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102-07002-DCM/TNW/DCE
February 27, 2015

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

Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Docket Nos. 50-528, 50-529, and 50-530
License Nos. NPF-41, NPF-51 and NPF-74
License Amendment Request for Adoption of Technical
Specifications Task Force (TSTF) Traveler TSTF-439-A,
Revision 2, *Eliminate Second Completion Times Limiting Time
from Discovery of Failure to Meet an LCO***

In accordance with the provisions of Title 10 of the Code of Federal Regulations (10 CFR) Section 50.90, Arizona Public Service Company (APS) is submitting a request for amendment of the PVNGS Renewed Operating License Nos. NPF-41, NPF-51, and NPF-74 by amending Technical Specifications (TS) to incorporate the NRC-approved TSTF traveler TSTF-439-A, Revision 2, *Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO*.

The enclosure provides a description and assessment of the proposed changes including technical analysis, regulatory evaluation including a significant hazards consideration, and environmental considerations. The enclosure also includes marked-up pages of existing TSs and, for information only, TS Bases to show the proposed changes. The revised (clean) TS pages are also included.

APS requests approval of the proposed license amendment within 12 months of the date of this letter, to be implemented within 90 days of approval of the amendment.

In accordance with the PVNGS Quality Assurance Program, the Plant Review Board and the Offsite Safety Review Committee have reviewed and concurred with the proposed amendment. By copy of this letter, this license amendment request is being forwarded to the Arizona Radiation Regulatory Agency (ARRA) pursuant to 10 CFR 50.91(b)(1).

ADD
NRR

102-07002-DCM/DCE
ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
*License Amendment Request for Adoption of Technical Specifications Task Force
(TSTF) Traveler TSTF-439-A, Revision 2, Eliminate Second Completion Times
Limiting Time from Discovery of Failure to Meet an LCO*
Page 2

No commitments are being made to the NRC by this letter.

Should you need further information regarding this license amendment request, please contact Thomas N. Weber, Department Leader, Regulatory Affairs, at (623) 393-5764.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 2/27/2015
Date

Sincerely,

Thomas N. Weber FOR DC MIMS

DCM/TNW/DCE

Enclosure:

Description and Assessment of Proposed License Amendment Including Significant Hazards Consideration

cc:	M. L. Dapas	NRC Region IV Regional Administrator
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	C. A. Peabody	NRC Senior Resident Inspector for PVNGS
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Enclosure

Description and Assessment of Proposed License Amendment Including Significant Hazards Consideration

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1.0 SUMMARY DESCRIPTION

The proposed change would revise the Palo Verde Nuclear Generating Station (PVNGS) Renewed Operating License Nos. NPF-41, NPF-51, and NPF-74 to remove second Completion Times from several Technical Specification (TS) Required Actions. The proposed changes are consistent with Reference 1, which was approved by the Nuclear Regulatory Commission (NRC) in Reference 2.

In Reference 1, the Technical Specification Task Force submitted Revision 2 of TSTF-439-A proposing a new TS convention to limit the maximum time allowed for any combination of Limiting Condition for Operation (LCO) Conditions that could result in a single continuous failure to meet the LCO.

The NRC staff concluded that the TS controls, coupled with the licensee's configuration risk management program provides adequate assurance against inappropriate use of combinations of Conditions that result in a single continuous occurrence of failing to meet the LCO. Based on the discussion below, the concern regarding multiple continuous entries into Conditions without meeting the LCO is addressed by the system unavailability monitoring programs and the administrative controls required by Section 1.3 of the TS. Therefore, this potential concern is no longer an issue and the TSs can be simplified by eliminating the second Completion Time with no detriment to plant safety.

This license amendment is being submitted to support eventual adoption of risk informed completion times as described in TSTF-505-A, Revision 1, *Provide Risk-Informed Extended Completion Times - RITSTF Initiative 4b*.

2.0 DETAILED DESCRIPTION

Arizona Public Service (APS) is proposing a revision to modify PVNGS TS Example 1.3-3 to remove second Completion Times and to remove second Completion Times from several TS Required Actions. To that end, the following TS changes are proposed. The marked-up TS pages are provided in Attachment 1. A revised (clean) copy of the TS pages is provided in Attachment 2.

- TS 1.3, *Completion Times* - Revise Example 1.3-3 to eliminate the second Completion Time and add a discussion of administrative limits to combinations of Conditions.
- TS 3.7.5, *Auxiliary Feedwater (AFW) System*, Conditions A and B - Removes the second Completion Time from Required Actions A.1 and B.1.
- TS 3.8.1, *AC Sources – Operating*, Conditions A and B - Removes the second Completion Time from Required Actions A.3 and B.4.
- TS 3.8.9, *Distribution Systems – Operating*, Conditions A, B and C, - Removes the second Completion Time from Required Actions A.1, B.1 and C.1.

Please note that, although TSTF-439-A, Revision 2 includes in its scope TS 3.6.6A, Containment Spray and Cooling Systems (Atmospheric and Dual), it is not included in this license amendment request because PVNGS TS 3.6.6, Containment System, does not include a second completion time for an inoperable containment spray train.

Conforming TS Bases marked-up pages are provided in Attachment 3 for information only.

3.0 TECHNICAL EVALUATION

A second Completion Time was included in the Improved Standard Technical Specifications for certain Required Actions to establish a limit on the maximum time allowed for any combination of Conditions that results in a single continuous failure to meet the Limiting Condition for Operation (LCO). The intent of the second Completion Time was to preclude entry into and out of the Required Actions for an indefinite period of time without meeting the LCO. The second Completion Time provides a limit on the amount of time an LCO would not be met for various combinations of Conditions.

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 TSs. Subsequent regulatory changes have addressed this concern.

There are now two programs which provide a strong disincentive to continued operation with multiple inoperabilities of the type the second Completion Time were designed to prevent.

Title 10 CFR 50.65, *Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants*, requires each licensee to monitor the performance or condition of systems, structures, and components (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 corrective action process and could take action if the maintenance program allowed the systems required by a single LCO to become 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 Required Actions of the TSs 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 TSs, the Completion Time for one system is not affected by other inoperable equipment. The second Completion Time was 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 TS. However 10 CFR 50.65(a)(4) provides a more effective

mechanism to apply this influence as this rule considers all inoperable risk-significant equipment, not just the one or two systems governed by the same TS.

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. The guidance recommends actions to determine that proposed maintenance and activities are acceptable and to plan and conduct them in a manner that controls overall risk by reducing the duration of the conditions that increase risk and minimizing the magnitude of risk increases (establishment of backup success paths or compensatory measures). This comprehensive program provides greater assurance of safe plant operation than the second Completion Time in the TSs.

Nuclear Energy Institute (NEI) 99-02, *Regulatory Assessment Performance Indicator Guideline*, describes the tracking and reporting of performance indicators to support the NRC Reactor Oversight Process (ROP). The NEI document is endorsed by Regulatory Issue Summary 2001-11, *Voluntary Submission of Performance Indicator Data*. Section 2.2 of NEI 99-02 describes the Mitigating Systems Cornerstone including emergency AC Sources and the AFW system. Extended unavailability of these systems due to multiple entries into the Required Actions would affect the NRC evaluation of licensee performance under the ROP.

In addition to the regulatory oversight afforded to prevent misuse of the TS conditions without the second completion time, APS incorporated an administrative control into the Operations Department procedure 40DP-9OP02, *Conduct of Shift Operations* (Reference 3), stating, "Alternating between LCO Conditions, in order to allow indefinite continued operation while not meeting the LCO, is not allowed." This administrative control fulfills the requirement of TS Example 1.3-3 to adopt administrative controls to not allow entry into and out of the Required Actions for an indefinite period of time without meeting the LCO.

Discussion of the specific TS changes is provided below.

- TS 1.3, *Completion Times* - Revise Example 1.3-3 to eliminate the second Completion Time and add a discussion of administrative limits to combinations of Conditions.

In addition to the programs described above, a requirement is added to Section 1.3 of the TSs that administrative controls exist 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 TS requirement, when considered with the regulatory processes discussed above,

provides an equivalent or superior level of plant safety without the unnecessary complication of the TSs by second Completion Times on some TSs. A revision to TS Example 1.3-3 is proposed to remove the second Completion Time for Required Actions A.1 and B.1 and replace the discussion in the example to state that alternating between Conditions in such a manner that operation could continue indefinitely without ever restoring systems to meet the LCO is inconsistent with the basis of the Completion Time and is inappropriate. Therefore, administrative controls are appropriate to ensure that the maximum time allowed for any combination of Conditions that result in a single contiguous occurrence of failing to meet the LCO is not inappropriately extended.

- TS 3.7.5, *Auxiliary Feedwater (AFW) System*, Conditions A and B - Removes the second Completion Time from Required Actions A.1 and B.1.

T 3.7.5, Condition A has a 7-day Completion Time for Required Action A.1 for one inoperable steam supply to a turbine driven AFW pump in the applicable modes or one inoperable turbine driven AFW pump in Mode 3 following refueling. Condition B lists a 72-hour Completion Time for Required Action A.1 for one AFW train inoperable for reasons other than Condition A in Modes 1-3. Conditions A and B have a second Completion Time of 10 days from discovery of failure to meet the LCO. Condition C states that if the Required Actions and associated Completion Time of Condition A or B are not met or two AFW trains are inoperable, the plant must be in MODE 3 in 6 hours and MODE 4 in 12 hours. The removal of the second completion time is acceptable because the addition of administrative controls described in Example 1.3-3 provides an effective means to preclude extending operation inappropriately without restoring compliance with the LCO.

- TS 3.8.1, *AC Sources – Operating*, Conditions A and B - Removes the second Completion Time from Required Actions A.3 and B.4.

Technical Specification 3.8.1, Condition A, has a 72-hour Completion Time for Required Action A.3 for one offsite circuit inoperable. Condition B has a 10-day Completion Time for Required Action B.4 for one diesel generator inoperable. Both Condition A and Condition B have a second Completion Time of 13 days from discovery of failure to meet the LCO. In order for the second Completion Time to be limiting, entry into and out of Conditions A and B must occur. Condition H, which applies when the Required Actions and associated Completion Time of Conditions A or B are not met, states the plant must be in MODE 3 in 6 hours and MODE 5 in 36 hours. The removal of the second completion time from each of the Required Actions is acceptable because the addition of administrative controls described in Example 1.3-3 provides an effective means to preclude extending operation inappropriately without restoring compliance with the LCO.

- TS 3.8.9, *Distribution Systems – Operating*, Conditions A, B and C - Removes the second Completion Time from Required Actions A.1, B.1 and C.1

Technical Specification 3.8.9, Condition A, has an 8 hour Completion Time for Required Action A.1 for one or more AC electrical power distribution subsystems inoperable. Conditions B and C have 2 hour Completion Time for respective

Required Actions B.1 and C.1 for one or more AC vital bus subsystems (Condition B) or one DC electrical power distribution subsystem (Condition C) inoperable. Conditions A, B, and C have a second Completion Time of 16 hours from discovery of failure to meet the LCO. Condition E applies if two or more electrical power distribution subsystems are inoperable that result in a loss of safety function. The corresponding Required Action specifies LCO 3.0.3 must be entered immediately. The removal of the second completion time is acceptable because the addition of administrative controls described in Example 1.3-3 provides an effective means to preclude extending operation inappropriately without restoring compliance with the LCO.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements

Section 182a of the Atomic Energy Act requires TSs to be included as part of the operating license. These TSs are derived from the plant safety analyses. In 10 CFR 50.36, *Technical Specifications*, the NRC established its regulatory requirements related to the content of the TSs. Specifically, 10 CFR 50.36(c)(2) states in part, "When a limiting condition for operation for a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted in the technical specifications until the condition can be met." The proposed change continues to meet the requirements of this regulation.

The objective of 10 CFR 50.65 is to ensure that nuclear power plant structures, systems, and components will be maintained so that they will perform their intended function when required.

4.2 Precedent

A similar request to incorporate TSTF-439-A, Revision 2, was approved by the NRC for Calvert Cliffs Nuclear Power Plant on January 29, 2014 in Reference 4. The nuclear steam supply systems for PVNGS and Calvert Cliffs were designed by Combustion Engineering and they share a similar standard Improved Standard Technical Specification scheme provided in NUREG-1432, *Standard Technical Specification – Combustion Engineering Plants*.

The Calvert Cliffs submittal was supplemented by a response to an NRC request for additional information that asked for a description of the administrative controls to preclude indefinite continued operation while not meeting the LCO. The Calvert Cliffs response, contained in Reference 5, was used to develop the PVNGS administrative control contained in Reference 3, as described above.

4.3 Significant Hazards Consideration

This license amendment request proposes to revise several PVNGS TSs to eliminate reference to the second Completion Time. Specifically, Completion Times Example 1.3-3 is revised to eliminate the second Completion Time and to replace the discussion regarding second Completion Time with a new discussion.

The second Completion Time associated with TS 3.7.5, Required Actions A.1 and B.1, TS 3.8.1, Required Actions A.3 and B.4, and TS 3.8.9, Required Actions A.1, B.1 and C.1 are proposed to be deleted. The TS Bases associated with these Required Actions are also being revised to delete the discussion of the second Completion Time. The proposed changes are consistent with TSTF-439-A, Revision 2. A similar change was approved by the NRC for Calvert Cliffs Nuclear Power Plant on January 29, 2014.

APS has evaluated whether or not a significant hazards consideration is involved with the proposed changes 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 change proposed by incorporating TSTF-439-A, Revision 2, eliminates certain Completion Times from the Technical Specifications. Completion Times are not an initiator of 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 Times 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, or components from performing their intended function to mitigate the consequences of an initiating event within the assumed acceptance limits.

The proposed change to modify certain Completion Times 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 the cumulative occupational/public radiation exposures. The proposed change is consistent with the safety analysis assumptions and resultant consequences.

Therefore, the proposed amendment 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 changes do 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 changes do not alter any assumptions made in the safety analyses.

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

Response: No

The proposed change to delete the second Completions Times and the related example of the second Completion Time does not alter the manner in which safety limits, limiting safety systems 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 amendment does not involve a significant reduction in the margin of safety.

4.4 Conclusion

APS 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. 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 the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR Part 20. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

1. Technical Specification Task Force (TSTF)-439-A, Revision 2, dated June 20, 2005, *Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO* [Agencywide Documents Access And Management System (ADAMS) Accession Number ML051860296]
2. NRC Letter to Technical Specification Task Force, dated January 11, 2006, *Status of TSTF-439, Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO* [ADAMS Accession Number ML060120272]

3. PVNGS Procedure 40DP-9OP02, *Conduct of Shift Operations*, Revision 66.
4. NRC Letter, dated January 29, 2104, *Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2 - Issuance of Amendments Regarding Adoption of Technical Specification Task Force 439-A, "Eliminate Second Completion Times Limiting Time From Discovery of Failure to Meet an LCO [Limiting Condition of Operation]* [ADAMS Accession Number ML14009A320]
5. Calvert Cliffs Nuclear Power Plant Letter, dated April 1, 2013, *Response to Request for Supplemental Information re: License Amendment Request: Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO* [ADAMS Accession Number ML13093A012]

ATTACHMENT 1

Marked-up Pages of Technical Specifications

TS Pages

1.3-2

1.3-6

1.3-7

3.7.5-1

3.8.1-2

3.8.1-3

3.8.9-1

3.8.9-2

1.3 Completion Times

DESCRIPTION
(continued)

However, when a subsequent train, 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 extensions do not apply to those Specifications that have exceptions that allow completely separate re-entry into the Condition (for each train, 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 Conditions A and B in Example 1.3.3 may not be extended.~~

↑
DELETE

(continued)

1.3 Completion Times

EXAMPLES
(continued)

EXAMPLE 1.3-3

ACTIONS

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

(continued)

1.3 Completion Times

EXAMPLES

EXAMPLE 1.3-3 (continued)

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

Insert 1

~~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.~~

DELETE

(continued)

INSERT 1

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.

3.7 PLANT SYSTEMS

3.7.5 Auxiliary Feedwater (AFW) System

LCO 3.7.5 Three AFW trains shall be OPERABLE.

-----NOTE-----
Only one AFW train, which includes a motor driven pump, is required to be OPERABLE in MODE 4.

APPLICABILITY: MODES 1, 2, and 3,
MODE 4 when steam generator is relied upon for heat removal.

ACTIONS

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

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One steam supply to turbine driven AFW pump inoperable.</p> <p><u>OR</u></p> <p>-----NOTE----- Only applicable if MODE 2 has not been entered following refueling.</p> <p>-----</p> <p>One turbine driven AFW pump inoperable in MODE 3 following refueling.</p>	<p>A.1 Restore affected equipment to OPERABLE status.</p> <p>DELETE →</p>	<p>7 days</p> <p><u>AND</u></p> <p>10 days from discovery of failure to meet the LCO</p>
<p>B. One AFW train inoperable for reasons other than Condition A in MODE 1, 2, or 3.</p>	<p>B.1 Restore AFW train to OPERABLE status.</p> <p>DELETE →</p>	<p>72 hours</p> <p><u>AND</u></p> <p>10 days from discovery of failure to meet the LCO</p>

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	<p>A.3 Restore required offsite circuit to OPERABLE status.</p> <p style="text-align: center;">DELETE</p>	<p>72 hours <u>AND</u> 13 days from discovery of failure to meet LCO</p>
B. One DG inoperable.	<p>B.1 Perform SR 3.8.1.1 for the OPERABLE required offsite circuit(s).</p> <p><u>AND</u></p> <p>B.2 Declare required feature(s) supported by the inoperable DG inoperable when its redundant required feature(s) is inoperable.</p> <p><u>AND</u></p> <p>B.3.1 Determine OPERABLE DG is not inoperable due to common cause failure.</p> <p><u>OR</u></p> <p>B.3.2 Perform SR 3.8.1.2 for OPERABLE DG.</p> <p><u>AND</u></p>	<p>1 hour <u>AND</u> Once per 8 hours thereafter</p> <p>4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)</p> <p>24 hours</p> <p>24 hours</p> <p>(continued)</p>

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.4 Restore DG to OPERABLE status. 	10 days AND 13 days from discovery of failure to meet LCO
C. Two required offsite circuits inoperable.	C.1 Declare required feature(s) inoperable when its redundant required feature(s) is inoperable. AND C.2 Restore one required offsite circuit to OPERABLE status.	12 hours from discovery of Condition C concurrent with inoperability of redundant required feature(s) 24 hours

(continued)

3.8 ELECTRICAL POWER SYSTEMS

3.8.9 Distribution Systems - Operating

LCO 3.8.9 Train A and Train B AC, DC, and AC vital instrument bus electrical power distribution subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One AC electrical power distribution subsystem inoperable.</p>	<p>A.1 Restore AC electrical power distribution subsystem to OPERABLE status.</p> <p style="text-align: center;">DELETE</p>	<p>8 hours AND 16 hours from discovery of failure to meet LCO</p>
<p>B. One AC vital instrument bus electrical power distribution subsystem inoperable.</p>	<p>B.1 Restore AC vital instrument bus electrical power distribution subsystem to OPERABLE status.</p> <p style="text-align: center;">DELETE</p>	<p>2 hours AND 16 hours from discovery of failure to meet LCO</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One DC electrical power distribution subsystems inoperable.	C.1 Restore DC electrical power distribution subsystem to OPERABLE status. DELETE	2 hours <u>AND</u> 16 hours from discovery of failure to meet LCO
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3. <u>AND</u> D.2 Be in MODE 5.	6 hours 36 hours
E. Two or more inoperable distribution subsystems that result in a loss of safety function.	E.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.9.1 Verify correct breaker alignments and voltage to required AC, DC, and AC vital instrument bus electrical power distribution subsystems.	In accordance with the Surveillance Frequency Control Program

ATTACHMENT 2

Revised Technical Specifications (Clean copy)

TS Pages

1.3-2
1.3-6
1.3-7
3.7.5-1
3.8.1-2
3.8.1-3
3.8.9-1
3.8.9-2

1.3 Completion Times

DESCRIPTION
(continued)

However, when a subsequent train, 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 extensions do not apply to those Specifications that have exceptions that allow completely separate re-entry into the Condition (for each train, 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 . . ."

(continued)

1.3 Completion Times

EXAMPLES
(continued)

EXAMPLE 1.3-3

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One Function X train inoperable.	A.1 Restore Function X train to OPERABLE status.	7 days
B. One Function Y train inoperable.	B.1 Restore Function Y train to OPERABLE status.	72 hours
C. One Function X train inoperable.	C.1 Restore Function X train to OPERABLE status.	72 hours
<u>AND</u>	<u>OR</u>	
One Function Y train inoperable.	C.2 Restore Function Y train to OPERABLE status.	72 hours

(continued)

1.3 Completion Times

EXAMPLES

EXAMPLE 1.3-3 (continued)

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

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.

(continued)

3.7 PLANT SYSTEMS

3.7.5 Auxiliary Feedwater (AFW) System

LCO 3.7.5 Three AFW trains shall be OPERABLE.

-----NOTE-----
Only one AFW train, which includes a motor driven pump, is required to be OPERABLE in MODE 4.

APPLICABILITY: MODES 1, 2, and 3,
MODE 4 when steam generator is relied upon for heat removal.

ACTIONS

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

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One steam supply to turbine driven AFW pump inoperable.</p> <p><u>OR</u></p> <p>-----NOTE----- Only applicable if MODE 2 has not been entered following refueling.</p> <p>One turbine driven AFW pump inoperable in MODE 3 following refueling.</p>	<p>A.1 Restore affected equipment to OPERABLE status.</p>	<p>7 days</p>
<p>B. One AFW train inoperable for reasons other than Condition A in MODE 1, 2, or 3.</p>	<p>B.1 Restore AFW train to OPERABLE status.</p>	<p>72 hours</p>

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.3 Restore required offsite circuit to OPERABLE status.	72 hours
B. One DG inoperable.	B.1 Perform SR 3.8.1.1 for the OPERABLE required offsite circuit(s).	1 hour <u>AND</u> Once per 8 hours thereafter
	<u>AND</u>	
	B.2 Declare required feature(s) supported by the inoperable DG inoperable when its redundant required feature(s) is inoperable.	4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)
	<u>AND</u>	
	B.3.1 Determine OPERABLE DG is not inoperable due to common cause failure.	24 hours
<u>OR</u>		
B.3.2 Perform SR 3.8.1.2 for OPERABLE DG.	24 hours	
<u>AND</u>	(continued)	

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.4 Restore DG to OPERABLE status.	10 days
C. Two required offsite circuits inoperable.	C.1 Declare required feature(s) inoperable when its redundant required feature(s) is inoperable.	12 hours from discovery of Condition C concurrent with inoperability of redundant required feature(s)
	<p><u>AND</u></p> C.2 Restore one required offsite circuit to OPERABLE status.	24 hours

(continued)

3.8 ELECTRICAL POWER SYSTEMS

3.8.9 Distribution Systems – Operating

LCO 3.8.9 Train A and Train B AC, DC, and AC vital instrument bus electrical power distribution subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One AC electrical power distribution subsystem inoperable.	A.1 Restore AC electrical power distribution subsystem to OPERABLE status.	8 hours
B. One AC vital instrument bus electrical power distribution subsystem inoperable.	B.1 Restore AC vital instrument bus electrical power distribution subsystem to OPERABLE status.	2 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One DC electrical power distribution subsystems inoperable.	C.1 Restore DC electrical power distribution subsystem to OPERABLE status.	2 hours
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3.	6 hours
	<u>AND</u> D.2 Be in MODE 5.	36 hours
E. Two or more inoperable distribution subsystems that result in a loss of safety function.	E.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.9.1 Verify correct breaker alignments and voltage to required AC, DC, and AC vital instrument bus electrical power distribution subsystems.	In accordance with the Surveillance Frequency Control Program

ATTACHMENT 3

Marked-up Pages of Technical Specification Bases

TS Bases Pages

B 3.7.5-6
B 3.8.1-9
B 3.8.1-13
B 3.8.1-14
B 3.8.9-4
B 3.8.9-5
B 3.8.9-6
B 3.8.9-7
B 3.8.9-8

BASES

ACTIONS

A.1 (continued)

~~The second Completion Time for Required Action A.1 establishes a limit on the maximum time allowed for any combination of Conditions to be inoperable during any continuous failure to meet this LCO.~~

~~The 10 day Completion Time provides a limitation time allowed in this specified Condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which Conditions A and B are entered concurrently. The AND connector between 7 days and 10 days dictates that both Completion Times apply simultaneously, and the more restrictive must be met.~~

Condition A is modified by a Note which limits the applicability of the Condition to when the unit has not entered MODE 2 following a refueling. Condition A allows the turbine-driven AFW pump to be inoperable for 7 days vice the 72 hour Completion Time in Condition B. This longer Completion Time is based on the reduced decay heat following refueling and prior to the reactor being critical.

It should be noted that when in this Condition with one steam supply to the turbine driven AFW pump inoperable, that the AFA train of AFW is considered to be inoperable.

B.1

With one of the required AFW trains (pump or flow path) inoperable, action must be taken to restore OPERABLE status within 72 hours. This Condition includes the loss of two steam supply lines to the turbine driven AFW pump. The 72 hour Completion Time is reasonable, based on the redundant capabilities afforded by the AFW System, the time needed for repairs, and the low probability of a DBA event occurring during this period. Two AFW pumps and flow paths remain to supply feedwater to the steam generators.

~~The second Completion Time for Required Action B.1 establishes a limit on the maximum time allowed for any combination of Conditions to be inoperable during any continuous failure to meet this LCO.~~

~~The 10 day Completion Time provides a limitation time allowed in this specified Condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which Conditions A and B are entered concurrently. The AND connector between 72 hours and 10 days dictates that both Completion Times apply simultaneously, and the more restrictive must be met.~~

(continued)

DELETE →

DELETE →

BASES

ACTIONS

A.2 (continued)

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

According to Regulatory Guide 1.93 (Ref. 6), operation may continue in Condition A for a period that should not exceed 72 hours. 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 unit safety systems. In this Condition, however, the remaining OPERABLE offsite circuit and DGs are adequate to supply electrical power to the onsite Class 1E Distribution System.

The 72 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.

DELETE

~~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 the LCO. 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 10 days. This could lead to a total of 13 days, since initial failure to meet the LCO, to restore the offsite circuit. At this time, a DG could again become inoperable, the circuit restored OPERABLE, and an additional 10 days (for a total of 23 days) allowed prior to complete restoration of the LCO. The 13 day Completion Time provides a limit on the time allowed in a specified condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which Conditions A and B are entered concurrently. The "AND" connector between the 72 hour and 13 day Completion Time 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 will result in establishing the "time zero" at the time that the LCO was initially not met, instead of at the time Condition A was entered.~~

(continued)

BASES

ACTIONS

B.4 (continued)

7. Weather conditions will be assessed prior to removing a DG from service during planned maintenance activities. Additionally, DG outages will not be scheduled when severe weather conditions and/or unstable grid conditions are predicted or present.
8. All maintenance activities associated with the unit that is utilizing the extended DG Completion Time will be assessed and managed per 10 CFR 50.65 (Maintenance Rule).
9. The functionality of the SBOGs will be verified by ensuring that the monthly start test has been successfully completed within the previous four weeks before entering the extended DG Completion Time.
10. The OPERABILITY of the steam driven auxiliary feedwater pump will be verified before entering the extended DG Completion Time.
11. The system dispatcher will be contacted once per day and informed of the DG status, along with the power needs of the facility.
12. Should a severe weather warning be issued for the local area that could affect the switchyard or the offsite power supply during the extended DG Completion Time, an operator will be available locally at the SBOG should local operation of the SBOG be required as a result of on-site weather related damage.
13. No discretionary maintenance will be allowed on the main and unit auxiliary transformers associated with the unit.

If one or more of the above compensatory measures is not met while in the extended completion time, the corrective action program shall be entered, the risk managed in accordance with the Maintenance Rule, and the compensatory measure(s) restored without delay.

DELETE

~~The second Completion Time for Required Action B.4 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 the LCO. If Condition B is entered while, for instance, an offsite circuit is inoperable and that circuit is subsequently returned OPERABLE, the LCO may already have been not met for up to 72 hours (3 days). This could lead to a total of 13 days, since initial failure to meet the LCO, to restore the DG. At this time, an offsite circuit~~

(continued)

BASES

ACTIONS

DELETE

B.4 (continued)

~~could again become inoperable, the DG restored OPERABLE, and an additional 72 hours (for a total of 16 days) allowed prior to complete restoration of the LCO. The 13 day Completion Time provides a limit on time allowed in a specified condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which Conditions A and B are entered concurrently. The "AND" connector between the 10 day and 13 day Completion Times means that both Completion Times apply simultaneously, and the more restrictive Completion Time must be met.~~

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

C.1 and C.2

Required Action C.1, which applies when two offsite circuits are inoperable, is intended to provide assurance that an event with a coincident single failure will not result in a complete loss of redundant required safety functions. The Completion Time for this failure of redundant required features is reduced to 12 hours from that allowed for one train without offsite power (Required Action A.2). The rationale for the reduction to 12 hours is that Regulatory Guide 1.93 (Ref. 6) allows a Completion Time of 24 hours for two required offsite circuits inoperable, based upon the assumption that two complete safety trains are OPERABLE. When a concurrent redundant required feature failure exists, this assumption is not the case, and a shorter Completion Time of 12 hours is appropriate. These features are powered from redundant AC safety trains. These features require Class 1E power from PBA-S03 or PBB-S04 ESF buses to be OPERABLE, and are identical to those specified in ACTION A.2. Mode applicability is as specified in each appropriate TS section.

The Completion Time for Required Action C.1 is intended to allow the operator time to evaluate and repair any discovered inoperabilities. This Completion Time also allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." In this Required Action, the Completion Time only begins on discovery that both:

- a. All required offsite circuits are inoperable; and
- b. A required feature is inoperable.

(continued)

BASES (continued)

ACTIONS

A.1

With one or more required AC buses, load centers, or motor control centers (see Table B 3.8.9.-1), except AC vital instrument buses, in one subsystem inoperable, the remaining AC electrical power distribution subsystem in the other train 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 power distribution subsystems could result in the minimum required ESF functions not being supported. Therefore, the required AC buses, load centers and motor control centers must be restored to OPERABLE status within 8 hours.

Condition A worst scenario is one train (PBA or PBB) without AC power (i.e., no offsite power to the train and the associated DG inoperable). In this condition, the unit is more vulnerable to a complete loss of AC power. It is, therefore, imperative that the unit operator's attention be focused on minimizing the potential for loss of power to the remaining train by stabilizing the unit, and on restoring power to the affected train. The 8 hour time limit before requiring a unit shutdown in this condition is acceptable because of:

- a. The potential for decreased safety if the unit operator's attention is diverted from the evaluations and actions necessary to restore power to the affected train, to the actions associated with taking the unit to shutdown within this time limit; and
- b. The potential for an event in conjunction with a single failure of a redundant component in the train with AC power.

DELETE

~~The second Completion Time for Required Action A.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~~

(continued)

BASES

ACTIONS

DELETE

A.1 (continued)

~~failing to meet the LCO. If Condition A is entered while, for instance, a DC bus is inoperable and subsequently restored OPERABLE, the LCO may already have been not met for up to 2 hours. This could lead to a total of 10 hours, since initial failure of the LCO, to restore the AC distribution system. At this time, a DC circuit could again become inoperable, and AC distribution restored OPERABLE. This could continue indefinitely.~~

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

B.1

With AC vital instrument bus(es) (Channels A or C, or Channels B or D) (see Table B 3.8.9-1) in one train inoperable, the remaining OPERABLE AC vital bus electrical power distribution subsystem is capable of supporting the minimum safety functions necessary to shut down the unit and maintain it in the safe shutdown condition. Overall reliability is reduced, however, since an additional single failure could result in the minimum required ESF functions not being supported. Therefore, the required AC vital instrument buses must be restored to OPERABLE status within 2 hours by powering the bus from the associated inverter via inverted DC voltage or the Class 1E constant voltage regulator.

Condition B represents one train without adequate AC vital instrument bus power; potentially both the DC source and the associated AC source are nonfunctioning. In this situation, the unit is significantly more vulnerable to a complete loss of all noninterruptible power. It is, therefore, imperative that the operator's attention focus on stabilizing the unit, minimizing the potential for loss of OPERABILITY to the remaining vital instrument buses, and restoring power to the affected electrical power distribution subsystem.

(continued)

BASES

ACTIONS

B.1 (continued)

This 2 hour limit is more conservative than Completion Times allowed for the vast majority of components that are without adequate AC vital instrument power. Taking exception to LCO 3.0.2 for components without adequate AC vital instrument power, which would have the Required Action Completion Times shorter than 2 hours if declared inoperable, is acceptable because of:

- a. The potential for decreased safety by requiring a change in unit conditions (i.e., requiring a shutdown) and not allowing stable operations to continue;
- b. The potential for decreased safety by requiring entry into numerous Applicable Conditions and Required Actions for components without adequate AC vital instrument power and not providing sufficient time for the operators to perform the necessary evaluations and actions for restoring power to the affected train; and
- c. The potential for an event in conjunction with a single failure of a redundant component.

The 2 hour Completion Time takes into account the importance to safety of restoring the AC vital instrument bus to OPERABLE status, the redundant capability afforded by the other OPERABLE vital instrument buses, and the low probability of a DBA occurring during this period.

DELETE

~~The second Completion Time for Required Action B.1 establishes a limit on the maximum allowed for any combination of required distribution subsystems to be inoperable during any single contiguous occurrence of failing to meet the LCO. If Condition B is entered while, for instance, an AC bus is inoperable and subsequently returned OPERABLE, the LCO may already have been not met for up to 8 hours. This could lead to a total of 10 hours, since initial failure of the LCO, to restore the vital instrument bus distribution system. At this time, an AC train could again become inoperable, and vital instrument bus distribution restored OPERABLE. This could continue indefinitely.~~

(continued)

BASES

ACTIONS

DELETE

B.1 (continued)

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

C.1

With DC bus(es) in one train (see Table B 3.8.9-1) 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 required DC buses must be restored to OPERABLE status within 2 hours by powering the bus from the associated battery or battery charger.

Condition C represents one train without adequate DC power; potentially both with the battery significantly degraded and the associated charger nonfunctioning. In this situation, the unit is significantly more vulnerable to a complete loss of all DC power. It is, therefore, imperative that the operator's attention focus on stabilizing the unit, minimizing the potential for loss of power to the remaining DC buses and restoring power to the affected DC electrical power distribution subsystem.

(continued)

BASES

ACTIONS

C.1 (continued)

This 2 hour limit is more conservative than Completion Times allowed for the vast majority of components which 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 by requiring a change in unit conditions (i.e., requiring a shutdown) while allowing stable operations to continue;
- b. The potential for decreased safety by requiring entry into numerous applicable Conditions and Required Actions for components without DC power and not providing sufficient time for the operators to perform the necessary evaluations and actions for restoring power to the affected train; and
- c. The potential for an event in conjunction with a single failure of a redundant component.

The 2 hour Completion Time for DC buses is consistent with Regulatory Guide 1.93 (Ref. 3).

DELETE

~~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 the LCO. If Condition C is entered while, for instance, an AC bus is inoperable and subsequently returned OPERABLE, the LCO may already have been not met for up to 8 hours. This could lead to a total of 10 hours, since initial failure of the LCO, to restore the DC distribution system. At this time, an AC train could again become inoperable, and DC distribution 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 will result in establishing the "time zero" at the time the LCO was initially not met, instead of the time Condition C was entered. The 16 hour Completion Time is an acceptable limitation on this potential to fail to meet the LCO indefinitely.~~

(continued)