system. The ACTIONS for a support system Limiting Condition for Operation adequately address the inoperabilities of that system without reliance on entering its supported system Limiting Condition for Operation. When the loss of function is the result of multiple support systems, the appropriate Limiting Condition for Operation is the Limiting Condition for Operation for the supported system.