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10 CFR 50.90

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

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

Subject: License Amendment Request to Incorporate Previously NRC-Approved TSTFs and Other Administrative Technical Specifications Changes

Pursuant to 10 CFR 50.90, Exelon Generation Company, LLC (EGC) hereby requests proposed changes to incorporate various previously NRC-approved Technical Specification Task Force travelers (TSTFs) and other administrative changes. A listing of the proposed TSTFs and other administrative changes is contained in Attachment 1.

The proposed changes have been reviewed by the Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3 Plant Operations Review Committee and approved by the Nuclear Safety Review Board in accordance with the requirements of the EGC Quality Assurance Program.

EGC requests approval of the proposed amendment by August 7, 2009. Once approved, the amendment shall be implemented within 60 days.

No additional regulatory commitments are contained in this request.

In accordance with 10 CFR 50.91, EGC is notifying the State of Pennsylvania of this application for changes to the TS and Operating Licenses by transmitting a copy of this letter and its attachments to the designated state official.

Should you have any questions concerning this letter, please contact Tom Loomis at (610) 765- 5510.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 7th of August 2008.

Respectfully,

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

Attachments: 1) Evaluation of Proposed Changes
2) Markup of Proposed Technical Specifications Page Changes
3) Markup of Proposed Technical Specifications Bases Page Changes

cc: S. J. Collins, Administrator, Region I, USNRC
F. Bower, USNRC Senior Resident Inspector, PBAPS
J. Hughey, Project Manager, USNRC
R. R. Janati, Commonwealth of Pennsylvania
S. T. Gray, State of Maryland

ATTACHMENT 1

PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3

EVALUATION OF PROPOSED CHANGES

ATTACHMENT 1

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Subject: License Amendment Request to Incorporate Previously NRC-Approved TSTFs and Other Administrative Technical Specifications Changes

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1.0 SUMMARY DESCRIPTION

This evaluation supports a request to amend Renewed Facility Operating Licenses DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3.

The proposed changes would revise the Operating Licenses to incorporate certain TSTFs that have been previously reviewed and approved by the NRC and make other administrative revisions. These TSTFs and administrative changes were selected, in part, based on their simplicity of review and ease of implementation.

The TSTFs and administrative changes are grouped into six (6) individual analyses as provided in Sections 2.1 through 2.6 of this submittal. Each analysis provides a detailed description, technical evaluation, regulatory evaluation, and conclusions. Bases pages are also provided in this submittal for your information only.

2.0 DETAILED DESCRIPTION, TECHNICAL EVALUATION, REGULATORY EVALUATION, CONCLUSIONS

2.1 TSTF-363-A, Revision 0 – Revise Topical Report references in ITS 5.6.5, COLR

Detailed Description:

TSTF-363-A, Revision 0 modifies Improved Technical Specifications (NUREG-1433) Section 5.6.5 to remove the requirements to identify Core Operating Limits Report (COLR) Topical Report(s) by number, title, and date. The complete citation is added to the COLR for each Topical Report, including the report number, title, revision, date, and any supplements.

See the markup of pages for PBAPS, Units 2 and 3 included in Attachment 2.

List of Affected Pages	Unit Applicability	
	Unit 2	Unit 3
5.0-21	X	X
5.0-22	X	X

Technical Evaluation:

Exelon Generation Company, LLC (EGC) proposes to revise PBAPS Technical Specification Section 5.6.5 to remove the requirement to maintain COLR Topical Report references by number, title, date, and NRC staff approval document, if currently included. This TSTF will permit referencing the topical report by number and title. The additional details will be controlled within the COLR and will be subject to 10 CFR 50.59 for any changes. The details of the Topical Report references are an unwarranted regulatory burden and are acceptably maintained in the COLR. As discussed in TSTF-363, this method of referencing topical reports would allow licensees to use current topical reports to support limits in the COLR without having to submit an amendment to the facility operating license every time the topical report is revised. The COLR would provide specific information identifying the particular approved topical reports used to determine the core limits for the particular cycle in the COLR report. This would eliminate unnecessary expenditure of NRC and licensee resources and would ease the burden of TS submittal and approval needed to license reload fuel.

There are no intended deviations from the TSTF.

Regulatory Evaluation:

Applicable Regulatory Requirements/Criteria:

10 CFR 50.36, "Technical specifications" - 10 CFR 50.36(d)(2) states, "When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met." The proposed change continues to meet the requirements of this regulation.

Precedent:

TSTF-363-A, Revision 0, was approved for use as described in:

> Letter from L. N. Olshan (U. S. Nuclear Regulatory Commission) to W. R. McCollum, Jr. (Duke Energy Corporation), "Oconee Nuclear Station, Units 1, 2, and 3 RE: Issuance of Amendments (TAC NOS. MB3713, MB3714, AND MB3715)," dated July 9, 2002.

No Significant Hazards Consideration:

EGC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   This action does not affect the plant or operation of the plant. The change simply removes technical details from the Technical Specifications already included in the COLR. These technical details will still be subject to the regulations in 10 CFR 50.59. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   No new accident scenarios, failure mechanisms, or limiting single failures are introduced as a result of the proposed changes. All systems, structures, and components previously required for the mitigation of a transient remain capable of fulfilling their intended design functions. The proposed change has no adverse effects on any safety-related system or component and does not challenge the performance or integrity of any safety related system. This change is considered as an administrative action. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

   Response: No.

   This administrative action does not involve any reduction in a margin of safety. The change simply removes technical details from the Technical Specifications already included in the COLR. These technical details will still be subject to the regulations in 10 CFR 50.59. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, EGC concludes that the proposed amendment does not involve a 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.

Conclusions:

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.

2.2 TSTF-400-A, Revision 1 – Clarify SR on Bypass of DG Automatic Trips

Detailed Description:

TSTF-400-A, Revision 1 modifies Improved Technical Specification (NUREG-1433) Surveillance Requirement (SR) 3.8.1.13 to clarify the intent of the SR. Specifically, the wording is revised to clarify that the intent of the SR is to test non-critical Emergency Diesel Generator (EDG) automatic trips.

EGC proposes to revise PBAPS Technical Specification SR 3.8.1.13 to clarify the intent of the SR. Specifically, the wording is revised to clarify that the intent of the SR is to test non-critical EDG automatic trips. The associated Technical Specification Bases are also updated in accordance with the approved TSTF and are provided for your information.

There are no intended deviations from the TSTF.

See the markup of pages for PBAPS, Units 2 and 3 included in Attachments 2 and 3.

List of Affected Pages	Unit Applicability	
	Unit 2	Unit 3
3.8-13	X	X
B 3.8-30	X	X

Technical Evaluation:

Branch Technical Position ICSB-17, "Diesel Generator Protective Trip Circuit Bypasses," was replaced in 1981 by Regulatory Guide 1.9, Revision 2 (December 1979), Position C.7. Regulatory Guide 1.9, Rev. 3, Position C.1.8, is essentially unchanged from the 1979 position. The Regulatory Guide only requires verification that the noncritical trips are bypassed and does not require verification that the critical trips are not bypassed. Regulatory Guide 1.9, Rev. 3, Section 2.2.12 states, "Protective Trip Bypass Test: Demonstrate that all automatic diesel generator trips (except engine overspeed, generator differential, and those retained with coincidental logic) are automatically bypassed on an SIAS." Therefore, this SR was intended to verify that the noncritical trips are bypassed so that a spurious actuation of a noncritical trip does not take a DG out of service during an emergency. The Branch Technical Position states that if bypasses of non-critical DG trips are used in the DG design, "the design of the bypass circuitry should include the capability for testing the status and operability of the bypass circuits." This requirement is the source of SR 3.8.1.13. However, as the SR and Bases are currently written, it is implied that it is not only necessary to verify that the bypasses are operable, but to verify the other channels are not bypassed. Therefore SR 3.8.1.13 and the associated Bases are revised to clarify the purpose of the SR. Testing to verify that critical DG trips are not bypassed is not required to satisfy the requirements of 10 CFR 50.36(d)(3). TSTF-400-A, Revision 1, was approved by the U. S. Nuclear Regulatory Commission staff, in a letter dated November 13, 2004.

Notwithstanding, EGC will continue to ensure appropriate testing of critical EDG trips. Although the intent of the SR is not to test the critical trips, a statement is being added to the TS Bases to ensure appropriate testing of the critical trips (see "Precedent"). Therefore, this change does not result in a change to any testing that is currently performed.

There are no deviations in the proposed PBAPS Technical Specifications from the TSTF. An extra sentence is added to the Bases to ensure continued testing of the critical trips.

Regulatory Evaluation:

Applicable Regulatory Requirements/Criteria:

10 CFR 50.36, "Technical specifications" - 10 CFR 50.36(d)(2) states, "When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met." The proposed change continues to meet the requirements of this regulation.

10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants" - The overall objective of this performance-based rule is to ensure that nuclear power plant structures, systems, and components (SSCs) will be maintained so that they will perform their intended functions when required.

Precedents:

TSTF-400-A, Revision 1, was approved for use as described in:

Letter from J. Stang (U. S. Nuclear Regulatory Commission) to J. R. Morris (Duke Power Company, LLC), "Catawba Nuclear Station, Units 1 and 2, Issuance of Amendments Regarding Emergency Diesel Generator Testing (TAC NOS. MD3217 and MD3218)," dated June 25, 2007.

Letter from T. H. Boyce (U. S. Nuclear Regulatory Commission) to Technical Specification Task Force, Staff Safety Evaluation for TSTF-400, Revision 1, dated November 13, 2004.

No Significant Hazards Consideration:

EGC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   This change clarifies the purpose of SR 3.8.1.13, which is to verify that noncritical automatic Diesel Generator (DG) trips are bypassed in an accident. The DG automatic trips and their bypasses are not initiators of any accident previously evaluated. Therefore, the probability of any accident is not significantly increased. The function of the DG in mitigating accidents is not changed. The revised SR continues to ensure the

DG will operate as assumed in the accident analysis. Therefore, the consequences of any accident previously evaluated are not affected.

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

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

   Response: No.

   This change clarifies the purpose of SR 3.8.1.13, which is to verify that noncritical automatic DG trips are bypassed in an accident. The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. Thus, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   This change clarifies the purpose of SR 3.8.1.13, which is to verify that noncritical automatic DG trips are bypassed in an accident. This change clarifies the purpose of the SR, which is to verify that the DG is capable of performing the assumed safety function. The safety function of the DG is unaffected, so the change does not affect the margin of safety. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, EGC concludes that the proposed amendment does not involve a 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.

Conclusions:

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.

2.3 TSTF-439-A, Revision 2 – Eliminate Second Completion Times Limiting Time From Discovery of Failure to Meet an LCO

Detailed Description:

TSTF-439-A, Revision 2 modifies Improved Technical Specification (NUREG-1433) Completion Times Example 1.3-3 to eliminate the second completion times and to replace the discussion regarding second Completion Times with a new discussion. The second Completion Time associated with Technical Specification 3.1.7 Required Actions A.2 and B.1, Technical Specification 3.8.1 Required Action A.3, and Technical Specification 3.8.7 Required Actions C.1 and D.1 are being deleted. The Bases associated with these Required Actions are also being revised to delete the discussion of the second Completion Time.

It is proposed to revise PBAPS Technical Specification Section 1.3 to conform to the above changes. Other TS Bases pages are revised in accordance with the TSTF to conform to the changes in TS 1.3.

There are no intended deviations from the TSTF.

See the markup of pages for PBAPS, Units 2 and 3 included in Attachments 2 and 3.

List of Affected Pages	Unit Applicability	
	Unit 2	Unit 3
1.3-2	X	X
1.3-6	X	X
1.3-7	X	X
3.1-20	X	X
3.8-2	X	X
3.8-42	X	X
3.8-43	X	X
B 3.1-42	X	X
B 3.1-43	X	X
B 3.8-8	X	X
B 3.8-9	X	X
B 3.8-89	X	X
B 3.8-90	X	X
B 3.8-91	X	X

Technical Evaluation:

As discussed in TSTF-439-A, Revision 2, the adoption of a second Completion Time was based on an NRC concern that a plant could continue to operate indefinitely with an LCO governing safety significant systems never being met by alternately meeting the requirements of separate Conditions. In 1991, the NRC could not identify any regulatory requirement or program which

could prevent this misuse of the Technical Specifications. However, that is no longer the case. There are now two programs which would provide a strong disincentive to continued operation with concurrent multiple inoperabilities of the type the second Completion Times were designed to prevent.

The Maintenance Rule: 10 CFR 50.65(a)(1), the Maintenance Rule, requires each licensee to monitor the performance or condition of SSCs against licensee-established goals to ensure that the SSCs are capable of fulfilling their intended functions. If the performance or condition of an SSC does not meet established goals, appropriate corrective action is required to be taken. The NRC Resident Inspectors monitor the licensee's Corrective Action process and could take action if the licensee's maintenance program allowed the systems required by a single LCO to become concurrently inoperable multiple times. The performance and condition monitoring activities required by 10 CFR 50.65(a)(1) and (a)(2) would identify if poor maintenance practices resulted in multiple entries into the ACTIONS of the Technical Specifications and unacceptable unavailability of these SSCs. The effectiveness of these performance monitoring activities, and associated corrective actions, is evaluated at least every refueling cycle, not to exceed 24 months per 10 CFR 50.65(a)(3).

Under the Technical Specifications the Completion Time for one system is not affected by other inoperable equipment. The second Completion Times were an attempt to influence the Completion Time for one system based on the condition of another system, if the two systems were required by the same LCO. However 10 CFR 50.65(a)(4) is a much better mechanism to apply this influence as the Maintenance Rule considers all inoperable risk-significant equipment, not just the one or two systems governed by the same LCO.

Under 10 CFR 50.65(a)(4), the risk impact of all inoperable risk-significant equipment is assessed and managed when performing preventative or corrective maintenance. The risk assessments are conducted using the procedures and guidance endorsed by Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." Regulatory Guide 1.182 endorses the guidance in Section 11 of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." These documents address general guidance for conduct of the risk assessment, quantitative and qualitative guidelines for establishing risk management actions, and example risk management actions. These include actions to plan and conduct other activities in a manner that controls overall risk, increased risk awareness by shift and management personnel, actions to reduce the duration of the condition, actions to minimize the magnitude of risk increases (establishment of backup success paths or compensatory measures), and determination that the proposed maintenance is acceptable. This comprehensive program provides much greater assurance of safe plant operation than the second Completion Times in the Technical Specifications.

The Reactor Oversight Process: NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," describes the tracking and reporting of performance indicators to support the NRC's Reactor Oversight Process (ROP). The NEI document is endorsed by RIS 2001-11, "Voluntary Submission Of Performance Indicator Data." NEI 99-02, Section 2.2, describes the Mitigating Systems Cornerstone. NEI 99-02 specifically addresses emergency AC Sources (which encompasses the AC Sources and Distribution System LCOs). Extended unavailability due to multiple entries into the ACTIONS would affect the NRC's evaluation of the licensee's performance under the ROP.

In addition to these programs, a requirement is added to Section 1.3 of the Technical Specifications to require licensees to have administrative controls to limit the maximum time allowed for any combination of Conditions that result in a single contiguous occurrence of failing to meet the LCO. These administrative controls should consider plant risk and shall limit the maximum contiguous time of failing to meet the LCO. This Technical Specification requirement, when considered with the regulatory processes discussed above, provides an equivalent or superior level of plant safety without the unnecessary complication of the Technical Specifications by second Completion Times on some Specifications.

Regulatory Evaluation:

Applicable Regulatory Requirements/Criteria:

10 CFR 50.36, "Technical specifications" - 10 CFR 50.36(c)(2) states, "When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met." The proposed change continues to meet the requirements of this regulation.

10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants" - The overall objective of this performance-based rule is to ensure that nuclear power plant structures, systems, and components (SSCs) will be maintained so that they will perform their intended function when required.

Precedent:

TSTF-439-A, Revision 2 was approved for use as described in:

Letter from B. K. Singal (U. S. Nuclear Regulatory Commission) to M. R. Blevins (Luminant Generation Company LLC), "Comanche Peak Steam Electric Station Units 1 and 2 – Issuance of Amendments RE: Revision to Technical Specifications (TS) 3.7.5, 3.8.1, and 3.8.9, and TS Example 1.3-3 (TAC NOS. MD4070 AND MD4071)," dated January 25, 2008.

No Significant Hazards Consideration:

EGC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   The proposed change eliminates certain Completion Times from the Technical Specifications. Completion Times are not an initiator to any accident previously evaluated. As a result, the probability of an accident previously evaluated is not affected. The consequences of an accident during the revised Completion Time are no different than the consequences of the same accident during the existing Completion Times. As a result, the consequences of an accident previously evaluated are not affected by this change. The proposed change does not alter or prevent the ability of

structures, systems, and components (SSCs) from performing their intended function to mitigate the consequences of an initiating event within the assumed acceptance limits. The proposed change does not affect the source term, containment isolation, or radiological release assumptions used in evaluating the radiological consequences of an accident previously evaluated. Further, the proposed change does not increase the types or amounts of radioactive effluent that may be released offsite, nor significantly increase individual or cumulative occupational/public radiation exposures. The proposed change is consistent with the safety analysis assumptions and resultant consequences. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. The proposed change does not alter any assumptions made in the safety analysis. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   The proposed change to delete the second Completion Time does not alter the manner in which safety limits, limiting safety system settings or limiting conditions for operation are determined. The safety analysis acceptance criteria are not affected by this change. The proposed change will not result in plant operation in a configuration outside of the design basis. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, EGC concludes that the proposed amendment does not involve a 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.

Conclusions:

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.

2.4 TSTF-485-A, Rev. 0 – Correct Example 1.4-1

Detailed Description:

TSTF-485-A, Revision 0 modifies Section 1.4, "Frequency," Example 1.4-1 to be consistent with the requirements of SR 3.0.4. SR 3.0.4 was revised by TSTF-359, Revision 9, and the current example is not consistent with the Technical Specification requirements.

The second paragraph of Example 1.4-1 currently states:

> If the interval as specified by SR 3.0.2 is exceeded while the unit is not in a MODE or other specified condition in the Applicability of the LCO for which performance of the SR is required, the Surveillance must be performed within the Frequency requirements of SR 3.0.2 prior to entry into the MODE or other specified condition. Failure to do so would result in a violation of SR 3.0.4.

It is being revised to state:

> If the interval as specified by SR 3.0.2 is exceeded while the unit is not in a MODE or other specified condition in the Applicability of the LCO for which performance of the SR is required, then SR 3.0.4 becomes applicable. The Surveillance must be performed within the Frequency requirements of SR 3.0.2, as modified by SR 3.0.3, prior to entry into the MODE or other specified condition or the LCO is considered not met (in accordance with SR 3.0.1), and LCO 3.0.4 becomes applicable.

It is proposed to revise Technical Specification Section 1.4, "Frequency," Example 1.4-1 to conform to the above change. There are no associated TS Bases changes required.

There are no intended deviations from the TSTF.

See the markup of pages for PBAPS, Units 2 and 3 included in Attachment 2.

List of Affected Pages	Unit Applicability	
	Unit 2	Unit 3
1.4-3	X	X

Technical Evaluation:

Example 1.4-1 states that if the interval as specified by SR 3.0.2 is exceeded while the unit is not in a MODE or other specified condition in the Applicability of the LCO for which performance of the SR is required, the Surveillance must be performed within the Frequency requirements of SR 3.0.2 prior to entry into the MODE or other specified condition. Failure to do so would result in a violation of SR 3.0.4. SR 3.0.4 states that entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified Frequency. TSTF-359 modified SR 3.0.4 to state that when an LCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4. TSTF-359 modified LCO 3.0.4 to provide conditions under which it is acceptable to enter the Applicability of the LCO with

the LCO not met. Therefore, it possible to enter the MODE or other specified condition in the Applicability of an LCO with a Surveillance not performed within the Frequency requirements of SR 3.0.2 and this does not result in a violation of SR 3.0.4.

The Example 1.4-1, second paragraph discussion is modified to parallel the discussion in the previous paragraph. The previous paragraph discusses Surveillances that exceed the interval without being performed while in the Applicability. The second paragraph is modified to make a similar statement regarding Surveillances that exceed the interval while not being in the Applicability. The second sentence of the second paragraph is modified to reference the provisions of SR 3.0.3. This is necessary as TSTF-359 modified SR 3.0.4 to recognize that performance of a missed Surveillance may have been extended and prior to performance of the missed Surveillance, but within the time permitted under SR 3.0.3, a MODE change occurs.

The statement that failure to perform a Surveillance prior to entering the Applicability would constitute a violation of SR 3.0.4 is deleted and a statement is inserted to state the LCO would not be met and LCO 3.0.4 becomes applicable. This is consistent with the revised SR 3.0.4.

Regulatory Evaluation:

Applicable Regulatory Requirements/Criteria:

This change is administrative and will have no effect on any regulatory requirements or criteria.

Precedent:

TSTF-485-A, Revision 0 was approved for use as described in:

1. Letter from C. F. Lyon (U. S. Nuclear Regulatory Commission) to J. V. Parrish (Energy Northwest), "Columbia Generating Station – Issuance of Amendment RE: Miscellaneous Administrative Changes (TAC NO. MD6209)," dated December 13, 2007.

2. Letter from B. Vaidya (U. S. Nuclear Regulatory Commission) to J. E. Venable (Entergy Operations, Inc.), "River Bend Station, Unit 1 – Issuance of Amendment RE: Technical Specifications Change Regarding Mode Change Limitations (TSTF-359) Using Consolidated Line Item Improvement Process, and Correct Example 1.4-1 (TSTF-485) (TAC NO. MD6016)," dated December 6, 2007.

No Significant Hazards Consideration:

EGC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed change revises Section 1.4, "Frequency," Example 1.4-1, to be consistent with Surveillance Requirement (SR) 3.0.4 and Limiting Condition for Operation (LCO) 3.0.4. This change is considered administrative in that it modifies the example to demonstrate the proper application of SR 3.0.4 and LCO 3.0.4. The requirements of SR 3.0.4 and LCO 3.0.4 are clear and are clearly explained in the associated Bases. As a result, modifying the example will not result in a change in usage of the Technical Specifications (TS). The proposed change does not adversely affect accident initiators or precursors, the ability of structures, systems, and components (SSCs) to perform their intended function to mitigate the consequences of an initiating event within the assumed acceptance limits, or radiological release assumptions used in evaluating the radiological consequences of an accident previously evaluated. Therefore, this change is considered administrative and will have no effect on the probability or consequences of any accident previously evaluated.

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

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

   Response: No.

   No new or different accidents result from utilizing the proposed change. The change does not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. In addition, the change does not impose any new or different requirements or eliminate any existing requirements. The change does not alter assumptions made in the safety analysis. The proposed change is consistent with the safety analysis assumptions and current plant operating practice.

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

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

   Response: No.

   The proposed change is administrative and will have no effect on the application of the Technical Specification requirements. Therefore, the margin of safety provided by the Technical Specification requirements is unchanged. There are no changes to the plant safety analyses involved with this change. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, EGC concludes that the proposed amendment does not involve a 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.

Conclusions:

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.

2.5 Administrative Changes - Removal of Obsolete Note for Technical Specification Table 3.3.8.1-1 (PBAPS, Units 2 and 3) and Correction to Table 3.3.3.1-1 (PBAPS, Unit 2)

Detailed Description:

Thais change addresses two (2) administrative changes:

a) TS Table 3.3.8.1-1 lists the TS functions associated with the Loss of Power (LOP) Instrumentation. As a result of a modification, the allowable values were revised, but as described in the note, were to expire no later than March 1, 2000. The previous values were retained in note (a) at the bottom of the Table. These values were retained as a note to allow for appropriate transition during the period of time that the modifications were being installed on Units 2 and 3.

   The modifications are complete and the note is no longer necessary. Therefore, it is proposed to eliminate note (a) at the bottom of Table 3.3.8.1-1, as an administrative change to the TS.

b) TS Table 3.3.3.1-1 lists the Post Accident Monitoring Instrumentation. The Reference 1 license amendment request implemented TSTF-295, Revision 0, "Post Accident Monitoring Clarifications," by changing the title from "PCIV Position" to "Penetration Flow Path PCIV Position" for Function 8. However, Function 8 was inadvertently revised on the PBAPS, Unit 2 page to state "Penetration *Flaw* Path PCIV Position." The correct title should be "Penetration Flow Path PCIV Position." The Unit 3 page correctly provides the title of Function 8 as the "Penetration Flow Path PCIV Position." This is an administrative change that corrects a typographical error on the PBAPS, Unit 2 page.

There are no TS Bases changes required for either change.

See the markup of pages for PBAPS, Units 2 and 3 included in Attachment 2.

List of Affected Pages	Unit Applicability	
	Unit 2	Unit 3
3.3-65	X	X
3.3-26	X	

Technical Evaluation:

a) TS Table 3.3.8.1-1 lists the TS functions associated with the Loss of Power (LOP) Instrumentation. As a result of a modification, the allowable values were revised. The previous values were retained in note (a) at the bottom of the Table. These values were retained as a note to allow for appropriate transition during the period of time that the modifications were being installed on Units 2 and 3.

   As a result of the completion of the modifications, it is no longer necessary to retain the note in TS. Therefore, it is proposed to eliminate note (a) at the bottom of Table 3.3.8.1-1 as an administrative change to the TS. The previous TS change was approved as

amendments 230/235 to the Units 2 and 3 TS, respectively. The changes were the result of modifications required to the TS as requested in the Reference 3 letter, supplemented in the Reference 4 letter, and approved in the Reference 5 letter.

Note (a) expired March 1, 2000 and is no longer necessary to retain in TS Table 3.3.8.1-1. Removing the note (a) will reduce the complexity of the TS and enhance usability of the TS. This change is, therefore, considered administrative.

b) TS Table 3.3.3.1-1 lists the post accident monitoring instrumentation. The Reference 1 license amendment request implemented TSTF-295, Revision 0, "Post Accident Monitoring Clarifications," by changing the title from "PCIV Position" to "Penetration Flow Path PCIV Position" for Function 8. However, Function 8 was inadvertently revised on the PBAPS, Unit 2 page to state "Penetration *Flaw* Path PCIV Position." The correct title in should be "Penetration Flow Path PCIV Position." This change was approved in the Reference 2 letter. The Unit 3 page correctly provides the title of Function 8 as the "Penetration Flow Path PCIV Position." This is an administrative change that corrects a typographical error on the PBAPS, Unit 2 page. No technical change is occurring as a result of this correction.

Regulatory Evaluation:

Applicable Regulatory Requirements/Criteria:

These proposed changes are administrative and will have no effect on any regulatory requirements or criteria.

Precedent:

N/A

No Significant Hazards Consideration:

EGC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   The proposed changes are administrative in nature and do not impact the operation, physical configuration, or function of plant structures, systems, or components (SSCs). Also, the proposed changes do not impact the initiators or assumptions of analyzed events, nor do the proposed changes impact the 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. Does the proposed amendment 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 equipment be installed, alter assumptions made about accidents previously evaluated, or impact the operation or function of plant equipment.

   Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

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

   Response: No.

   The proposed 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 of 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 any accident analysis. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, EGC concludes that the proposed amendment does not involve a 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.

Conclusions:

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.

2.6 Clarification of Allowable Value on Technical Specification Table 3.3.1.1-1

Detailed Description:

The administrative change requested by this amendment application is to delete the "NA" from the Allowable Value column for Function 2.f, "OPRM Upscale," in TS Table 3.3.1.1-1, "Reactor Protection System Instrumentation." The reference to footnote "(d)," which states: "See COLR for OPRM period based detection algorithm (PBDA) setpoint limits," will remain in the Allowable Value column for Function 2.f in TS Table 3.3.1.1-1.

On March 4, 2005, the NRC contacted EGC by telephone to discuss some follow-up questions concerning the changes to the TS that were originally proposed to the NRC in the Reference 6 letter, regarding activation of the OPRM trip function at PBAPS. The NRC identified an issue that was not significant enough to impact NRC issuance of the OPRM trip activation amendments for PBAPS, Units 2 and 3. However, the NRC requested that a change to TS Table 3.3.1.1-1 be proposed in a subsequent "cleanup" license amendment request (LAR). The NRC subsequently issued Amendment Nos. 251 and 254 for PBAPS, Units 2 and 3, by letter dated March 21, 2005 (Reference 8).

See the markup of pages for PBAPS, Units 2 and 3 included in Attachment 2.

List of Affected Pages	Unit Applicability	
	Unit 2	Unit 3
3.3-7	X	X

Technical Evaluation:

The change proposed in Reference 6 added new Function 2.f, i.e., the OPRM Upscale trip function, to TS Table 3.3.1.1-1. The addition of footnote (d) was discussed in the Reference 7 RAI response. The NRC found the "NA" in the Allowable Value column of Table 3.3.1.1-1 confusing since there are trip setpoints maintained in the COLR which satisfy the requirements of 10 CFR 50.36 for limiting safety system settings. Therefore, the NRC requested that, in a future LAR, EGC delete the "NA" from the Allowable Value column for Function 2.f in TS Table 3.3.1.1-1 and leave only the footnote "(d)" which references the COLR for the location of the trip setpoints. The change to PBAPS TS Table 3.3.1.1-1 requested by the NRC is therefore being proposed by this amendment request.

Regulatory Evaluation:

Applicable Regulatory Requirements/Criteria:

This is an administrative change that clarifies the allowable value for Function 2.f. No regulatory requirements are being impacted, nor is the intent of the TS being modified.

Precedent:

N/A

No Significant Hazards Consideration:

EGC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   The proposed change is administrative in nature and does not impact the operation, physical configuration, or function of plant structures, systems, or components (SSCs). Also, the proposed change does not impact the initiators or assumptions of analyzed events, nor does the proposed change impact the mitigation of accidents or transient events. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change is administrative in nature and does not alter plant configuration, require that new equipment be installed, alter assumptions made about accidents previously evaluated, or impact the operation or function of plant equipment. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   The proposed change is administrative in nature and does not involve any physical changes to plant SSCs, or the manner in which SSCs are operated, maintained, modified, tested, or inspected. The proposed change does not involve a change to any safety limits, limiting safety system settings, limiting conditions of operation, or design parameters for any SSC. The proposed change does not impact any safety analysis assumptions and does not involve a change in initial conditions, system response times, or other parameters affecting any accident analysis. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, EGC concludes that the proposed amendment does not involve a 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.

Conclusions:

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.

3.0 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.

4.0 REFERENCES

1. Letter from M. P. Gallagher (Exelon Generation Company, LLC) to U. S. Nuclear Regulatory Commission, "License Amendment Request Incorporation of Previously NRC-Approved Generic Technical Specification Changes," dated June 24, 2004.

2. Letter from R. V. Guzman (U. S. Nuclear Regulatory Commission) to C. M. Crane (Exelon Generation Company, LLC), "Peach Bottom Atomic Power Station, Units 2 and 3 - Issuance of Amendments RE: Incorporation of Previously NRC-Approved Generic Technical Specification Changes," dated May 10, 2006.

3. G. D. Edwards (PECO Nuclear) to U. S. Nuclear Regulatory Commission, "Peach Bottom Atomic Power Station, Units 2 and 3 License Change Application ECR 96-01511," dated December 24, 1998

4. Letter from J. A. Hutton (PECO Nuclear) to U. S. Nuclear Regulatory Commission, "Peach Bottom Atomic Power Station, Units 2 and 3 Revised Technical Specification Pages for License Change Application ECR 96-01511," dated September 27, 1999

5. Letter from B. C. Buckley (U. S. Nuclear Regulatory Commission) to J. A. Hutton (PECO Energy Company), "Peach Bottom Atomic Power Station, Unit Nos. 2 and 3 – Issuance of Amendment RE: Changes Related to Loss of Power Instrumentation Set Points and Limits of Allowable Values for the 4KV Emergency Buses (TAC NOS. MA4500 and MA4501)," dated November 16, 1999

6. Letter from M. P. Gallagher (Exelon Generation Company, LLC) to U. S. Nuclear Regulatory Commission, "License Amendment Request Activation of the Trip Outputs of the Oscillation Power Range Monitor Portion of the Neutron Monitoring System," dated February 27, 2004

7. Letter from M. P. Gallagher (Exelon Generation Company, LLC) to U. S. Nuclear Regulatory Commission, "Response to Request for Additional Information License Amendment Request Activation of the Trip Outputs of the Oscillation Power Range Monitor Portion of the Power Range Neutron Monitoring System," dated September 13, 2004

8. Letter from G. F. Wunder (U. S. Nuclear Regulatory Commission) to C. M. Crane (Exelon Generation Company, LLC), "Peach Bottom Atomic Power Station, Units 2 and 3 – Issuance of Amendment RE: Activation of Oscillation Power Range Monitor Trip (TAC NOS. MC2219 and MC2220)," dated March 21, 2005

Attachment 2
Peach Bottom Atomic Power Station, Units 2 and 3
Markup of Proposed Technical Specifications Page Changes

Section	List of Affected Pages	Unit Applicability	
		Unit 2	Unit 3
2.1	5.0-21	X	X
2.1	5.0-22	X	X
2.2	3.8-13	X	X
2.3	1.3-2	X	X
2.3	1.3-6	X	X
2.3	1.3-7	X	X
2.3	3.1-20	X	X
2.3	3.8-2	X	X
2.3	3.8-42	X	X
2.3	3.8-43	X	X
2.4	1.4-3	X	X
2.5	3.3-65	X	X
2.5	3.3-26	X	
2.6	3.3-7	X	X

5.6 Reporting Requirements (continued)

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

a. 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 COLR for the following:

1. The Average Planar Linear Heat Generation Rate for Specification 3.2.1;

2. The Minimum Critical Power Ratio for Specifications 3.2.2 and 3.3.2.1;

3. The Linear Heat Generation Rate for Specification 3.2.3;

4. The Control Rod Block Instrumentation for Specification 3.3.2.1; and

5. The Oscillation Power Range Monitor (OPRM) Instrumentation for Specification 3.3.1.1.

b. 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:

1. NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel" (latest approved version as specified in the COLR);

2. NEDC-32162P, "Maximum Extended Load Line Limit and ARTS Improvement Program Analyses for Peach Bottom Atomic Power Station Units 2 and 3," Revision 2, March, 1995;

3. PECo-FMS-0001-A, "Steady-State Thermal Hydraulic Analysis of Peach Bottom Units 2 and 3 using the FIBWR Computer Code";

4. PECo-FMS-0002-A, "Method for Calculating Transient Critical Power Ratios for Boiling Water Reactors (RETRAN-TCPPECo)";

5. PECo-FMS-0003-A, "Steady-State Fuel Performance Methods Report";

6. PECo-FMS-0004-A, "Methods for Performing BWR Systems Transient Analysis";

(continued)

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

7. PECo-FMS-0005-A, "Methods for Performing BWR Steady-State Reactor Physics Analysis";

8. PECo-FMS-0006-A, "Methods for Performing BWR Reload Safety Evaluations"; and

9. NEDO-32465-A, "Reactor Stability Detect and Suppress Solutions Licensing Basis Methodology And Reload Applications," August 1996.

c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.

d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

5.6.6 Post Accident Monitoring (PAM) Instrumentation Report

When a report is required by Condition B or F of LCO 3.3.3.1, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.13	----------NOTE---------- A single test at the specified Frequency will satisfy this Surveillance for both units. ---------- (noncritical) Verify each DG's automatic trips are bypassed on an actual or simulated ECCS initiation signal, except: a. Engine overspeed; b. Generator differential overcurrent; c. Generator ground neutral overcurrent; and d. Manual cardox initiation.	24 months

(continued)

1.3 Completion Times

DESCRIPTION (continued)

However, when a subsequent division, subsystem, component, or variable expressed in the Condition is discovered to be inoperable or not within limits, the Completion Time(s) may be extended. To apply this Completion Time extension, two criteria must first be met. The subsequent inoperability:

a. Must exist concurrent with the first inoperability; and

b. Must remain inoperable or not within limits after the first inoperability is resolved.

The total Completion Time allowed for completing a Required Action to address the subsequent inoperability shall be limited to the more restrictive of either:

a. The stated Completion Time, as measured from the initial entry into the Condition, plus an additional 24 hours; or

b. The stated Completion Time as measured from discovery of the subsequent inoperability.

The above Completion Time extension does not apply to those Specifications that have exceptions that allow completely separate re-entry into the Condition (for each division, subsystem, component or variable expressed in the Condition) and separate tracking of Completion Times based on this re-entry. These exceptions are stated in individual Specifications.

The above Completion Time extension does not apply to a Completion Time with a modified "time zero." This modified "time zero" may be expressed as a repetitive time (i.e., "once per 8 hours," where the Completion Time is referenced from a previous completion of the Required Action versus the time of Condition entry) or as a time modified by the phrase "from discovery . . ." Example 1.3-3 illustrates one use of this type of Completion Time. The 10 day Completion Time specified for Condition A and B in Example 1.3-3 may not be extended.

(continued)

1.3 Completion Times

EXAMPLES (continued)

EXAMPLE 1.3-3

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One Function X subsystem inoperable.	A.1 Restore Function X subsystem to OPERABLE status.	7 days AND 10 days from discovery of failure to meet the LCO
B. One Function Y subsystem inoperable.	B.1 Restore Function Y subsystem to OPERABLE status.	72 hours AND 10 days from discovery of failure to meet the LCO
C. One Function X subsystem inoperable. AND One Function Y subsystem inoperable.	C.1 Restore Function X subsystem to OPERABLE status. OR C.2 Restore Function Y subsystem to OPERABLE status.	12 hours 12 hours

(continued)

1.3 Completion Times

EXAMPLES

EXAMPLE 1.3-3 (continued)

When one Function X subsystem and one Function Y subsystem are inoperable, Condition A and Condition B are concurrently applicable. The Completion Times for Condition A and Condition B are tracked separately for each subsystem, starting from the time each subsystem was declared inoperable and the Condition was entered. A separate Completion Time is established for Condition C and tracked from the time the second subsystem was declared inoperable (i.e., the time the situation described in Condition C was discovered).

If Required Action C.2 is completed within the specified Completion Time, Conditions B and C are exited. If the Completion Time for Required Action A.1 has not expired, operation may continue in accordance with Condition A. The remaining Completion Time in Condition A is measured from the time the affected subsystem was declared inoperable (i.e., initial entry into Condition A).

The Completion Times of Conditions A and B are modified by a logical connector, with a separate 10 day Completion Time measured from the time it was discovered the LCO was not met. In this example, without the separate Completion Time, it would be possible to alternate between Conditions A, B, and C in such a manner that operation could continue indefinitely without ever restoring systems to meet the LCO. The separate Completion Time modified by the phrase "from discovery of failure to meet the LCO" is designed to prevent indefinite continued operation while not meeting the LCO. This Completion Time allows for an exception to the normal "time zero" for beginning the Completion Time "clock". In this instance, the Completion Time "time zero" is specified as commencing at the time the LCO was initially not met, instead of at the time the associated Condition was entered.

(continued)

It is possible to alternate between Conditions A, B, and C in such a manner that operation could continue indefinitely without ever restoring systems to meet the LCO. However, doing so would be inconsistent with the basis of the Completion Times. Therefore, there shall be administrative controls to limit the maximum time allowed for any combination of Conditions that result in a single contiguous occurrence of failing to meet the LCO. These administrative controls shall ensure that the Completion Times for those Conditions are not inappropriately extended.

3.1 REACTIVITY CONTROL SYSTEMS

3.1.7 Standby Liquid Control (SLC) System

LCO 3.1.7 Two SLC subsystems shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Concentration of boron in solution > 9.82% weight.	A.1 Verify the concentration and temperature of boron in solution and pump suction piping temperature are within the limits of Figure 3.1.7-1.	8 hours AND Once per 12 hours thereafter
	AND	
	A.2 Restore concentration of boron in solution to ≤ 9.82% weight.	72 hours AND 10 days from discovery of failure to meet the LCO
B. One SLC subsystem inoperable for reasons other than Condition A.	B.1 Restore SLC subsystem to OPERABLE status.	7 days AND 10 days from discovery of failure to meet the LCO

(continued)

ACTIONS

---------- NOTE ----------
LCO 3.0.4.b is not applicable to DGs.

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One offsite circuit inoperable.	A.1	Perform SR 3.8.1.1 for OPERABLE offsite circuits.	1 hour AND Once per 8 hours thereafter
	AND		
	A.2	Declare required feature(s) with no offsite power available inoperable when the redundant required feature(s) are inoperable.	24 hours from discovery of no offsite power to one 4 kV emergency bus concurrent with inoperability of redundant required feature(s)
	AND		
	A.3	Restore offsite circuit to OPERABLE status.	7 days AND 14 days from discovery of failure to meet LCO 3.8.1.a or b

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required Unit 3 AC electrical power distribution subsystems inoperable.	----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.4, "DC Sources—Operating," when Condition A results in a de-energization of a required Unit 3 125 V battery charger. ---------- A.1 Restore required Unit 3 AC electrical power distribution subsystem(s) to OPERABLE status.	7 days
B. One required Unit 3 DC electrical power distribution subsystem inoperable.	B.1 Restore Unit 3 DC electrical power distribution subsystem to OPERABLE status.	12 hours
C. One Unit 2 AC electrical power distribution subsystem inoperable.	C.1 Restore Unit 2 AC electrical power distribution subsystem to OPERABLE status.	8 hours AND 16 hours from discovery of failure to meet LCO 3.8.7.a

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. One Unit 2 DC electrical power distribution subsystem inoperable.	D.1 Restore Unit 2 DC electrical power distribution subsystem to OPERABLE status.	2 hours AND ~~16 hours from discovery of failure to meet LCO 3.8.7.a~~
E. Required Action and associated Completion Time of Condition A, B, C, or D not met.	E.1 Be in MODE 3.	12 hours
F. Two or more inoperable electrical power distribution subsystems that result in a loss of function.	F.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.7.1 Verify: a. Correct breaker alignments to required AC electrical power distribution subsystems; and b. Indicated power availability to required AC and DC electrical power distribution subsystems.	7 days

1.4 Frequency

then SR 3.0.4 becomes applicable.

EXAMPLES

EXAMPLE 1.4-1 (continued)

The

as modified by SR 3.0.3,

If the interval as specified by SR 3.0.2 is exceeded while the unit is not in a MODE or other specified condition in the Applicability of the LCO for which performance of the SR is required, the Surveillance must be performed within the Frequency requirements of SR 3.0.2 prior to entry into the MODE or other specified condition. ~~Failure to do so would result in a violation of SR 3.0.4.~~

or the LCO is considered not met (in accordance with SR 3.0.1), and LCO 3.0.4 becomes applicable

EXAMPLE 1.4-2

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
Verify flow is within limits.	Once within 12 hours after ≥ 25% RTP AND 24 hours thereafter

Example 1.4-2 has two Frequencies. The first is a one time performance Frequency, and the second is of the type shown in Example 1.4-1. The logical connector "AND" indicates that both Frequency requirements must be met. Each time reactor power is increased from a power level < 25% RTP to ≥ 25% RTP, the Surveillance must be performed within 12 hours.

The use of "once" indicates a single performance will satisfy the specified Frequency (assuming no other Frequencies are connected by "AND"). This type of Frequency does not qualify for the extension allowed by SR 3.0.2.

(continued)

Table 3.3.8.1-1 (page 1 of 1)
Loss of Power Instrumentation

FUNCTION	REQUIRED CHANNELS PER BUS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. 4 kV Emergency Bus Undervoltage (Loss of Voltage)			
a. Bus Undervoltage	1	SR 3.3.8.1.3 SR 3.3.8.1.4	NA
2. 4 kV Emergency Bus Undervoltage (Degraded Voltage Low Setting)			
a. Bus Undervoltage	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 2286 V and ≤ 2706 V
b. Time Delay	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 1.5 seconds and ≤ 2.1 seconds
3. 4 kV Emergency Bus Undervoltage (Degraded Voltage High Setting)			
a. Bus Undervoltage	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 3409 V and ≤ 3829 V
b. Time Delay	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 23.0 seconds and ≤ 37.0 seconds
4. 4 kV Emergency Bus Undervoltage (Degraded Voltage LOCA)			
a. Bus Undervoltage	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 3766 V and ≤ 3836 V (a)
b. Time Delay	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 9.2 seconds and ≤ 10.8 seconds (a)
5. 4 kV Emergency Bus Undervoltage (Degraded Voltage non-LOCA)			
a. Bus Undervoltage	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 4116 V and ≤ 4186 V (a)
b. Time Delay	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 57.8 seconds and ≤ 64.2 seconds (a)

(a) Prior to the implementation of modification 96-01511, on a particular Function 4 or 5 relay, its Allowable Values are:
4.a ≥ 3691 V and ≤ 3713 V, with internal time delay set ≥ 0.9 seconds and ≤ 1.1 seconds,
4.b ≥ 8.4 seconds and ≤ 9.6 seconds,
5.a ≥ 4065 V and ≤ 4089 V, with internal time delay set ≥ 0.9 seconds and ≤ 1.1 seconds,
5.b ≥ 57.0 seconds and ≤ 63.0 seconds.
This note expires upon completion of modification 96-01511, but no later than March 1, 2000.

Table 3.3.3.1-1 (page 1 of 1)
Post Accident Monitoring Instrumentation

FUNCTION	REQUIRED CHANNELS	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1
1. Reactor Pressure	2	E
2. Reactor Vessel Water Level (Wide Range)	2	E
3. Reactor Vessel Water Level (Fuel Zone)	2	E
4. Suppression Chamber Water Level (Wide Range)	2	E
5. Drywell Pressure (Wide Range)	2	E
6. Drywell Pressure (Subatmospheric Range)	2	E
7. Drywell High Range Radiation	2	F
8. Penetration Flow Path PCIV Position	2 per penetration flow path [a][b]	E
9. Deleted		
10. Deleted		
11. Suppression Chamber Water Temperature	2[c]	E

(a) Not required for isolation valves whose associated penetration flow path is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.

(b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.

(c) Each channel requires 10 resistance temperature detectors (RTDs) to be OPERABLE with no two adjacent RTDs inoperable.

Table 3.3.1.1-1 (page 1 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Wide Range Neutron Monitors					
a. Period-Short	2	3	G	SR 3.3.1.1.1 SR 3.3.1.1.5 SR 3.3.1.1.12 SR 3.3.1.1.17 SR 3.3.1.1.18	≥ 13 seconds
	5[a]	3	H	SR 3.3.1.1.1 SR 3.3.1.1.6 SR 3.3.1.1.12 SR 3.3.1.1.17 SR 3.3.1.1.18	≥ 13 seconds
b. Inop	2	3	G	SR 3.3.1.1.5 SR 3.3.1.1.17	NA
	5[a]	3	H	SR 3.3.1.1.6 SR 3.3.1.1.17	NA
2. Average Power Range Monitors					
a. Neutron Flux-High (Setdown)	2	3[c]	G	SR 3.3.1.1.1 SR 3.3.1.1.8 SR 3.3.1.1.11 SR 3.3.1.1.12	≤ 15.0% RTP
b. Simulated Thermal Power-High	1	3[c]	F	SR 3.3.1.1.1 SR 3.3.1.1.2 SR 3.3.1.1.8 SR 3.3.1.1.11 SR 3.3.1.1.12	≤ 0.65 W + 63.7% RTP[b] and ≤ 118.0% RTP
c. Neutron Flux-High	1	3[c]	F	SR 3.3.1.1.1 SR 3.3.1.1.2 SR 3.3.1.1.8 SR 3.3.1.1.11 SR 3.3.1.1.12	≤ 119.7% RTP
d. Inop	1,2	3[c]	G	SR 3.3.1.1.11	NA
e. 2-Out-Of-4 Voter	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.11 SR 3.3.1.1.17 SR 3.3.1.1.18	NA
f. OPRM Upscale	≥25% RTP	3[c]	I	SR 3.3.1.1.1 SR 3.3.1.1.8 SR 3.3.1.1.11 SR 3.3.1.1.12 SR 3.3.1.1.19	NA[d] (d)

(continued)

(a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.

(b) 0.65 (W - ΔW) + 63.7% RTP when reset for single loop operation per LCO 3.4.1, "Recirculation Loops Operating."

(c) Each APRM channel provides inputs to both trip systems.

(d) See COLR for OPRM period based detection algorithm (PBDA) setpoint limits.

5.6 Reporting Requirements (continued)

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

a. 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 COLR for the following:

1. The Average Planar Linear Heat Generation Rate for Specification 3.2.1;

2. The Minimum Critical Power Ratio for Specifications 3.2.2 and 3.3.2.1;

3. The Linear Heat Generation Rate for Specification 3.2.3;

4. The Control Rod Block Instrumentation for Specification 3.3.2.1; and

5. The Oscillation Power Range Monitor (OPRM) Instrumentation for Specification 3.3.1.1.

b. 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:

1. NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel" (latest approved version as specified in the COLR);

2. NEDC-32162P, "Maximum Extended Load Line Limit and ARTS Improvement Program Analyses for Peach Bottom Atomic Power Station Units 2 and 3" Revision 2, March, 1995;

3. PECo-FMS-0001-A, "Steady-State Thermal Hydraulic Analysis of Peach Bottom Units 2 and 3 using the FIBWR Computer Code";

4. PECo-FMS-0002-A, "Method for Calculating Transient Critical Power Ratios for Boiling Water Reactors (RETRAN-TCPPECo)";

5. PECo-FMS-0003-A, "Steady-State Fuel Performance Methods Report";

6. PECo-FMS-0004-A, "Methods for Performing BWR Systems Transient Analysis";

(continued)

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

7. PECo-FMS-0005-A, "Methods for Performing BWR Steady-State Reactor Physics Analysis";

8. PECo-FMS-0006-A, "Methods for Performing BWR Reload Safety Evaluations"; and

9. NEDO-32465-A, "Reactor Stability Detect and Suppress Solutions Licensing Basis Methodology And Reload Applications," August 1996.

c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.

d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

5.6.6 Post Accident Monitoring (PAM) Instrumentation Report

When a report is required by Condition B or F of LCO 3.3.3.1, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.13	----------NOTE---------- A single test at the specified Frequency will satisfy this Surveillance for both units. ---------- noncritical Verify each DG's automatic trips are bypassed on an actual or simulated ECCS initiation signal, except: a. Engine overspeed; b. Generator differential overcurrent; c. Generator ground neutral overcurrent; and d. Manual cardox initiation.	24 months

(continued)

1.3 Completion Times

DESCRIPTION (continued)

However, when a subsequent division, subsystem, component, or variable expressed in the Condition is discovered to be inoperable or not within limits, the Completion Time(s) may be extended. To apply this Completion Time extension, two criteria must first be met. The subsequent inoperability:

a. Must exist concurrent with the first inoperability; and

b. Must remain inoperable or not within limits after the first inoperability is resolved.

The total Completion Time allowed for completing a Required Action to address the subsequent inoperability shall be limited to the more restrictive of either:

a. The stated Completion Time, as measured from the initial entry into the Condition, plus an additional 24 hours; or

b. The stated Completion Time as measured from discovery of the subsequent inoperability.

The above Completion Time extension does not apply to those Specifications that have exceptions that allow completely separate re-entry into the Condition (for each division, subsystem, component or variable expressed in the Condition) and separate tracking of Completion Times based on this re-entry. These exceptions are stated in individual Specifications.

The above Completion Time extension does not apply to a Completion Time with a modified "time zero." This modified "time zero" may be expressed as a repetitive time (i.e., "once per 8 hours," where the Completion Time is referenced from a previous completion of the Required Action versus the time of Condition entry) or as a time modified by the phrase "from discovery . . ." ~~Example 1.3-3 illustrates one use of this type of Completion Time. The 10 day Completion Time specified for Condition A and B in Example 1.3-3 may not be extended.~~

(continued)

1.3 Completion Times

EXAMPLES (continued)

EXAMPLE 1.3-3

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One Function X subsystem inoperable.	A.1 Restore Function X subsystem to OPERABLE status.	7 days AND ~~10 days from discovery of failure to meet the LCO~~
B. One Function Y subsystem inoperable.	B.1 Restore Function Y subsystem to OPERABLE status.	72 hours AND ~~10 days from discovery of failure to meet the LCO~~
C. One Function X subsystem inoperable. AND One Function Y subsystem inoperable.	C.1 Restore Function X subsystem to OPERABLE status. OR C.2 Restore Function Y subsystem to OPERABLE status.	12 hours 12 hours

(continued)

1.3 Completion Times

EXAMPLES

EXAMPLE 1.3-3 (continued)

When one Function X subsystem and one Function Y subsystem are inoperable, Condition A and Condition B are concurrently applicable. The Completion Times for Condition A and Condition B are tracked separately for each subsystem, starting from the time each subsystem was declared inoperable and the Condition was entered. A separate Completion Time is established for Condition C and tracked from the time the second subsystem was declared inoperable (i.e., the time the situation described in Condition C was discovered).

If Required Action C.2 is completed within the specified Completion Time, Conditions B and C are exited. If the Completion Time for Required Action A.1 has not expired, operation may continue in accordance with Condition A. The remaining Completion Time in Condition A is measured from the time the affected subsystem was declared inoperable (i.e., initial entry into Condition A).

~~The Completion Times of Conditions A and B are modified by a logical connector, with a separate 10 day Completion Time measured from the time it was discovered the LCO was not met. In this example, without the separate Completion Time, it would be possible to alternate between Conditions A, B, and C in such a manner that operation could continue indefinitely without ever restoring systems to meet the LCO. The separate Completion Time modified by the phrase "from discovery of failure to meet the LCO" is designed to prevent indefinite continued operation while not meeting the LCO. This Completion Time allows for an exception to the normal "time zero" for beginning the Completion Time "clock". In this instance, the Completion Time "time zero" is specified as commencing at the time the LCO was initially not met, instead of at the time the associated Condition was entered.~~

(continued)

It is possible to alternate between Conditions A, B, and C in such a manner that operation could continue indefinitely without ever restoring systems to meet the LCO. However, doing so would be inconsistent with the basis of the Completion Times. Therefore, there shall be administrative controls to limit the maximum time allowed for any combination of Conditions that result in a single contiguous occurrence of failing to meet the LCO. These administrative controls shall ensure that the Completion Times for those Conditions are not inappropriately extended.

3.1 REACTIVITY CONTROL SYSTEMS

3.1.7 Standby Liquid Control (SLC) System

LCO 3.1.7 Two SLC subsystems shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Concentration of boron in solution > 9.82% weight.	A.1 Verify the concentration and temperature of boron in solution and pump suction piping temperature are within the limits of Figure 3.1.7-1.	8 hours AND Once per 12 hours thereafter
	AND	
	A.2 Restore concentration of boron in solution to ≤ 9.82% weight.	72 hours AND 10 days from discovery of failure to meet the LCO
B. One SLC subsystem inoperable for reasons other than Condition A.	B.1 Restore SLC subsystem to OPERABLE status.	7 days AND 10 days from discovery of failure to meet the LCO

(continued)

ACTIONS

NOTE
LCO 3.0.4.b is not applicable to DGs.

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One offsite circuit inoperable.	A.1	Perform SR 3.8.1.1 for OPERABLE offsite circuits.	1 hour AND Once per 8 hours thereafter
	AND		
	A.2	Declare required feature(s) with no offsite power available inoperable when the redundant required feature(s) are inoperable.	24 hours from discovery of no offsite power to one 4 kV emergency bus concurrent with inoperability of redundant required feature(s)
	AND		
	A.3	Restore offsite circuit to OPERABLE status.	7 days AND 14 days from discovery of failure to meet LCO 3.8.1.a or b

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required Unit 2 AC electrical power distribution subsystems inoperable.	----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.4, "DC Sources—Operating," when Condition A results in a de-energization of a required Unit 2 125 V battery charger. ----------	
	A.1 Restore required Unit 2 AC electrical power distribution subsystem(s) to OPERABLE status.	7 days
B. One Unit 2 DC electrical power distribution subsystem inoperable.	B.1 Restore Unit 2 DC electrical power distribution subsystem to OPERABLE status.	12 hours
C. One Unit 3 AC electrical power distribution subsystem inoperable.	C.1 Restore Unit 3 AC electrical power distribution subsystem to OPERABLE status.	8 hours AND 16 hours from discovery of failure to meet LCO 3.8.7.a

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. One Unit 3 DC electrical power distribution subsystem inoperable.	D.1 Restore Unit 3 DC electrical power distribution subsystem to OPERABLE status.	2 hours ~~AND~~ ~~16 hours from discovery of failure to meet LCO 3.8.7.a~~
E. Required Action and associated Completion Time of Condition A, B, C, or D not met.	E.1 Be in MODE 3.	12 hours
F. Two or more inoperable electrical power distribution subsystems that result in a loss of function.	F.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.7.1	Verify: a. Correct breaker alignments to required AC electrical power distribution subsystems; and b. Indicated power availability to required AC and DC electrical power distribution subsystems.	7 days

1.4 Frequency

then SR 3.0.4 becomes applicable.

EXAMPLES

EXAMPLE 1.4-1 (continued)

The

as modified by SR 3.0.3

If the interval as specified by SR 3.0.2 is exceeded while the unit is not in a MODE or other specified condition in the Applicability of the LCO for which performance of the SR is required, the Surveillance must be performed within the Frequency requirements of SR 3.0.2 prior to entry into the MODE or other specified condition. Failure to do so would result in a violation of SR 3.0.4.

or the LCO is considered not met (in accordance with SR 3.0.1), and LCO 3.0.4 becomes applicable.

EXAMPLE 1.4-2

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
Verify flow is within limits.	Once within 12 hours after ≥ 25% RTP AND 24 hours thereafter

Example 1.4-2 has two Frequencies. The first is a one time performance Frequency, and the second is of the type shown in Example 1.4-1. The logical connector "AND" indicates that both Frequency requirements must be met. Each time reactor power is increased from a power level < 25% RTP to ≥ 25% RTP, the Surveillance must be performed within 12 hours.

The use of "once" indicates a single performance will satisfy the specified Frequency (assuming no other Frequencies are connected by "AND"). This type of Frequency does not qualify for the extension allowed by SR 3.0.2.

(continued)

Table 3.3.8.1-1 (page 1 of 1)
Loss of Power Instrumentation

FUNCTION	REQUIRED CHANNELS PER BUS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. 4 kV Emergency Bus Undervoltage (Loss of Voltage)			
a. Bus Undervoltage	1	SR 3.3.8.1.3 SR 3.3.8.1.4	NA
2. 4 kV Emergency Bus Undervoltage (Degraded Voltage Low Setting)			
a. Bus Undervoltage	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 2286 V and ≤ 2706 V
b. Time Delay	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 1.5 seconds and ≤ 2.1 seconds
3. 4 kV Emergency Bus Undervoltage (Degraded Voltage High Setting)			
a. Bus Undervoltage	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 3409 V and ≤ 3829 V
b. Time Delay	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 23.0 seconds and ≤ 37.0 seconds
4. 4 kV Emergency Bus Undervoltage (Degraded Voltage LOCA)			
a. Bus Undervoltage	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 3766 V and ≤ 3836 V (a)
b. Time Delay	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 9.2 seconds and ≤ 10.8 seconds (a)
5. 4 kV Emergency Bus Undervoltage (Degraded Voltage non-LOCA)			
a. Bus Undervoltage	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 4116 V and ≤ 4186 V (a)
b. Time Delay	2 (1 per source)	SR 3.3.8.1.1 SR 3.3.8.1.2 SR 3.3.8.1.4	≥ 57.8 seconds and ≤ 64.2 seconds (a)

(a) Prior to the implementation of modification 96-01511, on a particular Function 4 or 5 relay, its Allowable Values are:
4.a ≥ 3691 V and ≤ 3713 V, with internal time delay set ≥ 0.9 seconds and ≤ 1.1 seconds,
4.b ≥ 8.4 seconds and ≤ 9.6 seconds,
5.a ≥ 4065 V and ≤ 4089 V, with internal time delay set ≥ 0.9 seconds and ≤ 1.1 seconds,
5.b ≥ 57.0 seconds and ≤ 63.0 seconds.
This note expires upon completion of modification 96-01511, but no later than March 1, 2000.

Table 3.3.1.1-1 (page 1 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Wide Range Neutron Monitors					
a. Period-Short	2	3	G	SR 3.3.1.1.1 SR 3.3.1.1.5 SR 3.3.1.1.12 SR 3.3.1.1.17 SR 3.3.1.1.18	≥ 13 seconds
	5[a]	3	H	SR 3.3.1.1.1 SR 3.3.1.1.6 SR 3.3.1.1.12 SR 3.3.1.1.17 SR 3.3.1.1.18	≥ 13 seconds
b. Inop	2	3	G	SR 3.3.1.1.5 SR 3.3.1.1.17	NA
	5[a]	3	H	SR 3.3.1.1.6 SR 3.3.1.1.17	NA
2. Average Power Range Monitors					
a. Neutron Flux-High (Setdown)	2	3[c]	G	SR 3.3.1.1.1 SR 3.3.1.1.8 SR 3.3.1.1.11 SR 3.3.1.1.12	≤ 15.0% RTP
b. Simulated Thermal Power-High	1	3[c]	F	SR 3.3.1.1.1 SR 3.3.1.1.2 SR 3.3.1.1.8 SR 3.3.1.1.11 SR 3.3.1.1.12	≤ 0.65 W + 63.7% RTP[b] and ≤ 118.0% RTP
c. Neutron Flux-High	1	3[c]	F	SR 3.3.1.1.1 SR 3.3.1.1.2 SR 3.3.1.1.8 SR 3.3.1.1.11 SR 3.3.1.1.12	≤ 119.7% RTP
d. Inop	1,2	3[c]	G	SR 3.3.1.1.11	NA
e. 2-Out-Of-4 Voter	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.11 SR 3.3.1.1.17 SR 3.3.1.1.18	NA
f. OPRM Upscale	≥25% RTP	3[c]	I	SR 3.3.1.1.1 SR 3.3.1.1.8 SR 3.3.1.1.11 SR 3.3.1.1.12 SR 3.3.1.1.19	NA[d] (d)

(continued)

(a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.

(b) 0.65 (W - ΔW) + 63.7% RTP when reset for single loop operation per LCO 3.4.1, "Recirculation Loops Operating."

(c) Each APRM channel provides inputs to both trip systems.

(d) See COLR for OPRM period based detection algorithm (PBDA) setpoint limits.

Attachment 3
Peach Bottom Atomic Power Station, Units 2 and 3
Markup of Proposed Technical Specifications Bases Page Changes

Section	List of Affected Pages	Unit Applicability	
		Unit 2	Unit 3
2.2	B 3.8-30	X	X
2.3	B 3.1-42	X	X
2.3	B 3.1-43	X	X
2.3	B 3.8-8	X	X
2.3	B 3.8-9	X	X
2.3	B 3.8-89	X	X
2.3	B 3.8-90	X	X
2.3	B 3.8-91	X	X

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.1.12 (continued)

The Frequency of 24 months takes into consideration plant conditions required to perform the Surveillance and is intended to be consistent with the expected fuel cycle lengths.

This SR is modified by a Note. The reason for the Note is to minimize wear and tear on the DGs during testing. For the purpose of this testing, the DGs must be started from standby conditions, that is, with the engine coolant and oil being continuously circulated and temperature maintained consistent with manufacturer recommendations.

Pre emergency automatic trips will be tested periodically per the station periodic maintenance program.

SR 3.8.1.13

Consistent with Regulatory Guide 1.9 (Ref. 3), paragraph C.2.2.12, this Surveillance demonstrates that DG non-critical protective functions (e.g., high jacket water temperature) are bypassed on an ECCS initiation test signal and critical protective functions (engine overspeed, generator differential overcurrent, generator ground neutral overcurrent, and manual cardox initiation) trip the DG to avert substantial damage to the DG unit. The non-critical trips are bypassed during DBAs and continue to provide an alarm on an abnormal engine condition. This alarm provides the operator with sufficient time to react appropriately. The DG availability to mitigate the DBA is more critical than protecting the engine against minor problems that are not immediately detrimental to emergency operation of the DG.

Noncritical automatic trips are all automatic trips except:

The 24 month Frequency is based on engineering judgment, takes into consideration plant conditions required to perform the Surveillance, and is intended to be consistent with expected fuel cycle lengths.

To minimize testing of the DGs, the Note to this SR allows a single test (instead of two tests, one for each unit) to satisfy the requirements for both units. This is allowed since the main purpose of the Surveillance can be met by performing the test on either unit. If the DG fails one of these Surveillances, the DG should be considered inoperable on both units, unless the cause of the failure can be directly related to only one unit.

(continued)

BASES

ACTIONS

A.1 and A.2 (continued)

Continued operation is only permitted for 72 hours before boron solution concentration must be restored to ≤ 9.82% weight. Taking into consideration that the SLC System design capability still exists for vessel injection under these conditions and the low probability of the temperature and concentration limits of Figure 3.1.7-1 not being met, the allowed Completion Time of 72 hours is acceptable and provides adequate time to restore concentration to within limits.

The second Completion Time for Required Action A.1 establishes a limit on the maximum time allowed for any combination of concentration out of limits or inoperable SLC subsystems during any single contiguous occurrence of failing to meet the LCO. If Condition A is entered while, for instance, an SLC subsystem is inoperable and that subsystem is subsequently returned to OPERABLE, the LCO may already have been not met for up to 7 days. This situation could lead to a total duration of 10 days (7 days in Condition B, followed by 3 days in Condition A), since initial failure of the LCO, to restore the SLC System. Then an SLC subsystem could be found inoperable again, and concentration could be restored to within limits. This could continue indefinitely.

This Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock," resulting in establishing the "time zero" at the time the LCO was initially not met instead of at the time Condition A was entered. The 10 day Completion Time is an acceptable limitation on this potential to fail to meet the LCO indefinitely.

B.1

If one SLC subsystem is inoperable for reasons other than Condition A, the inoperable subsystem must be restored to OPERABLE status within 7 days. In this condition, the remaining OPERABLE subsystem is adequate to perform the shutdown function. However, the overall reliability is reduced because a single failure in the remaining OPERABLE subsystem could result in the loss of SLC System shutdown capability. The 7 day Completion Time is based on the

(continued)

BASES

ACTIONS

B.1 (continued)

availability of an OPERABLE subsystem capable of performing the intended SLC System function and the low probability of a DBA or severe transient occurring concurrent with the failure of the Control Rod Drive (CRD) System to shut down the plant.

The second Completion Time for Required Action B.1 establishes a limit on the maximum time allowed for any combination of concentration out of limits or inoperable SLC subsystem during any single contiguous occurrence of failing to meet the LCO. If Condition B is entered while, for instance, concentration is out of limits, and is subsequently returned to within limits, the LCO may already have been not met for up to 3 days. This situation could lead to a total duration of 10 days (3 days in Condition A, followed by 7 days in Condition B), since initial failure of the LCO, to restore the SLC System. Then concentration could be found out of limits again, and the SLC subsystem could be restored to OPERABLE. This could continue indefinitely.

This Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock," resulting in establishing the "time zero" at the time the LCO was initially not met instead of at the time Condition B was entered. The 10 day Completion Time is an acceptable limitation on this potential to fail to meet the LCO indefinitely.

C.1

If both SLC subsystems are inoperable for reasons other than Condition A, at least one subsystem must be restored to OPERABLE status within 8 hours. The allowed Completion Time of 8 hours is considered acceptable given the low probability of a DBA or transient occurring concurrent with the failure of the control rods to shut down the reactor.

D.1

If any Required Action and associated Completion Time is not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be

(continued)

BASES

ACTIONS

A.2 (continued)

The remaining OPERABLE offsite circuits and DGs are adequate to supply electrical power to the onsite Class 1E Distribution System. Thus, on a component basis, single failure protection may have been lost for the required feature's function; however, function is not lost. The 24 hour Completion Time takes into account the component OPERABILITY of the redundant counterpart to the inoperable required feature. Additionally, the 24 hour Completion Time takes into account the capacity and capability of the remaining AC sources, a reasonable time for repairs, and the low probability of a DBA occurring during this period.

A.3

The 4 kV emergency bus design and loading is sufficient to allow operation to continue in Condition A for a period not to exceed 7 days. With one offsite circuit inoperable, the reliability of the offsite system is degraded, and the potential for a loss of offsite power is increased, with attendant potential for a challenge to the plant safety systems. In this condition, however, the remaining OPERABLE offsite circuits and the four DGs are adequate to supply electrical power to the onsite Class 1E Distribution System.

The 7 day Completion Time takes into account the redundancy, capacity, and capability of the remaining AC sources, reasonable time for repairs, and the low probability of a DBA occurring during this period.

~~The second Completion Time for Required Action A.3 establishes a limit on the maximum time allowed for any combination of required AC power sources to be inoperable during any single contiguous occurrence of failing to meet LCO 3.8.1.a or b. If Condition A is entered while, for instance, a DG is inoperable, and that DG is subsequently returned OPERABLE, the LCO may already have been not met for up to 7 days. This situation could lead to a total of 14 days, since initial failure to meet LCO 3.8.1.a or b, to restore the offsite circuit. At this time, a DG could again become inoperable, the circuit restored OPERABLE, and an additional 7 days (for a total of 21 days) allowed prior to complete restoration of the LCO. The 14 day Completion Time provides a limit on the time allowed in a specified Condition after discovery of failure to meet LCO 3.8.1.a or b. This limit is considered reasonable for situations in which Conditions A and B are entered concurrently. The~~

(continued)

BASES

ACTIONS

A3 (continued)

"AND" connector between the 7 day and 14 day Completion Times means that both Completion Times apply simultaneously, and the more restrictive Completion Time must be met.

As in Required Action A.2, the Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." This exception results in establishing the "time zero" at the time the LCO was initially not met, instead of at the time that Condition A was entered.

B.1

The 33 kV Conowingo Tie-Line, using a separate 33/13.8 kV transformer, can be used to supply the circuit normally supplied by startup and emergency auxiliary transformer no. 2. While not a qualified circuit, this alternate source is a direct tie to the Conowingo Hydro Station that provides a highly reliable source of power because: the line and transformers at both ends of the line are dedicated to the support of PBAPS; the tie line is not subject to damage from adverse weather conditions; and, the tie line can be isolated from other parts of the grid when necessary to ensure its availability and stability to support PBAPS. The availability of this highly reliable source of offsite power permits an extension of the allowable out of service time for a DG to 14 days from the discovery of failure to meet LCO 3.8.1.a or b (per Required Action B.5). Therefore, when a DG is inoperable, it is necessary to verify the availability of the Conowingo Tie-Line immediately and once per 12 hours thereafter. The Completion Time of "Immediately" reflects the fact that in order to ensure that the full 14 day Completion Time of Required Action B.5 is available for completing preplanned maintenance of a DG, prudent plant practice at PBAPS dictates that the availability of the Conowingo Tie-Line be verified prior to making a DG inoperable for preplanned maintenance. The Conowingo Tie-Line is available and satisfies the requirements of Required Action B.1 if: 1) the Conowingo line is supplying power to the 13.8kV SBO Switchgear 00A306; 2) all equipment required, per SE-11, to connect power from the Conowingo Tie-Line to the emergency 4kV buses and to isolate all non-SBO loads from the Conowingo Tie-Line is available and accessible;; and 3) communications with the Conowingo control room indicate that required equipment at Conowingo is available. If Required Action B.1 is not met or the

(continued)

BASES

ACTIONS

C.1 (continued)

The second Completion Time for Required Action C.1 establishes a limit on the maximum time allowed for any combination of required distribution subsystems to be inoperable during any single contiguous occurrence of failing to meet LCO 3.8.7.a. If Condition C is entered while, for instance, a Unit 2 DC bus is inoperable and subsequently returned OPERABLE, this LCO may already have been not met for up to 2 hours. This situation could lead to a total duration of 10 hours, since initial failure of the LCO, to restore the Unit 2 AC Electrical Power Distribution System. At this time a Unit 2 DC bus could again become inoperable, and Unit 2 AC Electrical Power Distribution System could be restored OPERABLE. This could continue indefinitely.

This Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." This results in establishing the "time zero" at the time LCO 3.8.7.a was initially not met, instead of at the time Condition C was entered. The 16 hour Completion Time is an acceptable limitation on this potential to fail to meet the LCO 3.8.7.a indefinitely.

D.1

With one Unit 2 DC electrical power distribution subsystem inoperable, the remaining DC electrical power distribution subsystem is capable of supporting the minimum safety functions necessary to shut down the reactor and maintain it in a safe shutdown condition, assuming no single failure. The overall reliability is reduced, however, because a single failure in the remaining DC electrical power distribution subsystem could result in the minimum required ESF functions not being supported. Therefore, the Unit 2 DC electrical power distribution subsystem must be restored to OPERABLE status within 2 hours.

Condition D represents one Unit 2 electrical power distribution subsystem without adequate DC power, potentially with both the battery(s) significantly degraded and the associated charger(s) nonfunctioning. In this situation the plant is significantly more vulnerable to a complete loss of all Unit 2 DC power. It is, therefore, imperative that the operator's attention focus on

(continued)

BASES

ACTIONS

D.1 (continued)

stabilizing the plant, minimizing the potential for loss of power to the remaining electrical power distribution subsystem, and restoring power to the affected electrical power distribution subsystem.

This 2 hour limit is more conservative than Completion Times allowed for the majority of components that would be without power. Taking exception to LCO 3.0.2 for components without adequate DC power, which would have Required Action Completion Times shorter than 2 hours, is acceptable because of:

a. The potential for decreased safety when requiring a change in plant conditions (i.e., requiring a shutdown) while not allowing stable operations to continue;

b. The potential for decreased safety when requiring entry into numerous applicable Conditions and Required Actions for components without DC power, while not providing sufficient time for the operators to perform the necessary evaluations and actions for restoring power to the affected subsystem;

c. The potential for an event in conjunction with a single failure of a redundant component.

The 2 hour Completion Time for DC electrical power distribution subsystems is consistent with Regulatory Guide 1.93 (Ref. 2).

~~The second Completion Time for Required Action D.1 establishes a limit on the maximum time allowed for any combination of required electrical power distribution subsystems to be inoperable during any single contiguous occurrence of failing to meet LCO 3.8.7.a. If Condition D is entered while, for instance, a Unit 2 AC bus is inoperable and subsequently restored OPERABLE, LCO 3.8.7.a may already have been not met for up to 8 hours. This situation could lead to a total duration of 10 hours, since initial failure of LCO 3.8.7.a, to restore the Unit 2 DC Electrical Power Distribution System. At this time, a Unit 2 AC bus could again become inoperable, and Unit 2 DC Electrical Power Distribution System could be restored OPERABLE. This could continue indefinitely.~~

(continued)

BASES

ACTIONS

D.1 (continued)

This Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." This allowance results in establishing the "time zero" at the time LCO 3.8.7.a was initially not met, instead of at the time Condition D was entered. The 16 hour Completion Time is an acceptable limitation on this potential of failing to meet the LCO indefinitely.

E.1

If the inoperable electrical power distribution subsystem cannot be restored to OPERABLE status within the associated Completion Time, the unit must be brought to a MODE in which the overall plant risk is minimized. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours. Remaining in the Applicability of the LCO is acceptable because the plant risk in MODE 3 is similar to or lower than the risk in MODE 4 (Ref. 3) and because the time spent in MODE 3 to perform the necessary repairs to restore the system to OPERABLE status will be short. However, voluntary entry into MODE 4 may be made as it is also an acceptable low-risk state. The allowed Completion Time is reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

F.1

Condition F corresponds to a level of degradation in the electrical power distribution system that causes a required safety function to be lost. When more than one Condition is entered, and this results in the loss of a required function, the plant is in a condition outside the accident analysis. Therefore, no additional time is justified for continued operation. LCO 3.0.3 must be entered immediately to commence a controlled shutdown.

SURVEILLANCE REQUIREMENTS

SR 3.8.7.1

This Surveillance verifies that the AC and DC electrical power distribution systems are functioning properly, with the correct circuit breaker alignment (for the AC electrical power distribution system only). The correct AC breaker

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.1.12 (continued)

The Frequency of 24 months takes into consideration plant conditions required to perform the Surveillance and is intended to be consistent with the expected fuel cycle lengths.

This SR is modified by a Note. The reason for the Note is to minimize wear and tear on the DGs during testing. For the purpose of this testing, the DGs must be started from standby conditions, that is, with the engine coolant and oil being continuously circulated and temperature maintained consistent with manufacturer recommendations.

SR 3.8.1.13

DG emergency automatic trips will be tested periodically per the station periodic maintenance program

Consistent with Regulatory Guide 1.9 (Ref. 3), paragraph C.2.2.12, this Surveillance demonstrates that DG non-critical protective functions (e.g., high jacket water temperature) are bypassed on an ECCS initiation test signal and critical protective functions (engine overspeed, generator differential overcurrent, generator ground neutral overcurrent, and manual cardox initiation) trip the DG to avert substantial damage to the DG unit. The non-critical trips are bypassed during DBAs and continue to provide an alarm on an abnormal engine condition. This alarm provides the operator with sufficient time to react appropriately. The DG availability to mitigate the DBA is more critical than protecting the engine against minor problems that are not immediately detrimental to emergency operation of the DG.

Noncritical automatic trips are all automatic trips except!

The 24 month Frequency is based on engineering judgment, takes into consideration plant conditions required to perform the Surveillance, and is intended to be consistent with expected fuel cycle lengths.

To minimize testing of the DGs, the Note to this SR allows a single test (instead of two tests, one for each unit) to satisfy the requirements for both units. This is allowed since the main purpose of the Surveillance can be met by performing the test on either unit. If the DG fails one of these Surveillances, the DG should be considered inoperable on both units, unless the cause of the failure can be directly related to only one unit.

(continued)

BASES

ACTIONS

A.1 and A.2 (continued)

Continued operation is only permitted for 72 hours before boron solution concentration must be restored to ≤ 9.82% weight. Taking into consideration that the SLC System design capability still exists for vessel injection under these conditions and the low probability of the temperature and concentration limits of Figure 3.1.7-1 not being met, the allowed Completion Time of 72 hours is acceptable and provides adequate time to restore concentration to within limits.

The second Completion Time for Required Action A.1 establishes a limit on the maximum time allowed for any combination of concentration out of limits or inoperable SLC subsystems during any single contiguous occurrence of failing to meet the LCO. If Condition A is entered while, for instance, an SLC subsystem is inoperable and that subsystem is subsequently returned to OPERABLE, the LCO may already have been not met for up to 7 days. This situation could lead to a total duration of 10 days (7 days in Condition B, followed by 3 days in Condition A), since initial failure of the LCO, to restore the SLC System. Then an SLC subsystem could be found inoperable again, and concentration could be restored to within limits. This could continue indefinitely.

This Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock," resulting in establishing the "time zero" at the time the LCO was initially not met instead of at the time Condition A was entered. The 10 day Completion Time is an acceptable limitation on this potential to fail to meet the LCO indefinitely.

B.1

If one SLC subsystem is inoperable for reasons other than Condition A, the inoperable subsystem must be restored to OPERABLE status within 7 days. In this condition, the remaining OPERABLE subsystem is adequate to perform the shutdown function. However, the overall reliability is reduced because a single failure in the remaining OPERABLE subsystem could result in the loss of SLC System shutdown capability. The 7 day Completion Time is based on the

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BASES

ACTIONS

B.1 (continued)

availability of an OPERABLE subsystem capable of performing the intended SLC System function and the low probability of a DBA or severe transient occurring concurrent with the failure of the Control Rod Drive (CRD) System to shut down the plant.

~~The second Completion Time for Required Action B.1 establishes a limit on the maximum time allowed for any combination of concentration out of limits or inoperable SLC subsystem during any single contiguous occurrence of failing to meet the LCO. If Condition B is entered while, for instance, concentration is out of limits, and is subsequently returned to within limits, the LCO may already have been not met for up to 3 days. This situation could lead to a total duration of 10 days (3 days in Condition A, followed by 7 days in Condition B), since initial failure of the LCO, to restore the SLC System. Then concentration could be found out of limits again, and the SLC subsystem could be restored to OPERABLE. This could continue indefinitely.~~

~~This Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock," resulting in establishing the "time zero" at the time the LCO was initially not met instead of at the time Condition B was entered. The 10 day Completion Time is an acceptable limitation on this potential to fail to meet the LCO indefinitely.~~

C.1

If both SLC subsystems are inoperable for reasons other than Condition A, at least one subsystem must be restored to OPERABLE status within 8 hours. The allowed Completion Time of 8 hours is considered acceptable given the low probability of a DBA or transient occurring concurrent with the failure of the control rods to shut down the reactor.

D.1

If any Required Action and associated Completion Time is not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be

(continued)

BASES

ACTIONS

A.2 (continued)

The remaining OPERABLE offsite circuits and DGs are adequate to supply electrical power to the onsite Class 1E Distribution System. Thus, on a component basis, single failure protection may have been lost for the required feature's function; however, function is not lost. The 24 hour Completion Time takes into account the component OPERABILITY of the redundant counterpart to the inoperable required feature. Additionally, the 24 hour Completion Time takes into account the capacity and capability of the remaining AC sources, a reasonable time for repairs, and the low probability of a DBA occurring during this period.

A.3

The 4 kV emergency bus design and loading is sufficient to allow operation to continue in Condition A for a period not to exceed 7 days. With one offsite circuit inoperable, the reliability of the offsite system is degraded, and the potential for a loss of offsite power is increased, with attendant potential for a challenge to the plant safety systems. In this condition, however, the remaining OPERABLE offsite circuits and the four DGs are adequate to supply electrical power to the onsite Class 1E Distribution System.

The 7 day Completion Time takes into account the redundancy, capacity, and capability of the remaining AC sources, reasonable time for repairs, and the low probability of a DBA occurring during this period.

The second Completion Time for Required Action A.3 establishes a limit on the maximum time allowed for any combination of required AC power sources to be inoperable during any single contiguous occurrence of failing to meet LCO 3.8.1.a or b. If Condition A is entered while, for instance, a DG is inoperable, and that DG is subsequently returned OPERABLE, the LCO may already have been not met for up to 7 days. This situation could lead to a total of 14 days, since initial failure to meet LCO 3.8.1.a or b, to restore the offsite circuit. At this time, a DG could again become inoperable, the circuit restored OPERABLE, and an additional 7 days (for a total of 21 days) allowed prior to complete restoration of the LCO. The 14 day Completion Time provides a limit on the time allowed in a specified Condition after discovery of failure to meet LCO 3.8.1.a or b. This limit is considered reasonable for situations in which Conditions A and B are entered concurrently. The

(continued)

BASES

ACTIONS

A.3 (continued)

"AND" connector between the 7 day and 14 day Completion Times means that both Completion Times apply simultaneously, and the more restrictive Completion Time must be met.

As in Required Action A.2, the Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." This exception results in establishing the "time zero" at the time the LCO was initially not met, instead of at the time that Condition A was entered.

B.1

The 33 kV Conowingo Tie-Line, using a separate 33/13.8 kV transformer, can be used to supply the circuit normally supplied by startup and emergency auxiliary transformer no. 2. While not a qualified circuit, this alternate source is a direct tie to the Conowingo Hydro Station that provides a highly reliable source of power because: the line and transformers at both ends of the line are dedicated to the support of PBAPS; the tie line is not subject to damage from adverse weather conditions; and, the tie line can be isolated from other parts of the grid when necessary to ensure its availability and stability to support PBAPS. The availability of this highly reliable source of offsite power permits an extension of the allowable out of service time for a DG to 14 days from the discovery of failure to meet LCO 3.8.1.a or b (per Required Action B.5). Therefore, when a DG is inoperable, it is necessary to verify the availability of the Conowingo Tie-Line immediately and once per 12 hours thereafter. The Completion Time of "Immediately" reflects the fact that in order to ensure that the full 14 day Completion Time of Required Action B.5 is available for completing preplanned maintenance of a DG, prudent plant practice at PBAPS dictates that the availability of the Conowingo Tie-Line be verified prior to making a DG inoperable for preplanned maintenance. The Conowingo Tie-Line is available and satisfies the requirements of Required Action B.1 if: 1) the Conowingo line is supplying power to the 13.8kV SBO Switchgear 00A306; 2) all equipment required, per SE-11, to connect power from the Conowingo Tie-Line to the emergency 4kV buses and to isolate all non-SBO loads from the Conowingo Tie-Line is available and accessible; and 3) communications with the Conowingo control room indicate that required equipment at Conowingo is available. If Required Action B.1 is not met or the

(continued)

BASES

ACTIONS

C.1 (continued)

The second Completion Time for Required Action C.1 establishes a limit on the maximum time allowed for any combination of required distribution subsystems to be inoperable during any single contiguous occurrence of failing to meet LCO 3.8.7.a. If Condition C is entered while, for instance, a Unit 3 DC bus is inoperable and subsequently returned OPERABLE, this LCO may already have been not met for up to 2 hours. This situation could lead to a total duration of 10 hours, since initial failure of the LCO, to restore the Unit 3 AC Electrical Power Distribution System. At this time a Unit 3 DC bus could again become inoperable, and Unit 3 AC Electrical Power Distribution System could be restored OPERABLE. This could continue indefinitely.

This Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." This results in establishing the "time zero" at the time LCO 3.8.7.a was initially not met, instead of at the time Condition C was entered. The 16 hour Completion Time is an acceptable limitation on this potential to fail to meet the LCO 3.8.7.a indefinitely.

D.1

With one Unit 3 DC electrical power distribution subsystem inoperable, the remaining DC electrical power distribution subsystem is capable of supporting the minimum safety functions necessary to shut down the reactor and maintain it in a safe shutdown condition, assuming no single failure. The overall reliability is reduced, however, because a single failure in the remaining DC electrical power distribution subsystem could result in the minimum required ESF functions not being supported. Therefore, the Unit 3 DC electrical power distribution subsystem must be restored to OPERABLE status within 2 hours.

Condition D represents one Unit 3 electrical power distribution subsystem without adequate DC power, potentially with both the battery(s) significantly degraded and the associated charger(s) nonfunctioning. In this situation the plant is significantly more vulnerable to a complete loss of all Unit 3 DC power. It is, therefore, imperative that the operator's attention focus on

(continued)

BASES

ACTIONS

D.1 (continued)

stabilizing the plant, minimizing the potential for loss of power to the remaining electrical power distribution subsystem, and restoring power to the affected electrical power distribution subsystem.

This 2 hour limit is more conservative than Completion Times allowed for the majority of components that would be without power. Taking exception to LCO 3.0.2 for components without adequate DC power, which would have Required Action Completion Times shorter than 2 hours, is acceptable because of:

a. The potential for decreased safety when requiring a change in plant conditions (i.e., requiring a shutdown) while not allowing stable operations to continue;

b. The potential for decreased safety when requiring entry into numerous applicable Conditions and Required Actions for components without DC power, while not providing sufficient time for the operators to perform the necessary evaluations and actions for restoring power to the affected subsystem;

c. The potential for an event in conjunction with a single failure of a redundant component.

The 2 hour Completion Time for DC electrical power distribution subsystems is consistent with Regulatory Guide 1.93 (Ref. 2).

The second Completion Time for Required Action D.1 establishes a limit on the maximum time allowed for any combination of required electrical power distribution subsystems to be inoperable during any single contiguous occurrence of failing to meet LCO 3.8.7.a. If Condition D is entered while, for instance, a Unit 3 AC bus is inoperable and subsequently restored OPERABLE, LCO 3.8.7.a may already have been not met for up to 8 hours. This situation could lead to a total duration of 10 hours, since initial failure of LCO 3.8.7.a, to restore the Unit 3 DC Electrical Power Distribution System. At this time, a Unit 3 AC bus could again become inoperable, and Unit 3 DC Electrical Power Distribution System could be restored OPERABLE. This could continue indefinitely.

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BASES

ACTIONS

D.1 (continued)

This Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." This allowance results in establishing the "time zero" at the time LCO 3.8.7.a was initially not met, instead of at the time Condition D was entered. The 16 hour Completion Time is an acceptable limitation on this potential of failing to meet the LCO indefinitely.

E.1

If the inoperable electrical power distribution subsystem cannot be restored to OPERABLE status within the associated Completion Time, the unit must be brought to a MODE in which the overall plant risk is minimized. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours. Remaining in the Applicability of the LCO is acceptable because the plant risk in MODE 3 is similar to or lower than the risk in MODE 4 (Ref. 3) and because the time spent in MODE 3 to perform the necessary repairs to restore the system to OPERABLE status will be short. However, voluntary entry into MODE 4 may be made as it is also an acceptable low-risk state. The allowed Completion Time is reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

F.1

Condition F corresponds to a level of degradation in the electrical power distribution system that causes a required safety function to be lost. When more than one Condition is entered, and this results in the loss of a required function, the plant is in a condition outside the accident analysis. Therefore, no additional time is justified for continued operation. LCO 3.0.3 must be entered immediately to commence a controlled shutdown.

SURVEILLANCE REQUIREMENTS

SR 3.8.7.1

This Surveillance verifies that the AC and DC electrical power distribution systems are functioning properly, with the correct circuit breaker alignment (for the AC electrical power distribution system only). The correct AC breaker alignment ensures the appropriate separation and independence of the electrical buses are maintained, and power is available to each required bus. The verification of indicated power availability on the AC and DC buses

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