No Significant Hazards Considerations - NUREG-1431 Section 3.06.06

09-May-01

NSHC Number	NSHC Text
A Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change involves reformatting and rewording of the current Technical Specifications. The reformatting and rewording process involves no technical changes to existing requirements. As such, this change is administrative in nature and does not impact initiators of analyzed events or assumed mitigation of accident or transient events. Therefore, this change does not increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will not impose any new or eliminate any old requirements. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will not significantly reduce the margin of safety because it has no impact on any safety analysis assumptions. This change is administrative. As such, there is no technical change to the requirements and, therefore, there is no reduction in the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.06

09-May-01

NSHC Number	NSHC Text
L.01 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change will allow multiple equipment inoperability to exist simultaneously for a limited period of time, but will limit the maximum amount of time for LCO non-compliance, such that overlapping inoperabilities cannot exist indefinitely. This change does not result in the introduction of any new or different equipment. Therefore, this change would not result in a significant change in the probability of previously evaluated accidents. The consequences of previously evaluated accidents remain the same during the limited extension in restoration time allowed through this change, as the allowable plant configurations will continue be bounded by the existing containment pressure analysis. Accordingly, the consequences of previously evaluated accidents remain the same. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will allow operation for a limited period of time with multiple inoperabilities, while still bounded by the existing analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The allowable combination of inoperabilities involve equipment which provides similar functions but are diverse in their design (e.g. fans, pumps, valves); therefore, any overlapping inoperabilities will most probably be from differing failure mechanisms. Based on this, the potential for common mode failure within redundant components during the increased time allowed for overlapping inoperabilities is insignificant. In this fashion the margin inherent to redundant systems and components is not significantly impacted by the small increase in allowable restoration time. Considering the low probability of coincident entry into multiple Conditions coupled with the low probability of an accident occurring during this time, the margin of safety is not significantly affected. The allowable plant configurations are bounded by the existing containment pressure analysis, thereby not significantly affecting containment margin.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.06

09-May-01

NSHC Number	NSHC Text
L.02 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? This change does not result in any equipment or hardware changes. The containment spray systems allowable restoration time is not an initiator of any analyzed event. The proposed change extends the allowable time to reach Mode 5 after the unit is placed into Mode 3 by 48 hours. During this added 48 hours, the consequences of an event are the same as the consequences of an event occurring for the previous 28 hours (72 hour restoration period plus 6 hours to Mode 3) currently allowed. The minimum number of systems and components assumed in the accident analysis will continue to be preserved. Therefore, the proposed change does not significantly increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will not allow continuous operation with an inoperable containment spray train. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The increased time allowed is acceptable based on the containment cooling function continuing to be provided by independent systems, the accident fan coolers and the containment spray system. In the event of a design basis accident, either of these systems will provide sufficient cooling to reduce containment pressure. This additional time is acceptable based on the conservatism inherent to the unit being placed in Mode 3. Dose considerations (both offsite and control room) are projected based on a core operating at 102% of rated power and the containment pressure analysis is based upon a higher energy state (temperature) for the reactor coolant system. The reduced consequences from these specifics alone will offset the increased time allowed to operated in a condition capable of event mitigation, but incapable of a single failure. Based on the above discussion, this change does not significantly reduce the margin of safety.

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09-May-01

NSHC Number	NSHC Text
L.03 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? This change does not result in any equipment or hardware changes. The proposed change extends the containment spray header nozzles testing from once every five years to once every 10 years. The frequency of testing for the containment spray nozzles is not an initiator of any analyzed event. This increase in frequency is acceptable based on the passive nature of the components. In maintaining the equipment in an operable state, the consequence for previously evaluated accidents remains unchanged. Accordingly, the probability and consequences of previously evaluated accident is not significantly changed. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. No nozzle failures have been reported as a result of routine testing. The only known nozzle testing failures within the industry are related to construction activity and were disclosed during post construction testing. The containment spray nozzles are located near the top of the containment dome, in an area not subject to damage from personnel nor other components and debris. The containment spray nozzles are configured as "dry piping" and accordingly, are not subject to a harsh environment (contact with acids, caustics or other chemicals) during normal operation which could introduce significant age related degradation. Based on the above, it has been concluded that increasing the testing interval will not result in any significant increase in undetectable failures. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The increased surveillance interval is acceptable based on the industry data that has concluded that the likelihood of nozzle failure is low based on the passive nature of the components and their physical location which minimizes the likelihood of damage. The likelihood for an undetectable failure mode is insignificant, and it has been concluded that the nozzles are not susceptible to significant age related degradation based on the extended test interval. Based on the above, it has been concluded that this change does not represent a significant reduction in a margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.06

09-May-01

NSHC Number	NSHC Text
L.04 Rev. B	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The proposed change results in the deletion of details which are not necessary to describe the actual regulatory requirement, or provide adequate protection of the public health and safety. Accordingly, there will be no significant change in the probability or consequences of accidents previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not involve any physical alteration of plant systems, structures or components, nor does it alter parameters governing normal plant operation. The proposed change does not introduce a new mode of operation. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created. 3. Does this change involve a significant reduction in a margin of safety? The deletion of details which are not necessary to describe the actual regulatory requirement, or provide adequate protection of the public health and safety, does not result in a significant reduction in the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.06

09-May-01

NSHC Number	NSHC Text
L.05 Rev. B	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. CTS 15.4.5.I.B.1 specifies the Containment Spray System test be initiated by tripping the normal actuation instrumentation. ITS SR 3.6.6.5 and SR 3.6.6.6 permit initiation by an actual or simulated signal to satisfy the requirements. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The Containment Spray System is used to mitigate the consequences of an accident; however, it is not an initiator of any previously analyzed accident. As such the relaxing the requirements under which the Containment Spray System testing is performed does not affect the results of the surveillance and will not increase the probability of any accident previously evaluated. The proposed actions continue to provide adequate assurance of Operability for required equipment and therefore, do not involve an increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety because the Operability of the equipment continues to be evaluated in the same manner. The results of the Containment Spray System testing are not affected by the nature of the initiating signal, because the system cannot discriminate whether the signals are actual or simulated. The intent of the surveillance requirement has not been altered and does not result in a reduction in the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.06

09-May-01

NSHC Number	NSHC Text
L.06 Rev. F	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change results in a relaxation of requirements such that only the Containment Spray System manual, power operated and automatic valves in the flowpath that are not locked, sealed, or otherwise secured in position are verified to be in the correct alignment. The proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. Accordingly, there will be no significant change in the probability or consequences of accidents previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not involve any physical alteration of plant systems, structures or components, nor does it alter parameters governing normal plant operation. The proposed change does not introduce a new mode of operation. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety because the ability of Containment Spray System to perform its safety functions is still verified. The intent of the surveillance requirement has not been altered and does not result in a reduction in the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.06

09-May-01

NSHC Number	NSHC Text
LA Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change relocates requirements from the Technical Specifications to the Bases, FSAR, or other plant controlled documents. The Bases and FSAR will be maintained using the provisions of 10 CFR 50.59. In addition to 10 CFR 50.59 provisions, the Technical Specifications Bases are subject to the change process in the Administrative Controls Chapter of the ITS. Plant procedures and other plant controlled documents are subject to controls imposed by plant administrative procedures, which endorse applicable regulations and standards. Changes to the Bases, FSAR, or other plant controlled documents will be evaluated in accordance with the requirements of the Bases Control Program in Chapter 5.0 of the ITS, 10 CFR 50.59, or plant administrative processes. Therefore, no increase in the probability or consequences of an accident previously evaluated will be allowed. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will not impose any different requirements and adequate control of the information will be maintained. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will not reduce a margin of safety because it has no impact on any safety analysis assumptions. In addition, the requirements to be moved from the Technical Specifications to the Bases, FSAR, or other plant controlled documents are as they currently exist. Future changes to the requirements in the Bases, FSAR, or other plant controlled documents will be evaluated in accordance with the requirements of 10 CFR 50.59, the Bases Control Program in Chapter 5.0 of the ITS, or the applicable plant process and no reduction in a margin of safety will be allowed.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.06

09-May-01

NSHC Number	NSHC Text
M Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change provides more restrictive requirements for operation of the facility. These more stringent requirements do not result in operation that will increase the probability of initiating an analyzed event and do not alter the assumptions relative to the mitigation of an accident or transient event. These more restrictive requirements continue to ensure process variables, structures, systems and components are maintained consistent with the safety analyses. Therefore, this change does not increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change does impose different requirements. However, these changes are consistent with assumptions made in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The imposition of more restrictive requirements either has no affect on or increases the margin of safety. Each change is providing additional restrictions to enhance plant safety. These changes are consistent with the safety analysis. Therefore, this change does not involve a reduction in a margin of safety.

Description of Changes - NUREG-1431 Section 3.06.07

09-May-01

DOC Number	DOC Text
L.05 Rev. C	CTS 15.4.5.I.B.1 requires the Spray Additive System test to be initiated by tripping the normal actuation instrumentation. The proposed ITS requirement in SR 3.6.7.4 allows initiation by an actual or simulated signal. The proposed ITS is less restrictive because it allows either a simulated or an actual signal. This change is insignificant because the actuation instrumentation for this system is appropriately surveilled in accordance with the requirements in Section 3.3 of the proposed ITS. **CTS:** 15.04.05.I.B.01 **ITS:** DELETED
L.06 Rev. F	CTS 15.4.5.II.B.2 requires each manual, power operated and automatic valve necessary to ensure system operability in the containment spray systems, that is not locked, sealed, or otherwise secured in position, to be verified to be in its correct position at least once every 31 days. ITS SR 3.6.7.1 requires each manual, power operated and automatic valve in the Spray Additive System flowpath, that is not locked, sealed, or otherwise secured in position, to be verified to be in its correct position once every 31 days. Requiring verification of the position of the manual, power operated and automatic valves "in the flowpath" results in a relaxation of the current requirement to verify the position of each manual, power operated and automatic valve necessary "to ensure system operability." This change is acceptable, because verifying the correct alignment of the above required valves in the flowpath provides assurance that the proper flowpath will exist for the Spray Additive System to introduce sodium hydroxide to the containment to ensure a containment recirculation fluid pH of between approximately 7.0 and 9.0 to assist in minimizing the evolution of iodine from the containment recirculation fluids following a LOCA. **CTS:** 15.04.05.II.B.02 **ITS:** SR 3.06.07.01
LA.01 Rev. C	CTS 15.3.3.B.1.d establishes a requirement to maintain all valves and piping "associated" with the Iodine Removal System "and required to function during accident conditions" to be operable. This requirement is subsumed by the LCO statement, "The spray additive system shall be OPERABLE." Application of this concept is addressed through the definition of OPERABILITY, which requires all equipment required for the system to perform its specified safety function to be capable of performing their related support function. Additionally, the specifics defining OPERABILITY have been relocated to ITS 3.6.7 Bases - LCO. Valves are addressed through the valve testing requirements specified in the proposed ITS SR 3.6.7.8 and the Inservice Testing Program (Specification 5.5.8). **CTS:** 15.03.03.B.01.D **ITS:** LCO 3.06.07

Description of Changes - NUREG-1431 Section 3.06.07

09-May-01

DOC Number	DOC Text	
M.01 Rev. A	CTS 15.3.3.B.1 contains a provision exempting the requirement to maintain the Iodine Removal System operable during low power physics testing. This provision has been deleted in the proposed Technical Specifications. Low power physics testing in the Improved Technical Specifications is a subset of Mode 2. While Mode 2 is typically a non limiting Mode, the operability requirements of this system is independent of physics testing, accordingly this provision has been deleted. This change represent a more restrictive changes as it involves the deletion of a flexibility that currently exists.	
	CTS: 15.03.03.B.01	**ITS:** DELETED
M.02 Rev. A	CTS 15.3.3.B.1.a establishes the operational limits for the spray additive tank as being; not less than 2675 gallons in volume, and not less than 30% in concentration. The spray additive system is designed to establish a post Design Basis primary side Loss of Coolant Accident containment recirculation fluid pH of between approximately 7.0 and 9.0. This range is intended to minimize the evolution of iodines from the recirculation fluid as well as minimizing the potential for chloride and caustic stress corrosion. To maintain a pH range of approximately 7.0 to 9.0 an upper limit for concentration have been proposed. The addition of this limit will provide assurance that the upper pH limit is not exceeded. The addition of this limit is a more restrictive requirement.	
	CTS: 15.03.03.B.01.A	**ITS:** SR 3.06.07.03
M.03 Rev. A	CTS 15.4.5.I.B.1 requires the performance of a spray additive system test during reactor shutdowns once every major fuel reloading. This test is intended to verify proper operation of the spray additive tank outlet valves by an actuation signal. This testing has been translated to ITS SR 3.6.7.4 as discussed in Description of Change A.7 of this section. The proposed frequency for this test is once every 18 months. The CTS frequency is not specific in that it is tied to a plant evolution (reactor shutdown for major fuel reloading) as opposed to an explicit performance interval. Requiring performance of these surveillances on a fixed frequency of 18 months is more restrictive, as the previous frequency has no bounding limit. An 18 month interval for actuation testing is acceptable based on industry reliability data for this type of testing.	
	CTS: 15.04.05.I.B.01	**ITS:** SR 3.06.07.04
M.04 Rev. A	CTS 15.3.3.B.1.a establishes a minimum required level for the spray additive tank however, the CTS does not contain any surveillance requirement to verify that this limit is met on a periodic basis. The ITS has moved the operational limit from the LCO Statement to Surveillance Requirement SR 3.6.7.2, which is administrative and imposed a frequency for verifying that the limitation is met (every 184 days). The spray additive tank is normally static, it is not used as a process tank, and there are no permanently connected fill lines or drain lines, therefore, this tank is not subject to rapid or uncontrolled changes in level. The proposed frequency for verifying tank volume is considered acceptable based on industry data for this type of testing.	
	CTS: 15.03.03.B.01.A	**ITS:** SR 3.06.07.02

< See LCOs 3.5.2 and 3.6.6 >

containment spray pumps shall be tested in accordance with the Inservice Test Program.

2. Acceptable levels of performance shall be that the pumps start, reach their required developed head at, and operate for at least fifteen minutes on the full-flow test lines.

< See LCO 3.5.2 >

B. Other

1. At least every refueling, verify by visual inspection each containment sump suction inlet is not restricted by debris and the debris strainers show no evidence of structural distress or abnormal corrosion.

L.6

SR 3.6.7.1

2. Verify each manual, power operated, and automatic valve necessary to insure system operability in the emergency core cooling and containment spray systems that is not locked, sealed, or otherwise secured in position, is in the correct position at least once every 31 days.

F Errata #165

< See Section 3.5 >

< See Section 3.5 >

Basis

The Safety Injection System and the Containment Spray System are principal plant Safety Systems that are normally inoperative during reactor operation. Complete systems tests cannot be performed when the reactor is operating because a safety injection signal causes containment isolation and a Containment Spray System test requires the system to be temporarily disabled. The method of assuring operability of these systems is therefore to combine systems tests to be performed during refueling shutdowns, with more frequent component tests, which can be performed during reactor operation.

A.6

No Significant Hazards Considerations - NUREG-1431 Section 3.06.07

09-May-01

NSHC Number	NSHC Text
A Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change involves reformatting and rewording of the current Technical Specifications. The reformatting and rewording process involves no technical changes to existing requirements. As such, this change is administrative in nature and does not impact initiators of analyzed events or assumed mitigation of accident or transient events. Therefore, this change does not increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will not impose any new or eliminate any old requirements. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will not significantly reduce the margin of safety because it has no impact on any safety analysis assumptions. This change is administrative. As such, there is no technical change to the requirements and, therefore, there is no reduction in the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.07

09-May-01

NSHC Number	NSHC Text
L.01 Rev. B	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. The proposed change will allow the spray additive system to be inoperable concurrent with the containment fan coolers or containment spray train, in addition to addressing a loss of redundancy for the spray additive system. Inoperability of the spray additive system concurrent with the containment fan cooler units is acceptable based on the fact that these two systems perform functions which are not interrelated. The spray additive system is required to promote retention of iodines in the recirculation fluids after a Loss of Coolant Accident (LOCA), in addition to long term containment corrosion considerations. Sodium hydroxide is added to the containment spray flow stream for reduction of containment iodine. The containment fan coolers are designed to maintain containment pressure and temperature within limits, the containment fan coolers and the spray additive system have no functional relationships nor dependencies. The containment spray system provides containment pressure and temperature control in addition to delivery of sodium hydroxide to the containment to maximize the absorption of iodines from the containment atmosphere and minimize the evolution of iodines from the containment recirculation fluids. Based on the system design, the loss of a containment spray train and spray additive flowpath within the same train, independent or concurrently results in the same level of degradation relative to the spray additive function. Additionally, an inoperable spray additive system flowpath results in the same level of degradation as an inoperable redundant valve. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? This change does not result in the introduction of any new or different equipment. Through not introducing any new failure modes and mechanisms, this change would not result in a significant change in the probability of previously evaluated accidents. The consequences of previously evaluated accidents are not significantly altered by allowing multiple inoperabilities to exist. As discussed above, the allowable inoperabilities either result in the same level of degradation as a single inoperability, or are in unrelated functions. The allowable plant configurations will continue to be bounded by the existing containment pressure analysis. Accordingly, the consequences of previously evaluated accidents are not significantly changed. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will allow operation for a limited period of time with multiple inoperabilities, while still bounded by the existing analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety?

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NSHC Number	NSHC Text
	The allowable combination of inoperabilities involve equipment which does not result in any increase in risk state or are associated with unrelated functions which do not have any interdependencies. Based on this, the potential for common mode failure within redundant components during the increased time allowed for overlapping inoperabilities is insignificant. In this fashion, the margin inherent to redundant systems and components is not significantly impacted by the small increase in allowable restoration time. Considering the low probability of coincident entry into multiple Conditions with the low probability of an accident occurring during this time, the margin of safety is not significantly reduced.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.07

09-May-01

NSHC Number	NSHC Text
L.02 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? This change does not result in any equipment or hardware changes. The spray additive systems allowable restoration time is not assumed to be an initiators of any analyzed event. The proposed change extends the allowable time to reach Mode 5 after the unit is placed into Mode 3 by 48 hours. During this added 48 hours relative to multiple inoperabilities, the consequences of an event will continue be bounded by the existing containment pressure analysis. Loss of functional capability is acceptable based on the absence of an iodine re-evolution mechanism over the pH range of concern. Secondarily, any re-evolution should be offset by the conservatisms used in the offsite and onsite dose calculations relative to containment leakage rates. Accordingly, the consequences of previously evaluated accidents are not significantly changed. Therefore, the proposed change does not increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will not allow continuous operation with an inoperable containment spray train. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The increased time allowed to reach Mode 5 is acceptable based on the allowable combinations of inoperabilities involving equipment which does not result in any increase in risk state or are associated with unrelated functions which do not have an interdependencies. In addition, this additional time is acceptable based on the conservatisms inherent to the unit being placed in Mode 3. Dose considerations (both offsite and control room) are projected based on a core operating at 102% of rated power and the containment pressure analysis is based upon a higher energy state (temperature) for the reactor coolant system. The reduced consequences from these specifics alone offset the increased time allowed to operate in a condition capable of event mitigation, but incapable of a single failure. Loss of functional capability for the spray additive function does not result in any significant changes in onsite or offsite doses. This is based on conservative assumption made relative to containment leakage rate, and the lack of a significant driver which would result in re-evolution of iodines back into the containment atmosphere over the containment sump pH range of concern. Considering the low probability of coincident entry into multiple Conditions or loss of functional capability with the low probability of an accident occurring during this time, an increase in the

NSHC Number	NSHC Text
	allowable time to reach Mode 5 does not significantly affect any margin of safety.
L.03 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? This change does not result in any equipment or hardware changes. The proposed change extends the spray additive tank sodium hydroxide sampling frequency from once every month to once every 184 days. There are no permanently connected fill or drain lines; therefore, this tank is not subject to rapid or uncontrolled changes in level and concentration. The frequency of surveillance testing is not an initiator of any analyzed event. This increase in frequency is acceptable based on the static nature of the tank. Further, the proposed frequency is acceptable based on industry data, which supports that the proposed frequency is adequate in providing assurance that tank concentration will be maintained thereby, maintaining the equipment in an operable state. Based on the equipment being maintained in an operable state, the consequence for previously evaluated accidents remains unchanged. Accordingly, the probability and consequences of previously evaluated accident is not significantly changed. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The spray additive tank is normally static, it is not used as a process tank, and there are no permanently connected fill or drain lines, therefore this tank is not subject to rapid or uncontrolled changes in level and concentration. Intentional changes to tank level and concentration are performed in a controlled manner and will include post evolution sampling when necessary. Based on the above, it has been concluded that increasing the testing interval will not result in any significant increase in undetectable surveillance failures. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The increased surveillance interval is acceptable based on the industry data that has concluded that the likelihood of a concentration change is low based on the static nature of the tank. The likelihood for an uncontrolled chemistry change is insignificant, and it has been concluded that sodium hydroxide concentration does not significantly change due to aging. Based on the above, this change does not represent a significant reduction in a margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.07

09-May-01

NSHC Number	NSHC Text
L.04 Rev. B	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The proposed change results in the deletion of details which are not necessary to describe the actual regulatory requirement, or provide adequate protection of the public health and safety. Accordingly, there will be no significant change in the probability or consequences of accidents previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not involve any physical alteration of plant systems, structures or components, nor does it alter parameters governing normal plant operation. The proposed change does not introduce a new mode of operation. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created. 3. Does this change involve a significant reduction in a margin of safety? The deletion of details which are not necessary to describe the actual regulatory requirement, or provide adequate protection of the public health and safety, does not result in a significant reduction in the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.07

09-May-01

NSHC Number	NSHC Text
L.05 Rev. B	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. CTS 15.4.5.I.B.1 specifies the Spray Additive System test to be initiated by tripping the normal actuation instrumentation. ITS SR 3.6.7.4 permits initiation by an actual or simulated signal to satisfy the requirements. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The Spray Additive System is used to mitigate the consequences of an accident; however, it is not an initiator of any previously analyzed accident. As such the relaxing the requirements under which the Spray Additive System testing is performed does not affect the results of the surveillance and will not increase the probability of any accident previously evaluated. The proposed actions continue to provide adequate assurance of Operability for required equipment and therefore, do not involve an increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety because the Operability of the equipment continues to be evaluated in the same manner. The results of the Spray Additive System testing are not affected by the nature of the initiating signal, because the system cannot discriminate whether the signals are actual or simulated. The intent of the surveillance requirement has not been altered and does not result in a reduction in the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.07

09-May-01

NSHC Number	NSHC Text
L.06 Rev. F	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change results in a relaxation of requirements such that only the Spray Additive System manual, power operated and automatic valves in the flowpath that are not locked, sealed, or otherwise secured in position are verified to be in the correct alignment. The proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. Accordingly, there will be no significant change in the probability or consequences of accidents previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not involve any physical alteration of plant systems, structures or components, nor does it alter parameters governing normal plant operation. The proposed change does not introduce a new mode of operation. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety because the ability of Spray Additive System to perform its safety functions is still verified. The intent of the surveillance requirement has not been altered and does not result in a reduction in the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.07

09-May-01

NSHC Number	NSHC Text
LA Rev. C	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change relocates requirements from the Technical Specifications to the Bases, FSAR, or other plant controlled documents. The Bases and FSAR will be maintained using the provisions of 10 CFR 50.59. In addition to 10 CFR 50.59 provisions, the Technical Specifications Bases are subject to the change process in the Administrative Controls Chapter of the ITS. Plant procedures and other plant controlled documents are subject to controls imposed by plant administrative procedures, which endorse applicable regulations and standards. Changes to the Bases, FSAR, or other plant controlled documents will be evaluated in accordance with the requirements of the Bases Control Program in Chapter 5.0 of the ITS, 10 CFR 50.59, or plant administrative processes. Therefore, no increase in the probability or consequences of an accident previously evaluated will be allowed. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will not impose any different requirements and adequate control of the information will be maintained. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will not reduce a margin of safety because it has no impact on any safety analysis assumptions. In addition, the requirements to be moved from the Technical Specifications to the Bases, FSAR, or other plant controlled documents are as they currently exist. Future changes to the requirements in the Bases, FSAR, or other plant controlled documents will be evaluated in accordance with the requirements of 10 CFR 50.59, the Bases Control Program in Chapter 5.0 of the ITS, or the applicable plant process and no reduction in a margin of safety will be allowed.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.07

09-May-01

NSHC Number	NSHC Text
M Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change provides more restrictive requirements for operation of the facility. These more stringent requirements do not result in operation that will increase the probability of initiating an analyzed event and do not alter the assumptions relative to the mitigation of an accident or transient event. These more restrictive requirements continue to ensure process variables, structures, systems and components are maintained consistent with the safety analyses. Therefore, this change does not increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change does impose different requirements. However, these changes are consistent with assumptions made in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The imposition of more restrictive requirements either has no affect on or increases the margin of safety. Each change is providing additional restrictions to enhance plant safety. These changes are consistent with the safety analysis. Therefore, this change does not involve a reduction in a margin of safety.

3.7 PLANT SYSTEMS

3.7.1 Main Steam Safety Valves (MSSVs)

Four MSSVs per steam generator shall be OPERABLE.

LCO 3.7.1 ~~The MSSVs shall be OPERABLE as specified in Table 3.7.1-1 and Table 3.7.1-2.~~

F TSTF-235

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

NOTE
Separate Condition entry is allowed for each MSSV.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required MSSVs inoperable.	A.1 Reduce power to less than or equal to the applicable % RTP listed in Table 3.7.1-1.	4 hours
B. Required Action and associated Completion Time not met. OR One or more steam generators with less than [two] MSSVs OPERABLE.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	6 hours 12 hours

Replace with Insert 3.7.1-1 1

3.7 PLANT SYSTEMS

3.7.1 Main Steam Safety Valves (MSSVs)

LCO 3.7.1 Four MSSVs per steam generator shall be OPERABLE. F TSTF-235

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each MSSV.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Steam Generators with one MSSV inoperable and Moderator Temperature Coefficient (MTC) zero or negative at all power levels.	A.1 Reduce THERMAL POWER to less than or equal to the Maximum Allowable % RTP specified in Table 3.7.1-1 for the number of OPERABLE MSSVs.	4 hours
B. One or more Steam Generators with two MSSVs inoperable. OR One or more Steam Generators with one MSSV inoperable and Moderator Temperature Coefficient (MTC) positive at any power level.	B.1 Reduce THERMAL POWER to less than or equal to the Maximum Allowable % RTP specified in Table 3.7.1-1 for the number of OPERABLE MSSVs. AND	4 hours (continued)

D Additional change

D RAI 3.7.1-7 Errata 119

Justification For Deviations - NUREG-1431 Section 3.07.02

09-May-01

JFD Number	JFD Text
01 Rev. D	NUREG 1431 LCO 3.7.2 has been modified to reflect Point Beach's design. The MSIV LCO was written to address an MSIV which inhibits both forward and reverse flow. The MSIVs at Point Beach are check valves which close to inhibit forward flow. Forward flow through the MSIV is allowed by the check valve disk being held out of the flow steam by an air operator which fails safe upon receipt of an actuation signal allowing the valve to close. Reverse flow to the Steam Generators from the Main Steam Lines (MSLs) is prevented through the use of a simple check valve referred to as the MSL "non-return check valves". Accordingly, the MSL isolation function is accomplished through two valves, requiring modification of the LCO, Required Actions, Bases, and Surveillance Requirements to reflect the Point Beach Design Basis. The LCO Title has been modified to reflect both the MSIV and the non-return check valves. Condition A of NUREG 1431 LCO 3.7.2 has been modified to reflect the Point Beach equivalent to having an MSIV inoperable. This equivalent condition would be the inoperability of one or more valves (MSIV and non-return check valve) in the same SG flowpath. Eight hours has been adopted as the restoration time for this Condition consistent with NUREG 1431. Condition C has been modified to address the Required Actions for inoperable MSIVs and non-return check valves in Modes 2 or 3. These Conditions are equivalent to Condition C of NUREG 1431 (inoperable MSIV in Mode 2 and 3); however, based on Point Beach's design, it is necessary to close both the MSIV and the non-return check valve in the affected flow path in order to provide isolation. Closure of both valves is necessary to prevent inadvertent opening of the inoperable valve due to differential pressure gradients that may develop due to heatups, cooldowns, or changes in steam demand. Eight hours has been retained for flowpath isolation and seven days for routine verification of isolation consistent with NUREG 1431. The Bases have been revised to reflect Point Beach's design and revised Conditions and Required Actions as discussed above.

ITS:	**NUREG:**
B 3.07.02	B 3.07.02
	B 3.07.02
LCO 3.07.02	LCO 3.07.02
	LCO 3.07.02
LCO 3.07.02 COND A	LCO 3.07.02 COND A
LCO 3.07.02 COND A RA A.1	LCO 3.07.02 COND A RA A.1
LCO 3.07.02 COND C	LCO 3.07.02 COND C
LCO 3.07.02 COND C NOTE	LCO 3.07.02 COND C NOTE
LCO 3.07.02 COND C RA C.1	LCO 3.07.02 COND C RA C.1
LCO 3.07.02 COND C RA C.2	N/A
LCO 3.07.02 COND C RA C.3	LCO 3.07.02 COND C RA C.2

Justification For Deviations - NUREG-1431 Section 3.07.02

09-May-01

JFD Number	JFD Text
02 Rev. A	The brackets have been removed and the proper plant specific information has been provided. **ITS:** / **NUREG:** B 3.07.02 / B 3.07.02 LCO 3.07.02 / LCO 3.07.02 SR 3.07.02.01 / SR 3.07.02.01
03 Rev. A	The CTS allows an inoperable MSIV or non-return check valve to be opened in the hot shutdown condition to allow cooldown of the affected unit. This CTS allowance has been retained as a Note associated with the Required Actions for these valves. This allowance is necessary to allow steam to be vented to the condenser from both steam generators, promoting uniform and simultaneous cooldown of both steam generators. The proposed ITS retains this allowance, while establishing a requirement to have administrative controls over these valves if opened. **ITS:** / **NUREG:** B 3.07.02 / B 3.07.02 LCO 3.07.02 COND C RA C NOTE / N/A
04 Rev. A	The Applicability of NUREG 1431 LCO 3.7.2 has been modified based on Point Beach's MSIV and non-return check valve design. Deenergization of the MSIV will not isolate the MSIV flowpaths based on the MSIV and non-return check valve design as described in the Justification for Deviation 1 of this Section. The Applicability has been changed to establish entry into this LCO whenever sufficient energy is contained within the Steam Generators to require MSIV and non-return check valve isolation capability in the event of a Main Steam Line Break. This Applicability is consistent with the accident analysis assumptions for Point Beach. **ITS:** / **NUREG:** B 3.07.02 / B 3.07.02 LCO 3.07.02 / LCO 3.07.02
05 Rev. A	The Applicability section of the Bases has been reworded consistent with Point Beach having only two Steam Generators. **ITS:** / **NUREG:** B 3.07.02 / B 3.07.02

Justification For Deviations - NUREG-1431 Section 3.07.02

09-May-01

JFD Number	JFD Text
06 Rev. A	The Bases for Condition B contains a discussion related to closing the MSIV. Closure of the MSIV is performed in Condition C and is discussed within the Bases for the Required Actions associated with that Condition. Accordingly, the discussion contained in the Bases for Condition B has been deleted. **ITS:** B 3.07.02 **NUREG:** B 3.07.02

Justification For Deviations - NUREG-1431 Section 3.07.02

09-May-01

JFD Number	JFD Text
07 Rev. F	NUREG SR 3.7.2.1 has been divided into two separate Surveillance Requirements. ITS SR 3.7.2.1 verifies the MSIV closure time while proposed ITS SR 3.7.2.2 verifies that the MSIVs will actuate on a simulated or actual actuation signal. This presentation is necessary to promote consistent application of the testing requirements in addition to deferring performance of MSIV stroke timing until prior to entry into Mode 1 as allowed by the CTS and discussed below. Proposed ITS SR 3.7.2.1 and SR 3.7.2.2 are equivalent to CTS Surveillance Requirement 15.4.7.A, which requires the MSIVs to be stroke tested under low flow conditions (less than or equal to 5%) and CTS line item 13 of Table 15.4.1-2, which requires containment isolation valves (MSIVs) to be functionally tested. The CTS Applicability for containment isolation valves has been determined to be equivalent to ITS Modes 1 through 4 as discussed in LCO 3.6.3 of this conversion package. As such, functional testing of the MSIVs isolation capability is required prior to entry into Mode 4 under ITS LCO 3.6.3 (containment isolation) and prior to entry into ITS Mode 1 (ITS SR 3.7.2.2) under this LCO. Stroke timing of the MSIVs (ITS SR 3.7.2.1) is required prior to entry into ITS Mode 1. Deferred performance of the MSIV stroke timing is necessary to establish appropriate and representative testing conditions for the MSIVs, as discussed in Justification for Deviation 9 of this Section. Additionally, the 18 month actuation test (SR 3.7.2.2) is intended to provide a continuation between the actuation logic testing contained in Section 3.3 of the ITS and the actuated components (MSIVs). NUREG 1431 requires Actuation Logic and Master and Slave Relay tests to be performed with the unit on line (bi-monthly and quarterly). These tests, when combined with the 18 month equipment actuation tests, prove equipment actuation capability from the channel output to the actuated equipment. Point Beach has not adopted the Surveillance Requirements for Master and Slave Relay testing based on design and licensing basis. Point Beach is not designed to allow on line testing without introducing unwarranted transients or intrusive testing techniques. Accordingly, Master and Slave testing has not been adopted as part of the conversion to the ITS. The 18 month actuation test encompasses Master and Slave Relay testing. The note modifying ITS SR 3.7.2.2 differs from the NUREG, as modified by approved TSTF-289, by requiring the SR to be performed in MODE 1, thus allowing entry into and operation in MODES 2 and 3 prior to performing the SR. The MSIVs for Point Beach are check valves and therefore require flow conditions in order to perform valve closure testing. As a result, the provisions of this Note are necessary in order to establish the steam flow conditions needed. **ITS:** — **NUREG:** B 3.07.02 — B 3.07.02 SR 3.07.02.01 — SR 3.07.02.01 SR 3.07.02.02 — N/A SR 3.07.02.02 NOTE — N/A

Justification For Deviations - NUREG-1431 Section 3.07.02

09-May-01

JFD Number	JFD Text	
08 Rev. A	A discussion has been added to the Actions section, which addresses the MSIVs as being containment isolation valves. This discussion has been added to reinforce that the applicable Conditions and Required Actions of LCO 3.6.3 should also be entered if the MSIV is inoperable in such a fashion that its containment isolation capability is also impaired.	
	ITS:	**NUREG:**
	B 3.07.02	B 3.07.02
09 Rev. A	CTS 15.4.7.a requires the MSIVs to be stroke time tested under low flow conditions not to exceed 5% of steam flow, which has been determined to be equivalent to a required mode of performance for this surveillance of prior to entry into ITS Mode 1. The MSIVs at Point Beach are check valves which close to inhibit forward flow. Forward flow through the MSIV is allowed by the check valve disk being held out of the flow steam by an air operator which fails safe upon receipt of an actuation signal allowing the valve to close. As such, steam flow assists in closing the valve within its required Stoke time, requiring deferment in performance of this SR to establish conditions which are representative of the conditions under which the acceptance criteria was developed. This deviation from the NUREG is consistent with the CTS for Point Beach.	
	ITS:	**NUREG:**
	B 3.07.02	B 3.07.02
	SR 3.07.02.01 NOTE	SR 3.07.02.01 NOTE
10 Rev. A	NUREG 1431 provides an option of testing the MSIV per the Inservice Testing Program (IST) or once per 18 months. The option of testing these valves in accordance with the IST has been chosen. The MSIVs are Class 2 valves and are contained within the IST. Selection of this option is further discussed in Description of Change LB.1 of this LCO.	
	ITS:	**NUREG:**
	B 3.07.02	B 3.07.02
	SR 3.07.02.01	SR 3.07.02.01
11 Rev. A	The current licensing basis for Point Beach does not include feedwater line break scenarios. Accordingly, reference to Feedwater line break events in the Bases of the proposed ITS have been deleted	
	ITS:	**NUREG:**
	B 3.07.02	B 3.07.02

Justification For Deviations - NUREG-1431 Section 3.07.02

09-May-01

JFD Number	JFD Text	
12 Rev. A	The Bases have been revised to list the MSIV isolation signals for Point Beach. This change is necessary to reflect Point Beach's design and licensing basis.	
	ITS:	**NUREG:**
	B 3.07.02	B 3.07.02
13 Rev. A	The NUREG Bases provide a description of automatic power operated MSIV bypass valves. Point Beach's MSIV bypass valves are manual valves. Accordingly, the Bases have been modified to reflect Point Beach's design.	
	ITS:	**NUREG:**
	B 3.07.02	B 3.07.02
14 Rev. A	The NUREG Bases have been modified to reflect the containment pressure and off site dose analyses reflective of Point Beach's current licensing basis.	
	ITS:	**NUREG:**
	B 3.07.02	B 3.07.02
15 Rev. A	The Containment pressure analysis and radiological consequences for Steam Line Break event are both contained in the same section of Point Beach's FSAR. Accordingly, reference to separate sections of the FSAR are not necessary, reference numbers have been revised to reflect the appropriate FSAR Section and reference.	
	ITS:	**NUREG:**
	B 3.07.02	B 3.07.02
16 Rev. D	CTS 15.4.7.B requires that the non-return check valves be tested for operability during shutdown for major fuel reloadings. This requirement has been reflected in the ITS as SR 3.7.2.3, which requires that the ability of each main steam non-return check valve to close be verified at the frequency specified in the Inservice Testing Program. This SR is not described in the STS and is consistent with a similar requirement submitted for Ginna ITS.	
	ITS:	**NUREG:**
	B 3.07.02	N/A
	SR 3.07.02.03	N/A

Description of Changes - NUREG-1431 Section 3.07.05

10-May-01

DOC Number	DOC Text	
A.01 Rev. A	In the conversion of Point Beach current Technical Specifications (CTS) to the proposed plant specific Improved Technical Specifications (ITS), certain wording preferences or conventions are adopted which do not result in technical changes (either actual or interpretational). Editorial changes, reformatting, and revised numbering are adopted to make the ITS consistent with the Standard Technical Specifications, Westinghouse Plants, NUREG-1431, Revision 1 (i.e., Improved Standard Technical Specifications (ISTS)).	
	CTS:	**ITS:**
	15.03.04	LCO 3.07.05
	15.03.04.C	LCO 3.07.05 COND D
	15.04.01 T 15.04.01-01 20 (13)	SR 3.07.05.05
	15.04.08	LCO 3.07.05
A.02 Rev. A	The CTS provides an introductory statement (Applicability) which simply states which systems/components are addressed within a given section. This same information, while worded differently, is contained within the title of each ITS LCO. Accordingly, this change is a change in format with no change in technical requirement.	
	CTS:	**ITS:**
	15.03.04 APPL	LCO 3.07.05
	15.04.08 APPL	LCO 3.07.05
A.03 Rev. A	The CTS provides an introductory statement (Objective) at the beginning of this Section of the Technical Specifications which provides a brief summary of the purpose for this Section. This information is contained in the Bases Section of the ITS. This information does not establish any regulatory requirements for the systems and components addressed within this Section. Accordingly, deletion of this information does not alter any requirement set forth in the Technical Specifications. This change is administrative and consistent with the format and presentation for the ITS as provided in NUREG 1431.	
	CTS:	**ITS:**
	15.03.04 OBJ	B 3.07.05
	15.04.08 OBJ	B 3.07.05
A.04 Rev. A	The Bases of the current Technical Specifications for this section have been completely replaced by revised Bases that reflect the format and applicable content of PBNP ITS, consistent with the Standard Technical Specifications for Westinghouse Plants, NUREG-1431. The revised Bases are as shown in the PBNP ITS Bases.	
	CTS:	**ITS:**
	BASES	B 3.07.05

Description of Changes - NUREG-1431 Section 3.07.05

10-May-01

DOC Number	DOC Text	
A.05 Rev. D	Not used.	
	CTS: N/A	**ITS:** N/A
A.06 Rev. A	The CTS states that during power operation, the requirements of Specifications 15.3.4.A.2.a and b (i.e. pumps, piping, and essential instrumentation for single and two unit operation) may be modified to allow the auxiliary feedwater pumps to be inoperable for a limited period of time before requiring a unit shutdown. This Specification establishes the structure for the remedial actions in the CTS. The ITS contains specific usage rules for consistent application of the Conditions and Required Actions associated with varying system inoperabilities consistent with the format and presentation of NUREG 1431. Accordingly, deletion of a specific Specification directing usage of Actions is unnecessary, as it duplicates the ITS usage rules. This change is administrative.	
	CTS: 15.03.04.C	**ITS:** DELETED
A.07 Rev. C	CTS 15.4.8.1 requires each AFW pump to be started quarterly, however, if the test comes due for the turbine driven pump when the unit is not at power, the test is required to be performed within 24 hours of entering power operation. CTS 15.1.h defines "power operation" as the condition when the reactor is critical and the average neutron flux of the power range instrumentation indicates greater than 2 percent of rated power. Proposed SR 3.7.5.2 is modified by a note which states that performance of the pump test is not required for the turbine driven AFW pump until 24 hours after THERMAL POWER is greater than 2% RTP. Table 15.4.1-1, Note 13 requires completion of flow path verification prior to entering power operation (greater than 2% power) whenever the unit has been in cold shutdown for greater than 30 days. Proposed ITS SR 3.7.5.5 states that the required AFW flowpaths are to be verified prior to THERMAL POWER exceeding 2% RTP, whenever the unit has been in MODE 5, MODE 6, or defueled for a cumulative period of > 30 days. Therefore, changing the above frequencies from "within 24 hours of entering power operation" and "prior to entering power operation" to "24 hours after THERMAL POWER exceeds 2% RTP" and "prior to THERMAL POWER exceeding 2% RTP" is an administrative change.	
	CTS: 15.04.01 T 15.04.01-01 20 (13) 15.04.08.01.A 15.04.08.01.B	**ITS:** SR 3.07.05.05 SR 3.07.05.02 SR 3.07.05.02 NOTE

Description of Changes - NUREG-1431 Section 3.07.05

10-May-01

DOC Number	DOC Text
L.01 Rev. A	CTS 15.3.4.C only provides actions that address the inoperability of the auxiliary feedwater (AFW) pumps. As such, piping, valve, and instrumentation inoperabilities which render a pump inoperable could be interpreted as requiring entry into CTS 15.3.0.B (similar to ITS LCO 3.0.3). The ITS addresses inoperability of the AFW pump systems (turbine and motor driven), thereby encompassing any component within a given pump system which could render a pump (pump system) incapable of performing its intended function. This change is acceptable because any component which renders a pump system inoperable is equivalent to the inoperability of the pump itself. **CTS:** 15.03.04.C.02 **ITS:** LCO 3.07.05 COND B LCO 3.07.05 COND B RA B.1 LCO 3.07.05 COND C LCO 3.07.05 COND C RA C.1

DOC Number	DOC Text
L.02 Rev. A	CTS 15.3.4.C.1 only provides Actions for a single inoperable auxiliary feedwater (AFW) pump during two unit operation. This Description of Change addresses the proposed ITS Action, which will allow an inoperable turbine driven AFW pump on each unit simultaneously during two unit operation. The inoperability of two or more AFW pump systems on the same unit is addressed by Description of Change M.2 of this Section. Each turbine driven AFW pump is dedicated to a unit and is capable of supplying 200% of the design AFW flow to both steam generators on its respective unit. Based on the turbine driven auxiliary feedwater pump being dedicated to a specific unit, an inoperability on one unit should impact that unit alone; however, the CTS only provides Actions for a single inoperable AFW pump during two unit operation, thereby requiring each unit to initiate the Actions of CTS 15.3.0.B. CTS 15.3.0.B requires both units to be placed into hot shutdown (equivalent to ITS Mode 3) within 7 hours, ultimately requiring at least one unit to be then cooled down to less than 350 degrees F before the Actions for a single unit operating can then be applied. Application of the single unit operating LCO then allows the operating unit to continue to operate for up to 72 hours from the time the AFW pump became inoperable prior to requiring the unit to be placed into hot shutdown (ITS Mode 3) in 12 hours and less than 350 degrees (ITS Mode 4) within 60 hours. The proposed ITS will allow a turbine driven AFW pump on each unit to be inoperable for up to 72 hours before requiring the affected units to be placed into Mode 3 within 6 hours and Mode 4 within 18 hours. Operation with a turbine driven AFW pump inoperable on each unit for up to 72 hours is reasonable to restore the pump to operable status before requiring a unit shutdown based on redundant capabilities afforded by the motor driven pump systems, a reasonable time to effect repairs, the low probability of a DBA occurring during this time period and the fact that the turbine driven pumps are dedicated to their respective unit, thereby, only affecting the unit that the pump system supplies. Requiring a unit to be shutdown based on the inoperability of opposite unit equipment is an unnecessary action. The opposite unit's turbine driven AFW pump is not credited to operate nor does it affect the risk or consequences to its complementary unit. Based on the availability of the motor driven AFW pumps, the accident analysis remains bounded for both units during the proposed Completion Time. **CTS:** 15.03.04.C.01 **ITS:** DELETED

DOC Number	DOC Text
L.03 Rev. A	Both turbine driven AFW pump steam supply lines are required to be operable to consider the turbine driven AFW pump system to be operable. Therefore, the inoperability of a steam supply line results in entry into the Actions for an inoperability of a turbine driven AFW pump, which allows up to 72 hours to restore the pump to operable status before requiring a unit shutdown. The proposed ITS will allow a single steam supply to be inoperable for up to 7 days before requiring the unit to be placed into Mode 3 within 6 hours and Mode 4 within 18 hours. The proposed Condition and Required Action represents a 96 hour extension of the allowable outage time for an inoperable turbine driven AFW pump steam supply. This extension is bounded by the current accident analysis and is acceptable based on the redundant capabilities provided by the remaining operable motor driven pump systems, and the low probability of an accident occurring during this time period which would affect the availability of the remaining steam supply. The Completion Time for this Action is limited to 7 days from entry into the Condition or 10 days from failure to meet the LCO, whichever is more restrictive. The proposed 10 day completion time limits the maximum time the LCO may be not met as a result of multiple overlapping Conditions. **CTS:** NEW **ITS:** LCO 3.07.05 COND A LCO 3.07.05 COND A LCO 3.07.05 COND A RA A.1
L.04 Rev. A	The current Technical Specifications require entry into LCO general requirement 15.3.0.B if the entire AFW system is inoperable. This is inappropriate because the actions for 15.3.0.B require that the affected unit be placed in hot shutdown within 7 hours. AFW is needed for decay heat removal when the unit is in hot shutdown. If the entire AFW system is inoperable the appropriate action would be to initiate action to restore AFW immediately. If this situation were to occur and the current Technical Specifications were applied, it is highly likely that Notice of Enforcement Discretion would be requested to avoid placing the plant in a condition in which AFW is needed for decay heat removal. Therefore, the proposed Technical Specification requirements for three AFW pump systems inoperable provides the appropriate required action for this condition and the proposed requirements are considered a substantial improvement over the current Technical Specifications requirements. The proposed condition and required action provide adequate protection of the public health and safety because the appropriate action has been established for the condition of inoperability of all three AFW pump systems. **CTS:** NEW **ITS:** LCO 3.07.05 COND E LCO 3.07.05 COND E RA E.1 LCO 3.07.05 COND E RA E.1 NOTE
L.05 Rev. C	Not used. **CTS:** N/A **ITS:** N/A

Description of Changes - NUREG-1431 Section 3.07.05

10-May-01

DOC Number	DOC Text
L.06 Rev. D	Under CTS 15.3.4.C.1, should multiple AFW pumps be concurrently out of service on both units during dual unit operations, or a Completion Time of CTS 15.3.4.C.1 not be met, simultaneous shutdown of both operating units could be required under LCO 3.0.B since neither of these situations is explicitly discussed in CTS 15.3.4.C.1. The requirement to initiate a simultaneous shutdown of both units under these circumstances is somewhat unique to Point Beach as a result of the unique design of the AFW System, which does not utilize a train approach and shares the motor driven AFW pumps between units. A Note has been added to Required Action D.1 of proposed ITS 3.7.5 in order to facilitate an orderly and staggered shutdown of the units in the event of multiple out of service AFW pumps on both units, or a failure to meet a Completion Time of CTS 15.3.4.C.1. The Note allows an extension of up to 5 hours (7 hours to 12 hours) from the Completion Time specified in CTS 3.0.B to enter MODE 3 when two AFW pumps are out of service or a Completion Time is not met. An unconditional requirement for simultaneous unit shutdown in the event of multiple AFW pumps being out of service is not appropriate. The Completion Time extension proposed in the Note to Required Action D.1 is reasonable based on Industry operating experience related to the time needed for dual operating units to reach MODE 3 in an orderly manner and without challenging plant systems. This change, while less restrictive, provides adequate protection of the public health and safety. **CTS:** 15.03.04.C.01 **ITS:** LCO 3.07.05 COND D LCO 3.07.05 COND D RA D.1 LCO 3.07.05 COND D RA D.1 NOTE

Description of Changes - NUREG-1431 Section 3.07.05

10-May-01

DOC Number	DOC Text
L.07 Rev. F	Under CTS 15.3.4.C.1, should multiple AFW pumps be concurrently out of service for both units during dual unit operations, or a Completion Time of CTS 15.3.4.C.1 not be met, simultaneous shutdown of both operating units could be required under LCO 3.0.B since neither of these situations is explicitly discussed in CTS 15.3.4.C.1. The requirement to initiate a simultaneous shutdown of both units under these circumstances is somewhat unique to Point Beach as a result of the unique design of the AFW System, which does not utilize a train approach and shares the motor driven AFW pumps between units. A Note has been added to Required Action D.2 of proposed ITS 3.7.5 in order to ensure availability of the requisite number of AFW pump systems prior to entering an operational condition (MODE 4) where they could be relied upon. The Note allows an indefinite extension to the 37 Completion Time of LCO 3.0.B for entry into MODE 4 unless one motor driven AFW pump system is OPERABLE. The CTS action requiring entry into MODE 4 with multiple out of service AFW pumps is inappropriate because AFW is needed for decay heat removal when the unit is in Hot Shutdown. Consequently, it is appropriate to ensure AFW capability prior to entering MODE 4. This change, while less restrictive, provides adequate protection of the public health and safety. **CTS:** 15.03.04.C.01 **ITS:** LCO 3.07.05 COND D LCO 3.07.05 COND D RA D.2 LCO 3.07.05 COND D RA D.2 NOTE

DOC Number	DOC Text
LA.01 Rev. A	The CTS contains separate Specifications and Required Actions for single and two unit operation. This structure clarifies the shared interrelationship of the motor driven AFW pumps, requiring both motor driven AFW pump systems to be operable whenever either unit is above 350 degrees F. When a motor driven AFW pump is inoperable, the CTS requires both units to be placed on a restoration time clock. The auxiliary feedwater (AFW) system consists of a total of four pumps; two motor driven auxiliary feedwater pump systems which are shared by both units, and one dedicated turbine driven pump per unit. Both motor driven AFW pumps are required to be operable to support one or two unit operation, while the turbine driven pumps are only required to support operation of their respective unit. The proposed ITS will require the turbine driven and two motor driven pump systems to be operable to support a unit in Modes 1, 2, 3, in addition to the motor driven pump systems supplying any steam generators relied upon for heat removal in Mode 4. The ITS is written to be applied on a unit specific basis. The LCO requirements are to be applied to each unit independently. Conditions and Required Actions are applicable to each affected unit as well. Based on application of the LCO to each unit independently, the number of pump systems required to be operable will remain the same, with the sharing of the motor driven pump systems addressed in the Bases. The number of shared components is a detail which is not necessary in the Technical Specification itself, as each unit is required to met its minimum operability requirement independent of the other. The shared interrelationship of the motor driven pump systems is a detail associated with system design and configuration, which are adequately addressed in the Bases and through the 10 CFR 50.59 process. These details are not required to be in the ITS to provide adequate protection of public health and safety. Changes to these details will be controlled in accordance with the provisions of the Bases Control Program described in Chapter 5 of the Technical Specifications and the 10 CFR 50.59 process as applicable. Similarly, the Actions for inoperable AFW pumps are applicable to each affected unit, with the restoration time for a single inoperable motor or turbine driven AFW pump remaining the same. The Actions for multiple inoperable pumps are addressed in Description of Change L.2 (multiple inoperable turbine driven pumps on opposite units) and Description of Change M.2 (multiple inoperable pumps affecting the same unit). **CTS:** / **ITS:** 15.03.04.A.02.A — DELETED 15.03.04.A.02.B — DELETED 15.03.04.C.01 — LCO 3.07.05 15.03.04.C.02 — DELETED

DOC Number	DOC Text
LA.02 Rev. A	The CTS states that the auxiliary feedwater system is required to have an unlimited water supply from the lake via either leg of the plant service water system, and that the piping and valves which are necessary for the auxiliary feedwater system to function during accident conditions are required. The ability to supply service water to the auxiliary feedwater pumps is verified via testing of the service water supply valves. The service water supply valves are ASME Class 3 components which are required to be tested in accordance with ASME Section XI by 10 CFR 50.55a. As such, while not specifically stated, service water suction supply valve testing will continue to be required in accordance with this regulatory requirement. The piping required to function during accident conditions is an attribute of system design and configuration, which is adequately captured through application of the definition of operability. As such, these details are not required to be in the ITS to provide adequate protection of public health and safety. These attributes are discussed within the Bases for the proposed Point Beach ITS, changes to these details will be controlled in accordance with the provisions of the Bases Control Program described in Chapter 5 of the Improved Technical Specifications and the 50.59 process as applicable. **CTS:** **ITS:** 15.03.04.A.03 B 3.07.05 15.03.04.A.04 B 3.07.05
LA.03 Rev. D	Not used. **CTS:** **ITS:** N/A N/A
LA.04 Rev. D	CTS states that both motor driven auxiliary feedwater pumps, the turbine driven auxiliary feedwater pump, the flow paths, and essential instrumentation associated with these pumps are required to be operable. The ITS states that one turbine driven and two motor driven auxiliary feedwater pump systems are required to be operable. Specific details contained in the CTS regarding components (e.g., instrumentation and flowpaths) that are requirements to support auxiliary feedwater system operability have been reflected in the ITS Bases. Additionally, the proposed ITS Surveillance Requirements contained in LCO 3.7.5 require periodic verification of the auxiliary feedwater pumps, flowpaths, and automatic start and alignment capabilities, while proposed LCO 3.3.2 addresses the required ESF instrumentation and actuation logic. Further, through application of the ITS definition of Operability, the pump system and all of its associated support equipment must be capable of performing their specified safety functions. As such, these details are not requirements to be in the ITS to provide adequate protection of public health and safety. These attributes are discussed within the Bases for the proposed Point Beach ITS, and any changes to these details will be controlled in accordance with the provisions of the Bases Control Program described in Chapter 5 of the ITS and the 10 CFR 50.59 process, as applicable. **CTS:** **ITS:** 15.03.04.A.02.B LCO 3.07.05

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DOC Number	DOC Text
LB.01 Rev. D	The CTS requires the auxiliary feedwater pump discharge valves and service water suction supply valves to be tested by operator action on a quarterly basis. These valves as well as the discharge pressure control valves, are ASME Class 3 valves and as such are required to be tested in accordance with ASME Section XI as required by 10 CFR 50.55a. The CTS frequency for valve testing (quarterly) is consistent with the ASME required frequency (once every 92 days). Accordingly, the testing of these valves is established and required by regulation in the IST program without the need to duplicate these requirements in the Technical Specifications. Changes to the IST program and its associated procedures will be controlled in accordance with the 50.59 process. **CTS:** 15.04.08.01.C **ITS:** DELETED
LB.02 Rev. D	The Bases for CTS 15.4.8 state that "the ability to both open and shut the turbine driven AFW pump motor-operated steam admission valves will be demonstrated." These valves are ASME Class 3, and as such are required to be tested in accordance with ASME Section XI, as required by 10 CFR 50.55.a. Accordingly, the testing of these valves, which includes testing in the open and closed directions, is established by regulation in the IST program without the need to duplicate these requirements in the Technical Specifications. Changes to the IST program and its associated procedures will be controlled in accordance with the 50.59 process. **CTS:** BASES **ITS:** N/A
LB.03 Rev. D	The CTS provides acceptance criteria for AFW pump and valve operability tests, which simply requires satisfactory control board indication changes and visual observation of equipment to verify that it has operated satisfactorily. These acceptance limits are vague and non-prescriptive. In contrast, the ITS SRs typically identify the requirement to be satisfied on a specific basis (e.g., develop proper head at the test flow point). ASME Section XI testing of AFW pumps and valves is required in accordance with 10 CFR 50.55a and as specified in Section 5.0 of the ITS. Additionally, the PBNP IST Program contains component performance parameters for pump and valve testing such as vibration and stroke times that likewise provide a level of assurance that equipment is capable of performing as required. As such, the CTS details (observation of control board indication and visual observation of equipment) are not required in the ITS to provide adequate protection of public health and safety. The details and methods used to obtain equipment performance information is adequately controlled in Station procedures with the Technical Specifications and Regulations simply establishing a requirement to perform the testing. Changes to IST program and its associated procedures will be controlled in accordance with the 50.59 process. **CTS:** 15.04.08.02 **ITS:** DELETED

Description of Changes - NUREG-1431 Section 3.07.05

10-May-01

DOC Number	DOC Text
M.01 Rev. A	CTS 15.3.4.C.2 requires the unit to be placed into hot shutdown (equivalent to ITS Mode 3) within 12 hours if a motor driven or turbine driven auxiliary feedwater (AFW) pump exceeds the allowable outage time (7 days and 72 hours respectively). Once the unit is placed into hot shutdown, the CTS allows an additional 48 hours before the unit must be cooled down to less than 350 degrees (equivalent to ITS Mode 4). As such, once the allowable outage time for an inoperable pump system has expired, the CTS will require the unit to be placed in ITS Mode 3 within 12 hours and ITS Mode 4 within 60 hours. For this same set of conditions, the ITS will require the unit to be placed into Mode 3 within 6 hours and Mode 4 within 18 hours. The proposed reduction in time frames allowed to reach Mode 3 and Mode 4 are more restrictive than the CTS, and are being made for consistency with NUREG 1431. **CTS:** 15.03.04.C 15.03.04.C.02 **ITS:** LCO 3.07.05 COND D RA D.2 LCO 3.07.05 COND D RA D.1
M.02 Rev. A	The CTS only provides Actions for a single inoperable auxiliary feedwater (AFW) pump during single and two unit operation. This Description of Change addresses the proposed ITS Action for simultaneous inoperability of two or more AFW pump systems. The simultaneous inoperability of both turbine driven AFW pumps during two unit operation is addressed by Description of Change L.2 of this LCO. Based on the CTS only containing Actions for a single inoperable AFW pump, the CTS would require entry into LCO 15.3.0.B if two motor driven AFW pump systems or a turbine and a motor driven pump system were inoperable simultaneously. CTS 15.3.0.B requires the unit to be placed into hot shutdown (equivalent to ITS Mode 3) within seven hours and cold shutdown (equivalent to ITS Mode 5) within 37 hours, but does not contain a time limit for achieving less than or equal to 350 degrees (ITS Mode 4). Accordingly, the CTS does not specify a time limit for when the reactor must be cooled to less than or equal to 350 degrees. The proposed ITS will require the unit to be placed into Mode 3 within 6 hours and Mode 4 within 18 hours when two AFW pump systems are inoperable simultaneously. The reduced time frame to achieve Mode 3 (7 hours to 6 hours) and the specific time frame to reach Mode 4 (18 hours) are more restrictive requirements. These time frames are consistent with the time frames specified in NUREG 1431. **CTS:** 15.03.04.C.02 NEW **ITS:** DELETED LCO 3.07.05 COND D LCO 3.07.05 COND D RA D.1 LCO 3.07.05 COND D RA D.2

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10-May-01

DOC Number	DOC Text
M.03 Rev. A	The CTS does not contain a specific Condition to address multiple inoperable auxiliary feedwater (AFW) pumps. If multiple overlapping inoperability were to occur (e.g. alternating between an inoperable turbine driven and motor driven AFW pump), the CTS does not establish any limitation requiring LCO compliance to be re-established. The proposed ITS contains a Completion Time limit which requires restoration of LCO compliance within 10 days of first component becoming inoperable. The limit of 10 days is the summation of the longest and shortest Completion Times within this LCO and is consistent with NUREG 1431. The addition of this Completion time is an additional restriction not contained in the CTS. **CTS:** 15.03.04.C.02 **ITS:** LCO 3.07.05 COND B RA B.1 LCO 3.07.05 COND C RA C.1
M.04 Rev. D	The proposed ITS has added three new surveillances to verify alignment, automatic pump start, and automatic valve realignment capabilities in support of system operability. The addition of these tests will provide added assurance of AFW system operability, by testing assumed functions. Proposed SR 3.7.5.1 requires performance of a 31 day surveillance to verify valves that are not locked sealed or otherwise secured in position are in their required positions. Proposed SR 3.7.5.3 and SR 3.7.5.4 verify AFW pump automatic start and automatic valve realignment capabilities. These SRs are modified by a note that allows the AFW pump systems to be considered operable during alignment and operation for steam generator level control if the system is capable of being manually realigned. Additionally, SR 3.7.5.4 is modified by a Note that allows test completion to be deferred until required test conditions can be met.. **CTS:** NEW **ITS:** SR 3.07.05.01 SR 3.07.05.03 SR 3.07.05.03 NOTE SR 3.07.05.04 SR 3.07.05.04 NOTE 1 SR 3.07.05.04 NOTE 2

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10-May-01

DOC Number	DOC Text
M.05 Rev. A	The CTS requires the auxiliary feedwater (AFW) system to be operable whenever reactor coolant temperature is greater than 350 degrees (equivalent to ITS Modes 1, 2, and 3). The proposed ITS will continue to require the AFW system to be operable in Modes 1, 2, and 3, while adding a requirement to maintain the motor driven AFW pumps associated with steam generators required for decay heat removal in accordance with proposed ITS LCO 3.4.6. Inclusion of this Applicability, ensures the capability to provide make up water to steam generator(s) relied upon for decay heat removal. In keeping with the proposed Applicability, the ITS also contain a Required Action to address the loss of one or both motor driven AFW pumps systems in Mode 4. The Action proposed is consistent with those required in proposed ITS LCO 3.4.6 for loss of the steam generators as a heat sink, requiring initiation of action to restore the AFW pump system to operable status. **CTS:** 15.03.04.A NEW **ITS:** LCO 3.07.05 LCO 3.07.05 NOTE LCO 3.07.05 COND F LCO 3.07.05 COND F RA F.1
M.06 Rev. A	CTS 15.4.8.1 requires the motor and turbine driven auxiliary feedwater (AFW) pumps to be tested periodically, only requiring that the pumps be started and verified to be running satisfactorily. The AFW pumps are ASME Class 3 components which are required to be tested per 10 CFR 50.55a in accordance with the ASME Section XI testing program (the Inservice Testing Program). The ITS requires verification that the AFW pumps will develop their required head at the flow test point when tested at a frequency in accordance with the Inservice Testing Program. As such, the ITS frequency of testing will continue to be the same as stated in Description of Change A.7 of this Section. Inclusion of a requirement to verify that the developed pump head is above the required pump head is a new Technical Specifications acceptance criteria, not contained in the CTS. As such, verification of this limit is an additional restriction placed on pump testing in accordance with NUREG 1431. This change is more restrictive. **CTS:** 15.04.08.01.A **ITS:** SR 3.07.05.02

No Significant Hazards Considerations - NUREG-1431 Section 3.07.05

09-May-01

NSHC Number	NSHC Text
A Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change involves reformatting and rewording of the current Technical Specifications. The reformatting and rewording process involves no technical changes to existing requirements. As such, this change is administrative in nature and does not impact initiators of analyzed events or assumed mitigation of accident or transient events. Therefore, this change does not increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will not impose any new or eliminate any old requirements. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will not significantly reduce the margin of safety because it has no impact on any safety analysis assumptions. This change is administrative. As such, there is no technical change to the requirements and, therefore, there is no reduction in the margin of safety.

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09-May-01

NSHC Number	NSHC Text
L.01 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change clarifies application of the Required Actions for an inoperable AFW pump to the entire AFW pump system. This change does not result in the introduction of any new or different equipment. Through not introducing any new failure modes and mechanisms, this change does not result in a significant change in the probability of previously evaluated accidents. The consequences of previously evaluated accidents will remain the same because the loss of any pump system component (e.g. piping, valves, or actuation capability) is bounded and at worst, equivalent to the inoperability of the AFW pump itself. Accordingly, the consequences of previously evaluated accidents remain the same. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will allow limited operation in a condition which is bounded by the exiting condition for an inoperable pump. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? Expansion of the scope for which the Required Actions can be applied will continue to be enveloped by the loss of the pump itself. Application of the proposed Required Actions will continue to be limited to a single pump system, therefore the redundant pump systems will continue to be required operable. Based on the availability of redundant pump systems, in combination with the low probability of an event occurring in combination with the failure of a remaining operable pump systems, the margin of safety is not impacted.

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09-May-01

NSHC Number	NSHC Text
L.02 Rev. A	The CTS only provides Actions for a single inoperable AFW pump during two unit operation, thereby requiring each unit to be placed into hot shutdown (equivalent to ITS Mode 3) within 7 hours, ultimately requiring at least one unit to be then cooled down to less than 350 before the Actions for a single unit operating can then be applied. The proposed ITS will allow the Actions for an inoperable turbine driven AFW pump to be applied to the affected unit alone, with no interdependence established on opposite unit equipment that cannot be shared. In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed changes do not result in any hardware changes, nor does the change significantly increase the probability of any analyzed events since the function of the equipment has remained unchanged. The turbine driven AFW pump systems are not shared between the two units. These pump systems are dedicated to their respective unit. As such, the availability of the opposite units turbine driven AFW pump system has no affect on the probability or consequences of previously evaluated accident. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will allow application of the Technical Specification Required Actions for an inoperable turbine driven AFW pump system to the affected unit only. The turbine driven AFW pump systems are not shared systems, therefore no dependency is established in any accident analysis on the opposite unit's turbine driven AFW pump system. Accordingly, this change do not represent a significant reduction in a margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.07.05

09-May-01

NSHC Number	NSHC Text
L.03 Rev. A	Both turbine driven AFW pump steam supply lines are required to be operable to consider the turbine driven AFW pump system to be operable. Therefore, the inoperability of a steam supply line results in entry into the Actions for an inoperability of a turbine driven AFW pump, which allows up to 72 hours to restore the pump to operable status. The proposed ITS will allow 7 days to restore a single inoperable steam supply line to operable status, thus extending the allowable outage time by 96 hours. In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? This change does not result in any hardware changes. The AFW system is assumed to function in the mitigation of various design basis events, but is not assumed to be an initiator of any analyzed event. The change will not allow continuous operation such that a single failure will preclude the turbine driven AFW pump system from fulfilling its safety function. This change allows unit operation for an additional 96 hours with one of the two steam supplies to the turbine driven pump inoperable. The consequences of an event occurring during the additional 96 hours are the same as those currently allowed for 72 hours (inoperable turbine driven pump system). Therefore, the proposed change does not increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change does not allow continuous unit operation with a steam supply line to the turbine driven AFW pump inoperable. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The increased time allowed is acceptable based on the small probability of an event during this time frame which would affect the availability of the remaining steam supply while requiring the turbine driven AFW pump system for mitigation of the event. The requested Completion Time will provide a reasonable time to restore an inoperable steam supply to operable status. The condition of a turbine driven AFW pump system being inoperable due to the unavailability of a steam supply line is bounded by the Point Beach single failure evaluation. As such, this change does not significantly reduce the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.07.05

09-May-01

NSHC Number	NSHC Text
L.04 Rev. A	The CTS only provides Actions for a single inoperable AFW pump, thereby requiring each unit to be placed into hot shutdown (equivalent to ITS Mode 3) within 7 hours in accordance with CTS 15.3.0.B, if more than one AFW pump system is inoperable. The proposed ITS Action for all three AFW pump systems inoperable suspends the requirements of LCO 3.0.3 and requires immediate initiation of action to restore one AFW pump system to operable status. In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed changes do not result in any hardware changes, nor does the change significantly increase the probability of any analyzed events since the function of the equipment has remained unchanged. The CTS requirement to place the unit(s) in a condition that requires AFW when no AFW is available is not appropriate and is being corrected by the proposed change. As such, the proposed change has no affect on the probability or consequences of previously evaluated accident. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will allow application of the Technical Specification Required Actions for the condition of all AFW pumping systems inoperable. This proposed change corrects an inconsistency within the CTS. Accordingly, this change does not represent a significant reduction in a margin of safety.
L.05 Rev. C	Not used.

No Significant Hazards Considerations - NUREG-1431 Section 3.07.05

09-May-01

NSHC Number	NSHC Text
L.06 Rev. D	The CTS does not provide specific Actions for multiple inoperable AFW pumps during dual unit operations, or for failure to meet the Completion Times of CTS 15.3.4.C.1 for a single out of service AFW pump. This could result in a situation where both units would be required to be simultaneously placed into hot shutdown (equivalent to ITS Mode 3) within 7 hours, and cold shutdown (equivalent to ITS MODE 4) within 37 hours in accordance with CTS 15.3.0.B. A Note has been added to ITS Required Action D.1 extending the Completion Time for reaching MODE 3 under these circumstances in order to facilitate an orderly and staggered shutdown of the units. In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change does not result in any hardware changes, nor does the change significantly increase the probability of any analyzed events since the function of the equipment has remained unchanged. The CTS requirement to conduct a simultaneous dual unit shutdown is not appropriate and is being corrected by the proposed change. As such, the proposed change has no affect on the probability or consequences of previously evaluated accident. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will allow an extension to the Hot Shutdown Completion Time of LCO 3.0.B in the event of multiple AFW pumps out of service, or failure to meet a stated Completion Time of CTS 15.3.4.C.1. This proposed change corrects an inconsistency within the CTS, and is reasonable based on Industry operating experience related to the time needed to shutdown dual operating units in an orderly manner without challenging plant systems. Accordingly, this change does not represent a significant reduction in a margin of safety.

NSHC Number	NSHC Text
L.07 Rev. F	The CTS does not provide specific Actions for multiple inoperable AFW pumps during dual unit operations, or for failure to meet the Completion Times of CTS 15.3.4.C.1 for a single out of service AFW pump. This could result in a situation where both units would be required to be simultaneously placed into hot shutdown (equivalent to ITS Mode 3) within 7 hours, and cold shutdown (equivalent to ITS MODE 4) within 37 hours in accordance with CTS 15.3.0.B. A Note has been added to ITS Required Action D.2 allowing an extension to the requirement for entry into MODE 4 until the requisite number of AFW pumps can be restored. In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change does not result in any hardware changes, nor does the change significantly increase the probability of any analyzed events since the function of the equipment has remained unchanged. The CTS requirement to place the unit(s) in a operational condition (MODE 4) where AFW could be required when it may not be available is not appropriate and is being corrected by the proposed change. As such, the proposed change has no affect on the probability or consequences of previously evaluated accident. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will also allow an extension to the Cold Shutdown Completion Time of LCO 3.0.B should the requisite AFW capability not be available. This proposed change corrects an inconsistency within the CTS, and recognizes the need to assure AFW capability prior to entering into an operational condition where it could be required to operate. Accordingly, this change does not represent a significant reduction in a margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.07.05

09-May-01

NSHC Number	NSHC Text
LA Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change relocates requirements from the Technical Specifications to the Bases, FSAR, or other plant controlled documents. The Bases and FSAR will be maintained using the provisions of 10 CFR 50.59. In addition to 10 CFR 50.59 provisions, the Technical Specifications Bases are subject to the change process in the Administrative Controls Chapter of the ITS. Plant procedures and other plant controlled documents are subject to controls imposed by plant administrative procedures, which endorse applicable regulations and standards. Changes to the Bases, FSAR, or other plant controlled documents will be evaluated in accordance with the requirements of the Bases Control Program in Chapter 5.0 of the ITS, 10 CFR 50.59, or plant administrative processes. Therefore, no increase in the probability or consequences of an accident previously evaluated will be allowed. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will not impose any different requirements and adequate control of the information will be maintained. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will not reduce a margin of safety because it has no impact on any safety analysis assumptions. In addition, the requirements to be moved from the Technical Specifications to the Bases, FSAR, or other plant controlled documents are as they currently exist. Future changes to the requirements in the Bases, FSAR, or other plant controlled documents will be evaluated in accordance with the requirements of 10 CFR 50.59, the Bases Control Program in Chapter 5.0 of the ITS, or the applicable plant process and no reduction in a margin of safety will be allowed.

No Significant Hazards Considerations - NUREG-1431 Section 3.07.05

09-May-01

NSHC Number	NSHC Text
LB Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? This change involves deletion of a Specifications/information which is duplicative of information contained in the Code of Federal Regulations (CFRs). This information is more appropriately addressed by the CFRs and serves no purpose in the Technical Specifications. Deletion of this information will not result in an increase in the probability of an accident. Regulatory requirements do not alter plant design or configuration; therefore, this does not alter any event precursor. Accordingly, there will be no effect on the consequences of any accident. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change deletes materials from the Technical Specifications which are adequately addressed in the CFRs. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change deletes materials from the Technical Specifications which are duplicative of requirements contained in the CFRs. These items are not an input to any accident analysis and, therefore, have no impact on margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.07.05

09-May-01

NSHC Number	NSHC Text
M Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change provides more restrictive requirements for operation of the facility. These more stringent requirements do not result in operation that will increase the probability of initiating an analyzed event and do not alter the assumptions relative to the mitigation of an accident or transient event. These more restrictive requirements continue to ensure process variables, structures, systems and components are maintained consistent with the safety analyses. Therefore, this change does not increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change does impose different requirements. However, these changes are consistent with assumptions made in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The imposition of more restrictive requirements either has no affect on or increases the margin of safety. Each change is providing additional restrictions to enhance plant safety. These changes are consistent with the safety analysis. Therefore, this change does not involve a reduction in a margin of safety.

DOC Number	DOC Text
A.09 Rev. F	CTS 15.3.3.D.2.b allows 7 days to restore a Service Water ring header continuous flowpath to service provided restrictions on the minimum number of operable SW pumps and SW configuration are satisfied. ITS 3.7.8, Condition C, retains this requirement to restore the SW ring header continuous flowpath within 7 days, but replaces the listing of acceptable SW System configurations provided in the CTS with a Required Action to verify the SW System is capable of providing required cooling water flow to required equipment within 1 hour. The 1 hour Completion time is essentially the same as the CTS listing of acceptable SW System configurations since it effectively limits allowed system configurations to alignments that have been previously evaluated and found acceptable. The Bases states that the continuous flowpath Action applies anytime the service water header flowpath is interrupted (e.g. flowpath blocked, ring header valve closed, etc;). In addition, the CTS Bases recognize that the redundancy allowed by the ring header allows isolation of a break, while maintaining flow to all essential loads. Accordingly, continuous ring header operability is defined as maintaining break isolation capability and the ability to maintain cooling capability to the essential loads. The proposed Bases for the ITS has been written to address these system attributes, as required for operability, allowing for simplification of the Conditions and Required Actions, to state loop inoperability and restoration of the loop to an operable status. This presentation is consistent with the manner in which Conditions and Required Actions are presented in NUREG 1431, and is administrative. **CTS:** 15.03.03.D.02.b **ITS:** LCO 3.07.08 COND C LCO 3.07.08 COND C RA C.1 LCO 3.07.08 COND C RA C.2

DOC Number	DOC Text
A.10 Rev. F	CTS 15.3.3.D.2.c addresses the inoperability of the Service Water non-essential isolation valves. These valves are designed to isolate non-essential portions of the Service Water system to assure adequate cooling water flow is maintained to safety related loads in the event of a Safety Injection (SI) by isolating the non-essential Service Water loads after receipt of an SI actuation signal. The CTS allows 72 hours for restoration of inoperable non-essential Service Water valves, if the required redundant automatic isolation valve is operable. Alternately, isolation of the affected flowpath(s) using seismically qualified isolation valve(s) is considered an acceptable means for exiting the CTS Action. Proposed ITS Condition D, requires verification that required redundant automatic isolation valves in the affected flowpath(s) are operable within 1 hour, and isolation of the affected flowpath(s) within 72 hours. Required Action D.1 is modified by a Note that states the Required Action is not required to be met, if in Condition E. This Note precludes entry into Condition H, when the required redundant automatic isolation valve in the affected non-essential flowpath(s) are inoperable and Required Action D.1 cannot be met. Additionally, the CTS statement regarding restoration of the affected valve(s) to operable status has been omitted, as restoration of LCO compliance is always an option which does not have to be stated unless it is the only Action available. Additionally, if the redundant automatic isolation valve is also inoperable and the flowpath cannot be isolated, the CTS would require entry into LCO 15.3.0.b, allowing 1 hour to initiate actions to place the unit in Hot Shutdown (ITS Mode 3) within 7 hours and Cold Shutdown (ITS Mode 5) within 37 hours. Under proposed ITS Condition E, 1 hour will be allowed to isolate the affected flowpath(s). If the Required Action and Completion Time of Condition E are not met, proposed ITS Condition H will require that the unit be placed in Mode 3 within 6 hours and in Mode 5 within 36 hours. As such, the ITS Required Actions and Completion Times are equivalent to the CTS Actions (15.3.0.b) making this change administrative. CTS 15.3.3.D.2.c has also been modified by the adoption of a Note allowing separate Condition entry for each non-essential-SW-load flowpath. This Note is necessary because of the adoption of ITS Specification 1.3, which states, "Once a Condition as been entered, subsequent trains, subsystem, components, or variables expressed in the Condition discovered to be inoperable or not within limits, will not result in separate entry into the Condition, unless specifically stated." This restriction on Condition entry does not exist in the CTS, therefore, it is necessary to adopt the Note allowing separate Condition entry for each non-essential-SW-load flowpath, as would be permitted under the current licensing basis. Use of a seismically qualified isolation valve to isolate the affected penetration has been moved to the Bases as discussed in Description of Change LA.02 of this LCO. **CTS:** 15.03.03.D.02.c **ITS:** LCO 3.07.08 COND D LCO 3.07.08 COND D NOTE LCO 3.07.08 COND D RA D.1 LCO 3.07.08 COND D RA D.2 LCO 3.07.08 COND E

DOC Number	DOC Text
15.03.03.D.02.c	LCO 3.07.08 COND E RA E.1

A.11
Rev. F

CTS 15.3.3.D.2.d contains an Action which addresses the condition where one or more opposite unit containment fan cooler Service Water outlet valves are open. These valves automatically open upon receipt of a Safety Injection (SI) actuation signal from their respective unit, to increase Service Water flow though the containment fan cooler to greater than or equal to that assumed in the containment integrity analysis; however, opening an opposite unit's containment fan cooler service water outlet valve increases system flow demand in excess of that which can be accommodated during a design basis LOCA in combination with a worst case single active failure (i.e. loss of one safeguards train).

The CTS allows 72 hours to return these valves to the closed position provided restrictions on the minimum number of operable SW pumps and SW configuration are satisfied. Alternately, isolation of the affected flowpath(s) is considered an acceptable means for exiting the CTS Action. ITS 3.7.8, Condition F, retains this requirement to isolate the opposite unit's containment accident fan cooler unit service water flowpath within 72 hours, but replaces the CTS listing of acceptable SW System configurations with a Required Action to verify the SW System is capable of providing required cooling water flow to required equipment within 1 hour. The 1 hour Completion time is essentially the same as the CTS listing of acceptable SW System configurations since it effectively limits allowed system configurations to alignments that have been previously evaluated and found acceptable.

With a containment accident fan cooler unit service water flowpath open and the SW System not within one of the acceptable configurations listed, the CTS would require entry into LCO 15.3.0.b, requiring the unit to be placed into Hot Shutdown (ITS Mode 3) within 7 hours and Cold Shutdown (ITS Mode 5) within 37 hours. Under proposed ITS Condition F, 1 hour will be allowed to verify that the SW System is capable of providing required cooling water flow to required equipment, and proposed ITS Conditions H will require that the unit be placed into Mode 3 within six hours and into Mode 5 within 36 hours if this verification cannot be satisfied. As such, the ITS Required Actions and Completion Times are equivalent to the CTS Actions (15.3.0.b) making this change administrative.

CTS:

15.03.03.D.02.d

ITS:

LCO 3.07.08 COND F
LCO 3.07.08 COND F RA F.1
LCO 3.07.08 COND F RA F.2

Description of Changes - NUREG-1431 Section 3.07.08

09-May-01

DOC Number	DOC Text
A.12 Rev. F	CTS 15.3.3.D.2.c and 15.3.3.D.2.d contain a provision that allows an LCO's Actions to be exited, if appropriate compensatory measures are taken. This provision has been reflected in ITS LCO 3.7.8 and in Conditions Conditions D and F by providing compliance with the LCO, if the affected SW flowpath(s) is isolated. CTS 15.3.3.D.2.c and 15.3.3.D.2.d also contain a provision that allows an LCO's Actions to be exited if the affected equipment is returned to operable status. In accordance with the ITS usage rules, when a component becomes operable (the LCO Condition is no longer applicable), the Conditions and associated Required Actions may be exited. As such, the ITS Conditions and Required Actions are equivalent to the CTS Actions making this change administrative. **CTS:** 15.03.03.D.02.c 15.03.03.D.02.d **ITS:** DELETED LCO 3.07.08 COND D LCO 3.07.08 COND F
LA.01 Rev. A	CTS 15.3.3.D.1.b requires all necessary piping for the Service Water System to be operable. System piping is an attribute associated with system design and configuration, which are adequately captured through application of the definition of operability. As such, this detail is not required to be in the ITS to provide adequate protection of public health and safety. System piping is addressed within the Bases for the proposed Point Beach ITS through discussion of system function, but have been deleted from the Technical Specifications. Changes will be controlled in accordance with the provisions of the Bases Control Program described in Chapter 5 of the Technical Specifications and 10CFR 50.59 as applicable. **CTS:** 15.03.03.D.01.b **ITS:** B 3.07.08
LA.02 Rev. D	Under CTS 15.3.3.D.2.c, a required automatic non-essential load isolation valve may be inoperable for up to 72 hours prior to requiring that the affected line be isolated, provided the required redundant automatic non-essential SW load isolation valve is operable. Additionally, the LCO may be exited if the affected line is isolated with a seismically qualified isolation valve, or if the inoperable valves are restored to operable status. Similarly, ITS 3.7.8, Required Actions D.1 and D.2, specify that when one required automatic isolation valve in one or more non-essential-SW-load flowpath(s) is inoperable, that the required redundant automatic isolation valves in the affected non-essential flowpath(s) be verified as OPERABLE within 1 hour, and that the flowpath be isolated within 72 hours AND within 14 days from discovery of failure to meet the LCO. It is not necessary that the level of detail provided in the CTS regarding the seismic qualification of isolation valves that may be used to isolate an affected line be reflected in the LCO for ITS 3.7.8. Consequently, this information has been relocated to the Bases for ITS 3.7.8. Changes to the Bases will be controlled in accordance with the provisions of the Bases Control Program, as described in Chapter 5 of the Technical Specifications and 10 CFR 50.59, as appropriate. **CTS:** 15.03.03.D.02.c **ITS:** LCO 3.07.08 COND D LCO 3.07.08 COND D RA D.1 LCO 3.07.08 COND D RA D.2

Description of Changes - NUREG-1431 Section 3.07.08

09-May-01

DOC Number	DOC Text
M.01 Rev. A	CTS 15.3.3.D.2 list a number of conditions which allow operation, for a limited period of time, with certain component (e.g. pumps, valves, flowpaths) inoperable. The CTS does not establish any limitation which requires reestablishment of LCO compliance if multiple overlapping inoperabilities were to occur. This could allow operation for an indefinite period of time with the Service Water System in a degraded condition. The proposed ITS imposes a Completion Time limit which requires restoration of LCO compliance within 14 days of first component becoming inoperable. The limit of 14 days is the summation of the two longest Completion Times within this LCO. The addition of this Completion time is consistent with the structure of the Improved Technical Specifications, in that an LCO should not allow indefinite non-compliance to exist. This restriction has been placed on four Conditions (i.e. inoperable pump, inoperable ring header, inoperable non-essential isolation valve, and opposite unit containment fan cooler Service Water outlet valve open), as at least one of these four Conditions must exist for indefinite non-compliance to exist. **CTS:** 15.03.03.D.02.a 15.03.03.D.02.b 15.03.03.D.02.c 15.03.03.D.02.d **ITS:** LCO 3.07.08 COND A RA A.1 LCO 3.07.08 COND C RA C.2 LCO 3.07.08 COND D RA D.2 LCO 3.07.08 COND F RA F.2
M.02 Rev. D	Not used. **CTS:** N/A **ITS:** N/A

F Additional change

A.6 → Replace with Insert 3.7.8.-1

D. Service Water System — MODES 1, 2, 3, and — A.5

1. A reactor shall not be made critical unless the following conditions are met:

a. Six service water pumps are operable. — LA.1

b. All necessary valves, interlocks ~~and piping~~ required for the functioning of the Service Water System during accident conditions for the unit which is to be made critical are also operable.

SR 3.07.08.01
SR 3.07.08.02
SR 3.07.08.03
See Insert 3.7.8-8

A.6

2. ~~During power operation, the requirements of 15.3.3.D-1 may be modified to allow the following conditions.~~ — A.7

If the system is not restored to meet the conditions of 15.3.3.D-1 within the time period specified, the affected reactor(s) will be placed in the hot shutdown condition within six hours and in cold shutdown within 36 hours.

A.1 — ACTIONS NOTE — Condition H; See Insert 3.7.8-7

F Additional Change

Note: If any equipment supported by service water will not receive sufficient flow, the applicable LCOs for the affected equipment shall be entered.

Condition A/B
See Insert 3.7.8-2

Condition F
See Insert 3.7.8-6

a. One of the six required service water pumps may be out of service provided a pump is restored to operable status within 7 days. A second service water pump may be out of service provided a pump is restored to operable status within 72 hours. A third service water pump may be out of service provided two pumps are restored to operable status within 72 hours.

Condition C
See Insert 3.7.8-3

b. The service water ring header continuous flowpath may be out of service for up to 7 days, subject to the limitations of 15.3.3.D-2.a, provided that:

i. At least five service water pumps are operable and aligned to all required portions of the service water header

Or

ii. Four service water pumps are operable and the flowpath is interrupted only between the service water pump bays or at one or more of the west header isolation valve locations.

Or

iii. Service water pump and continuous flowpath alignment may be different from that defined in b.i or b.ii above, provided an evaluation is performed demonstrating required systems are operable prior to establishing the configuration.

D Amend 199/204 & Additional Change

Condition C
See Insert 3.7.8-3

If the alignment is different from that specified above and no evaluation has been completed, then the conditions of Section 15.3.0 apply.

Conditions D and E.
See Insert 3.7.8-4

c. One or more required automatic non-essential load isolation valves may be inoperable for up to 72 hours. If an affected line has a required redundant automatic isolation valve, then the redundant valve must be operable. This LCO can be exited provided the affected lines are isolated with a seismically qualified isolation valve or the inoperable valves are restored to operable status.

A.12

LA.2

d. The containment fan cooler outlet motor operated valves may be open for up to 72 hours provided that:

i. At least five service water pumps are operable.

Or

ii. At least three service water pumps are operable provided an evaluation is performed demonstrating required systems are operable prior to establishing the configuration.

Condition F
See Insert 3.7.8-5

Condition G
See Insert 3.7.8-6

This LCO can be exited provided the valves are returned to the closed position or the flowpath is isolated.

A.12

F
Additional Change

Basis

The normal procedure for starting the reactor is, first, to heat the reactor coolant to near operating temperature, by running the reactor coolant pumps. The reactor is then made critical by withdrawing control rods and/or diluting boron in the coolant.(1) With this mode of start-up, the energy stored in the reactor coolant during the approach to criticality is substantially equal to that during power operation and therefore to be conservative most engineered safety system components and auxiliary cooling systems, shall be fully operable. During low temperature physics tests there is a negligible amount of stored energy in the reactor coolant, therefore an accident comparable in severity to the Design Basis Accident is not possible, and the engineered safety systems are not required.

A.4

SPEC 3.7.8 Inserts

Insert 3.7.8-1:

LCO 3.7.8 The SW System shall be OPERABLE with:

a. Six OPERABLE SW pumps;

b. SW ring header continuous flowpath not interrupted;

c. Required automatic non-essential-SW-load isolation valves OPERABLE or affected non-essential flowpath isolated; and

d. Opposite unit containment accident fan cooler unit SW outlet motor operated valves closed or SW flowpath isolated.

F Additional change

Insert 3.7.8-2:

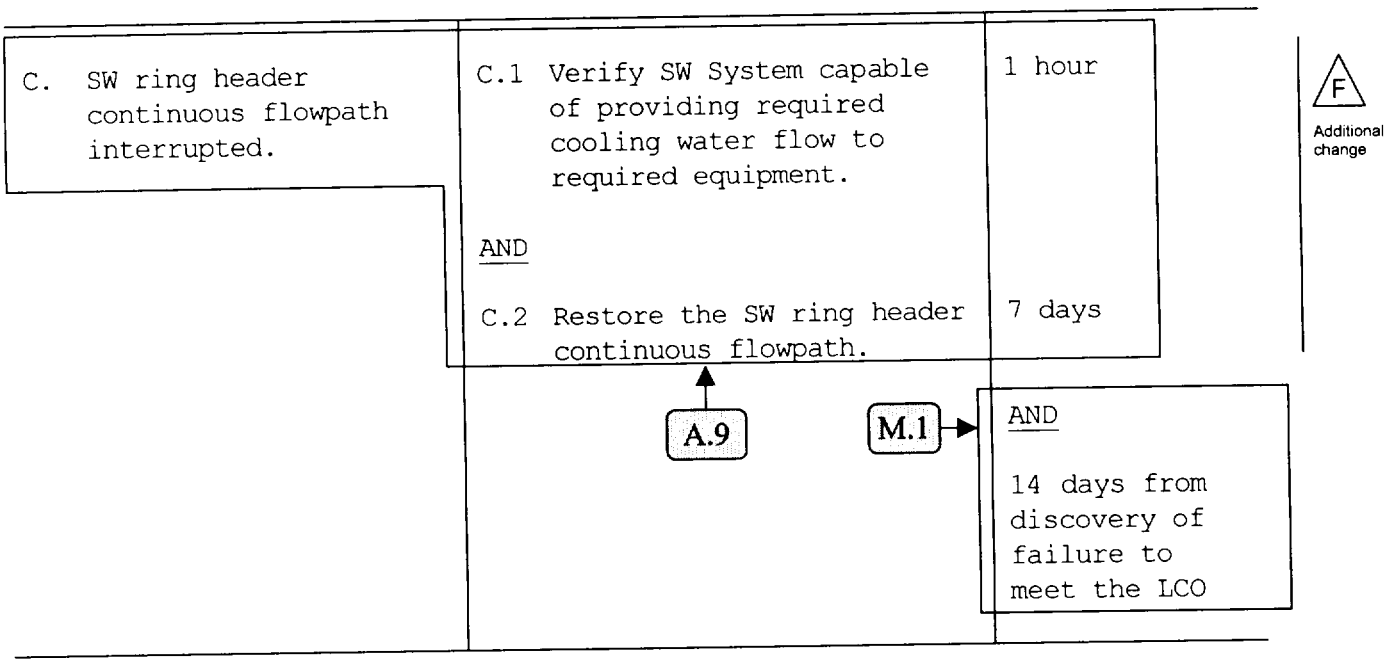
CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One SW pump inoperable.	A.1 Restore SW pump to OPERABLE status.	7 days AND 14 days from discovery of failure to meet the LCO
B. Two or three SW pumps inoperable.	B.1 Restore SW pump to OPERABLE status.	72 hours

A.1 M.1

D Additional Change

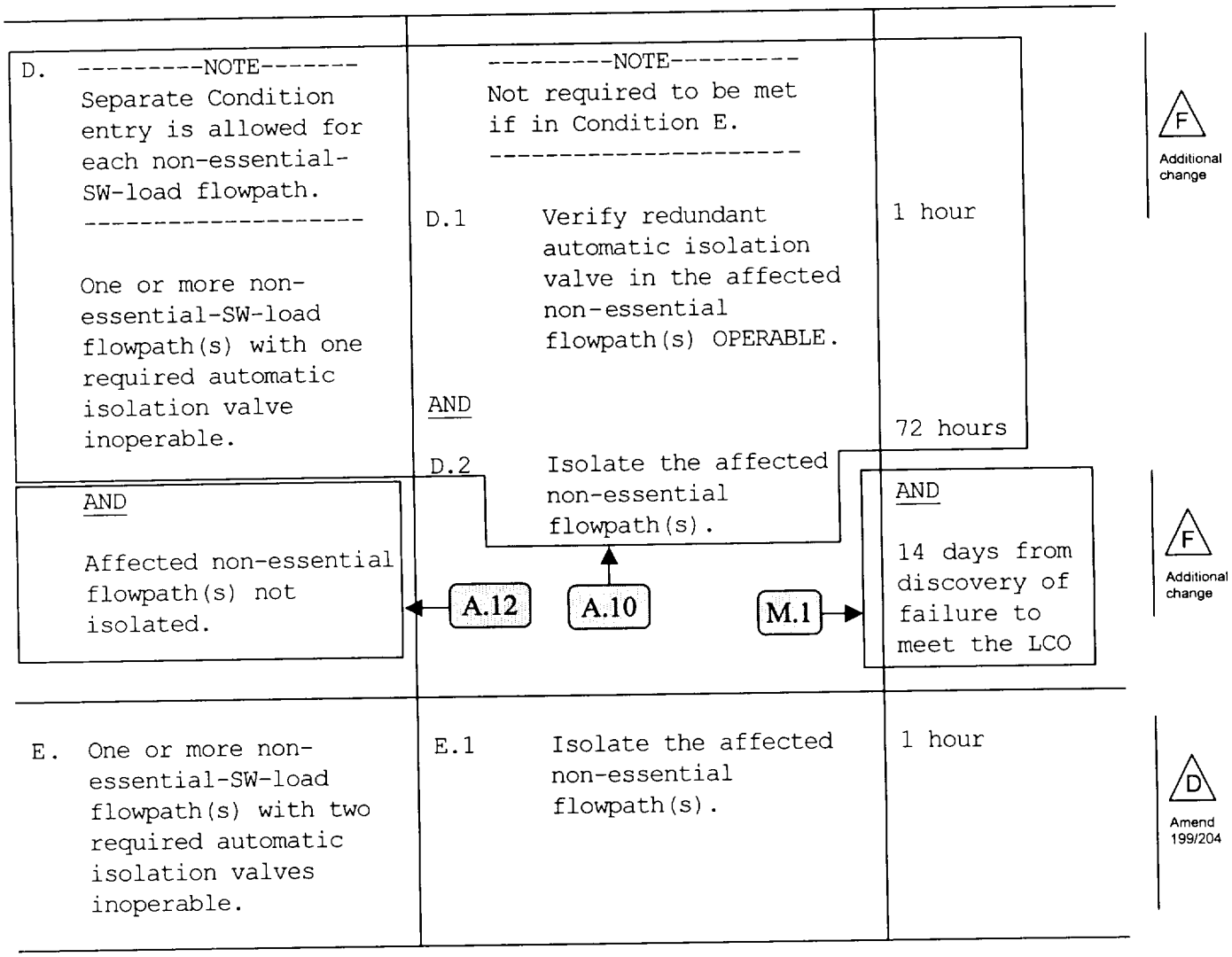
SPEC 3.7.8 Inserts

Insert 3.7.8-3:



SPEC 3.7.8 Inserts

Insert 3.7.8-4:



SPEC 3.7.8 Inserts

Insert 3.7.8-5:

A.11

F. One or more opposite unit containment accident fan cooler unit service water outlet valves open.	F.1	Verify SW System capable of providing required cooling water flow to required equipment.	1 hour
AND Opposite unit containment accident fan cooler unit SW flowpath not isolated.	AND F.2	Isolate the opposite unit containment accident fan cooler unit service water flowpath.	72 hours AND 14 days from discovery of failure to meet the LCO

A.12

M.1

F
Additional change

Insert 3.7.8-6:

A.8

G. Four or more SW pumps inoperable.	G.1	Restore SW pump(s) to OPERABLE status.	1 hour

D
Amend 199/204

Insert 3.7.8-7:

H. Required Action and associated Completion Time not met.	H.1	Be in MODE 3.	6 hours
	AND		
	H.2	Be in MODE 5.	36 hours

A.8

D
Amend 199/204

Justification For Deviations - NUREG-1431 Section 3.07.08

09-May-01

JFD Number	JFD Text
01 Rev. F	NUREG 1431 LCO 3.7.8 addresses a Service Water System (SWS) design which consists of two separate and redundant trains which are not shared between the units. LCO 3.7.8 has been modified to reflect the Point Beach SWS design. The equipment specified in proposed LCO 3.7.8 are consistent with the CTS and licensing Basis for the plant. The Point Beach SWS is a common shared system (no train or unit distinctions), which provides cooling water to essential and non-essential loads. Essential loads are those loads required for the safe shutdown of the plant and to mitigate the consequences of a design basis accident. The SWS is designed to ensure adequate heat removal based on the highest expected cooling water temperature with maximum system loading. The major components which comprise the SWS are; six motor driven centrifugal pumps, a ring header, automatic non-essential-SW-load isolation valves, the piping, valves, instruments, and controls necessary to provide cooling water to the various system loads. The SW pumps discharge to a discharge header located in the circulating water pump house which exits the pump house through two supply headers (North and South) leading to the control building. The North and South supply headers then run to the auxiliary building where they connect to the West header, forming a continuous ring supply header. Loop header isolation valves are provided to allow isolation of a failed SW header. Isolation of any SW header will not impact the ability of the SWS to supply cooling water to the required number of essential loads for either unit. Cooling water from the essential and non-essential loads is discharged back to the lake via the circulating water discharge lines. Isolation of non-essential-SW-loads (i.e. PAB coolers, spent fuel pool cooling, radwaste systems, and the water treatment area) is necessary to meet SW capacity demands under limiting conditions. Non-essential-SW-loads are automatically isolated upon receipt of a Safety Injection signal. **ITS:** B 3.07.08 LCO 3.07.08 SR 3.07.08.02 **NUREG:** B 3.07.08 LCO 3.07.08 SR 3.07.08.02

JFD Number	JFD Text
02 Rev. F	The Required Actions for LCO 3.7.8 have been modified to provide Conditions and Required Actions which address the Point Beach Service Water System (SWS) design. The Required Actions proposed are consistent with or more restrictive than the Current Technical Specifications Actions as identified in the following discussions. Each of the SWS configurations addressed by the proposed Conditions have been evaluated using the Service Water computer flow model used to determine minimum equipment and system alignment discussed in Justification for Deviation 1 of this Section. All SWS configurations addressed by the proposed Conditions and Required Actions with Completion Times in excess of one hour have been determined to provide acceptable SW flow and pressure to all required components. All SWS configurations addressed by the proposed Conditions and Required Actions with Completion Times of one hour have been determined to be unacceptable SWS configurations using the above criteria. The proposed Completion Time for these Required Actions provides sufficient time to accommodate transitory operations (e.g. additional equipment inoperabilities, operations required to realign systems and equipment, etc.) while recognizing the importance of maintaining the SWS in an operable configuration. The one hour Completion Time for these Required Actions is consistent with that allowed under current Technical Specification 15.0.3.B (equivalent to ITS LCO 3.0.3). With one SW pump inoperable, action must be taken to restore the pump to operable status within 7 days. This Action is consistent with the Current Technical Specifications. With two or three SW pumps inoperable, action must be taken to restore at least the minimum number of pumps to operable status required to exit this Condition within 72 hours. This Action and its associated Completion Time are consistent with the Current Technical Specifications. With the SW ring header continuous flowpath interrupted, the SW System must be verified capable of providing required cooling water flow to required equipment within 1 hour, and the SW ring header continuous flowpath must be restored within 7 days. As discussed in DOC A.9, this Action and its associated Completion Times are consistent with the Current Technical Specifications. With one or more non-essential-SW-load flowpath(s) with one required automatic isolation valve inoperable and the affected non-essential flowpath(s) not isolated, the required redundant automatic isolation valves in the affected flowpath(s) must be verified operable within 1 hour, and the flowpath isolated within 72 hours. If both required isolation valves in a flowpath are inoperable, the flowpath is required to be isolated in 1 hour. A Note has been added to Required Action D.1, stating it is not required to be met if in Condition E. This Note precludes entry into Condition H, when the required redundant automatic isolation valve in the affected non-essential flowpath(s) are inoperable and Required Action D.1 cannot be met. As discussed in DOC A.10, this Action and its associated Completion Times are consistent with the Current Technical Specifications. With one or more opposite unit containment fan cooler service water outlet motor operated

JFD Number	JFD Text

valves open and the SW flowpath not isolated, the SW System must be verified capable of providing required cooling water flow to required equipment within 1 hour, and the flowpath must be isolated within 72 hours. As discussed in DOC A.11, this Action and its associated Completion Times are consistent with the Current Technical Specifications..

With four or more SW pumps inoperable, at least the minimum number of SW pumps needed to exit the Condition must be restored to operable status within 1 hour. Under CTS, entry into LCO 15.3.0.b would be required for this condition, thereby requiring that the unit be placed into Hot Shutdown (ITS Mode 3) within 7 hours and Cold Shutdown (ITS Mode 5) within 37 hours. Under proposed ITS Condition G, 1 hour will be allowed to restore the SW pumps to operable status, and proposed ITS Condition H will require that the unit be placed into Mode 3 within six hours and into Mode 5 within 36 hours if the minimum number of pumps cannot be restored.

The Bases have been modified as necessary to reflect the above changes.

ITS:	NUREG:
B 3.07.08	B 3.07.08
LCO 3.07.08 COND A	N/A
LCO 3.07.08 COND A RA A.1	N/A
LCO 3.07.08 COND B	N/A
LCO 3.07.08 COND B RA B.1	N/A
LCO 3.07.08 COND C	N/A
LCO 3.07.08 COND C RA C.1	N/A
LCO 3.07.08 COND C RA C.2	N/A
LCO 3.07.08 COND D	N/A
LCO 3.07.08 COND D RA D.1	N/A
LCO 3.07.08 COND D RA D.2	N/A
LCO 3.07.08 COND E	N/A
LCO 3.07.08 COND E RA E.1	N/A
LCO 3.07.08 COND F	N/A
LCO 3.07.08 COND F RA F.1	N/A
LCO 3.07.08 COND F RA F.2	N/A
LCO 3.07.08 COND G	N/A
LCO 3.07.08 COND G RA G.1	N/A
LCO 3.07.08 COND H	LCO 3.07.08 COND B
LCO 3.07.08 COND H RA H.1	LCO 3.07.08 COND B RA B.1

Justification For Deviations - NUREG-1431 Section 3.07.08

09-May-01

JFD Number	JFD Text	
	LCO 3.07.08 COND H RA H.2	LCO 3.07.08 COND B RA B.2
	N/A	LCO 3.07.08 COND A LCO 3.07.08 COND A RA A.1
03 Rev. F	As discussed in Justification for Deviation 1 of this Section, several new Conditions have been added to NUREG 1431 LCO 3.7.8 to address the Point Beach Service Water (SW) System design and licensing basis. The introduction of these new Conditions could allow operation for an indefinite period of time with the Service Water System in a degraded condition due to multiple overlapping inoperabilities. The proposed ITS imposes a Completion Time limit which requires restoration of LCO compliance within 14 days of the first component becoming inoperable. The limit of 14 days is the summation of the two longest Completion Times within this LCO. The addition of this Completion time is consistent with the structure of the Improved Technical Specifications, in that an LCO should not allow indefinite non-compliance. This restriction has been placed on four Conditions (i.e. inoperable pump, inoperable ring header continuous flowpath, inoperable non-essential-SW-load isolation valves, and opposite unit containment fan cooler Service Water outlet motor operated valve open), because at least one of these four Conditions must occur for indefinite non-compliance to occur.	
	ITS:	**NUREG:**
	B 3.07.08	B 3.07.08
	LCO 3.07.08 COND A RA A.1	N/A
	LCO 3.07.08 COND C RA C.2	N/A
	LCO 3.07.08 COND D RA D.2	N/A
	LCO 3.07.08 COND F RA F.2	N/A
04 Rev. A	The brackets have been removed and the proper plant specific information has been provided.	
	ITS:	**NUREG:**
	B 3.07.08	B 3.07.08
	SR 3.07.08.02	SR 3.07.08.02
	SR 3.07.08.03	SR 3.07.08.03

Justification For Deviations - NUREG-1431 Section 3.07.08

09-May-01

JFD Number	JFD Text
05 Rev. F	NUREG 1431 LCO 3.7.8 Condition A contains two Notes in the Required Actions column requiring entry into the applicable conditions and Required Actions of LCOs 3.8.1 and 3.4.6 if a Service Water (SW) Train renders either a diesel generator or a residual heat removal train inoperable. These Notes are necessary to ensure that the appropriate Required Actions are taken if these components are rendered inoperable. As discussed in Justification for Deviations 1 and 2 of this Section, the Point Beach SW System is a common shared system (no train or unit distinctions), which provides cooling water to essential and non-essential-SW-loads via a single ring header. The LCO and Actions for LCO 3.7.8 have been modified accordingly to address the system design. The addition of these new Conditions and Required Actions, has introduced the potential for supported systems to become inoperable when one or more Conditions are in effect. Supported systems may be made inoperable as a result of an entire header being isolated (single Condition), or a combination of pumps inoperabilities concurrent with a ring header isolation valve being closed (multiple Conditions). As such, it is necessary to move this provision to the beginning of the Actions Table. The proposed ITS will also require the applicable Conditions and Required Actions for any system made inoperable to be entered. The Service Water System provides cooling water to the following Technical Specification addressed systems; a) Diesel Generators G01 and G02; b) the component cooling water system heat exchangers; c) the containment accident fan cooler units and their associated fan motors; and d) Auxiliary Feedwater Pump Bearing Oil Coolers and the back up water supply to the pumps. This presentation is consistent with the current Technical Specification, and will still require entry into LCOs 3.4.6 and 3.8.1 as the NUREG requires. A Note has been added to Condition D to allow Separate Condition entry. This Note is necessary because of the adoption of Specification 1.3. The restrictions of Specification 1.3 do not exist in the CTS and it is therefore necessary to adopt the Notes to allow Separate Condition entry for each inoperable non-essential-SW-load flowpath. This is acceptable because the Required Actions for this Condition provides appropriate compensatory actions for an inoperable non-essential-SW-load flowpath. Complying with the Required Actions may allow for continued operation, and subsequent inoperable non-essential-SW-load flowpaths are governed by subsequent condition entry and application of associated Required Actions. **ITS:** — **NUREG:** B 3.07.08 — B 3.07.08 LCO 3.07.08 COND NOTE — LCO 3.07.08 COND A RA A.1 NOTE 1 LCO 3.07.08 COND A RA A.1 NOTE 2 LCO 3.07.08 COND D NOTE — N/A

F Additional change

1

Replace with Insert 3.7.8-1

3.7 PLANT SYSTEMS

3.7.8 Service Water System (SWS)

~~LCO 3.7.8 Two SWS trains shall be OPERABLE.~~

Throughout this LCO and associated Bases, replace SWS with SW System, this is for consistency with PBNP nomenclature.

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One SWS train inoperable.	A.1 --------NOTES------- 1. Enter applicable Conditions and Required Actions of LCO 3.8.1, "AC Sources – Operating," for emergency diesel generator made inoperable by SWS. 2. Enter applicable Conditions and Required Actions of LCO 3.4.6, "RCS Loops – MODE 4," for residual heat removal loops made inoperable by SWS. ---------- Restore SWS train to OPERABLE status.	72 hours

Replace with Insert 3.7.8-2

2/3/5

F Additional change

(continued)

F Additional change

----------NOTE----------
Enter applicable Conditions and Required Actions for systems made inoperable by SW System.

5

LCO 3.7.8 Insert

Insert 3.7.8-1:

LCO 3.7.8 The SW System shall be OPERABLE with:

a. Six OPERABLE SW pumps;

b. SW ring header continuous flowpath not interrupted;

c. Required automatic non-essential-SW-load isolation valves OPERABLE or affected non-essential flowpath isolated; and

d. Opposite unit containment accident fan cooler unit SW outlet motor operated valves closed or SW flowpath isolated.

F Additional change

Insert 3.7.8-2:

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One SW pump inoperable.	A.1 Restore SW pump to OPERABLE status.	7 days AND 14 days from discovery of failure to meet the LCO
B. Two or three SW pumps inoperable.	B.1 Restore SW pump(s) to OPERABLE status.	72 hours
C. SW ring header continuous flowpath interrupted.	C.1 Verify SW System capable of providing required cooling water flow to required equipment AND C.2 Restore SW ring header continuous flowpath.	1 hour 7 days AND 14 days from discovery of failure to meet the LCO

F Additional change

LCO 3.7.8 Insert

Insert 3.7.8-2 (continued):

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. ---------NOTE------- Separate Condition entry is allowed for each non-essential-SW-load flowpath. ---------- One or more non-essential-SW-load flowpath(s) with one required automatic isolation valve inoperable. AND Affected non-essential flowpath(s) not isolated.	--------NOTE-------- Not required to be met if in Condition E. ---------- D.1 Verify required redundant automatic isolation valve in the affected non-essential flowpath(s) OPERABLE. AND D.2 Isolate the affected non-essential flowpath(s).	1 hour 72 hours AND 14 days from discovery of failure to meet the LCO
E. One or more non-essential-SW-load flowpath(s) with two required automatic isolation valves inoperable.	E.1 Isolate the affected non-essential flowpath(s).	1 hour
F. One or more opposite unit containment accident fan cooler unit SW outlet motor operated valves open. AND Opposite unit containment accident fan cooler unit SW flowpath not isolated.	F.1 Verify SW System capable of providing required cooling water flow to required equipment AND F.2 Isolate the opposite unit containment accident fan cooler unit SW flowpath.	1 hour 72 hours AND 14 days from discovery of failure to meet the LCO

F Additional change

F Additional change

D Amend 199/204 errata 58

F Additional change

LCO 3.7.8 Insert

Insert 3.7.8-2 (continued):

CONDITION	REQUIRED ACTION	COMPLETION TIME
G. Four or more SW pumps inoperable.	G.1 Restore SW pump(s) to OPERABLE status.	1 hour

D
Amend 199/204

BASES (continued)

ACTIONS

Replace with Insert B 3.7.8-3

2/3/5

A.1

If one SWS train is inoperable, action must be taken to restore OPERABLE status within 72 hours. In this Condition, the remaining OPERABLE SWS train is adequate to perform the heat removal function. However, the overall reliability is reduced because a single failure in the OPERABLE SWS train could result in loss of SWS function. Required Action A.1 is modified by two Notes. The first Note indicates that the applicable Conditions and Required Actions of LCO 3.8.1, "AC Sources – Operating," should be entered if an inoperable SWS train results in an inoperable emergency diesel generator. The second Note indicates that the applicable Conditions and Required Actions of LCO 3.4.6, "RCS Loops – MODE 4," should be entered if an inoperable SWS train results in an inoperable decay heat removal train. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components. The 72 hour Completion Time is based on the redundant capabilities afforded by the OPERABLE train, and the low probability of a DBA occurring during this time period.

2 H B.1 and B.2 system 1 S 2

F Amend 199/204

If the SWS train cannot be restored to OPERABLE status within the associated Completion Time, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 6 hours and in MODE 5 within 36 hours.

The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

SURVEILLANCE REQUIREMENTS

SR 3.7.8.1

This SR is modified by a Note indicating that the isolation of the SWS components or systems may render those components inoperable, but does not affect the OPERABILITY of the SWS.

Verifying the correct alignment for manual, power operated, and automatic valves in the SWS flow path provides assurance

NUREG 1431 LCO 3.7.8 BASES INSERTS

Insert B 3.7.8-1:

The SW System is a shared system, consisting of: six motor driven centrifugal pumps and the piping, valves, instruments, and controls necessary to provide cooling water to essential and non-essential components. Two service water pumps are connected to separate 480 volt buses (Unit 2 B03 and Unit 1 B04), one per bus. The four remaining pumps are connected, two per bus, to two separate 480 volt buses (Unit 1 B03 and Unit 2 B04). The SW pumps discharge to a normally cross-tied discharge header located in the circulating water pump house which exits the pump house through two supply headers (North and South) leading to the control building. The North and South supply headers then run to the primary auxiliary building where they connect to the West header, forming a ring supply header.

Essential loads are those loads required for the safe shutdown of the plant and to mitigate the consequences of a design basis accident. The SW System is a required back-up source of water for the Auxiliary Feedwater System. All essential-SW-loads are supplied from the North and South headers with the exception of two containment ventilation coolers in each unit which are supplied from the West header. Cooling water from the essential and non-essential-SW-loads is discharged back to the lake via the circulating water discharge lines.

F RAI 3.7.8-9

Isolation of certain non-essential-SW-loads, as identified in the approved SW System analyses, is necessary to meet SW capacity demands under limiting conditions. These limiting conditions include loss of a single train of safeguards equipment, and a Loss of Coolant Accident (LOCA) in one unit with continued operation of the other unit. Non-essential loads, as identified in the approved SW System analyses, are automatically isolated upon receipt of a Safety Injection actuation.

D Additional change

F RAI 3.7.8-9

Isolation of any SW header will not impact the ability of the SW System to supply cooling water to the required number of essential loads for either unit.

Additional information about the design and operation of the SW System, along with a list of the components served, is presented in the FSAR, Section 9.6 (Ref. 1).

NUREG 1431 LCO 3.7.8 BASES INSERTS

Insert B 3.7.8-2:

The SW System is required to be OPERABLE to provide the required redundancy to ensure that the system will function to remove post accident heat loads, assuming the worst case single active failure. The SW System is OPERABLE during MODES 1, 2, 3, and 4 when: D Additional change

a. Six SW pumps are OPERABLE;

b. the SW ring header continuous flowpath is not interrupted;

c. the required non-essential-SW-load isolation valves are OPERABLE or the affected non-essential flowpath is isolated; F Additional change

d. the opposite Unit's containment fan cooler SW outlet motor operated valves are closed or the SW flowpath is isolated; and F Additional change

e. the instrumentation and controls required to perform the safety related function are OPERABLE.

NUREG 1431 LCO 3.7.8 BASES INSERTS

Insert B 3.7.8-3:

The Actions Table is modified by a Note which requires the applicable Conditions and Required Actions to be entered for the system made inoperable as a result of any SW System inoperability. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components.

A.1

If one SW pump is inoperable, action must be taken to restore the pump to OPERABLE status within 7 days. In this Condition, the remaining OPERABLE SW pumps assure adequate system flow capability. However, the overall reliability is reduced because a single failure could result in less than the required number of pumps to assure this flow. The 7 day Completion Time is based on the redundant capabilities afforded by the remaining OPERABLE pumps, and the low probability of a DBA occurring during this time period.

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 14 day Completion Time provides a limitation on the time allowed in this specified Condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which multiple Conditions are entered concurrently. The AND connector between 7 days and 14 days dictates that both Completion Times apply simultaneously, and the more restrictive must be met.

B.1

If two or three SW pumps are inoperable, action must be taken to restore at least the minimum number of pumps to OPERABLE status required to exit this Condition within 72 hours. In this Condition, the remaining OPERABLE SW pumps are capable of providing the required system flow capability provided the requirements of the LCO are met (e.g., SW ring header continuous flowpath, non-essential SW isolation valves and the opposite Unit's containment fan cooler service water outlet valves). With four or more inoperable SW pumps inoperable, Condition G must be entered.

D
Amend 199/204

F
Additional change

Insert B 3.7.8-3 (continued):

The 72 hour Completion Time is based on the redundant capabilities afforded by the remaining OPERABLE pumps, the probability for an additional active or passive failure, and the low probability of a DBA occurring during this time period.

C.1 and C.2

If the SW ring header continuous flowpath is interrupted, the ability of the System to provide required cooling water flow to required equipment must be verified within 1 hour. The 1 hour Completion Time for ACTION C.1 effectively limits the allowed system configuration to alignments previously evaluated and found acceptable. Additionally, the 1 hour Completion Time provides sufficient time to accommodate transitory operations (e.g. additional equipment inoperabilities, operations required to realign systems and equipment, etc;) without requiring initiation of a unit shutdown. The 1 hour Completion Time is commensurate with the importance of maintaining the SW System in an OPERABLE configuration.

F Additional change

Additionally, the SW ring header continuous flowpath must be restored within 7 days.

F Additional change

With one or more ring header isolation valves incapable of being closed, the SW System will continue to be capable of providing the required cooling water flow to required equipment. However, the ability to isolate a break in the system while continuing to provide cooling water to required equipment may be impaired.

F RAI 3.7.8-2

NUREG 1431 LCO 3.7.8 BASES INSERTS

Insert B 3.7.8-3 (continued):

With one or more ring header isolation valves closed, the SW System may remain capable of providing the required cooling water flow to the minimum required number of components depending on system alignment and the OPERABILITY of other SW System components.

Multiple closed ring header isolation valves could result in loss of cooling water to required equipment (e.g. closure of the SW-2869 and SW-2870 will render two of the four containment fan coolers inoperable on each Unit). If multiple closed ring header isolation valves result in required equipment being inoperable, the Note to the ACTIONS Table requires entry into the applicable conditions and required actions for the systems made inoperable.

The 7 day Completion Time is acceptable based on the redundant capabilities afforded by the remaining OPERABLE equipment, and the low probability of a DBA or SW System line break occurring during this time period.

The second Completion Time for Required Action C.2 establishes a limit on the maximum time allowed for any combination of Conditions to be in effect during any continuous failure to meet this LCO. The 14 day Completion Time provides a limitation on the time allowed in this specified Condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which multiple Conditions are entered concurrently. The AND connector between 7 days and 14 days dictates that both Completion Times apply simultaneously, and the more restrictive must be met.

D.1 and D.2

Condition D is modified by a Note indicating that separate Condition entry is allowed for each non-essential-SW-load flowpath.

F Additional change

In the event one required automatic isolation valve in one or more non-essential-SW-load flowpath(s) is inoperable and the affected non-essential flowpath(s) is not isolated, the required redundant automatic isolation valve in the affected non-essential flowpath(s) must be verified OPERABLE within 1 hour. This verification may be performed administratively.

F Additional change

NUREG 1431 LCO 3.7.8 BASES INSERTS

Insert B 3.7.8-3 (continued):

The 1 hour Completion Time for Required Action D.1 provides sufficient time to accommodate transitory operations (e.g. additional equipment inoperabilities, operations required to realign systems and equipment, etc;) without requiring initiation of a unit shutdown. The 1 hour Completion Time is commensurate with the importance of maintaining the SW System in an OPERABLE configuration. Required Action D.1 is modified by a Note stating it is not requirted to be met if in Condition E. This Note precludes entry into Condition H, when the required redundant automatic isolation valve in the affected non-essential flowpath(s) is inoperable and Required Action D.1 cannot be met.

D
Amend 199/204 RAI 3.7.8-6

Additionally, the valve(s) must be restored to OPERABLE status or the flowpath(s) isolated with a seismically qualified isolation valve within 72 hours. In this Condition, the overall reliability is reduced because a single failure could result in system configuration which could not assure adequate flow to required equipment. The 72 hour Completion Time is based on the flow capabilities afforded by the number of OPERABLE pumps, and the low probability of a DBA occurring during this time period.

The second Completion Time for Required Action D.2 establishes a limit on the maximum time allowed for any combination of Conditions to be in effect during any continuous failure to meet this LCO.

The 14 day Completion Time provides a limitation on the time allowed in this specified Condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which multiple Conditions are entered concurrently. The AND connector between 72 hours and 14 days dictates that both Completion Times apply simultaneously, and the more restrictive must be met.

E.1 and E.2

With two required automatic isolation valves in one or more non-essential-SW-load flowpath(s) inoperable, the affected flowpath(s) shall be isolated with a seismically qualified isolation valve within 1 hour. The Completion Time of 1 hour reflects the importance of isolating the non-essential-SW-loads to meet SW capacity demands under limiting conditions.

D
Amend 199/204

NUREG 1431 LCO 3.7.8 BASES INSERTS

Insert B 3.7.8-3 (continued):

F.1 and F.2

If one or more opposite unit containment fan cooler service water outlet motor operated valves are open and the opposite unit containment accident fan cooler unit SW flowpath is not isolated, the ability of the SW System to provide require cooling water flow to required equipment must be verified within 1 hour. The 1 hour Completion Time for ACTION F.1 effectively limits the allowed system configuration to a configuration that has been previously evaluated and found acceptable. Additionally, the 1 hour Completion Time provides sufficient time to accommodate transitory operations (e.g. additional equipment inoperabilities, operations required to realign systems and equipment, etc;) without requiring initiation of a unit shutdown. The 1 hour Completion Time is commensurate with the importance of maintaining the SW System in an OPERABLE configuration. Additionally, the flowpath must be isolated within 72 hours.

F Additional change

F Errata #174

Additionally, the flowpath associated with any opposite unit containment fan cooler service water outlet motor operated valve that is open must be isolated within 72 hours. (The flowpath is considered isolated if total flow would not exceed the expected flowrate during accident conditions.) In this condition, the overall reliability is reduced because a single failure could result in a system configuration which could not assure adequate flow to required equipment. The 72 hour Completion Time is based on the confirmed ability to provide required cooling water flow to required components. This time frame is also considered acceptable based on the low probability of a DBA occurring during this time period.

F Additional change

The second Completion Time for Required Action F.2 establishes a limit on the maximum time allowed for any combination of Conditions to be in effect during any continuous failure to meet this LCO. The 14 day Completion Time provides a limitation on the time allowed in this specified Condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in

NUREG 1431 LCO 3.7.8 BASES INSERTS

Insert B 3.7.8-3 (continued):

which multiple Conditions are entered concurrently. The AND connector between 72 hours and 14 days dictates that both Completion Times apply simultaneously, and the more restrictive must be met.

G.1

If four or more SW pumps are inoperable, action must be taken within 1 hour to restore the SW pump(s) to OPERABLE status. The 1 hour Completion Time provides sufficient time to accommodate transitory operations (e.g. additional equipment inoperabilities, operations required to realign systems and equipment, etc;) to either restore the pump(s) to OPERABLE status or prepare for an orderly shutdown of the plant, and is commensurate with the importance of maintaining the SW System in an OPERABLE configuration.

D

Amend 199/204

Insert B 3.7.8-4:

Heat transferred from the reactor core to the SW System during accidents and anticipated operational occurrences in which the unit is cooled down and placed on residual heat removal (RHR) operation is removed by Lake Michigan. Operating limits for the SW System are based on the approved SW System analyses as stated in Appendix C, Additional Conditions, Operating Licenses DPR-24 and DPR-27.

D

RAI 3.7.9-1

3.7 PLANT SYSTEMS

3.7.8 Service Water (SW) System

LCO 3.7.8 The SW System shall be OPERABLE with:

a. Six OPERABLE SW pumps;

b. SW ring header continuous flowpath not interrupted;

c. Required automatic non-essential-SW-load isolation valves OPERABLE or affected non-essential flowpath isolated; and

d. Opposite unit containment accident fan cooler unit SW outlet motor operated valves closed or SW flowpath isolated.

F Additional change

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

ACTIONS

---NOTE---
Enter applicable Conditions and Required Actions for systems made inoperable by SW System.

F Additional change

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One SW pump inoperable.	A.1 Restore SW pump to OPERABLE status.	7 days AND 14 days from discovery of failure to meet the LCO
B. Two or three SW pumps inoperable.	B.1 Restore SW pump(s) to OPERABLE status.	72 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. SW ring header continuous flowpath interrupted.	C.1 Verify SW System capable of providing required cooling water flow to required equipment. AND C.2 Restore the SW ring header continuous flowpath.	1 hour 7 days AND 14 days from discovery of failure to meet the LCO
D. ----------NOTE---------- Separate Condition entry is allowed for each non-essential-SW-load flowpath. ---------- One or more non-essential-SW-load flowpath(s) with one required automatic isolation valve inoperable. AND Affected non-essential flowpath(s) not isolated.	D.1 ----------NOTE---------- Not required to be met if in Condition E. ---------- Verify required redundant automatic isolation valve in the affected non-essential flowpath(s) OPERABLE. AND D.2 Isolate the affected non-essential flowpath(s).	1 hour 72 hours AND 14 days from discovery of failure to meet the LCO

F Additional change

F Additional change

F Additional change

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. One or more non-essential-SW-load flowpath(s) with two required automatic isolation valves inoperable. AND Affected non-essential flowpath(s) not isolated.	E.1 Isolate the affected non-essential flowpath(s).	1 hour
F. One or more opposite unit containment accident fan cooler unit SW outlet motor operated valves open. AND Opposite unit containment accident fan cooler unit SW flowpath not isolated.	F.1 Verify SW System capable of providing required cooling water flow to required equipment. AND F.2 Isolate the opposite unit containment accident fan cooler unit SW flowpath.	1 hour 72 hours AND 14 days from discovery of failure to meet the LCO
G. Four or more SW pumps inoperable.	G.1 Restore SW pump(s) to OPERABLE status.	1 hour

D Amend 199/204

F Additional change

F Additional change

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
H. Required Action and associated Completion Time not met.	H.1 Be in MODE 3. AND H.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.8.1	----------NOTE---------- Isolation of SW flow to individual components does not render the SW System inoperable. ---------- Verify each SW manual, power operated, and automatic valve in the flow path servicing safety related equipment, that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR 3.7.8.2	Verify each required SW automatic non-essential-SW-load isolation valve that is not locked, sealed, or otherwise secured in the closed position, actuates to the closed position on an actual or simulated actuation signal.	18 months
SR 3.7.8.3	Verify each SW pump starts automatically on an actual or simulated actuation signal.	18 months

D Additional change

B 3.7 PLANT SYSTEMS

B 3.7.8 Service Water (SW) System

BASES

BACKGROUND

The SW System provides a heat sink for the removal of process and operating heat from safety related components during a Design Basis Accident (DBA) or transient. During normal operation, and a normal shutdown, the SW System also provides this function for various safety related and non-safety related components. The safety related function is covered by this LCO.

The SW System is a shared system, consisting of; six motor driven centrifugal pumps and the piping, valves, instruments, and controls necessary to provide cooling water to essential and non-essential components. Two service water pumps are connected to separate 480 volt buses (Unit 2 B03 and Unit 1 B04), one per bus. The four remaining pumps are connected, two per bus, to two separate 480 volt buses (Unit 1 B03 and Unit 2 B04). The SW pumps discharge to a normally cross-tied discharge header located in the circulating water pump house which exits the pump house through two supply headers (North and South) leading to the control building. The North and South supply headers then run to the primary auxiliary building where they connect to the West header, forming a ring supply header.

Essential loads are those loads required for the safe shutdown of the plant and to mitigate the consequences of a design basis accident. The SW System is a required back-up source of water for the Auxiliary Feedwater System. All essential-SW-loads are supplied from the North and South headers with the exception of two containment ventilation coolers in each unit which are supplied from the West header. Cooling water from the essential and non-essential-SW-loads is discharged back to the lake via the circulating water discharge lines.

Isolation of certain non-essential-SW-loads, as identified in the approved SW System analyses, is necessary to meet SW capacity demands under limiting conditions. These limiting conditions include loss of a single train of safeguards equipment, and a Loss of Coolant Accident (LOCA) in one unit with continued operation of the other unit. Non-essential loads, as identified in the approved SW System analyses, are automatically isolated upon receipt of a Safety Injection actuation signal.

F RAI 3.7.8-9

F RAI 3.7.8-9

Isolation of any SW header will not impact the ability of the SW System to supply cooling water to the required number of essential loads for either unit.

Additional information about the design and operation of the SW

BASES

BACKGROUND (continued)

System, along with a list of the components served, is presented in the FSAR, Section 9.6 (Ref. 1).

APPLICABLE SAFETY ANALYSES

The design basis of the SW System is three SW pumps, in conjunction with the CCW System and a 100% capacity containment cooling system, to remove core decay heat following a design basis LOCA as discussed in the FSAR, Section 14.3.4 (Ref. 2). This prevents the containment sump fluid from increasing in temperature during the recirculation phase following a LOCA and provides for a gradual reduction in the temperature of this fluid as it is supplied to the Reactor Coolant System by the ECCS pumps. The SW System is designed to perform its function with a single failure of any active component, assuming the loss of offsite power.

The SW System, in conjunction with the CCW System, also cools the unit from residual heat removal (RHR), as discussed in the FSAR, Section 9.2, (Ref. 3) entry conditions to MODE 5 during normal and post accident operations. The time required for this evolution is a function of the number of CCW and RHR System pumps and heat exchangers that are operating. Heat transferred from the reactor core to the SW System during accidents and anticipated operational occurrences in which the unit is cooled down and placed on residual heat removal (RHR) operation is removed by Lake Michigan. Operating limits for the SW System are based on the approved SW System analyses as stated in Appendix C, Additional Conditions, Operating Licenses DPR-24 and DPR-27.

D
RAI 3.7.9-1

The SW System satisfies Criterion 3 of the NRC Policy Statement.

LCO

The SW System is required to be OPERABLE to provide the required redundancy to ensure that the system will function to remove post accident heat loads, assuming the worst case single active failure. The SW System is OPERABLE during MODES 1, 2, 3, and 4 when:

D
Additional change

a. six SW pumps are OPERABLE;

b. the SW ring header continuous flowpath is not interrupted;

c. the required non-essential-SW-load isolation valves are OPERABLE or the affected non-essential flowpath is isolated;

F
RAI 3.7.8-2

d. the opposite unit's containment fan cooler SW outlet motor operated valves are closed or the SW flowpath is isolated; and

e. the instrumentation and controls required to perform the safety related function are OPERABLE.

BASES

APPLICABILITY

In MODES 1, 2, 3, and 4, the SW System is a normally operating system that is required to support the OPERABILITY of the equipment serviced by the SW System and required to be OPERABLE in these MODES.

In MODES 5 and 6, the OPERABILITY requirements of the SW System are determined by the systems it supports.

ACTIONS

The Actions Table is modified by a Note which requires the applicable Conditions and Required Actions to be entered for the system made inoperable as a result of any SW System inoperability. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components.

F
Additional change

A.1

If one SW pump is inoperable, action must be taken to restore the pump to OPERABLE status within 7 days. In this Condition, the remaining OPERABLE SW pumps assure adequate system flow capability. However, the overall reliability is reduced because a single failure could result in less than the required number of pumps to assure this flow. The 7 day Completion Time is based on the redundant capabilities afforded by the remaining OPERABLE pumps, and the low probability of a DBA occurring during this time period.

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 14 day Completion Time provides a limitation on the time allowed in this specified Condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which multiple Conditions are entered concurrently. The AND connector between 7 days and 14 days dictates that both Completion Times apply simultaneously, and the more restrictive must be met.

B.1

If two or three SW pumps are inoperable, action must be taken to restore at least the minimum number of pumps to OPERABLE status required to exit this Condition within 72 hours. In this Condition, the remaining OPERABLE SW pumps are capable of providing the required system flow capability provided the requirements of the LCO are met (e.g., SW ring header continuous flowpath, non-essential SW isolation

D
Amendment 199/204

BASES

ACTIONS (continued) valves and the opposite Unit's containment fan cooler service water outlet valves). With four or more inoperable SW pumps inoperable, Condition G must be entered.

F Additional change

The 72 hour Completion Time is based on the redundant capabilities afforded by the remaining OPERABLE pumps, the probability for an additional active or passive failure, and the low probability of a DBA occurring during this time period.

C.1 and C.2

F Additional change

If the SW ring header continuous flowpath is interrupted, the ability of the System to provide required cooling water flow to required equipment must be verified within 1 hour. The 1 hour Completion Time for ACTION C.1 effectively limits the allowed system configuration to alignments previously evaluated and found acceptable. Additionally, the 1 hour Completion Time provides sufficient time to accommodate transitory operations (e.g. additional equipment inoperabilities, operations required to realign systems and equipment, etc;) without requiring initiation of a unit shutdown. The 1 hour Completion Time is commensurate with the importance of maintaining the SW System in an OPERABLE configuration.

F Additional change

Additionally, the SW ring header continuous flowpath must be restored within 7 days.

F RAI 3.7.8-2

With one or more ring header isolation valves incapable of being closed, the SW System will continue to be capable of providing the required cooling water flow to required equipment. However, the ability to isolate a break in the system while continuing to provide cooling water to required equipment may be impaired.

With one or more ring header isolation valves closed, the SW System may remain capable of providing the required cooling water flow to the minimum required number of components depending on system alignment and the OPERABILITY of other SW System components.

Multiple closed ring header isolation valves could result in loss of cooling water to required equipment (e.g. closure of the SW-2869 and SW-2870 will render two of the four containment fan coolers inoperable on each Unit). If multiple closed ring header

BASES

ACTIONS (continued) isolation valves result in required equipment being inoperable, the Note to the ACTIONS Table requires entry into the applicable conditions and required actions for the systems made inoperable.

The 7 day Completion Time is acceptable based on the redundant capabilities afforded by the remaining OPERABLE equipment, and the low probability of a DBA or SW System line break occurring during this time period. Piping failures are not considered as the single failure for system functionality during an accident.

F
RAI 3.7.8-2

The second Completion Time for Required Action C.2 establishes a limit on the maximum time allowed for any combination of Conditions to be in effect during any continuous failure to meet this LCO. The 14 day Completion Time provides a limitation on the time allowed in this specified Condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which multiple Conditions are entered concurrently. The AND connector between 7 days and 14 days dictates that both Completion Times apply simultaneously, and the more restrictive must be met.

D.1 and D.2

In the event one required automatic isolation valves in one or more non-essential-SW-load flowpath(s) is inoperable and the affected non-essential flowpath(s) is not isolated, the required redundant automatic isolation valve in the affected non-essential flowpath(s) must be verified OPERABLE within 1 hour. This verification may be performed administratively.

F
Additional change

The 1 hour Completion Time for Required Action D.1 provides sufficient time to accommodate transitory operations (e.g. additional equipment inoperabilities, operations required to realign systems and equipment, etc;) without requiring initiation of a unit shutdown. The 1 hour Completion Time is commensurate with the importance of maintaining the SW System in an OPERABLE configuration. Required Action D.1 is modified by a Note stating it is not required to be met if in Condition E. This Note precludes entry into Condition H, when the required redundant automatic isolation valve in the affected non-essential flowpath(s) is inoperable and Required Action D.1 cannot be met.

BASES

ACTIONS (continued) Additionally, the valve(s) must be restored to OPERABLE status or the flowpath(s) isolated with a seismically qualified isolation valve within 72 hours. In this Condition, the overall reliability is reduced because a single failure could result in system configuration which could not assure adequate flow to required equipment. The 72 hour Completion Time is based on the flow capabilities afforded by the number of OPERABLE pumps, and the low probability of a DBA occurring during this time period.

D
Amendment 199/204 RAI 3.7.8-6

The second Completion Time for Required Action D.2 establishes a limit on the maximum time allowed for any combination of Conditions to be in effect during any continuous failure to meet this LCO.

The 14 day Completion Time provides a limitation on the time allowed in this specified Condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which multiple Conditions are entered concurrently. The AND connector between 72 hours and 14 days dictates that both Completion Times apply simultaneously, and the more restrictive must be met.

E.1 and E.2

With two required automatic isolation valves in one or more non-essential-SW-load flowpath(s) inoperable, the affected flowpath(s) shall be isolated with a seismically qualified isolation valve within 1 hour. The Completion Time of 1 hour reflects the importance of isolating the non-essential-SW-loads to meet SW capacity demands under limiting conditions.

D
Amendment 199/204

F.1 and F.2

If one or more opposite unit containment fan cooler service water outlet motor operated valves are open and the opposite unit containment accident fan cooler unit SW flowpath is not isolated, the ability of the SW System to provide required cooling water flow to required equipment must be verified within 1 hour. The 1 hour Completion Time for ACTION F.1 effectively limits the allowed system configuration to a configuration that has been previously evaluated and found acceptable. Additionally, the 1 hour Completion Time provides sufficient time to accommodate transitory operations (e.g. additional equipment inoperabilities, operations required to realign systems and equipment, etc;) without requiring initiation of a unit shutdown. The 1 hour Completion Time is commensurate with the importance of maintaining the SW System in an OPERABLE configuration.

F
Additional change

F
Additional change

F
Errata #174

BASES

ACTIONS (continued) Additionally, the flowpath associated with any opposite unit containment fan cooler service water outlet motor operated valve that is open must be isolated within 72 hours. (The flowpath is considered isolated if total flow would not exceed the expected flowrate during accident conditions.) In this Condition, the overall reliability is reduced because a single failure could result in a system configuration which could not assure adequate flow to required equipment. The 72 hour Completion Time is based on the confirmed ability of the SW pumps to provide required cooling water flow to required components. This time frame is also considered acceptable based on the low probability of a DBA occurring during this time period.

F Additional change

The second Completion Time for Required Action F.2 establishes a limit on the maximum time allowed for any combination of Conditions to be in effect during any continuous failure to meet this LCO. The 14 day Completion Time provides a limitation on the time allowed in this specified Condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which multiple Conditions are entered concurrently. The AND connector between 72 hours and 14 days dictates that both Completion Times apply simultaneously, and the more restrictive must be met.

G.1

If four or more SW pumps are inoperable, action must be taken within 1 hour to restore the SW pump(s) to OPERABLE status. The 1 hour Completion Time provides sufficient time to accommodate transitory operations (e.g. additional equipment inoperabilities, operations required to realign systems and equipment, etc;) to either restore the pump(s) to OPERABLE status or prepare for an orderly shutdown of the plant, and is commensurate with the importance of maintaining the SW System in an OPERABLE configuration.

D Amendment 199/204

H.1 and H.2

If the SW System cannot be restored to OPERABLE status within the associated Completion Times, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 6 hours and in MODE 5 within 36 hours.

The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.8.1

This SR is modified by a Note indicating that the isolation of the SW System components or systems may render those components inoperable, but does not affect the OPERABILITY of the SW System.

Verifying the correct alignment for manual, power operated, and automatic valves in the SW System flow path provides assurance that the proper flow paths exist for SW System operation. Included within the scope of this SR are the containment accident fan cooler isolation valves for the opposite unit. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since they are verified to be in the correct position prior to being locked, sealed, or secured. This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mispositioned are in the correct position. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves.

D
RAI 3.7.8-7

The 31 day Frequency is based on engineering judgment, is consistent with the procedural controls governing valve operation, and ensures correct valve positions.

SR 3.7.8.2

This SR verifies proper automatic operation of the SW System non-essential-SW-load isolation valves on an actual or simulated actuation signal. The SW System is a normally operating system that cannot be fully actuated as part of normal testing. This Surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the 18 month Frequency. Therefore, the Frequency is acceptable from a reliability standpoint.

SR 3.7.8.3

This SR verifies proper automatic operation of the SW System pumps on an actual or simulated actuation signal. The SW System is a normally operating system that cannot be fully actuated as part of normal testing during normal operation. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.

BASES

SURVEILLANCE REQUIREMENTS (continued)	Operating experience has shown that these components usually pass the Surveillance when performed at the 18 month Frequency. Therefore, the Frequency is acceptable from a reliability standpoint.
REFERENCES	1. FSAR. Section 9.6. 2. FSAR. Section 14.3.4. 3. FSAR. Section 9.2.

DOC Number	DOC Text
A.06 Rev. F	CTS 15.3.7.A.1.b and c require the associated unit's 345/13.8 kV and 13.8/4.16 kV transformers to be in service, with 4.16 kV buses A03 and A04 energized from their normal power sources (the associated unit's 13.8/4.16 kV transformer), for the reactor to be made critical. In lieu of the associated unit's 345/13.8 kV transformer, unit operation utilizing the opposite units 345/13.8 kV transformer in service is acceptable, provided the 13.8 kV gas turbine generator is operating. In addition, CTS 15.3.7.A.1.i requires 4.16 kV/480 V safeguards buses A05/B03 and A06/B04 to be energized from their normal power supply (4.16 kV buses A03 and A04), and capable of being powered from an operable emergency power supply (emergency diesel generator). Proposed ITS LCO 3.8.1.a requires an offsite circuit between the offsite power distribution network, utilizing the associated unit's 345/13.8kV and 13.8/4.16 kV transformers to be operable. This requirement is equivalent to the CTS requirement to maintain these transformers in service (CTS 15.3.7.A.1.b) and supplying normal power to the associated unit's buses A03/A04 and A05/A06 (CTS 15.3.7.A.1.c and 15.3.7.A.1.i). Proposed ITS LCO 3.8.1.b requires an offsite circuit between the offsite power distribution network, and the opposite unit's 4.16 kV safeguards buses (A05 and A06) to be operable. This requirement is equivalent to CTS requirement 15.3.7.A.1.i for these buses. CTS 15.3.7.A.1.i requires the associated units 4.16 kV safeguards buses (e.g. buses 1A05 and 1A06) and the opposite unit's 4.16 kV safeguards buses (e.g. 2A05 and 2A06) to be energized from their normal power supplies. The normal power supplies for these buses are 4.16 kV buses 1A03/1A04 and 2A03/2A04 respectively. As previously addressed, the associated units buses A03 and A04 must be powered from the respective units 13.8/4.16 kV transformer (ITS 3.8.1.a), however normal power (offsite power) to the opposite unit's A03 and A04 buses is not prescriptively established, thereby allowing it's offsite source to be established by the licensee. Under normal circumstances, the offsite power supply to the opposite units A03 and A04 buses would be the 13.8/4.16 kv bus associated with the opposite unit; however, acceptable alternate sources include back feed through the opposite unit's 19.0/4.16 kV auxiliary transformer, or the associated unit's A03 and A04 buses. As such, simply requiring a circuit between the offsite transmission network and the opposite unit's buses A05 and A06 (ITS 3.8.1.b) is equivalent to CTS 15.3.7.A.1.c, and 15.3.7.A.1.i. Proposed ITS 3.8.1.c, requires a standby emergency power source for each 4.16 kV/480 V safeguards bus (1A05/1B03, 1A06/1B04, 2A05/2B03, and 2A06/2B04). The Point Beach standby emergency power supply design consists of four diesel generators. One diesel generator is normally aligned to each 4.16 kV safeguard bus (1A05, 1A06, 2A05, and 2A06); however, only one diesel generator is required per train (buses 1A05/2A05 and 1A06/2A06) based on shared alignment capabilities. Diesel generator shared alignment capability between units has been previously reviewed and approved in an NRC Safety Evaluation Report, A.G Hansen, to R.E. Link, dated October 24, 1994. This Safety Evaluation found a total of two diesel generators (one per safeguards train) to be acceptable for single or two unit operation. Each diesel generator has the capability to automatically start and supply the AC power requirements of one complete set of engineered safety features in one unit while providing sufficient power to allow the second unit to be placed into a safe shutdown condition. ITS Condition A and its associated Required Actions have been proposed to address the inoperability of the associated 345/13.8 kV transformer or the condition of the gas turbine not in

DOC Number	DOC Text

operation when utilizing the opposite unit's 345/13.8 kV transformer. If the associated unit's 345/13.8 kV transformer is inoperable (not in service), Required Action A.1 requires verification that offsite power is supplying the associated unit's 4.16 kV safeguards buses from the opposite unit's X03 transformer, and Required Action A.2 requires that the gas turbine generator be placed in operation.

CTS:	ITS:
15.03.07.A.01.b	LCO 3.08.01 A
	LCO 3.08.01 COND A
15.03.07.A.01.c	LCO 3.08.01 A
15.03.07.A.01.l	LCO 3.08.01 A
	LCO 3.08.01 B
	LCO 3.08.01 C

A.07
Rev. B

CTS 15.3.7.B.1.k requires the applicable LCO Actions to be entered for equipment supported by any de-energized safeguards bus.

Based on the incorporation of proposed ITS LCO 3.0.6, and moving the requirement to maintain the safeguards buses energized to ITS LCO 3.8.9, it is necessary to retain a Condition and Required Action in LCO 3.8.1 addressing the combination of inoperabilities necessary to have a de-energized bus which will require entry into the applicable Conditions and Required Actions of proposed ITS LCO 3.8.9. Requiring entry into the applicable Conditions and required Actions of LCO 3.8.9, establishes the requirement to enter the Actions associated with inoperable supported equipment. This is accomplished by the addition of a Note to the Required Actions of Condition F that directs entry into the applicable Conditions and Required Actions of LCO 3.8.9 when normal and standby emergency power is inoperable to any Class 1E 4.16kV bus.

CTS:	ITS:
15.03.07.B.01.k	LCO 3.08.01 COND F RA F.1 NOTE

DOC Number	DOC Text

L.05
Rev. F

CTS is modified by the addition of proposed Condition G. Condition G is entered when standby emergency power to both safeguards buses on the same unit are inoperable (i.e. 1A05/1B03 and 1A06/1B04, or 2A05/2B03 and 2A06/2B04), or standby emergency power to safeguards buses 1A05/1B03 and 2A06/2B04 are inoperable. CTS does not provide required actions for the above combinations of inoperable safeguards buses and would require entry into LCO 15.3.0.B.

Under this condition, with an assumed loss of offsite electrical power, insufficient standby emergency power sources are available to power the minimum required ESF functions. Since the offsite electrical power system is the only source of AC power for this level of degradation, the risk associated with continued operation for a very short time would be less than that associated with an immediate controlled shutdown (the immediate shutdown could cause grid instability, which could result in a total loss of AC power). Any inadvertent generator trip could also result in a total loss of offsite AC power, however, the time allowed for continued operation is severely restricted. The intent here is to avoid the risk associated with an immediate controlled shutdown and to minimize the risk associated with this level of degradation. According to Regulatory Guide 1.93, operation may continue for a period that should not exceed 2 hours.

CTS:	**ITS:**
NEW	LCO 3.08.01 COND G LCO 3.08.01 COND G RA G.1

Description of Changes - NUREG-1431 Section 3.08.01

09-May-01

DOC Number	DOC Text	
L.12 Rev. F	CTS 15.3.7.A.1.a requires at least two 345 KV transmission lines to be in service. CTS 15.3.7.B.1.a provides actions in the event of a loss of one or more 345 KV lines. As discussed in the CTS Bases the purpose of the requirements and Required Actions for the loss of 345 KV lines is to ensure continuity of service and self-sustaining reactor operation in the event of the loss of the remaining 345 KV line. This requirement is not related to any safety requirement. Therefore, this information provides details that are not directly pertinent to the actual requirements, but rather describe offsite transmission network components which are not included in the requirement. These details will not be retained in ITS, because they are not necessary to adequately describe the regulatory requirement.	
	CTS: 15.03.07.A.01.a 15.03.07.B.01.a	**ITS:** N/A N/A
LA.01 Rev. F	Not used.	
	CTS: N/A	**ITS:** N/A
LA.02 Rev. B	Not used.	
	CTS: N/A	**ITS:** N/A
LA.03 Rev. B	CTS 15.4.6.A.3 states, "The proper operation of Emergency Lighting, including the automatic transfer switch for DC lights, will be demonstrated during each reactor shutdown for a major fuel reloading." This requirement is not being retained in ITS. Operation of the DC lighting is not a safety function and is not necessary to ensure required safeguards functions are accomplished. Therefore, these details can be moved to other documents without impact on safety, because they are not necessary to adequately describe the regulatory requirement. Changes to plant procedures and other plant controlled documents are subject to controls imposed by plant administrative procedures, which endorse applicable regulations and standards.	
	CTS: 15.04.06.A.03	**ITS:** TRM 3.08.02

Description of Changes - NUREG-1431 Section 3.08.01

09-May-01

DOC Number	DOC Text
LA.04 Rev. B	CTS 15.4.6.A.4 requires each diesel generator to be inspected following the manufacturer's recommendations. This Surveillance is not specifically detailed in the proposed ITS. Procedural controls on DG inspections recommended by the manufacturer are sufficient to ensure the DG receives the necessary inspections. Removal of these details from the Technical Specifications will have no effect on DG OPERABILITY. The requirement for the maintenance inspections will be relocated to the Technical Requirements Manual (TRM). Placing these details in procedures provides adequate assurance that they will be maintained. Changes to these procedures will be controlled in accordance with plant processes and practices. **CTS:** 15.04.06.A.04 **ITS:** N/A
M.01 Rev. A	CTS 15.3.7.A.1 requires the requirements of 15.3.7.A.1.a through 15.3.7.A.1.i to be met before either of both reactors are made critical. Proposed ITS LCO 3.8.1 the AC electrical sources of LCO 3.8.1.a, 3.8.1.b and 3.8.1.c to be OPERABLE in MODES 1, 2, 3 and 4. The AC power requirements for MODES 5 and 6 are covered in LCO 3.8.2, "AC Sources—Shutdown. Expanding the applicability of the LCO to include MODES 3 and 4 places additional requirements on plant operation and is more restrictive, but is necessary to ensure acceptable fuel design limits and reactor coolant pressure boundary limits are not exceeded as a result of Anticipated Operational Occurrences (AOOs) or abnormal transients; and to ensure adequate core cooling is provided and containment OPERABILITY and other vital functions are maintained in the event of a postulated DBA. As a result of expanding the applicability of LCO 3.8.1, the default actions have also been changed from place unit in hot shutdown (CTS 15.3.7.B.1.c) to be in MODE 3 in 6 hours and in MODE 5 in 36 hours (ITS 3.8.1, Condition H). This removes the unit from a condition where LCO 3.8.1 applies. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging plant systems. **CTS:** 15.03.07.A.01 15.03.07.B.01.c **ITS:** LCO 3.08.01 LCO 3.08.01 COND H RA H.1

DOC Number	DOC Text
M.02 Rev. A	CTS 15.3.7.B.1.f, 15.3.7.B.1.g and 15.3.7.B.1.h have been revised. Each of these specifications requires the inoperable normal or standby emergency power supply(s) to be restored within 7 days. Proposed ITS LCO 3.8.1 Required Actions D.2 and E.3 include an additional Completion Time of "AND 14 days from discovery of failure to meet LCO." The 14 day Completion Time for Required Action D.2 and E.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 D is entered while, for instance, a standby emergency power source is inoperable and that standby emergency power source is subsequently returned to OPERABLE status, the LCO may already have been not met for up to 7 days. This could lead to a total of 14 days since initial failure to meet the LCO, to restore the offsite power supply. At this time, a standby emergency power source could again become inoperable, the offsite power supply restored to OPERABLE status, 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 the LCO. This limit is considered reasonable for situations in which Conditions D and E are entered concurrently. The "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. **CTS:** NEW **ITS:** LCO 3.08.01 COND D RA D.2 LCO 3.08.01 COND E RA E.3
M.03 Rev. A	CTS 15.4.6.A.1 requires the start of the DG, followed by synchronization with other power sources and assumption of load by the DG shall not exceed 2850 kW, conducted monthly with a minimum running time of 30 minutes on each DG. Proposed ITS SR 3.8.1.3 requires each standby emergency power source be synchronized and loaded and operated for greater than or equal to 60 minutes at a load greater than or equal to 2500 KW and less than or equal to 2850 KW. This surveillance requirement is also modified by the addition of NOTE 2, which states that momentary transients, because of changing bus loads, do not invalidate this test. These changes impose additional requirements on unit operation and are more restrictive. The load band is provided to establish adequate DG minimum load and avoid routine overloading of the standby emergency power source. Routine overloading may result in more frequent inspections in accordance with vendor recommendations in order to maintain standby emergency power source OPERABILITY. A minimum run time of 60 minutes is required to stabilize engine temperatures, while minimizing the time that the standby emergency power source is connected to the offsite source. **CTS:** 15.04.06.A.01 NEW **ITS:** SR 3.08.01.03 SR 3.08.01.03 NOTE 2

Description of Changes - NUREG-1431 Section 3.08.01

09-May-01

DOC Number	DOC Text
M.04 Rev. A	CTS 15.4.6.A has been modified by the adoption of ITS SR 3.8.1.1. This modification imposes additional requirements on unit operation and is more restrictive. This SR ensures proper circuit continuity for the offsite AC electrical power supply to the onsite distribution network and availability of offsite AC electrical power. The breaker alignment verifies that each breaker is in its correct position to ensure that distribution buses and loads are connected to their preferred offsite power source. The 7 day Frequency is adequate since breaker position is not likely to change without the operator being aware of it and because its status is displayed in the control room. **CTS:** NEW **ITS:** SR 3.08.01.01
M.05 Rev. A	CTS 15.3.6.A has been modified by the adoption of ITS SR 3.8.1.6. This modification imposes additional requirements on unit operation and is more restrictive. As required by Regulatory Guide 1.9, this Surveillance ensures that the manual synchronization and load transfer from the standby emergency power source to the offsite source can be made and the standby emergency power source can be returned to ready to load status when offsite power is restored. It also ensures that the autostart logic is reset to allow the standby emergency power source to reload if a subsequent loss of offsite power occurs. The standby emergency power source is considered to be in ready to load status when the standby emergency power source is at rated speed and voltage, the output breaker is open and can receive an autoclose signal on bus undervoltage, and the load sequence logic is reset. The Frequency of 18 months is consistent with the recommendations of Regulatory Guide 1.9, and takes into consideration unit conditions required to perform the Surveillance. **CTS:** NEW **ITS:** SR 3.08.01.06
M.06 Rev. A	CTS 15.4.6.A.2 requires the demonstration of standby emergency power source operation, during an actual loss of offsite power in conjunction with a simulated safety injection signal, during reactor shutdown for major fuel reloading. Proposed SR 3.8.1.5 requires performance of the standby emergency power source test once per 18 months. The CTS does not define a specific frequency of performance for this surveillance, but rather an evolution which can vary significantly from outage to outage with no boundary limit. Accordingly, the adoption of a bounding frequency (18 months) is a more restrictive change. **CTS:** 15.04.06.A.02 **ITS:** SR 3.08.01.05

Insert 3.8.1-1:

3.8.1 AC Sources–Operating

LCO 3.8.1 The following AC electrical power sources shall be OPERABLE:

A.6

CTS 15.3.7.A.1.b/
15.3.7.A.1.c/
15.3.7.A.1.i

a. One circuit between the offsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, utilizing the associated unit's 345/13.8 kV (X03) transformer or the opposite unit's 345/13.8 kV (X03) transformer with the gas turbine in operation, and the associated unit's 13.8/4.16 kV (X04);

CTS 15.3.7.A.1.i

b. One circuit between the offsite transmission network and the opposite unit's 4.16 kV Class 1E safeguards buses, A05 and A06; and

c. One standby emergency power source capable of supplying each 4.16 kV/480 V Class 1E safeguards bus.

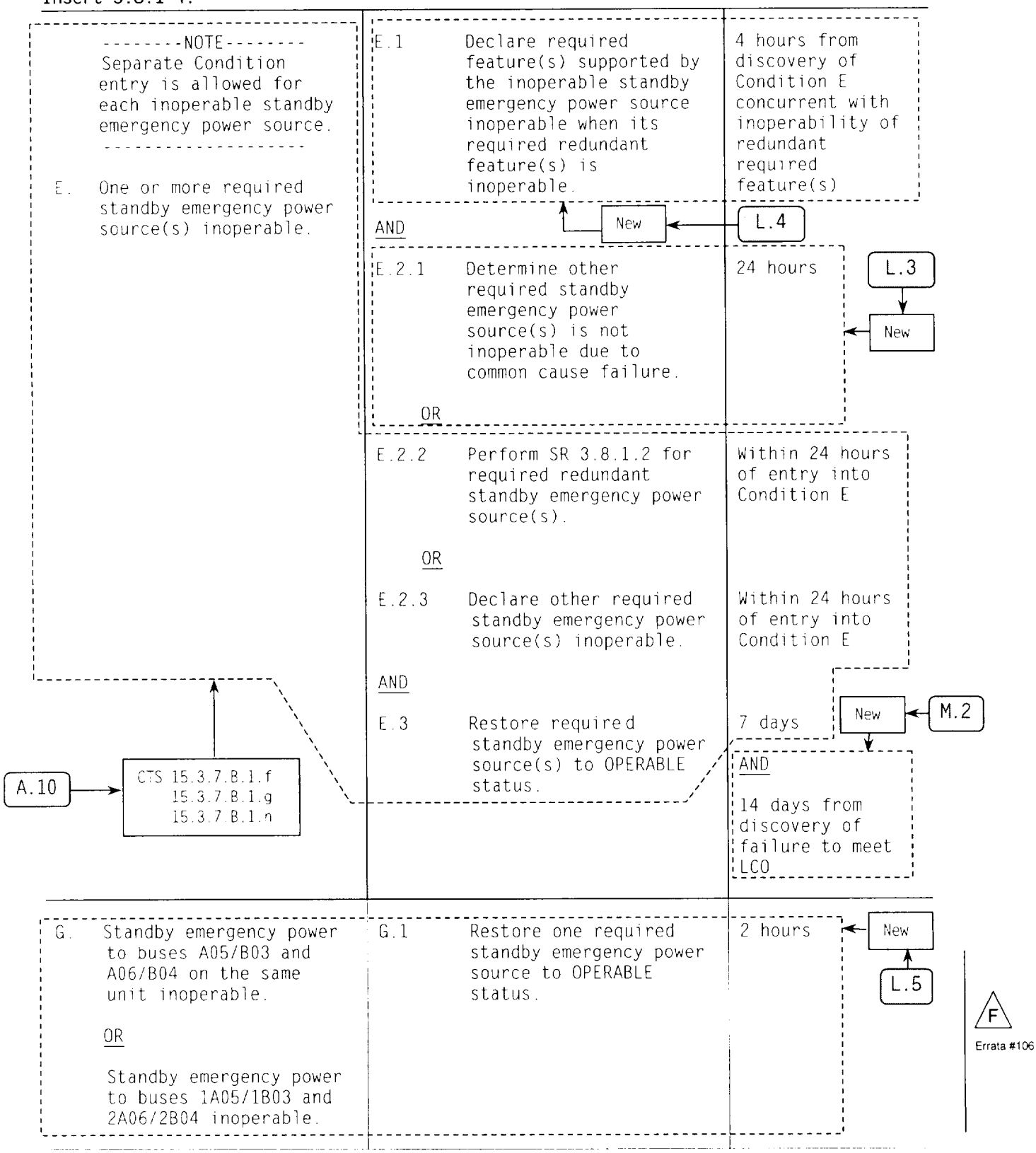
F
Errata #106

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Associated unit 345/13.8 kV (X03) transformer inoperable. OR Gas turbine not in operation when utilizing opposite unit's 345/13.8 kV (X03) transformer.	A.1 Verify one circuit between the offsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, utilizing the opposite units 345/13.8 kV (X03)transformer.	24 hours CTS 15.3.7.A.1.b M.7
CTS 15.3.7.A.1.b A.6	AND A.2 Verify gas turbine in operation.	24 hours L.9

Insert 3.8.1-4:


--------NOTE--------
Separate Condition entry is allowed for each inoperable standby emergency power source.

E. One or more required standby emergency power source(s) inoperable.
E.1 Declare required feature(s) supported by the inoperable standby emergency power source inoperable when its required redundant feature(s) is inoperable.
4 hours from discovery of Condition E concurrent with inoperability of redundant required feature(s)
New
L.4
AND
E.2.1 Determine other required standby emergency power source(s) is not inoperable due to common cause failure.
24 hours
L.3
New
OR
E.2.2 Perform SR 3.8.1.2 for required redundant standby emergency power source(s).
Within 24 hours of entry into Condition E
OR
E.2.3 Declare other required standby emergency power source(s) inoperable.
Within 24 hours of entry into Condition E
AND
E.3 Restore required standby emergency power source(s) to OPERABLE status.
7 days
New
M.2
AND
14 days from discovery of failure to meet LCO
A.10
CTS 15.3.7.B.1.f
15.3.7.B.1.g
15.3.7.B.1.n
G. Standby emergency power to buses A05/B03 and A06/B04 on the same unit inoperable.
OR
Standby emergency power to buses 1A05/1B03 and 2A06/2B04 inoperable.
G.1 Restore one required standby emergency power source to OPERABLE status.
2 hours
New
L.5
F
Errata #106

Justification For Deviations - NUREG-1431 Section 3.08.01

09-May-01

JFD Number	JFD Text
01 Rev. F	NUREG 1431 LCO 3.8.1 and associated Bases have been modified to reflect the Point Beach design and nomenclature. The sources of power between the offsite transmission network and the onsite Class 1E electrical power distribution system and separate and independent standby emergency power sources for each safeguards train ensures the availability of required power to shut down the reactor and maintain it in a safe shutdown condition after an anticipated operational occurrence (AOO) or a postulated DBA. The following AC electrical power sources are required to be OPERABLE: a. One circuit between the offsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, utilizing the associated unit's X03 and X04 transformers or the opposite unit X03 and associated unit X04 transformers with the gas turbine operating; and b. One circuit between the offsite transmission network and the opposite unit's 4.16 kV Class 1E safeguards buses, A05 and A06; and c. One standby emergency power source capable of supplying each 4.16 kV/480 V Class 1E safeguards bus. Incorporating the above Point Beach design features into LCO 3.8.1 has necessitated additional changes to entry conditions, required actions, and surveillance requirements to utilize the plant specific nomenclature and unique design aspects.

ITS:	NUREG:
B 3.08.01	B 3.08.01
LCO 3.08.01 A	LCO 3.08.01 A
LCO 3.08.01 B	LCO 3.08.01 B
LCO 3.08.01 C	LCO 3.08.01 C
LCO 3.08.01 COND D	LCO 3.08.01 COND A
LCO 3.08.01 COND D RA D.1	LCO 3.08.01 COND A RA A.2
LCO 3.08.01 COND D RA D.2	LCO 3.08.01 COND A RA A.3
LCO 3.08.01 COND E	LCO 3.08.01 COND B
LCO 3.08.01 COND E RA E.1	LCO 3.08.01 COND B RA B.2
LCO 3.08.01 COND E RA E.2.1	LCO 3.08.01 COND B RA B.3.1
LCO 3.08.01 COND E RA E.2.2	LCO 3.08.01 COND B RA B.3.2
LCO 3.08.01 COND E RA E.3	LCO 3.08.01 COND B RA B.4
LCO 3.08.01 COND F	LCO 3.08.01 COND D
LCO 3.08.01 COND F RA F.1	LCO 3.08.01 COND D RA D.1

Justification For Deviations - NUREG-1431 Section 3.08.01

09-May-01

JFD Number	JFD Text
LCO 3.08.01 COND F RA F.2	LCO 3.08.01 COND D RA D.2
LCO 3.08.01 COND G	LCO 3.08.01 COND E
LCO 3.08.01 COND G RA G.1	LCO 3.08.01 COND E RA E.1
SR 3.08.01.02	SR 3.08.01.02
SR 3.08.01.02 NOTE 1	SR 3.08.01.02 NOTE 2
SR 3.08.01.02 NOTE 2	SR 3.08.01.02 NOTE 3
SR 3.08.01.03	SR 3.08.01.03
SR 3.08.01.03 NOTE 1	SR 3.08.01.03 NOTE 1
SR 3.08.01.05	SR 3.08.01.19
SR 3.08.01.06	SR 3.08.01.16

Justification For Deviations - NUREG-1431 Section 3.08.01

09-May-01

JFD Number	JFD Text	
	LCO 3.08.01 COND C	N/A
	LCO 3.08.01 COND C RA C.1	N/A
	LCO 3.08.01 COND D	LCO 3.08.01 COND A
	LCO 3.08.01 COND D RA D.1	LCO 3.08.01 COND A RA A.2
	LCO 3.08.01 COND D RA D.2	LCO 3.08.01 COND A RA A.3
	LCO 3.08.01 COND E	LCO 3.08.01 COND B
	LCO 3.08.01 COND E RA E.1	LCO 3.08.01 COND B RA B.2
	LCO 3.08.01 COND E RA E.2.1	LCO 3.08.01 COND B RA B.3.1
	LCO 3.08.01 COND E RA E.2.2	LCO 3.08.01 COND B RA B.3.2
	LCO 3.08.01 COND E RA E.3	LCO 3.08.01 COND B RA B.4
03 Rev. B	Not used.	
	ITS:	**NUREG:**
	B 3.08.01	B 3.08.01
	N/A	N/A
04 Rev. F	NUREG 1431 LCO 3.8.1, Required Action A.1 has not been retained in ITS. Condition A is entered when one or more required offsite power sources are inoperable. Required Action A.1 was written for units with two qualified circuits between the offsite transmission network and the onsite Class 1E Electrical Power Distribution System. Required Action A.1 requires the performance of SR 3.8.1.1 for the required operable offsite circuit. Point Beach AC electrical sources design consists of one circuit between the offsite transmission unit's 4.16 kV safeguards buses utilizing the associated unit's X03 and X04 transformers; one circuit between the offsite transmission network and the opposite unit's 4.16 kV safeguards buses; and one standby emergency power source capable of supplying each 4.16 kV/480 V safeguards bus. Unit operation with the opposite units X03 transformer in service is acceptable, providing the 13.8 kV gas turbine generator is operating. Therefore performance of this surveillance requirement is unnecessary.	
	ITS:	**NUREG:**
	B 3.08.01	B 3.08.01
	N/A	LCO 3.08.01 COND A RA A.1

Justification For Deviations - NUREG-1431 Section 3.08.01

09-May-01

JFD Number	JFD Text
07 Rev. A	The Completion Time of ITS LCO 3.8.1, Required Action D.2 has been changed from 72 hours to 7 days, consistent with CTS 15.3.7.B.1.f, 15.3.7.B.1.g and 15.3.7.B.1.h which allow continued operation for up to 7 days, provided the redundant engineered safety features are operable. Additionally, the second Completion Time of Required Action D.2 has been changed from "6 days" to "14 days," to maintain the Basis of the Completion Time, i.e., concurrent entry into Conditions D and E. **ITS:** B 3.08.01 LCO 3.08.01 COND D RA D.2 **NUREG:** B 3.08.01 LCO 3.08.01 COND A RA A.3
08 Rev. A	ITS LCO 3.8.1, Condition E has been modified by the adoption of a Note allowing separate condition entry for each inoperable required standby emergency power source. This is acceptable because the Required Actions for this Condition provide appropriate compensatory actions for each inoperable power supply, while the combination of Condition E and Condition F dictates which combinations of buses with inoperable power sources are allowed for 7 days versus 2 hours. **ITS:** B 3.08.01 LCO 3.08.01 COND E NOTE **NUREG:** B 3.08.01 N/A
09 Rev. F	NUREG 1431 LCO 3.8.1, Required Action B.1 has not been retained in ITS. Condition B is entered when one or more required standby emergency power sources are inoperable. Required Action B.1 was written for units with two qualified circuits between the offsite transmission network and the onsite Class 1E Electrical Power Distribution System and two DGs capable of supplying the onsite Class 1E Electrical Power Distribution System. Required Action B.1 requires the performance of SR 3.8.1.1 for the required operable offsite circuit, to ensure a highly reliable power source remains with an inoperable DG. Point Beach AC electrical sources design consists of one circuit between the offsite transmission unit's 4.16 kV safeguards buses utilizing the associated unit's X03 and X04 transformers; one circuit between the offsite transmission network and the opposite unit's 4.16 kV safeguards buses; and one standby emergency power source capable of supplying each 4.16 kV/480 V safeguards bus. Therefore performance of this surveillance requirement is unnecessary. **ITS:** B 3.08.01 N/A **NUREG:** B 3.08.01 LCO 3.08.01 COND B RA B.1

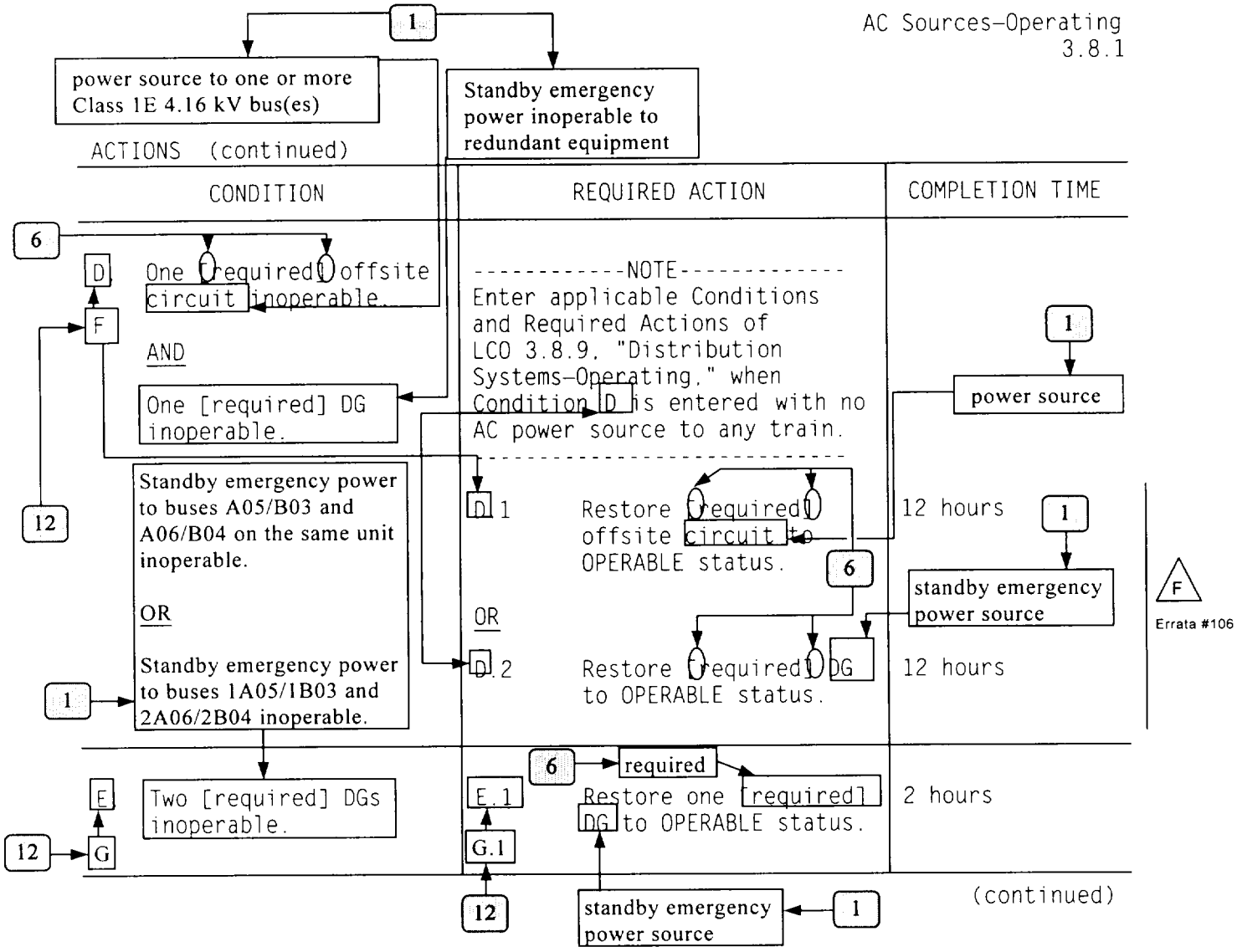
JFD Number	JFD Text
12 Rev. F	NUREG 1431 LCO 3.8.1, Condition C has not been retained in ITS. Condition C addresses the loss of two offsite circuits. Point Beach design incorporates the following AC electrical power sources: one circuit between the offsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, utilizing the associated unit's X03 and X04 transformers; one circuit between the offsite transmission network and the opposite unit's 4.16 kV Class 1E safeguards buses, A05 and A06; and one standby emergency power source capable of supplying each 4.16 kV/480 V Class 1E safeguards bus. Therefore Condition C does not apply. Incorporation of these changes also results in the re-lettering/re-numbering of subsequent Conditions and Required Actions.

ITS:	**NUREG:**
B 3.08.01	B 3.08.01
LCO 3.08.01 COND F	LCO 3.08.01 COND D
	N/A
LCO 3.08.01 COND F RA F.1	LCO 3.08.01 COND D RA D.1
LCO 3.08.01 COND F RA F.1 NOTE	LCO 3.08.01 COND D RA D.1 NOTE
LCO 3.08.01 COND F RA F.2	LCO 3.08.01 COND D RA D.2
LCO 3.08.01 COND G	LCO 3.08.01 COND E
LCO 3.08.01 COND G RA G.1	LCO 3.08.01 COND E RA E.1
LCO 3.08.01 COND H	LCO 3.08.01 COND G
LCO 3.08.01 COND H RA H.1	LCO 3.08.01 COND G RA G.1
LCO 3.08.01 COND H RA H.2	LCO 3.08.01 COND G RA G.2
N/A	LCO 3.08.01 COND C
	LCO 3.08.01 COND C RA C.1
	LCO 3.08.01 COND C RA C.2
	LCO 3.08.01 COND D
	LCO 3.08.01 COND D RA D.1
	LCO 3.08.01 COND D RA D.1 NOTE
	LCO 3.08.01 COND D RA D.2

Justification For Deviations - NUREG-1431 Section 3.08.01

09-May-01

JFD Number	JFD Text
13 Rev. A	Bases associated with LCO 3.8.1 have been modified by the addition of Table B 3.8.1-1. Table B 3.8.1-1 provides a listing of Inoperable Equipment with the accompanying Conditions that are required to be entered. This Table is provided as a guide to assist operators in the determination of the appropriate Conditions to enter given a set of equipment inoperabilities. **ITS:** B 3.08.01 **NUREG:** B 3.08.01
14 Rev. F	NUREG 1431 LCO 3.8.1, Condition H has not been retained in ITS. Condition H addresses the loss of three or more AC sources. Point Beach design incorporates the following AC electrical power sources: one circuit between the offsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, utilizing the associated unit's X03 and X04 transformers; one circuit between the offsite transmission network and the opposite unit's 4.16 kV Class 1E safeguards buses, A05 and A06; and one standby emergency power source capable of supplying each 4.16 kV/480 V Class 1E safeguards bus. Therefore Condition H does not apply. **ITS:** B 3.08.01 N/A **NUREG:** B 3.08.01 LCO 3.08.01 COND H LCO 3.08.01 COND H RA H.1
15 Rev. A	SR 3.8.1.2 Note 1 has not been retained in ITS and Note 3 has been modified. Note 1 allows the performance of SR 3.8.1.7 to satisfy SR 3.8.1.2. NUREG 1431, SR 3.8.1.7 has not been retained in ITS. Point Beach current licensing basis does not require verification of the standby emergency power source to be ready to accept load in 10 seconds. Note 3 refers to a start involving idling and gradual acceleration to synchronous speed. This note has been modified to remove the reference to SR 3.8.1.7, which has not been adopted. Deleting Note 1 also results in the re-numbering of subsequent SR 3.8.1.2 Notes. Additionally, because SR 3.8.1.2, Note 1, has not been retained in ITS, TSTF-253, which deletes SR 3.8.1.2, Note 1, is effectively incorporated. **ITS:** B 3.08.01 N/A SR 3.08.01.02 NOTE 1 SR 3.08.01.02 NOTE 2 **NUREG:** B 3.08.01 SR 3.08.01.02 NOTE 1 SR 3.08.01.02 NOTE 2 SR 3.08.01.02 NOTE 3


1
power source to one or more Class 1E 4.16 kV bus(es)
Standby emergency power inoperable to redundant equipment
ACTIONS (continued)
CONDITION
REQUIRED ACTION
COMPLETION TIME
6
D
One [required] offsite circuit inoperable.
AND
One [required] DG inoperable.
F
12
Standby emergency power to buses A05/B03 and A06/B04 on the same unit inoperable.
OR
Standby emergency power to buses 1A05/1B03 and 2A06/2B04 inoperable.
1
E
Two [required] DGs inoperable.
12
G
----------NOTE----------
Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems–Operating," when Condition D is entered with no AC power source to any train.
D.1
Restore [required] offsite circuit to OPERABLE status.
12 hours
OR
D.2
Restore [required] DG to OPERABLE status.
12 hours
E.1
Restore one [required] DG to OPERABLE status.
6
required
2 hours
G.1
12
standby emergency power source
1
1
power source
1
standby emergency power source
6
F
Errata #106
(continued)

3.8.1 Inserts

3.8.1-1

a. One circuit between the offsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, utilizing the associated unit's 345/13.8 kV (X03) transformer or the opposite unit's 345/13.8 kV (X03) transformer with the gas turbine in operation, and the associated unit's 13.8/4.16 kV (X04) transformer;

b. One circuit between the offsite transmission network and the opposite unit's 4.16 kV Class 1E safeguards buses, A05 and A06; and

c. One standby emergency power source capable of supplying each 4.16 kV/480 V Class 1E safeguards bus.

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Errata #106

3.8.1-2

A. Associated unit 345/13.8 kV (X03) transformer inoperable. OR Gas turbine not in operation when utilizing opposite unit's 345/13.8 kV (X03) transformer.	A.1	Verify one circuit between the offsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, utilizing the opposite unit's 345/13.8 kV (X03) transformer.	24 hours
	AND		
	A.2	Verify gas turbine in operation.	24 hours
B. Associated unit's 13.8/4.16 kV (X04) transformer inoperable.	B.1	Restore associated unit's 13.8/4.16 kV (X04) transformer to OPERABLE status.	24 hours

LCO 3.8.1 BASES INSERTS

Insert B 3.8.1-1 (continued):

In lieu of both diesel room exhaust fans being OPERABLE for G-03 and G-04, only the large capacity fan (W-183C for G-03, W-184B for G-04) is required to be OPERABLE when outside air temperature is < 84°F, or only the small capacity fan (W-183B for G-03, W-184C for G-04) is required to be OPERABLE when outside air temperature is $\leq$ 36°F.

A detailed description of the AC power distribution network is contained in FSAR, Chapter 8 (Ref. 2).

Insert B 3.8.1-2:

Qualified sources of power between the offsite transmission network, the onsite Class 1E electrical power distribution system, and separate and independent standby emergency power sources for each safeguards train ensures the availability of required power to shut down the reactor and maintain it in a safe shutdown condition after an anticipated operational occurrence (AOO) or a postulated DBA.

The following AC electrical power sources are required to be OPERABLE:

a. One circuit between the offsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, utilizing the associated unit's X03 transformer or the opposite unit's X03 transformer with the gas turbine in operation, and the associated unit's X04 transformers; and

B
RAI 3.8.1-16

b. One circuit between the offsite transmission network and the opposite unit's 4.16 kV Class 1E safeguards buses, A05 and A06; and

c. One standby emergency power source capable of supplying each 4.16 kV/480 V Class 1E safeguards bus, A05/B03 and A06/B04.

F
Errata #106

Each of the above required offsite sources is described in detail as follows:

The source of offsite AC power between the of fsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, consists of:

a. The associated unit's high voltage system auxiliary transformer, X03, supplied from 345 kV Switchyard; or, the opposite unit's X03 with the gas turbine in operation.

B
RAI 3.8.1-16

b. The associated unit's low voltage station auxiliary transformer, X04;

LCO 3.8.1 BASES INSERTS

Insert B 3.8.1-4:

Condition D applies when offsite power is inoperable to one or more required 4.16 kV safeguards bus(es). The Required Actions for this Condition provide appropriate compensatory actions for each inoperable power supply, while the combination of Condition C and Condition D dictates which combinations of buses with inoperable power sources are allowed for 7 days versus 24 hours.

B
RAI 3.8.1-8
RAI 3.8.1-19

Required Action D.1, is intended to provide assurance that an event coincident with a single failure of the associated standby emergency power source will not result in a complete loss of safety function of critical redundant required features. These features are powered from the redundant safeguards train.

Insert B 3.8.1-5:

Condition E applies when one or more standby emergency power supplies are inoperable. Condition E contains a Note which provides clarification that, for this Condition, separate Condition entry is allowed for each inoperable standby emergency power supply. This is acceptable since the Required Actions for this Condition provide appropriate compensatory actions for each inoperable power supply, while the combination of Condition E and Condition G dictates which combinations of buses with inoperable power sources are allowed for 7 days versus 2 hours.

Insert B 3.8.1-6:

Required Action G.1 applies to each unit in MODE 1, 2, 3 or 4, when standby emergency power to both safeguards buses on the same unit are inoperable (i.e. 1A05/1B03 and 1A06/1B04, or 2A05/2B03 and 2A06/2B04), or standby emergency power to safeguards buses 1A05/1B03 and 2A06/2B04 are inoperable.

F
Errata #106

LCO 3.8.1 BASES INSERTS

Insert B 3.8.1-11:

Table B 3.8.1-1 (page 1 of 2)
Conditions for AC Sources Component Inoperabilities

Inoperable Equipment	Condition(s)
Inoperable standby emergency power source to 1A05/1B03, 1A06/1B04, 2A05/2B03, or 2A06/2B04. OR Inoperable standby emergency power sources to 1A05/1B03 and 2A05/2B03. OR Inoperable standby emergency power sources to 1A06/1B04 and 2A06/2B04.	Condition E
Inoperable standby emergency power source to A05/B03 and A06/B04 on the same unit OR Inoperable standby emergency power to 1A05/1B03 and 2A06/2B04.	Condition E AND Condition G
One or more de-energized 4.16 kV safeguards buses (1A05/2A05/1A06/2A06). OR One or more 4.16 kV safeguards buses (1A05/2A05/1A06/2A06) with inoperable standby emergency power source(s) and inoperable offsite power source(s).	Condition D AND Condition E AND Condition G OR Condition F
Inoperable offsite power source to associated unit's A05 and A06. OR Inoperable offsite power to 1A05 and 2A06.	Condition C AND Condition D
Inoperable offsite power source to 1A05, 1A06, 2A05, or 2A06. OR Inoperable offsite sources to 1A05 and 2A05. OR Inoperable offsite sources to 1A06 and 2A06.	Condition D

F
Errata #106

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
A Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change involves reformatting and rewording of the current Technical Specifications. The reformatting and rewording process involves no technical changes to existing requirements. As such, this change is administrative in nature and does not impact initiators of analyzed events or assumed mitigation of accident or transient events. Therefore, this change does not increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will not impose any new or eliminate any old requirements. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will not significantly reduce the margin of safety because it has no impact on any safety analysis assumptions. This change is administrative. As such, there is no technical change to the requirements and, therefore, there is no reduction in the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
L.01 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. The Current Technical Specifications (CTS) describe how a system, subsystem, train, component or device's operability is determined when either its emergency AC power or normal AC power source is inoperable. When a system, subsystem, train, component or device redundant to one associated with the inoperable AC source is discovered inoperable, the CTS requires entry into the ACTIONS for both redundant systems, subsystems, trains, components or devices being inoperable. This limitation has been moved to proposed LCO 3.8.1 Required Actions for inoperable offsite circuits and inoperable DGs consistent with NUREG 1431. However, the ITS provides a limited period of time to verify redundant features are OPERABLE, as well as time to restore the component to operable status after an AC source is discovered inoperable. 12 hours has been provided if an offsite circuit is inoperable, and 4 hours if one DG is inoperable. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The AC Sources are used to support mitigation of the consequences of an accident; however, they are not initiators of any previously analyzed accident. As such, the proposed increase in the Completion Time will not increase the probability of any accident previously evaluated. The proposed actions continue to provide adequate assurance of OPERABILITY for required equipment. Therefore, this change does not involve a significant increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will still ensure corrective actions are taken to restore plant systems to an OPERABLE status, as assumed in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety, since the OPERABILITY of the equipment and loss of function continue to be evaluated in the same manner. The increase in time allowed for such an evaluation and restoration is minimal and provides additional potential for the preferred action of restoration of the equipment to OPERABLE status, rather than requiring a shutdown which could induce a plant transient.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
L.02 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. The inoperability of a unit's 13.8 / 4.16 kV (X04) transformer renders offsite power to the associated unit's safeguards buses inoperable. Current Technical Specifications require the reactor associated with an out of service X04 transformer to be placed in the hot shutdown condition. The proposed ITS Required Actions allow 24 hours to restore the required offsite power source to an OPERABLE status before requiring shutdown of the unit. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The AC Sources are used to support mitigation of the consequences of an accident; however, they are not initiators of any previously analyzed accident. As such, the proposed increase in the Completion Time will not increase the probability of any accident previously evaluated. The proposed actions continue to provide adequate assurance of OPERABILITY for required equipment. Therefore, this change does not involve a significant increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will still ensure corrective actions are taken to restore plant systems to OPERABLE status, as assumed in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety since the Operability of the equipment and loss of function continue to be evaluated in the same manner. The increase in time allowed for such an evaluation and restoration is minimal and provides additional potential for the preferred action of restoration of the equipment to OPERABLE status, rather than requiring a shutdown which could induce a plant transient.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
L.03 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. Current Technical Specifications require the redundant standby emergency power supplies be started within 24 hours of an out of service normal or standby emergency power supply, and every 72 hours thereafter. The requirement to verify the OPERABILITY of the standby emergency power supplies every 72 hours while in the LCO has not been retained in ITS. Additionally, the requirement to start the required redundant standby emergency power supply within 24 hours of an inoperable offsite power supply has not been retained in ITS. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The AC Sources are used to support mitigation of the consequences of an accident; however, they are not initiators of any previously analyzed accident. As such relaxing the requirements to verify the OPERABILITY of the standby emergency power source in the event of an out of service normal or standby emergency power supply will not increase the probability of any accident previously evaluated. The proposed actions continue to provide adequate assurance of OPERABILITY for required equipment. Therefore, this change does not involve a significant increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will still ensure corrective actions are taken to restore plant systems to OPERABLE status, as assumed in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety since the OPERABILITY of the equipment and loss of function continue to be evaluated in the same manner. Once the OPERABILITY of the standby emergency power source has been verified or shown to not to be subject to a common mode failure, it is unnecessary to revalidate this information with additional performances of the surveillance requirements.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
L.04 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. Current Technical Specifications allow continued operation for up to 7 days, if specific normal or standby emergency power sources are out of service, provided the required redundant engineered safety feature(s) are operable. Proposed ITS Required Actions for inoperable offsite power source(s) or standby emergency power source(s) to Class 1E 4.16 kV bus(es) require the restoration of the associated power source(s) to an OPERABLE status within 7 days. However, the proposed ITS allows 12 hours to restore any inoperable required redundant feature(s) before declaring the required feature(s) supported by the inoperable offsite power source inoperable, and 4 hours to restore any inoperable required redundant feature(s) before declaring the required feature(s) supported by the inoperable standby emergency power source inoperable. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The AC Sources are used to support mitigation of the consequences of an accident; however, they are not initiators of any previously analyzed accident. As such the proposed increase in the Completion Time will not increase the probability of any accident previously evaluated. The proposed actions continue to provide adequate assurance of OPERABILITY for required equipment and therefore, do not involve an increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will still ensure corrective actions are taken to restore plant systems to OPERABLE status, as assumed in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety since the OPERABILITY of the equipment and loss of function continue to be evaluated in the same manner. The increase in time allowed for such a evaluation and restoration is minimal and provides additional potential for the preferred action of restoration of the equipment to OPERABLE status, rather than requiring a shutdown which could induce a plant transient.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
L.05 Rev. F	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. Proposed ITS Required Actions allow 2 hours to restore standby emergency power to both safeguards buses on the same unit (i.e. 1A05/1B03 and 1A06/1B04, or 2A05/2B03 and 2A06/2B04), or standby emergency power to safeguards buses 1A05/1B03 and 2A06/2B04, before requiring unit shutdown. The Current Technical Specifications do not provide required actions for the above combinations of inoperable safeguards buses and would require entry into LCO 15.3.0.B. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The AC Sources are used to support mitigation of the consequences of an accident; however, they are not initiators of any previously analyzed accident. As such the proposed increase in the Completion Time will not increase the probability of any accident previously evaluated. The proposed actions continue to provide adequate assurance of OPERABILITY for required equipment and therefore, do not involve an increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will still ensure corrective actions are taken to restore plant systems to OPERABLE status, as assumed in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety since the OPERABILITY of the equipment and loss of function continue to be evaluated in the same manner. The increase in time allowed for such a evaluation and restoration is minimal and provides additional potential for the preferred action of restoration of the equipment to OPERABLE status, rather than requiring a shutdown which could induce a plant transient.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
L.06 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. Proposed ITS Required Actions allow 24 hours to restore offsite power to both safeguards buses on the same unit (i.e. 1A05 and 1A06, or 2A05 and 2A06), or offsite power to safeguards buses 1A05 and 2A06, before requiring unit shutdown. The Current Technical Specifications do not provide required actions for the above combinations of inoperable safeguards buses and would require entry into LCO 15.3.0.B. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The AC Sources are used to support mitigation of the consequences of an accident; however, they are not initiators of any previously analyzed accident. As such the proposed increase in the Completion Time will not increase the probability of any accident previously evaluated. The proposed actions continue to provide adequate assurance of Operability for required equipment and therefore, do not involve an increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will still ensure corrective actions are taken to restore plant systems to Operable status, as assumed in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety since the Operability of the equipment and loss of function continue to be evaluated in the same manner. The increase in time allowed for such a evaluation and restoration is minimal and provides additional potential for the preferred action of restoration of the equipment to Operable status, rather than requiring a shutdown which could induce a plant transient.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
L.07 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. CTS 15.4.6.A.2 specifies DG testing initiated by an actual interruption of normal station AC power supplies to associated engineered safety systems busses together with a simulated SI signal. ITS SR 3.8.1.5 permits an actual or simulated loss of offsite power signal in conjunction with an actual or simulated ESF actuation signal to satisfy the SR requirements. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The AC Sources are used to support mitigation of the consequences of an accident; however, they are not initiators of any previously analyzed accident. As such the relaxing the requirements under which the DG testing is performed does not affect the results of the surveillance and will not increase the probability of any accident previously evaluated. The proposed actions continue to provide adequate assurance of Operability for required equipment and therefore, do not involve an increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety since the Operability of the equipment continue to be evaluated in the same manner. The results of the DG testing are not affected by the nature of the initiating signal, because the system cannot discriminate whether the signals are actual or simulated. The intent of the surveillance requirement has not been altered and does not result in a reduction in the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
L.08 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. CTS 15.4.6.A.2 requires testing of the DGs to include an additional demonstration of automatic load shedding and restoration of vital loads by manually tripping the DG output breaker, after the DG has carried its load for a minimum of 5 minutes. This requirement is not being retained in the ITS. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The AC Sources are used to support mitigation of the consequences of an accident; however, they are not initiators of any previously analyzed accident. As such the relaxing the requirements under which the DG testing is performed does not affect the results of the surveillance and will not increase the probability of any accident previously evaluated. The proposed actions continue to provide adequate assurance of Operability for required equipment and therefore, do not involve an increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety, because the feature that will no longer be tested is not relied upon in the mitigation of an analyzed accident.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
L.09 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. Current Technical Specifications require the a unit's 345/13.8 kV (X03) and 13.8/4.16 kV (X04) transformers to be in service, for the reactor to be made critical. In lieu of the associated unit's X03 transformer, unit operation with the opposite unit's X03 transformer in service is acceptable, providing the 13.8 kV gas turbine generator is operating. If the gas turbine is not operating when a unit's associated offsite power source becomes unavailable, entry into CTS 15.3.0.B is required until the gas turbine is started, synchronized and loaded. Proposed ITS Required Actions for an inoperable X03 transformer require verification that offsite power is supplying the associated unit's 4.16 kV safeguards buses from the opposite unit's X03 transformer, and requires that the gas turbine generator be placed in operation within 24 hours. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The AC Sources are used to support mitigation of the consequences of an accident; however, they are not initiators of any previously analyzed accident. As such the proposed increase in the Completion Time will not increase the probability of any accident previously evaluated. The proposed actions continue to provide adequate assurance of Operability for required equipment and therefore, do not involve an increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will still ensure corrective actions are taken to restore plant systems to Operable status, as assumed in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? This change does not involve a significant reduction in a margin of safety since the Operability of the equipment and loss of function continue to be evaluated in the same manner. The increase in time allowed for such a evaluation and restoration is minimal and provides additional potential for the preferred action of restoration of the equipment to Operable status, rather than requiring a shutdown which could induce a plant transient.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
L.10 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. CTS 15.3.0.D requires entry into 15.3.0.B, if the offsite and emergency power sources to a safeguards bus are inoperable. Proposed ITS LCO 3.8.1, Condition G, will require entry into the applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems - Operating," thereby requiring entry into the actions associated with inoperable supported equipment. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The AC Sources are used to support mitigation of the consequences of an accident; however, they are not initiators of any previously analyzed accident. As such, relaxing the required actions for loss of AC sources to a safeguards bus to be consistent with the required actions for a de-energized safeguards bus will not increase the probability of any accident previously evaluated. The proposed actions continue to provide adequate assurance of Operability for required equipment and therefore, do not involve an increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? Whether the safeguards bus is de-energized or all of its AC power sources are inoperable, the remaining AC electrical power distribution subsystems are capable of supporting the minimum safety functions necessary to shutdown 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 distribution subsystems could result in the minimum required ESF functions not being supported. Therefore entering the Conditions and Required Actions of LCO 3.8.9 is appropriate in either case, will ensure that the appropriate Required Actions are taken if redundant required features are inoperable, and does not result in a reduction in the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
L.11 Rev. B	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The change eliminates the description in the Surveillance that the start of the standby emergency power source and synchronization to the load is done manually; and, eliminates an editorial statement that the test does not affect plant operation. The purpose of the test is to demonstrate that the standby emergency power source (EDG) is capable of starting from a standby condition and supplying rated load. This can be accomplished safely without specifying the means of testing. In addition, operational and Technical Specification requirements ensure that any impact of the testing on system operation is appropriately accounted for. Testing will continue to demonstrate that the design function of starting and supplying load is accomplished. The design function of the standby emergency power source is to supply required loads upon the loss of power to the safeguards bus. The Surveillances will continue to ensure this function is performed. Therefore, the probability of a loss of all power to safety related loads is not increased. As adequate assurance continues to be provided that the safety fuction will be performed, elimination of this information also cannot result in an increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The changes do not result in a change in the function or method of function of the standby emergency power sources. Therefore, the change cannot result in a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? With the proposed changes, the Surveillance requirements continue to demonstrate that the standby emergency power source will start from a standby condition and is capable of supplying rated load. Therefore, the Surveillances continue to demonstrate that the standby emergency power sources are capable of meeting this aspect of their design basis. Thus, the change cannot result in a reduction in a margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
L.12 Rev. F	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The change removes the requirement for at least two 345 KV transmission lines to be in service and the actions to take in the event of a loss of one or more 345 KV lines. The purpose of the requirements and Required Actions for the loss of 345 KV lines is to ensure continuity of service and self-sustaining reactor operation in the event of the loss of the remaining 345 KV line. This requirement is not related to any safety requirement. Therefore, this information provides details that are not directly pertinent to the actual requirements, but rather describe offsite transmission network components which are not included in the requirement. Therefore, elimination of this information will not result in an increase in the consequences of any accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The changes do not result in a change in the function or method of function of the standby emergency power sources. Therefore, the change cannot result in a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? There are no margins of safety related to safety analyses that are dependent upon the proposed change. The requirements being deleted from the Technical Specifications do not verify a function assumed in accident analyses to mitigate a design basis accident or transient. Therefore, this change does not involve a significant reduction in a margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
LA Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change relocates requirements from the Technical Specifications to the Bases, FSAR, or other plant controlled documents. The Bases and FSAR will be maintained using the provisions of 10 CFR 50.59. In addition to 10 CFR 50.59 provisions, the Technical Specifications Bases are subject to the change process in the Administrative Controls Chapter of the ITS. Plant procedures and other plant controlled documents are subject to controls imposed by plant administrative procedures, which endorse applicable regulations and standards. Changes to the Bases, FSAR, or other plant controlled documents will be evaluated in accordance with the requirements of the Bases Control Program in Chapter 5.0 of the ITS, 10 CFR 50.59, or plant administrative processes. Therefore, no increase in the probability or consequences of an accident previously evaluated will be allowed. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration to the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will not impose any different requirements and adequate control of the information will be maintained. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will not reduce a margin of safety because it has no impact on any safety analysis assumptions. In addition, the requirements to be moved from the Technical Specifications to the Bases, FSAR, or other plant controlled documents are as they currently exist. Future changes to the requirements in the Bases, FSAR, or other plant controlled documents will be evaluated in accordance with the requirements of 10 CFR 50.59, the Bases Control Program in Chapter 5.0 of the ITS, or the applicable plant process and no reduction in a margin of safety will be allowed.

No Significant Hazards Considerations - NUREG-1431 Section 3.08.01

09-May-01

NSHC Number	NSHC Text
M Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change provides more restrictive requirements for operation of the facility. These more stringent requirements do not result in operation that will increase the probability of initiating an analyzed event and do not alter the assumptions relative to the mitigation of an accident or transient event. These more restrictive requirements continue to ensure process variables, structures, systems and components are maintained consistent with the safety analyses. Therefore, this change does not increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change does impose different requirements. However, these changes are consistent with assumptions made in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The imposition of more restrictive requirements either has no affect on or increases the margin of safety. Each change is providing additional restrictions to enhance plant safety. These changes are consistent with the safety analysis. Therefore, this change does not involve a reduction in a margin of safety.

3.8 ELECTRICAL POWER SYSTEMS

3.8.1 AC Sources—Operating

LCO 3.8.1 The following AC electrical power sources shall be OPERABLE:

a. One circuit between the offsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, utilizing the associated unit's 345/13.8 kV (X03) transformer or the opposite unit's 345/13.8 kV (X03) transformer with the gas turbine in operation, and the associated unit's 13.8/4.16 kV (X04) transformer;

b. One circuit between the offsite transmission network and the opposite unit's 4.16 kV Class 1E safeguards buses, A05 and A06; and

c. One standby emergency power source capable of supplying each 4.16 kV/480 V Class 1E safeguards bus. | F Errata #106

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Associated unit 345/13.8 kV (X03) transformer inoperable. OR Gas turbine not in operation when utilizing opposite unit's 345/13.8 kV (X03) transformer.	A.1 Verify one circuit between the offsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, utilizing the opposite unit's 345/13.8 kV (X03) transformer. AND A.2 Verify gas turbine in operation.	24 hours 24 hours
B. Associated unit's 13.8/4.16 kV (X04) transformer inoperable.	B.1 Restore associated unit's 13.8/4.16 kV (X04) transformer to OPERABLE status.	24 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. One or more required offsite power source to one or more Class 1E 4.16 kV safeguards bus(es) inoperable. AND Standby emergency power inoperable to redundant equipment.	----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems – Operating," when Condition F is entered with no AC power to any train. ---------- F.1 Restore required offsite circuit to OPERABLE status. OR F.2 Restore required standby emergency power source to OPERABLE status.	 12 hours 12 hours
G. Standby emergency power to buses A05/B03 and A06/B04 on the same unit inoperable. OR Standby emergency power to buses 1A05/1B03 and 2A06/2B04 inoperable.	G.1 Restore one required standby emergency power source to OPERABLE status.	2 hours
H. Required Action and associated Completion Time not met.	H.1 Be in MODE 3. AND H.2 Be in MODE 5.	6 hours 36 hours

F
Errata #106

BASES

LCO (continued)

The following AC electrical power sources are required to be OPERABLE:

a. One circuit between the offsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, utilizing the associated unit's X03 transformer or the opposite unit's X03 transformer with the gas turbine in operation, and associated unit's X04 transformer; and

B
RAI 3.8.1-16

b. One circuit between the offsite transmission network and the opposite unit's 4.16 kV Class 1E safeguards buses, A05 and A06; and

c. One standby emergency power source capable of supplying each 4.16 kV/480 V Class 1E safeguards bus, A05/B03 and A06/B04.

F
Errata #106

Each of the above required offsite sources is described in detail as follows:

The source of offsite AC power between the offsite transmission network and the associated unit's 4.16 kV Class 1E safeguards buses, A05 and A06, consists of:

a. The associated unit's high voltage system auxiliary transformer, X03, supplied from 345 kV Switchyard; or, the opposite unit's X03 with the gas turbine in operation;

B
RAI 3.8.1-16

b. The associated unit's low voltage station auxiliary transformer, X04;

c. The associated unit's 4.16 kV distribution buses, A03 and A04; and

d. All associated breakers, switches, interrupting devices, cabling, and controls required to transmit power from the Offsite 345 kV Distribution System to its respective unit's 4.16 kV safeguards buses A05 and A06.

The offsite AC power circuit between the offsite transmission network and the opposite unit's 4.16 kV Class 1E safeguards buses, A05 and A06, consists of:

a. Either high voltage system auxiliary transformer, X03, supplied from the 345 kV Switchyard, supplying power to either unit's low voltage station auxiliary transformer, X04, the opposite unit's 4.16 kV distribution buses, A03 and A04, the associated unit's 4.16 kV distribution buses, A03 and A04 (when power is being supplied by the associated unit's low voltage station auxiliary X04 transformer); and

BASES

ACTIONS (continued) The second Completion Time for Required Action E.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 E is entered while, for instance, an offsite source is inoperable and that source is subsequently restored OPERABLE, the LCO may already have been not met for up to 7 days. This could lead to a total of 14 days, since initial failure to meet the LCO, to restore the standby emergency power source. At this time, an offsite source could again become inoperable, the standby emergency power source 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 time allowed in a specified condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which Conditions D and E are entered concurrently. The "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 E.1, 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 E was entered.

F.1 and F.2

Pursuant to LCO 3.0.6, the distribution system Actions would not be entered even if all AC sources to it were inoperable, resulting in de-energization. Therefore, the Required Action of Condition F are modified by a Note to indicate that when Condition F is entered with no AC power to any Class 1E 4.16 kV bus, the Conditions and Required Actions for LCO 3.8.9, "Distribution Systems – Operating" must be immediately entered. This allows Condition F to provide requirements for the loss of one offsite power source to one or more Class 1E 4.16 kV bus(es) and one required standby emergency power source, without regard to whether a train is de-energized. LCO 3.8.9 provides appropriate restrictions for a de-energized Class 1E 4.16 kV bus.

B
RAI 3.8.1-9

G.1

Required Action G.1 applies to each unit in MODE 1, 2, 3 or 4, when standby emergency power to both safeguards buses on the same unit are inoperable (i.e., 1A05/1B03 and 1A06/1B04, or 2A05/2B03 and 2A06/2B04), or standby emergency power to safeguards buses 1A05/1B03 and 2A06/2B04 are inoperable. Thus, with an assumed loss of offsite electrical power, insufficient standby emergency power sources are available to power the minimum required ESF functions.

F
Errata #106

BASES

ACTIONS (continued) Since the offsite electrical power system is the only source of AC power for this level of degradation, the risk associated with continued operation for a very short time could be less than that associated with an immediate controlled shutdown (the immediate shutdown could cause grid instability, which could result in a total loss of AC power). Since any inadvertent generator trip could also result in a total loss of offsite AC power, however, the time allowed for continued operation is severely restricted. The intent here is to avoid the risk associated with an immediate controlled shutdown and to minimize the risk associated with this level of degradation.

According to Reference 5, operation may continue for a period that should not exceed 2 hours.

B

RAI 3.8.1-9

H.1 and H.2

If the inoperable AC electric power sources cannot be restored to OPERABLE status within the required Completion Time, the unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 hours and to MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS The AC sources are designed to permit inspection and testing of all important areas and features, especially those that have a standby function, in accordance with the Point Beach Design Criteria (Ref. 1). Periodic component tests are supplemented by extensive functional tests during refueling outages (under simulated accident conditions).

Where various SRs discussed herein specify voltage and frequency limitations, the following is applicable. The minimum continuous rating for safety-related electrical motors is 90% of nominal motor voltage as recommended by ANSI C50.41-1977 and NEMA MG-1. Additionally, the safety-related motors have a one-minute rating of 75% of nominal motor voltage as recommended by ANSI C50.41-1977. Therefore, under a worst case (maximum) loading condition, safeguards bus voltages must be maintained high enough to prevent the terminal voltage at any 4160 or 480 V motor from falling below 3600 / 414 V continuous (90% of nominal) or 3000 / 345 V for one minute (75% of normal). Additionally, motor control center continuous and instantaneous voltages must be maintained above 400 V and 308 V, respectively, to ensure that 480 V Motor Control Center contactors are able to close and do not drop out. These voltages are below the

BASES

SURVEILLANCE REQUIREMENTS (continued)

minimum continuous and instantaneous 480 V motor voltage requirements.

The maximum allowable 4160 V system voltage must be low enough to ensure all connected equipment will operate properly. Motors are the most sensitive 4.16 kV and 480 V loads to high voltages. The maximum continuous rating for safety-related motors is 110% of nominal as recommended by ANSI C50.41-1977. Therefore, under a worst case (minimum) loading condition, 4160 V System voltages should be maintained low enough to remain below 110% of the ratings.

The safeguards distribution system frequency must be maintained within the limits allowed by connected equipment; below the setting of overcurrent relays; and above the setting of underfrequency relays. Electrical motors are sensitive to variations in operating frequency.

Equipment Technical Manuals for various 4160 V and 480 V motors have indicated motor terminal frequency must be maintained between 57 - 63 Hz, which is consistent with industry motor standards. The 57 - 63 Hz rating is also consistent with the allowable frequency ranges for other frequency sensitive non-motor loads (i.e., 480 V battery chargers). Although 63 Hz is the upper limit for motor operation to prevent motor damage, motors may not be capable of operating at 63 Hz due to circuit breaker settings. Since motor current increases with frequency, the possibility exists that circuit breakers supplying 480 V motors may trip on overcurrent if the 4160 V System is operated at elevated frequencies. Calculations performed verify that all safety related 480 V motors will not trip on overcurrent assuming their terminal frequency does not exceed 62.4 Hz. Therefore, to ensure that connected safety-related loads do not trip on overcurrent, 4160 V System frequency must not exceed 62.4 Hz.

SR 3.8.1.1

This SR ensures proper circuit continuity for the offsite AC electrical power supply to the onsite distribution network and availability of offsite AC electrical power. The breaker alignment verifies that each breaker is in its correct position to ensure that distribution buses and loads are connected to their preferred power source. The 7 day Frequency is adequate since breaker position is not likely to change without the operator being aware of it and because its status is displayed in the control room.

SR 3.8.1.2

This SR helps to ensure the availability of the standby electrical power supply to mitigate DBAs and transients and to maintain the unit in a safe shutdown condition.

Table B 3.8.1-1 (page 1 of 2)
Conditions for AC Sources Component Inoperabilities

Inoperable Equipment	Condition(s)
Inoperable standby emergency power source to 1A05/1B03, 1A06/1B04, 2A05/2B03, or 2A06/2B04. OR Inoperable standby emergency power sources to 1A05/1B03 and 2A05/2B03. OR Inoperable standby emergency power sources to 1A06/1B04 and 2A06/2B04.	Condition E
Inoperable standby emergency power source to A05/B03 and A06/B04 on the same unit. OR Inoperable standby emergency power to 1A05/1B03 and 2A06/2B04.	Condition E AND Condition G
One or more de-energized 4.16 kV safeguards buses (1A05/2A05/1A06/2A06). OR One or more 4.16 kV safeguards buses (1A05/2A05/1A06/2A06) with inoperable standby emergency power source(s) and inoperable offsite power source(s).	Condition D AND Condition E AND Condition F OR Condition G
Inoperable offsite power source to the associated unit's A05 and A06. OR Inoperable offsite power to 1A05 and 2A06.	Condition C AND Condition D
Inoperable offsite power source to 1A05, 1A06, 2A05, or 2A06. OR Inoperable offsite sources to 1A05 and 2A05. OR Inoperable offsite sources to 1A06 and 2A06.	Condition D

F
Errata #106

Description of Changes - NUREG-1431 Section 3.08.03

09-May-01

DOC Number	DOC Text
M.02 Rev. F	The CTS does not contain requirements comparable to proposed ITS SR 3.8.3.3 and SR 3.8.3.4. SR 3.8.3.3 ensures that, without the aid of the refill compressor, sufficient air start capacity for each standby emergency power source is available. The system design requirements provide the capability to start and ready the standby emergency power source to accept load in 10 seconds from receipt of a start signal. The pressure specified in this SR is intended to reflect the lowest value at which the 10 second start can be accomplished. The 31 day Frequency takes into account the capacity, capability, redundancy, and diversity of the AC sources and other indications available in the control room, including alarms, to alert the operator to below normal air start pressure. SR 3.8.3.4 requires the removal of water from each fuel oil storage tank once per 92 days. Microbiological fouling is a major cause of fuel oil degradation. There are numerous bacteria that can grow in fuel oil and cause fouling, but all must have a water environment in order to survive. Removal of water from the fuel storage tanks once every 92 days, if necessary, eliminates the environment required for bacteria survival. This is the most effective means of controlling microbiological fouling. In addition, it eliminates the potential for water entrainment in the fuel oil during standby emergency power source operation. The addition of these surveillance requirements imposes additional requirements on unit operation and are more restrictive. **CTS:** NEW **ITS:** SR 3.08.03.03 SR 3.08.03.04

Justification For Deviations - NUREG-1431 Section 3.08.04

09-May-01

JFD Number	JFD Text
01 Rev. A	NUREG 1431, LCO 3.8.4, has been modified to reflect the Point Beach design. The Point Beach safety related 125 VDC system consists of four main distribution buses: D01, D02, D03, and D04, in addition to two swing distribution buses (D301 and D302). Each of the swing buses are capable of supplying one of the four safety related 125 VDC buses. Each of the four main distribution buses is powered by a battery charger (D07, D08, D107 and D108) and a station battery (D05, D06, D105, and D106). Two swing battery chargers and one swing battery are capable of being aligned to any one of the four safety related main distribution buses to take the place of the normal battery and charger. The swing battery chargers and battery allow the normally on-line battery chargers and batteries to be removed from service for maintenance and testing that cannot be performed with the battery or charger on-line. **ITS:** — **NUREG:** B 3.08.04 — B 3.08.04 LCO 3.08.04 — LCO 3.08.04
02 Rev. B	A Note has been added to the Actions Table of LCO 3.8.4 which requires entry into the Applicable Conditions and Required Actions of LCO 3.8.9 for any DC bus which is de-energized. The Conditions and Required Action contained in NUREG 1431 LCO 3.8.9 will in turn require that the features supported by any inoperable (deenergized) bus be declared inoperable immediately. Declaring the associated supported features inoperable will require entry into the Required Actions for the associated supported features, directing the appropriate Actions, based on the level of degradation incurred, because the Required Actions will be driven based upon plant conditions and the features which are affected. This deviation is consistent with the CTS definition of operability and the CTS Actions which require the applicable LCO Actions to be entered for equipment affected by deenergized safeguards buses. **ITS:** — **NUREG:** B 3.08.04 — B 3.08.04 LCO 3.08.04 COND A RA A.1 NOTE — N/A
03 Rev. A	NUREG SR 3.8.4.1 requires battery terminal voltage to be verified greater than or equal to a specific value. The CTS requires periodic verification of battery voltage but does not contain a specific limit. Proposed SR 3.8.4.1 will require battery terminal voltage to be verified within limits. This change is necessary to reflect the differing operating voltages for the Point Beach DC buses. The number of individual cells used in the safety related battery banks differ. Float voltage for batteries D05 and D06 is greater than or equal to 128 V and batteries D105 and D106 are greater than or equal to 130.2 V. This deviation is consistent with the CTS. **ITS:** — **NUREG:** B 3.08.04 — B 3.08.04 SR 3.08.04.01 — SR 3.08.04.01

Justification For Deviations - NUREG-1431 Section 3.08.04

09-May-01

JFD Number	JFD Text
04 Rev. A	NUREG 1431 SR 3.8.4.2 and SR 3.8.4.5 specify connector resistance limits which must be met for a battery to be considered operable. The connection resistance limits are to be no more than 20% above the resistance as measured during installation, or not above the ceiling value established by the manufacturer. The current Technical Specification do not contain any tests or limitation for connector resistance, and based on the resistance limit being variable, this limit would be more appropriately controlled by the licensee.

ITS:	NUREG:
B 3.08.04	B 3.08.04
SR 3.08.04.02	SR 3.08.04.02
SR 3.08.04.05	SR 3.08.04.05

JFD Number	JFD Text
05 Rev. A	The brackets have been removed and the proper plant specific information has been provided.

ITS:	NUREG:
B 3.08.04	B 3.08.04
SR 3.08.04.03	SR 3.08.04.03
SR 3.08.04.04	SR 3.08.04.04
SR 3.08.04.05	SR 3.08.04.05
SR 3.08.04.06	SR 3.08.04.06
SR 3.08.04.07	SR 3.08.04.07
SR 3.08.04.08	SR 3.08.04.08

Justification For Deviations - NUREG-1431 Section 3.08.04

09-May-01

JFD Number	JFD Text
06 Rev. A	ITS SR 3.8.4.6, SR 3.8.4.7 and SR 3.8.4.8 have been revised by the deletion of the Note stating, "This surveillance shall not be performed in MODES 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy the SR." Based on the Point Beach DC distribution system design, as described in JFD 1 of this LCO, Notes restricting performance of specific battery and charger tests to Modes other than 1, 2, 3, and 4 have not been adopted. By aligning a swing charger and battery to a required bus, charger and battery testing can be performed with either or both units operating in Modes 1, 2, 3, and 4 without the potential for causing perturbations to the required portions of the distribution system. The second provision of Note 2 allows credit for unplanned events to satisfy this SR. This is not valid for Point Beach because additional monitoring equipment is needed to collect the required data. TSTF-8, which deletes a portion of the above Notes, is essentially incorporated by this deviation. **ITS:** / **NUREG:** B 3.08.04 / B 3.08.04 N/A / SR 3.08.04.06 NOTE SR 3.08.04.07 NOTE 2 SR 3.08.04.08 NOTE SR 3.08.04.07 NOTE / SR 3.08.04.07 NOTE 1
07 Rev. F	NUREG-1431 SR 3.8.4.6 requires each battery charger to be tested to ensure that it is capable of supplying a specified output for a specified period of time. These limits are based on the design capacity of the chargers. The Point Beach 125 VDC safety related battery chargers are not all of the same design and ratings. Therefore, the design ratings provided in the Bases are the most limiting values for a specific type of battery charger. **ITS:** / **NUREG:** B 3.08.04 / B 3.08.04 SR 3.08.04.06 / SR 3.08.04.06
08 Rev. A	The Point Beach 125 VDC safety related batteries are lead-calcium batteries, and the CTS does not contain any requirements to verify that the battery terminal connectors are clean and tight. According to the reviewers Note contained in the Bases of SR 3.8.4.5, the requirement to verify that terminal connections are clean and tight applies only to nickel cadmium batteries as per IEEE Standard P1106, "IEEE Recommended Practice for Installation, Maintenance, Testing and Replacement of Vented Nickel - Cadmium Batteries for Stationary Applications." As such, this requirement has not been adopted in the Point Beach ITS. **ITS:** / **NUREG:** B 3.08.04 / B 3.08.04 N/A / SR 3.08.04.04

Justification For Deviations - NUREG-1431 Section 3.08.04

09-May-01

JFD Number	JFD Text	
09 Rev. A	Reference to the General Design Criteria (GDC) of 10 CFR 50 Appendix A, Reg Guide 1.6, and IEEE 308 has been deleted from the Bases of the Technical Specifications, substituting reference to the appropriate section of the FSAR which specifies the Point Beach design criteria.	
	ITS:	**NUREG:**
	B 3.08.04	B 3.08.04
10 Rev. A	Reference in the Bases to numerous documents (FSAR, IEEE, Reg Guides) have been revised and renumbered as necessary to provide reference to the appropriate location for documentation applicable to Point Beach.	
	ITS:	**NUREG:**
	B 3.08.04	B 3.08.04
11 Rev. A	The Bases of NUREG 1431 LCO 3.8.4 contains two references to the FSAR for Design Basis Accidents. The Point Beach FSAR contains this same information in a single FSAR chapter; therefore, only a single reference is used in the proposed ITS.	
	ITS:	**NUREG:**
	B 3.08.04	B 3.08.04
12 Rev. A	The Bases of NUREG 1431 SR 3.8.4.2 has been revised to include a statement that the presence of visible corrosion does not necessarily represent a failure of the SR, provided battery connection resistance is within limits. This statement clarifies the requirements of the SR, in that the battery terminals and connectors are to be verified free of visible corrosion. If visible corrosion exists, the SR is met, if battery connection resistance is within limits.	
	ITS:	**NUREG:**
	B 3.08.04	B 3.08.04
13 Rev. A	The Bases of NUREG 1431, SR 3.8.4.7, has been revised to exclude a statement that the battery service test should be performed during refueling operations, or at some other outage, with intervals between tests not to exceed 18 months. Point Beach design provides a spare battery that allows testing during conditions other than refueling outages. Therefore, this statement has not been retained in ITS.	
	ITS:	**NUREG:**
	B 3.08.04	B 3.08.04
14 Rev. A	LCO 3.8.4, Bases references to "DG" have been changed to "standby emergency power source," to be consistent with current Point Beach nomenclature.	
	ITS:	**NUREG:**
	B 3.08.04	B 3.08.04

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.8.4.6 Verify battery chargers D-07, D-08, and D-09 each supply ≥ 203 amps at ≥ 125 V for ≥ 8 hours, and battery chargers D-107, D-108, and D-109 each supply ≥ 273 amps at ≥ 125 V for ≥ 8 hours. ----------NOTE---------- This Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR. Verify each battery charger supplies > [400] amps at > [125] V for > [8] hours.	[18 months]
SR 3.8.4.7 ----------NOTES---------- 1. The modified performance discharge test in SR 3.8.4.8 may be performed in lieu of the service test in SR 3.8.4.7 once per 60 months. 2. This Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR. ---------- Verify battery capacity is adequate to supply, and maintain in OPERABLE status, the required emergency loads for the design duty cycle when subjected to a battery service test.	18 months 18 months [18 months]

F
Errata #183

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

installation, or not above the ceiling value established by the manufacturer.

The Surveillance Frequencies of 12 months is consistent with IEEE-450 (Ref. 8), which recommends cell to cell and terminal connection resistance measurement on a yearly basis.

SR 3.8.4.6

This SR requires that Battery chargers D-07, D-08, and D-09 be capable of supplying 203 amps at 125 V for ≥ 8 hours, and Battery chargers D-107, D-108, and D-109 be capable of supplying 273 amps at 125 V for ≥ 8 hours.

~~This SR requires that each battery charger be capable of supplying [400] amps and [125] V for ≥ [8] hours.~~ These requirements are based on the design capacity of the chargers (Ref. 4). According to Regulatory Guide 1.32 (Ref. 10), the battery charger supply is required to be based on the largest combined demands of the various steady state loads and the charging capacity to restore the battery from the design minimum charge state to the fully charged state, irrespective of the status of the unit during these demand occurrences. The minimum required amperes and duration ensures that these requirements can be satisfied.

The Surveillance Frequency is acceptable, given the unit conditions required to perform the test and the other administrative controls existing to ensure adequate charger performance during these [18 month] intervals. In addition, this Frequency is intended to be consistent with expected fuel cycle lengths.

This Surveillance is required to be performed during MODES 5 and 6 since it would require the DC electrical power subsystem to be inoperable during performance of the test.

This SR is modified by a Note. The reason for the Note is that performing the Surveillance would perturb the electrical distribution system and challenge safety systems. Credit may be taken for unplanned events that satisfy this SR.

SR 3.8.4.7

A battery service test is a special test of battery capability, as found, to satisfy the design requirements (battery duty cycle) of the DC electrical power system. The

F
Errata #183

LCO 3.8.4 Bases Inserts

Insert B 3.8.4-3:

The D-01, D-02, D-03 and D-04 DC electrical power subsystems, each subsystem consisting of battery, battery charger, and the corresponding control equipment and interconnecting cabling supplying power to the associated bus, are required to be OPERABLE to ensure the availability of the required power to shut down the reactor and maintain it in a safe condition after an anticipated operational occurrence (AOO) or a postulated DBA. Loss of any DC electrical power subsystem does not prevent the minimum safety function from being performed (Ref. 4).

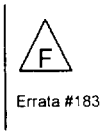
Insert B 3.8.4-4:

The ACTIONS are modified by a Note which ensures appropriate remedial actions are taken if a DC bus becomes de-energized.

Pursuant to LCO 3.0.6, the Distribution System ACTIONS would not be entered even if a DC electrical power subsystem were inoperable, resulting in de-energization of a DC bus. Therefore, the Actions are modified by a Note to indicate that when DC bus is de-energized, the Conditions and Required Actions for LCO 3.8.9, "Distribution Systems-Operating," must be entered. This allows Condition A to provide requirements for the inoperability of a battery or charger, without regard to whether a bus is de-energized. LCO 3.8.9 provides the appropriate restrictions for a de-energized bus.

Insert B 3.8.4-5:

Not used.



Errata #183

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.4.2	Verify no visible corrosion at battery terminals and connectors. OR Verify battery connection resistance is within limits.	92 days
SR 3.8.4.3	Verify battery cells, cell plates, and racks show no visual indication of physical damage or abnormal deterioration that could degrade battery performance.	12 months
SR 3.8.4.4	Remove visible terminal corrosion, and verify battery cell to cell and terminal connections are coated with anti-corrosion material.	12 months
SR 3.8.4.5	Verify battery connection resistance is within limits.	12 months
SR 3.8.4.6	Verify battery chargers D-07, D-08, and D-09 each supply $\geq$ 203 amps at $\geq$ 125 V for $\geq$ 8 hours, and battery chargers D-107, D-108, and D-109 each supply $\geq$ 273 amps at $\geq$ 125 V for $\geq$ 8 hours.	18 months

F
Errata #183

(continued)

B 3.8 ELECTRICAL POWER SYSTEMS

B 3.8.4 DC Sources-Operating

BASES

BACKGROUND

The station DC electrical power system provides the AC emergency power system with control power. It also provides both motive and control power to selected safety related equipment and preferred AC vital instrument bus power (via inverters). As required by the Point Beach Design Criteria (Ref. 1), the DC electrical power system is designed to have sufficient independence, redundancy, and testability to perform its safety functions, assuming a single failure.

The safety-related 125 VDC system consists of four main distribution buses: D01, D02, D03, and D04, in addition to two swing buses (D301 and D302) each capable of supplying one of the four 125 VDC buses.

Each of the four main distribution buses is powered by a battery charger (D07, D08, D107 and D108) and a station battery (D05, D06, D105, and D106). The function of the battery chargers is to supply their respective DC loads, while maintaining the batteries at full charge. All of the battery chargers are powered from the 480 VAC Engineered Safety Feature (ESF) system.

The battery chargers are interlocked such that a loss of offsite power combined with a safety injection signal will disconnect the battery chargers from their 480 VAC source. This limits the loading on the standby emergency power supply during the period immediately following a safety injection signal. During this period, the 125 VDC loads are supplied by their associated station battery until such time as power to the chargers is restored.

Two swing battery chargers are available through one of the swing DC distribution buses. Swing charger D09 is connected to swing DC distribution bus D301 and can provide a source of DC power to distribution buses D01 or D02. Likewise, swing charger D109 is connected to swing DC distribution bus D302 and can provide a source of DC power to distribution buses D03 or D04. In addition, there exists a swing safety-related battery D305 which is connected to swing DC distribution bus D301. This swing battery is capable of being aligned to any one of the four main distribution buses to take the place of the normal battery. Interlocks exist on swing DC distribution buses D301 and D302 which prevent the paralleling of redundant DC buses.

The station batteries have been sized to carry their expected shutdown loads following a plant trip/LOCA and loss of offsite power, or following a station blackout for a period of one hour, without battery terminal

BASES

BACKGROUND (continued)

voltage falling below 105 volts. Major battery loads, with their approximate operating times, are listed in FSAR Table 8.7-1 (Ref. 2). The swing station battery, D305, has been sized to provide an equivalent voltage at each of the four main DC buses. The swing battery chargers and the swing battery allow the normally on-line battery chargers and batteries to be removed from service for maintenance or testing that can not be performed with the equipment on-line.

Each 125 VDC battery is separately housed in a ventilated room apart from its charger and distribution centers. Each subsystem is located in an area separated physically and electrically from the other subsystem to ensure that a single failure in one subsystem does not cause a failure in a redundant subsystem. There is no sharing between redundant Class 1E distribution subsystems.

The batteries are sized to produce required capacity at 80% of nameplate rating, corresponding to warranted capacity at end of life cycles and the 100% design demand. Battery size is based on 125% of required capacity. The voltage limit is 2.13 V per cell; however, to ensure that the battery is maintained in a charged state, the minimum cell voltage is 2.17 V per cell, which corresponds to a minimum voltage of 128 V for batteries D05 and D06, and 130.2 V for batteries D105 and D106. The criteria for sizing large lead storage batteries are defined in IEEE-450 (Ref. 6).

Each DC electrical power subsystem has ample power output capacity for the steady state operation of connected loads required during normal operation, while at the same time maintaining its battery bank fully charged. Each battery charger also has sufficient capacity to restore the battery from the design minimum charge to its fully charged state within 24 hours while supplying normal steady state loads discussed in the FSAR, Chapter 8.7 (Ref. 2).

APPLICABLE SAFETY ANALYSES

The initial conditions of Design Basis Accident (DBA) and transient analyses in the FSAR, Chapter 14 (Ref. 4), assume that Engineered Safety Feature (ESF) systems are OPERABLE. The DC electrical power system provides normal and emergency DC electrical power for the standby emergency power sources, emergency auxiliaries, and control and switching during all MODES of operation.

BASES

APPLICABLE SAFETY ANALYSES (continued)

The OPERABILITY of the DC sources is consistent with the initial assumptions of the accident analyses and is based upon meeting the design basis of the unit. This includes maintaining the DC sources OPERABLE during accident conditions in the event of:

a. An assumed loss of all offsite AC power or all onsite AC power; and

b. A worst case single failure.

The DC sources satisfy Criterion 3 of the NRC Policy Statement.

LCO

The D-01, D-02, D-03 and D-04 DC electrical power subsystems, each subsystem consisting of battery, battery charger, and the corresponding control equipment and interconnecting cabling supplying power to the associated bus are required to be OPERABLE to ensure the availability of the required power to shut down the reactor and maintain it in a safe condition after an anticipated operational occurrence (AOO) or a postulated DBA. Loss of any DC electrical power subsystem does not prevent the minimum safety function from being performed (Ref. 4).

An OPERABLE DC electrical power subsystem requires all required batteries and respective chargers to be operating and connected to the associated DC bus(es).

APPLICABILITY

The DC electrical power sources are required to be OPERABLE in MODES 1, 2, 3, and 4 to ensure safe unit operation and to ensure that:

a. Acceptable fuel design limits and reactor coolant pressure boundary limits are not exceeded as a result of AOOs or abnormal transients; and

b. Adequate core cooling is provided, and containment integrity and other vital functions are maintained in the event of a postulated DBA.

The DC electrical power requirements for MODES 5 and 6 are addressed in the Bases for LCO 3.8.5, "DC Sources-Shutdown."

BASES

ACTIONS

The ACTIONS are modified by a Note which ensures appropriate remedial actions are taken if a DC bus becomes de-energized.

Pursuant to LCO 3.0.6, the Distribution System ACTIONS would not be entered even if a DC electrical power subsystem were inoperable, resulting in de-energization of a DC bus. Therefore, the Actions are modified by a Note to indicate that when DC bus is de-energized, the Conditions and Required Actions for LCO 3.8.9, "Distribution Systems-Operating," must be entered. This allows Condition A to provide requirements for the inoperability of a battery or charger, without regard to whether a bus is de-energized. LCO 3.8.9 provides the appropriate restrictions for a de-energized bus.

A.1

Condition A represents one DC subsystem with a loss of ability to completely respond to an event, and a potential loss of ability to remain energized during normal operation. It is, therefore, imperative that the operator's attention focus on stabilizing the unit, minimizing the potential for any further loss of DC power.

If one of the required DC electrical power subsystems is inoperable (e.g., inoperable battery, inoperable battery charger(s), or inoperable battery charger and associated inoperable battery), the remaining DC electrical power subsystems have the capacity to support a safe shutdown and to mitigate an accident condition. Since a subsequent worst case single failure could result in the loss of an additional 125 VDC electrical power subsystem with the potential for loss of ESF functions, continued power operation should not exceed 2 hours. The 2 hour Completion Time is based on Regulatory Guide 1.93 (Ref. 5) and reflects a reasonable time to assess unit status as a function of the inoperable DC electrical power subsystem and, if the DC electrical power subsystem is not restored to OPERABLE status, to prepare to effect an orderly and safe unit shutdown.

B.1 and B.2

If the inoperable DC electrical power subsystem cannot be restored to OPERABLE status within the required Completion Time, the unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 hours and to MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging plant systems. The Completion Time to bring the unit to MODE 5 is consistent with the time required in Regulatory Guide 1.93 (Ref. 5).

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.4.1

Verifying battery terminal voltage while on float charge for the batteries helps to ensure the effectiveness of the charging system and the ability of the batteries to perform their intended function. Float charge is the condition in which the charger is supplying the continuous charge required to overcome the internal losses of a battery (or battery cell) and maintain the battery (or a battery cell) in a fully charged state. The voltage requirements are based on the nominal design voltage of the battery and are consistent with the initial voltages assumed in the battery sizing calculations. The 7 day Frequency is consistent with manufacturer recommendations and IEEE-450 (Ref. 6).

SR 3.8.4.2

Visual inspection to detect corrosion of the battery cells and connections, or measurement of the resistance of each inter-cell, inter-rack, inter-tier, and terminal connection, provides an indication of physical damage or abnormal deterioration that could potentially degrade battery performance. The presence of visible corrosion does not necessarily represent a failure of this SR provided battery connection resistance is within limits.

The limits established for this SR must be no more than 20% above the resistance as measured during installation or not above the ceiling value established by the manufacturer.

The Surveillance Frequency for these inspections, which can detect conditions that can cause power losses due to resistance heating, is 92 days. This Frequency is considered acceptable based on operating experience related to detecting corrosion trends.

SR 3.8.4.3

Visual inspection of the battery cells, cell plates, and battery racks provides an indication of physical damage or abnormal deterioration that could potentially degrade battery performance.

The presence of physical damage or deterioration does not necessarily represent a failure of this SR, provided an evaluation determines that the physical damage or deterioration does not affect the OPERABILITY of the battery (its ability to perform its design function).

The 12 month Frequency for this SR is consistent with IEEE-450 (Ref. 6), which recommends detailed visual inspection of cell condition and rack integrity on a yearly basis.

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.8.4.4 and SR 3.8.4.5

Visual inspection and resistance measurements of inter-cell, inter-rack, inter-tier, and terminal connections provide an indication of physical damage or abnormal deterioration that could indicate degraded battery condition. The anticorrosion material is used to help ensure good electrical connections and to reduce terminal deterioration. The visual inspection for corrosion is not intended to require removal of and inspection under each terminal connection. The removal of visible corrosion is a preventive maintenance SR. The presence of visible corrosion does not necessarily represent a failure of this SR provided visible corrosion is removed during performance of SR 3.8.4.4.

The connection resistance limits for SR 3.8.4.5 shall be no more than 20% above the resistance as measured during installation, or not above the ceiling value established by the manufacturer.

The Surveillance Frequencies of 12 months is consistent with IEEE-450 (Ref. 6), which recommends cell to cell and terminal connection resistance measurement on a yearly basis.

SR 3.8.4.6

This SR requires that Battery chargers D-07, D-08, and D-09 be capable of supplying 203 amps at 125 V for $\geq$ 8 hours, and Battery chargers D-107, D-108, and D-109 be capable of supplying 273 amps at 125 V for $\geq$ 8 hours. These requirements are based on the design capacity of the chargers (Ref. 2). According to Regulatory Guide 1.32 (Ref. 7), the battery charger supply is required to be based on the largest combined demands of the various steady state loads and the charging capacity to restore the battery from the design minimum charge state to the fully charged state, irrespective of the status of the unit during these demand occurrences. The minimum required amperes and duration ensures that these requirements can be satisfied.

F
Errata #183

SR 3.8.4.7

A battery service test is a special test of battery capability, as found, to satisfy the design requirements (battery duty cycle) of the DC electrical power system. The discharge rate and test length should correspond to the design duty cycle requirements as specified in Reference 4.

The Surveillance Frequency of 18 months is consistent with the recommendations of Regulatory Guide 1.32 (Ref. 7) and Regulatory Guide 1.129 (Ref. 8).

BASES

SURVEILLANCE REQUIREMENTS (continued)

This SR is modified by a Note which allows the performance of a modified performance discharge test in lieu of a service test once per 60 months.

The modified performance discharge test is a simulated duty cycle consisting of just two rates; the one minute rate published for the battery or the largest current load of the duty cycle, followed by the test rate employed for the performance test, both of which envelope the duty cycle of the service test. Since the ampere-hours removed by a rated one minute discharge represents a very small portion of the battery capacity, the test rate can be changed to that for the performance test without compromising the results of the performance discharge test. The battery terminal voltage for the modified performance discharge test should remain above the minimum battery terminal voltage specified in the battery service test for the duration of time equal to that of the service test.

A modified discharge test is a test of the battery capacity and its ability to provide a high rate, short duration load (usually the highest rate of the duty cycle). This will often confirm the battery's ability to meet the critical period of the load duty cycle, in addition to determining its percentage of rated capacity. Initial conditions for the modified performance discharge test should be identical to those specified for a service test.

SR 3.8.4.8

A battery performance discharge test is a test of constant current capacity of a battery, normally done in the as found condition, after having been in service, to detect any change in the capacity determined by the acceptance test. The test is intended to determine overall battery degradation due to age and usage.

A battery modified performance discharge test is described in the Bases for SR 3.8.4.7. Either the battery performance discharge test or the modified performance discharge test is acceptable for satisfying SR 3.8.4.8; however, only the modified performance discharge test may be used to satisfy SR 3.8.4.8 while satisfying the requirements of SR 3.8.4.7 at the same time.

The acceptance criteria for this Surveillance are consistent with IEEE-450 (Ref. 6) and IEEE-485 (Ref. 3). These references recommend that the battery be replaced if its capacity is below 80% of the manufacturer's rating. A capacity of 80% shows that the battery rate of deterioration is increasing, even if there is ample capacity to meet the load requirements.

BASES

SURVEILLANCE REQUIREMENTS (continued)

The Surveillance Frequency for this test is normally 60 months. If the battery shows degradation, or if the battery has reached 85% of its expected life and capacity is < 100% of the manufacturer's rating, the Surveillance Frequency is reduced to 12 months. However, if the battery shows no degradation but has reached 85% of its expected life, the Surveillance Frequency is only reduced to 24 months for batteries that retain capacity ≥ 100% of the manufacturer's rating. Degradation is indicated, according to IEEE-450 (Ref. 6), when the battery capacity drops by more than 10% relative to its capacity on the previous performance test or when it is ≥ 10% below the manufacturer's rating. These Frequencies are consistent with the recommendations in IEEE-450 (Ref. 6).

REFERENCES

1. FSAR. Chapter 8.0.
2. FSAR. Chapter 8.7.
3. IEEE-485-1978.
4. FSAR. Chapter 14.
5. Regulatory Guide 1.93, December 1974.
6. IEEE-450-1987.
7. Regulatory Guide 1.32, February 1977.
8. Regulatory Guide 1.129, December 1974.

DOC Number	DOC Text
A.05 Rev. F	The CTS allows the 480 V Safeguards Buses B03 and B04 of a unit which is in cold shutdown, refueling, or defueled, to be cross tied providing specific limitations are met. These limitations have been placed into proposed ITS LCOs 3.8.9 and 3.8.10 as LCO Notes 1 and 2 to each LCO. However, the provisions allowing the 480 V safeguards buses to be cross-tied has been limited to a period of 7 days. This is consistent with the current PBNP interpretation that the standby emergency power source supplying the cross-tied 480 V bus is inoperable. Incorporation of these limitations, retains this CTS provision which is necessary for bus maintenance and testing. Provisions which are specific to the operating unit are contained in LCO 3.8.9, while provisions specific to the shutdown unit are contained in LCO 3.8.10, with the exception of spent fuel pool cooling which is addressed in Discussion of Change LA.2 of this LCO. Notes 1.c and 2.c are required to retain the requirement that both the offsite and the onsite emergency power source (DGs) are operable as contained in the CTS definition of operability, as the ITS definition only requires one or the other to be operable. This change is administrative. **CTS:** 15.03.07.B.01.D 15.03.07.B.01.E 15.03.07.B.01.E.01 15.03.07.B.01.E.03 **ITS:** LCO 3.08.09 NOTE 1 LCO 3.08.09 NOTE 1.a LCO 3.08.09 NOTE 1.b LCO 3.08.09 NOTE 1.c LCO 3.08.09 NOTE 2 LCO 3.08.09 NOTE 2.a LCO 3.08.09 NOTE 2.c LCO 3.08.09 NOTE 2.b

Description of Changes - NUREG-1431 Section 3.08.09

09-May-01

DOC Number	DOC Text
A.06 Rev. A	The CTS requires the operating unit to be placed into hot shutdown within 6 hours and cold shutdown within the following 36 hours, if the 480 V Safeguards Buses B03 and B04 cross tie provisions are not met. As discussed in Discussion of Change L.01 of this Section, the proposed ITS will allow the affected feature to be declared inoperable, with the Required Actions for the inoperable feature establishing the appropriate remedial actions. In lieu of this Action, the proposed ITS will also retain default Actions which will require the operating unit (the unit in Mode 1, 2, 3, or 4) to be placed into Mode 3 within 6 hours and Mode 5 within 36 hours. This Required Action is consistent with the CTS, while establishing an appropriate default Action which requires the unit to be placed into a Mode for which this LCO does not apply. **CTS:** / **ITS:** 15.03.07.B.01.D / LCO 3.08.09 COND B LCO 3.08.09 COND B RA B.1 LCO 3.08.09 COND B RA B.2 15.03.07.B.01.E / LCO 3.08.09 COND B LCO 3.08.09 COND B RA B.1 LCO 3.08.09 COND B RA B.2
A.07 Rev. A	The Bases of the current Technical Specifications for this section have been completely replaced by revised Bases that reflect the format and applicable content of PBNP ITS, consistent with the Standard Technical Specifications for Westinghouse Plants, NUREG-1431. The revised Bases are as shown in the PBNP ITS Bases. **CTS:** / **ITS:** BASES / B 3.08.09
A.08 Rev. A	CTS Table 15.4.1-1, line item 14 requires the 120 V Instrument buses to be checked once per week, to ensure proper breaker alignment and energization of the buses. This Requirement is equivalent to ITS SR 3.8.9.1 which requires correct breaker alignment for all required AC, DC, and AC vital instrument buses to be checked once per seven days. This change is administrative, consistent with the format for NUREG 1431. **CTS:** / **ITS:** 15.04.01 T 15.04.01-01 14 / SR 3.08.09.01 15.04.01 T 15.04.01-01 14 (6) / SR 3.08.09.01 15.04.01 T 15.04.01-01 W - WEEKLY / SR 3.08.09.01

Description of Changes - NUREG-1431 Section 3.08.09

09-May-01

DOC Number	DOC Text
A.09 Rev. A	The CTS states that during power operation of one or both of the reactors, the requirements of Specification 15.3.7.A.1 (electrical power distribution) may be modified to allow certain defined inoperabilities to exist for a limited period of time. This Specification establishes the structure for the remedial actions in the CTS. The ITS contains specific usage rules for consistent application of the Conditions and Required Actions associated with varying inoperabilities, consistent with the format and presentation of NUREG 1431. Accordingly, deletion of a specific Specification directing usage of Actions is unnecessary, as it duplicates the ITS usage rules. This change is administrative. **CTS:** 15.03.07.B.01 **ITS:** DELETED
A.10 Rev. A	The CTS allows the 480 V Safeguards Buses B03 and B04 of a unit which is defueled, to be cross tied in excess of eight hours providing specific limitations are met. One of the limitations involves limiting bus loads in such as manner as to preclude the potential for emergency power source (DG) overloading. The CTS requires entry into the LCO Actions for any equipment which is removed from service to fulfill this provision. This statement has been omitted from the proposed ITS. The requirement to enter the LCO Actions for inoperable equipment is unnecessary. Operability and the need to enter the Applicable Conditions and Required Actions for equipment which is inoperable is adequately addressed through the definition of operability and the ITS usage rules contained in Sections 1.1 and 1.3 of the ITS. Therefore, no change of intent or usage will occur, making this change administrative. **CTS:** 15.03.07.B.01.E.01 **ITS:** DELETED
L.01 Rev. A	CTS Table 15.4.1-2, line item 26, requires the 120 V vital instrument buses to be verified energized by verifying correct voltage on the bus in addition to verifying static transfer switch (backup power source) position once ever shift. This requirement has been incorporated into proposed ITS SR 3.8.9.1 which requires verification of correct breaker alignment and power availability for all AC, DC, and vital instrument buses. Shiftly verification of correct voltage and static transfer switch position is not necessary. Weekly verification of power availability is adequate based on industry operating data, while static switch position is an alarmed parameter, continuously monitored. Therefore, weekly verification is acceptable based on the availability of other indications in the control room that alert the operator to malfunctions. **CTS:** 15.04.01 T 15.04.01-02 26 15.04.01 T 15.04.01-02 26 (12) **ITS:** SR 3.08.09.01 SR 3.08.09.01

Insert 3.8.9-2:

3.8 ELECTRICAL POWER SYSTEMS

3.8.9 Distribution Systems–Operating

LCO 3.8.9 The following electrical distribution buses shall be OPERABLE:

A.4

a. The 4.16 kV Class 1E safeguards buses 1A05, 1A06, 2A05, and 2A06;

b. The 480 V Class 1E safeguards buses 1B03, 1B04, 2B03, and 2B04;

c. The associated unit's 120 VAC Vital Instrument Buses Y01, Y02, Y03, Y04, Y101, Y102, Y103, and Y104;

d. DC distribution buses D01, D02, D03 and D04.

e. Motor Control Centers 1B30/2B30, 1B32/2B32, 1B40/2B40 and 1B42/2B42.

A.5

----------NOTE----------

1. The opposite unit's 480 V Class 1E safeguards buses B03 and B04, may be cross-tied for ≤ 8 hours providing:

   a. The opposite unit is in MODE 5, or 6 , or defueled;

   b. All required redundant shared features for the unit in MODE 1, 2, 3, or 4 are OPERABLE; and

   c. All AC electrical power sources required by LCO 3.8.1 for the required redundant shared features for the unit in MODE 1, 2, 3, or 4 are OPERABLE.

F Errata #106

2. The opposite units 480 V Class 1E safeguards buses B03 and B04, may be cross-tied for > 8 hours and ≤ 7 days providing:

   a. The opposite unit is defueled;

   b. All required redundant shared features for the unit in MODE 1, 2, 3, or 4 are OPERABLE;

   c. All AC electrical power sources required by LCO 3.8.1 for the required redundant shared features for the unit in MODE 1, 2, 3, or 4 are OPERABLE; and

   d. Loads on the cross-tied buses are limited to preclude overloading of their standby emergency power source.

F Errata #106

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

JFD Number	JFD Text

power to distribution buses D01 or D02. Likewise, swing charger D109 is connected to swing DC distribution bus D302 and can provide a source of DC power to distribution buses D03 or D04. In addition, there exists a swing safety-related battery D305 which is connected to swing DC distribution bus D301. This swing battery is capable of being aligned to any one of the four main distribution buses to take the place of the normal battery. Kirk key interlocks exist on swing DC distribution buses D301 and D302 which prevent the paralleling of redundant DC buses.

ITS:	NUREG:
B 3.08.09	B 3.08.09
LCO 3.08.09	LCO 3.08.09
LCO 3.08.09.A	N/A
LCO 3.08.09.B	N/A
LCO 3.08.09.C	N/A
LCO 3.08.09.D	N/A
LCO 3.08.09.E	N/A

02
Rev. F

The CTS allows the 480 V Safeguards Buses B03 and B04 of a unit which is in cold shutdown, refueling, or defueled, to be cross tied providing specific limitations are met. The limitations applicable to the unit in Modes 1, 2, 3, or 4 have been placed into proposed ITS LCO 3.8.9 as LCO Notes. Incorporation of these limitations, retains this CTS provision which is necessary for bus maintenance and testing. However, the allowance for cross-tying the 480 V safeguards buses for > 8 hours has been limited to a maximum of 7 days, consistent with the requirements for an inoperable standby emergency power supply to the 480 V bus supplied by the tie breaker.

These provision have been previously reviewed and approved as documented in NRC SER from R.B. Samworth to R.E. Link, dated September 18, 1992.

ITS:	NUREG:
B 3.08.09	B 3.08.09
LCO 3.08.09 NOTE 1	N/A
LCO 3.08.09 NOTE 1.a	N/A
LCO 3.08.09 NOTE 1.b	N/A
LCO 3.08.09 NOTE 1.c	N/A
LCO 3.08.09 NOTE 2	N/A
LCO 3.08.09 NOTE 2.a	N/A
LCO 3.08.09 NOTE 2.b	N/A
LCO 3.08.09 NOTE 2.c	N/A

LCO 3.8.9 Inserts

Insert 3.8.9-1:

3.8 ELECTRICAL POWER SYSTEMS

3.8.9 Distribution Systems-Operating

1

LCO 3.8.9 The following electrical distribution buses shall be OPERABLE:

a. The 4.16 kV Class 1E safeguards buses 1A05, 1A06, 2A05, and 2A06;

b. The 480 V Class 1E safeguards buses 1B03, 1B04, 2B03, and 2B04;

c. The associated unit's 120 VAC Vital Instrument Buses Y01, Y02, Y03, Y04, Y101, Y102, Y103, and Y104;

d. DC distribution buses D01, D02, D03 and D04.

e. Motor Control Centers 1B30/2B30, 1B32/2B32, 1B40/2B40 and 1B42/2B42.

2

----------NOTES----------

1. The opposite unit's 480 V Class 1E safeguards buses B03 and B04, may be cross-tied for $\leq$ 8 hours providing;

   a. The opposite unit is in MODE 5, or 6, or defueled;

   b. All required redundant shared features for the unit in MODE 1, 2, 3, or 4 are OPERABLE; and

   c. All AC electrical power sources required by LCO 3.8.1 for the required redundant shared features for the unit in MODE 1, 2, 3, or 4 are OPERABLE.

F Errata #106

2. The opposite units 480 V Class 1E safeguards buses B03 and B04, may be cross-tied for > 8 hours and $\leq$ 7 days providing;

   a. The opposite unit is defueled;

   b. All required redundant shared features for the unit in MODE 1, 2, 3, or 4 are OPERABLE;

   c. All AC electrical power sources required by LCO 3.8.1 for the required redundant shared features for the unit in MODE 1, 2, 3, or 4 are OPERABLE; and

   d. Loads on the cross-tied buses are limited to preclude overloading of their standby emergency power source.

F Errata #106

LCO 3.8.9 Bases Inserts

Insert B 3.8.9-3 (continued):

When a unit is in MODE 5 or 6, or defueled, the safeguards and safe shutdown systems and equipment associated with that unit are not required to be OPERABLE. However, shared equipment (e.g. Service Water, Auxiliary Feedwater, etc;) in support of a unit in MODE 1, 2, 3, or 4, and residual heat removal for the unit in MODE 5 or 6 or defueled must be considered.

With one unit in MODE 1, 2, 3, or 4 and the other unit in MODE 5 or 6, or defueled, the B03 and B04 buses on the unit in MODE 5 or 6, or defueled, may be cross tied for $\leq$ 8 hours providing:

a. All required redundant shared equipment (Auxiliary Feedwater and Service Water Systems), for the unit in MODE 1, 2, 3, or 4 are OPERABLE; and

b. The normal offsite power supply and standby emergency power source for the required redundant shared equipment (Auxiliary Feedwater and Service Water Systems), for the unit in MODE 1, 2, 3, or 4 are OPERABLE.

Errata #106

This configuration is considered acceptable for a limited period of time based on maintaining all required redundant shared equipment and their associated power sources for the unit in MODE 1, 2, 3, or 4 in an OPERABLE status, retaining redundancy in residual heat removal for the unit in MODE 5 or 6, in addition to the low probability for an event resulting in a bus fault or loss of offsite power with a failure of the bus cross tie breaker to open.

With one unit in MODE 1, 2, 3, or 4 and the other unit defueled, the B03 and B04 buses on the defueled unit may be cross tied for > 8 hours and $\leq$ 7 days providing:

a. All required redundant shared equipment (Auxiliary Feedwater and Service Water Systems), for the unit in MODE 1, 2, 3, or 4 are OPERABLE;

Errata #106

b. The normal offsite power supply and standby emergency power source for the required redundant shared equipment (Auxiliary Feedwater and Service Water Systems), for the unit in MODE 1, 2, 3, or 4 are OPERABLE; and

c. Loads on the B03 and B04 buses on the defueled unit are limited in such a fashion as to preclude the possibility of overloading the standby emergency power source associated with these buses.

LCO 3.8.9 Bases Inserts

Insert B 3.8.9-3 (continued):

This configuration is considered acceptable based on maintaining all required redundant shared equipment and their associated power sources for the unit in MODE 1, 2, 3, or 4 in an OPERABLE status, and limiting the loads on the shutdown unit's B03 and B04 buses such that a single failure in either unit which could affect required redundant feature can still be postulated without a loss of safety function.

With the B03/B04 bus tie breaker closed, offsite power is considered OPERABLE for the 480 V bus being supplied by the tie breaker. However, standby emergency power is considered inoperable for the 480 V bus being supplied by the tie breaker, and the requirements of LCO 3.8.1 and LCO 3.8.2 apply.

Errata #106

If any tie breakers is closed outside of the allowances outlined above, the affected electrical power distribution buses are inoperable. This applies to the onsite, safety related redundant electrical power distribution subsystems. It does not, however, preclude redundant Class 1E 4.16 kV buses from being powered from the same offsite power supply.

Insert B 3.8.9-4:

With one required distribution subsystem (i.e. 4.16 kV safeguards bus, 480 VAC safeguards bus or motor control center, 125 VDC safeguards DC distribution bus, or vital instrument bus) inoperable, the remaining AC electrical power distribution subsystems are 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. Required Action A.1 requires all required features associated with an inoperable distribution subsystem to be declared inoperable immediately. This Required Action ensures that the appropriate Required Actions for support equipment are entered and taken.

With more than one required bus inoperable, entry into the associated Conditions and Required Actions for the affected required feature will ensure that the appropriate Required Actions are taken if redundant required features are inoperable.

3.8 ELECTRICAL POWER SYSTEMS

3.8.9 Distribution Systems—Operating

LCO 3.8.9 The following electrical distribution buses shall be OPERABLE:

a. The 4.16 kV Class 1E safeguards buses 1A05, 1A06, 2A05, and 2A06;

b. The 480 V Class 1E safeguards buses 1B03, 1B04, 2B03, and 2B04;

c. The associated unit's 120 VAC Vital Instrument Buses Y01, Y02, Y03, Y04, Y101, Y102, Y103, and Y104;

d. DC distribution buses D01, D02, D03 and D04.

e. Motor Control Centers 1B30/2B30, 1B32/2B32, 1B40/2B40 and 1B42/2B42.

----------NOTES----------

1. The opposite unit's 480 V Class 1E safeguards buses B03 and B04, may be cross-tied for ≤ 8 hours providing;

   a. The opposite unit is in MODE 5, or 6, or defueled;

   b. All required redundant shared features for the unit in MODE 1, 2, 3, or 4 are OPERABLE; and

   c. All AC electrical power sources required by LCO 3.8.1 for the required redundant shared features for the unit in MODE 1, 2, 3, or 4 are OPERABLE.

2. The opposite units 480 V Class 1E safeguards buses B03 and B04, may be cross-tied for > 8 hours and ≤ 7 days providing;

   a. The opposite unit is defueled;

   b. All required redundant shared features for the unit in MODE 1, 2, 3, or 4 are OPERABLE;

   c. All AC electrical power sources required by LCO 3.8.1 for the required redundant shared features for the unit in MODE 1, 2, 3, or 4 are OPERABLE; and

   d. Loads on the cross-tied buses are limited to preclude overloading of their standby emergency power source.

F Errata #106

F Errata #106

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

BASES

LCO (continued)

OPERABLE AC electrical power distribution subsystems require the associated buses and motor control centers to be energized to their proper voltages. OPERABLE DC electrical power distribution subsystems require the associated buses to be energized to their proper voltage. OPERABLE vital instrument bus electrical power distribution subsystems require the associated buses to be energized to their proper voltage.

In addition, cross tie breakers between redundant safety related 480 VAC buses must be open. This prevents any electrical malfunction in any power distribution subsystem from propagating to the redundant subsystem that could cause the failure of a redundant subsystem and a loss of essential safety function(s).

This includes a failure of a tie breaker to trip, which under certain conditions could result in an overload and a loss of the associated diesel generator.

The LCOs permit abnormal electrical distribution lineups for a unit in MODE 5 or 6, or defueled, to facilitate maintenance and testing.

When a unit is in MODE 5 or 6, or defueled, the safeguards and safe shutdown systems and equipment associated with that unit are not required to be OPERABLE. However, shared equipment (e.g., Service Water, Auxiliary Feedwater, etc;) in support of a unit in MODE 1, 2, 3, or 4, and residual heat removal for the unit in MODE 5 or 6 or defueled must be considered.

With one unit in MODE 1, 2, 3, or 4 and the other unit in MODE 5 or 6, or defueled, the B03 and B04 buses on the unit in MODE 5 or 6, or defueled, may be cross tied for $\leq$ 8 hours providing:

a. All required redundant shared equipment (Auxiliary Feedwater and Service Water Systems), for the unit in MODE 1, 2, 3, or 4 are OPERABLE; and

b. The normal offsite power supply and standby emergency power source for the required redundant shared equipment (Auxiliary Feedwater and Service Water Systems), for the unit in MODE 1, 2, 3, or 4 are OPERABLE.

F
Errata #106

This configuration is considered acceptable for a limited period of time based on maintaining all required redundant shared equipment and their associated power sources for the unit in MODE 1, 2, 3, or 4 in an OPERABLE status, retaining redundancy in residual heat removal for the unit in MODE 5 or 6, in addition to the low probability for an event resulting in a bus fault or loss of offsite power with a failure of the bus cross tie breaker to open.

BASES

LCO (continued)

With one unit in MODE 1, 2, 3, or 4 and the other unit defueled, the B03 and B04 buses on the defueled unit may be cross tied for > 8 hours and ≤ 7 days providing:

a. All required redundant shared equipment (Auxiliary Feedwater and Service Water Systems), for the unit in MODE 1, 2, 3, or 4 are OPERABLE;

b. The normal offsite power supply and standby emergency power source for the required redundant shared equipment (Auxiliary Feedwater and Service Water Systems), for the unit in MODE 1, 2, 3, or 4 are OPERABLE; and

c. Loads on the B03 and B04 buses on the defueled unit are limited in such a fashion as to preclude the possibility of overloading the standby emergency power source associated with these buses.

F
Errata #106

This configuration is considered acceptable based on maintaining all required redundant shared equipment and their associated power sources for the unit in MODE 1, 2, 3, or 4 in an OPERABLE status, and limiting the loads on the shutdown unit's B03 and B04 buses such that a single failure in either unit which could affect required redundant feature can still be postulated without a loss of safety function.

With the B03/B04 bus tie breaker closed, offsite power is considered OPERABLE for the 480 V bus being supplied by the tie breaker. However, standby emergency power is considered inoperable for the 480 V bus being supplied by the tie breaker, and the requirements of LCO 3.8.1 and LCO 3.8.2 apply.

F
Errata #106

If any tie breakers is closed outside of the allowances outlined above, the affected electrical power distribution buses are inoperable. This applies to the onsite, safety related redundant electrical power distribution subsystems. It does not, however, preclude redundant Class 1E 4.16 kV buses from being powered from the same offsite power supply.

APPLICABILITY

The electrical power distribution subsystems are required to be OPERABLE in MODES 1, 2, 3, and 4 to ensure that:

a. Acceptable fuel design limits and reactor coolant pressure boundary limits are not exceeded as a result of AOOs or abnormal transients; and

b. Adequate core cooling is provided, and containment OPERABILITY and other vital instrument functions are maintained in the event of a

BASES

APPLICABILITY (continued)

postulated DBA.

Electrical power distribution subsystem requirements for MODES 5 and 6 are covered in the Bases for LCO 3.8.10, "Distribution Systems-Shutdown."

ACTIONS

A.1

With one required distribution subsystem (i.e., 4.16 kV safeguards bus, 480 VAC safeguards bus or motor control center, 125 VDC safeguards DC distribution bus, or vital instrument bus) inoperable, the remaining AC electrical power distribution subsystems are 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. Required Action A.1 requires all required features associated with an inoperable distribution subsystem to be declared inoperable immediately. This Required Action ensures that the appropriate Required Actions for support equipment are entered and taken.

With more than one required bus inoperable, entry into the associated Conditions and Required Actions for the affected required feature will ensure that the appropriate Required Actions are taken if redundant required features are inoperable.

B.1 and B.2

If the required features associated with inoperable electrical power distribution subsystems are not declared inoperable, the unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 6 hours and to MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.8.9.1

This Surveillance verifies that the required AC, DC, and AC vital instrument bus electrical power distribution systems are functioning properly, with the correct circuit breaker alignment. For the 480 VAC buses B03 and B04, correct breaker alignment includes verification that the bus cross tie breakers are open with control power removed, when

BASES

SURVEILLANCE REQUIREMENTS (continued)

the system is not aligned in accordance with Note 1 or 2 of the LCO. This ensures the appropriate separation and independence of the electrical divisions is maintained. Correct breaker alignment provides assurance that the appropriate voltage is available to each required bus for motive as well as control functions for critical system loads.

The 7 day Frequency takes into account the redundant capability of the AC, DC, and AC vital instrument bus electrical power distribution subsystems, and other indications available in the control room that alert the operator to subsystem malfunctions.

REFERENCES

1. FSAR. Chapter 14.

Description of Changes - NUREG-1431 Section 3.09.03

09-May-01

DOC Number	DOC Text	
A.01 Rev. A	In the conversion of Point Beach current Technical Specifications (CTS) to the proposed plant specific Improved Technical Specifications (ITS), certain wording preferences or conventions are adopted which do not result in technical changes (either actual or interpretational). Editorial changes, reformatting, and revised numbering are adopted to make the ITS consistent with the Standard Technical Specifications, Westinghouse Plants, NUREG-1431, Revision 1 (i.e., Improved Standard Technical Specifications (ISTS)).	
	CTS:	**ITS:**
	15.03.08.03	LCO 3.09.02
	15.04.01 T 15.04.01-01 03	SR 3.09.02.02
A.02 Rev. A	CTS 15.3.8.3 requires one audible indication in the containment available whenever core geometry is being changed. Proposed ITS LCO 3.9.2 requires one Source Range audible count rate function be OPERABLE in MODE 6. The purpose of the audible count rate is to alert operators to inadvertent reactivity additions. FSAR Section 14.1.4 credits the audible count rate in alerting operators to take mitigative actions in the event of a boron dilution event. LCO 3.9.2 Bases will stipulate that the audible count rate be audible in the control room to meet the OPERABILITY requirements of LCO 3.9.2.	
	CTS:	**ITS:**
	15.03.08.03	LCO 3.09.02
A.03 Rev. A	CTS 15.4.1, Table 15.4.1-1, Item 3, requires a check and calibration of the neutron source range instrument channels in ALL plant conditions (check only required when instrument is not blocked). Proposed ITS SR 3.9.2.1 and SR 3.9.2.2 require the performance of a CHANNEL CHECK and a CHANNEL CALIBRATION, respectively, in MODE 6. Requirements for performing these tests in other modes are located in the surveillances associated with proposed ITS LCO 3.3.1. This is an administrative change, because ITS SR 3.9.2.1 and SR 3.9.2.2 are required to be performed under the same plant conditions as the source range surveillance requirements listed in CTS 15.4.1, Table 15.4.1-1, (i.e., when the plant is shutdown and any reactor vessel head bolt is less than fully tensioned).	
	CTS:	**ITS:**
	15.04.01 T 15.04.01-01 03	SR 3.09.02.02
	15.04.01 T 15.04.01-01 03.A	SR 3.09.02.01
L.01 Rev. A	CTS Table 15.4.1-1, item 3, CHANNEL CALIBRATION requirement for the neutron source range instrument channels is modified in ITS SR 3.9.2.2 by a Note, that excludes the neutron detectors from the calibration. This is a relaxation of requirements and is less restrictive. This is acceptable because the neutron detectors are passive devices with minimal drift and because of the difficulty associated with simulating a signal.	
	CTS:	**ITS:**
	NEW	SR 3.09.02.02 NOTE

Description of Changes - NUREG-1431 Section 3.09.03

09-May-01

DOC Number	DOC Text
L.02 Rev. A	CTS Table 15.4.1-1, item 3, requires the performance of a CHECK of the neutron monitors "once per shift". ITS SR 3.9.2.1 requires a CHANNEL CHECK to be performed every 12 hours. The nominal Point Beach shift duration is 8 hours. Therefore this change extends the nominal time between performances of these surveillances by 4 hours, resulting in a relaxation of the current requirement. This is acceptable based on other less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels, and the low probability of equipment malfunction during the additional (nominal 4 hour) time interval. **CTS:** 15.04.01 T 15.04.01-01 03.A **ITS:** SR 3.09.02.01
L.03 Rev. F	CTS specifies that in the event the ability to continuously monitor core subcritical neutron flux with audible indication in the containment is not met, refueling of the reactor shall cease, work shall be initiated to correct the violated condition, and no operations shall be made which may increase the reactivity of the core. These actions are being revised in ITS to require the immediate initiation of actions to isolate unborated water sources. (See DOC M.7). The audible count rate from the source range neutron flux monitors provides prompt and definite indication of a boron dilution event. The count rate increase is proportional to the subcritical multiplication factor and allows operators to promptly recognize the initiation of a boron dilution event. Prompt recognition of the initiation of the boron dilution event is consistent with the assumption of the safety analysis and is necessary to assure sufficient time is available for isolation of the primary water makeup source before SHUTDOWN MARGIN is lost. The audible count rate circuit is not credited for indicating an improperly loaded fuel assembly. Therefore, requiring the cessation of reactor refueling and operations which may increase the reactivity of the core do little to mitigate the loss of the indication the operators rely on to mitigate a boron dilution event. **CTS:** 15.03.08.09 **ITS:** N/A
M.01 Rev. A	CTS 15.3.8.3 is applicable during refueling operations. CTS defines refueling operations as any operation involving movement of core components (those that affect the reactivity of the core) within the containment when the vessel head is removed. ITS 3.9.2 has Applicability in MODE 6. In MODE 6, the source range neutron flux monitors must be operable to determine changes in core reactivity. There are no other continuously monitored qualitative means available to check core reactivity levels. This change is more restrictive, because MODE 6 covers a much broader operational condition. **CTS:** 15.03.08.03 **ITS:** LCO 3.09.02

Description of Changes - NUREG-1431 Section 3.09.03

09-May-01

DOC Number	DOC Text
M.02 Rev. A	CTS 15.3.8.3 requires core subcritical neutron flux to be continuously monitored by at least two neutron monitors when core geometry is being changed. ITS 3.9.2 requires two source range monitors to be operable in Mode 6. However, proposed ITS 3.9.2 Action A requires the suspension of core alterations and positive reactivity additions when one source range monitor is inoperable. This implies both source range monitors are required to be operable during core alterations and additions of positive reactivity. This change imposes additional requirements on plant operation and is more restrictive, because CTS 15.3.8.3 doesn't require both source range monitors to be operable during positive reactivity additions (other than changes in core geometry). **CTS:** 15.03.08.03 **ITS:** LCO 3.09.02
M.03 Rev. A	CTS 15.3.8.3 requires one Source Range monitor to provide audible indication whenever core geometry is being changed. Proposed ITS LCO 3.9.2 requires one Source Range audible count rate circuit be OPERABLE in MODE 6. The Source Range count rate function provides indication to the operators of inadvertent reactivity additions. In order to provide the indication assumed during a boron dilution event, the audible count rate function should be available throughout MODE 6. Expanding the applicability to MODE 6 places additional requirements on plant operation and is therefore more restrictive. **CTS:** 15.03.08.03 **ITS:** LCO 3.09.02
M.04 Rev. A	The CTS 15.3.8.3 requires one source range monitor to be inservice during refueling operations when core geometry is not being changed. Proposed ITS 3.9.2 requires two source range neutron flux monitors to be OPERABLE during MODE 6. However, if one source range monitor is inoperable, continued operation in MODE 6 is permitted, once Core Alterations and positive reactivity additions are suspended. CTS 15.3.8.3 allows continued operation with the addition of positive reactivity (other than changes in core geometry) with one source range monitor inoperable. Therefore, this change imposes additional requirements on plant operation and is more restrictive. **CTS:** 15.03.08.03 **ITS:** LCO 3.09.02

DOC Number	DOC Text
M.05 Rev. A	CTS 15.3.8.9 specifies that in the event the limiting condition for monitoring core subcritical neutron flux is not met, refueling of the reactor shall cease. Additionally, work shall be initiated to correct the violated condition so that the specified limit is met, and no operations which may increase the reactivity of the core shall be made. In the event one source range monitor is inoperable and refueling operations are ceased, the additional actions of CTS 15.3.8.9 are no longer required, since the requirements of CTS 15.3.8.3 have now been met. Proposed ITS 3.9.2, Condition A, Required Actions A.1 and A.2 require the immediate suspension of Core Alterations and positive reactivity additions when one source range neutron monitor is inoperable. This change imposes more restrictive operational requirements, since CTS 15.3.8.3 allows the continuation of operations that may add positive reactivity with one inoperable source range monitor, as long as core geometry is not changed. **CTS:** 15.03.08.09 **ITS:** LCO 3.09.02 COND A LCO 3.09.02 COND A RA A.1 LCO 3.09.02 COND A RA A.2
M.06 Rev. A	CTS 15.3.8.9 is revised to provide additional actions if both source range monitors are inoperable (Condition B). ITS 3.9.2, Required Action B.1, specifies when both neutron monitors are inoperable, immediately initiate action to restore one source range neutron flux monitor to operable status. Additionally, ITS 3.9.2, Required Action B.2, requires verifying the boron concentration is within the limit specified in the COLR once per 12 hours. This will provide assurance that any changes in boron concentration will be detected, since both neutron monitors are inoperable and there is no direct method available to detect core reactivity. However, since CORE ALTERATIONS and positive reactivity additions are not to be made, the core reactivity condition is stabilized until the source range monitors are operable. This stabilized condition is determined by performing SR 3.9.1.1 to ensure the required boron exists. The completion time of 12 hours is sufficient to obtain and analyze a reactor coolant sample for boron and ensures that unplanned changes in boron concentration would be identified. This is reasonable considering the low probability of a change in core reactivity during this time period. **CTS:** 15.03.08.09 **ITS:** LCO 3.09.02 COND B LCO 3.09.02 COND B RA B.1 LCO 3.09.02 COND B RA B.2

DOC Number	DOC Text
M.07 Rev. F	ITS 3.9.2 Required Action C.1 is added to the CTS to address the loss of the audible count rate and requires action to be initiated immediately to isolate all unborated water sources. This Required Actions is necessary to address the boron dilution event analyzed in the FSAR, which assumes a maximum unborated water flow and determines there is adequate time for operator action to mitigate the event. When Condition C is entered there is no assurance that prompt identification will occur, so Required Action C.1 dictates the closure of all unborated water source isolation valves to the RCS to preclude a boron dilution event. **CTS:** 15.03.08.09 **ITS:** LCO 3.09.02 COND C LCO 3.09.02 COND C RA C.1

< See 3.9.1 >

6. Direct communication between the control room and the operating floor of the containment shall be available whenever changes in core geometry are taking place.

< See 3.9.4 >

7. The Containment Purge and Vent System shall be operable. The Containment Purge and Vent System shall be demonstrated operable within 4 days prior to the start of and at least once per 7 days during refueling operations by verifying that Containment Purge and Vent isolation occurs on manual initiation and on high radiation test signal.

8. With the Containment Purge and Vent System inoperable, close the Purge and Vent containment penetrations.

M.5
M.6
Replace with Insert 3.9.3-2, Conditions A and B

< See 3.9.4 >
< See 3.9.1 >
< See 3.9.5 >
< See 3.9.1 >

9. If any of the specified limiting conditions in sections 1, 2, 3, 4, 5, and 6 are not met, refueling of the reactor shall cease. Work shall be initiated to correct the violated conditions so that the specified limits are met, and no operations which may increase the reactivity of the core shall be made.

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L.3
M.7
Insert 3.9.3-3, New Condition C

Basis

The equipment and general procedures to be utilized during refueling are discussed in the Final Safety Analysis Report. Detailed instructions, the above specified precautions, and the design of the fuel handling equipment incorporating built-in interlocks and safety features, provide assurance that no incident could occur during the refueling operations that would result in a hazard to public health and safety.(1)

Whenever changes are not being made in core geometry, one flux monitor is sufficient. This permits maintenance of the instrumentation. Continuous monitoring of radiation levels (2. above) and neutron flux provides immediate indication of an unsafe condition. The residual heat pump is used to maintain a uniform boron concentration.

The shutdown margin indicated in Part 5 will keep the core subcritical, even if all control rods were withdrawn from the core. During refueling, the reactor refueling cavity is filled with approximately 275,000 gallons

< See 3.9.1 >

NUREG Section 3.9.3 Markup Inserts

INSERT B3.9.2-1

There are three installed source range neutron flux monitors. Two are BF3 detectors operating in the proportional region of the gas filled detector characteristic curve and one is a fission chamber detector. The detectors monitor the neutron flux in counts per second. The instrument range covers six decades of neutron flux (1 to 1E+6 cps for the BF3 detector, and 0.1 to 1E+5 cps for the fission chamber detector). All three detectors also provide continuous visual indication in the control room. The BF3 detectors provide an audible count rate to alert operators to a possible dilution accident. The NIS is designed in accordance with the criteria presented in Reference 1.

INSERT B3.9.2-2

The audible count rate from the source range neutron flux monitors provides prompt and definite indication of a boron dilution event. The count rate increase is proportional to the subcritical multiplication factor and allows operators to promptly recognize the initiation of a boron dilution event. Prompt recognition of the initiation of the boron dilution event is consistent with the assumption of the safety analysis and is necessary to assure sufficient time is available for isolation of the primary water makeup source before SHUTDOWN MARGIN is lost (Ref. 2).

INSERT B3.9.2-3

To be OPERABLE, each monitor must provide visual indication in the control room. In addition, at least one of the two monitors must provide an OPERABLE audible count rate function in the control room, to alert operators to the initiation of a boron dilution event.

INSERT B3.9.2-4

Errata #152

C.1

With no audible count rate available, prompt and definite indication of a boron dilution event, consistent with the assumptions of the safety analysis is lost. In this situation the boron dilution event may not be detected quickly enough to assure sufficient time is available for operations to manually isolate the unborated water sources and stop the dilution prior to the loss of SHUTDOWN MARGIN. Therefore, action must be taken to prevent an inadvertent boron dilution event from occurring. This is accomplished by isolating all of the unborated water flow paths to the reactor coolant system. Isolating these flow paths ensures an inadvertent dilution of the reactor coolant boron concentration is prevented. The Completion Time of "Immediately" assures a prompt response by operations and requires an operator to initiate actions to isolate an affected flow path immediately. Once actions are initiated they must be continued until all the necessary flow paths are isolated or the circuit is restored to OPERABLE status.

No Significant Hazards Considerations - NUREG-1431 Section 3.09.03

09-May-01

NSHC Number	NSHC Text
A Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change involves reformatting and rewording of the current Technical Specifications. The reformatting and rewording process involves no technical changes to existing requirements. As such, this change is administrative in nature and does not impact initiators of analyzed events or assumed mitigation of accident or transient events. Therefore, this change does not increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will not impose any new or eliminate any old requirements. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The proposed change will not significantly reduce the margin of safety because it has no impact on any safety analysis assumptions. This change is administrative. As such, there is no technical change to the requirements and, therefore, there is no reduction in the margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.09.03

09-May-01

NSHC Number	NSHC Text
L.01 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The proposed change excludes neutron detectors from the calibration requirement. This is acceptable since the neutron detectors are passive devices with minimal drift, and because of the difficulty of simulating a meaningful signal. Therefore, this change does not involve an increase in the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not involve any physical alteration of plant systems, structures or components, nor does it alter parameters governing normal plant operation. The proposed change does not introduce a new mode of operation or alter the method of normal plant operation. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created. 3. Does this change involve a significant reduction in a margin of safety? There are no margins of safety related to safety analyses that are dependent upon the proposed change. The requirements will continue to assure that limiting conditions for refueling are properly maintained. Therefore, this change does not involve a reduction in a margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.09.03

09-May-01

NSHC Number	NSHC Text
L.02 Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The proposed change extends the surveillance frequency for CHANNEL CHECKS from "each shift" (nominally 8 hours) to 12 hours. This is acceptable because the CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels and because of the unlikelihood of a channel failure during this interval. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not involve any physical alteration of plant systems, structures or components, nor does it alter parameters governing normal plant operation. The proposed change does not introduce a new mode of operation or alter the method of normal plant operation. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created. 3. Does this change involve a significant reduction in a margin of safety? There are no margins of safety related to safety analyses that are dependent upon the proposed change. The requirements will continue to assure that limiting conditions for the Nuclear Instrumentation are properly maintained. Therefore, this change does not involve a significant reduction in a margin of safety.

No Significant Hazards Considerations - NUREG-1431 Section 3.09.03

09-May-01

NSHC Number	NSHC Text
L.03 Rev. F	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. The audible count rate from the source range neutron flux monitors provides prompt and definite indication of a boron dilution event. The count rate increase is proportional to the subcritical multiplication factor and allows operators to promptly recognize the initiation of a boron dilution event. Prompt recognition of the initiation of the boron dilution event is consistent with the assumption of the safety analysis and is necessary to assure sufficient time is available for isolation of the primary water makeup source before SHUTDOWN MARGIN is lost. CTS specifies that in the event the ability to continuously monitor core subcritical neutron flux with audible indication in the containment is not met, refueling of the reactor shall cease, work shall be initiated to correct the violated condition, and no operations shall be made which may increase the reactivity of the core. These actions are being revised in ITS to require the immediate initiation of actions to isolate unborated water sources. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The audible count rate circuit is not an initiator of any analyzed event, and is not credited for indicating an improperly loaded fuel assembly. Furthermore, revising the required actions will provide more appropriate compensatory measures related to a loss of the audible count rate circuit. Therefore, this change does not involve an increase in the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not involve any physical alteration of plant systems, structures or components, nor does it alter parameters governing normal plant operation. The proposed change does not introduce a new mode of operation or alter the method of normal plant operation. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created. 3. Does this change involve a significant reduction in a margin of safety? There are no margins of safety related to safety analyses that are dependent upon the proposed change. The requirements will continue to assure that limiting conditions for refueling are properly maintained. Therefore, this change does not involve a reduction in a margin of safety. (See DOC M.7).

No Significant Hazards Considerations - NUREG-1431 Section 3.09.03

09-May-01

NSHC Number	NSHC Text
	The audible count rate from the source range neutron flux monitors provides prompt and definite indication of a boron dilution event. The count rate increase is proportional to the subcritical multiplication factor and allows operators to promptly recognize the initiation of a boron dilution event. Prompt recognition of the initiation of the boron dilution event is consistent with the assumption of the safety analysis and is necessary to assure sufficient time is available for isolation of the primary water makeup source before SHUTDOWN MARGIN is lost. The audible count rate circuit is not credited for indicating an improperly loaded fuel assembly. Therefore, requiring the cessation of reactor refueling and operations which may increase the reactivity of the core do little to mitigate the loss of the indication the operators rely on to mitigate a boron dilution event.
M Rev. A	In accordance with the criteria set forth in 10 CFR 50.92, PBNP has evaluated this proposed Technical Specifications change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion. 1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated? The proposed change provides more restrictive requirements for operation of the facility. These more stringent requirements do not result in operation that will increase the probability of initiating an analyzed event and do not alter the assumptions relative to the mitigation of an accident or transient event. These more restrictive requirements continue to ensure process variables, structures, systems and components are maintained consistent with the safety analyses. Therefore, this change does not increase the probability or consequences of an accident previously evaluated. 2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated? The proposed change does not require a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change does impose different requirements. However, these changes are consistent with assumptions made in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. 3. Does this change involve a significant reduction in a margin of safety? The imposition of more restrictive requirements either has no affect on or increases the margin of safety. Each change is providing additional restrictions to enhance plant safety. These changes are consistent with the safety analysis. Therefore, this change does not involve a reduction in a margin of safety.

B 3.9 REFUELING OPERATIONS

B 3.9.2 Nuclear Instrumentation

BASES

BACKGROUND

The source range neutron flux monitors are used during refueling operations to monitor the core reactivity condition. The installed source range neutron flux monitors are part of the Nuclear Instrumentation System (NIS). These detectors are located external to the reactor vessel and detect neutrons leaking from the core.

There are three installed source range neutron flux monitors. Two are BF3 detectors operating in the proportional region of the gas filled detector characteristic curve, and one is a fission chamber detector. The detectors monitor the neutron flux in counts per second. The instrument range covers six decades of neutron flux (1 to 1E+6 cps for the BF3 detectors, and 0.1 to 1E+5 cps for the fission chamber detector). All three detectors also provide continuous visual indication in the control room. The BF3 detectors provide an audible count rate to alert operators to a possible dilution accident. The NIS is designed in accordance with the criteria presented in Reference 1.

APPLICABLE SAFETY ANALYSES

Two OPERABLE source range neutron flux monitors are required to provide a signal to alert the operator to unexpected changes in core reactivity such as with a boron dilution accident (Ref. 2) or an improperly loaded fuel assembly.

The audible count rate from the source range neutron flux monitors provides prompt and definite indication of a boron dilution event. The count rate increase is proportional to the subcritical multiplication factor and allows operators to promptly recognize the initiation of a boron dilution event. Prompt recognition of the initiation of the boron dilution event is consistent with the assumption of the safety analysis and is necessary to assure sufficient time is available for isolation of the primary water makeup source before SHUTDOWN MARGIN is lost (Ref. 2).

The source range neutron flux monitors satisfy Criterion 3 of the NRC Policy Statement.

LCO

This LCO requires that two source range neutron flux monitors be OPERABLE to ensure that redundant monitoring capability is available to detect changes in core reactivity.

BASES

LCO (continued)

To be OPERABLE, each monitor must provide visual indication in the control room. In addition, at least one of the two monitors must provide an OPERABLE audible count rate function in the control room to alert operators to the initiation of a boron dilution event.

APPLICABILITY

In MODE 6, the source range neutron flux monitors must be OPERABLE to determine changes in core reactivity. There are no other direct means available to check core reactivity levels. In MODES 2, 3, 4, and 5, the installed BF3 source range detectors and circuitry are also required to be OPERABLE by LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation."

ACTIONS

A.1 and A.2

With only one source range neutron flux monitor OPERABLE, redundancy has been lost. Since these instruments are the only direct means of monitoring core reactivity conditions, CORE ALTERATIONS and positive reactivity additions must be suspended immediately. Performance of Required Action A.1 shall not preclude completion of movement of a component to a safe position.

B.1

With no source range neutron flux monitor OPERABLE, action to restore a monitor to OPERABLE status shall be initiated immediately. Once initiated, action shall be continued until a source range neutron flux monitor is restored to OPERABLE status.

B.2

With no source range neutron flux monitor OPERABLE, there are no direct means of detecting changes in core reactivity.

However, since CORE ALTERATIONS and positive reactivity additions are not to be made, the core reactivity condition is stabilized until the source range neutron flux monitors are OPERABLE. This stabilized condition is determined by performing SR 3.9.1.1 to ensure that the required boron concentration exists.

The Completion Time of once per 12 hours is sufficient to obtain and analyze a reactor coolant sample for boron concentration and ensures that unplanned changes in boron concentration would be identified. The 12 hour Frequency is reasonable, considering the low probability of a change in core reactivity during this time period.

BASES

ACTIONS (continued) C.1

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Errata #152

With no audible count rate available, prompt and definite indication of a boron dilution event, consistent with the assumptions of the safety analysis is lost. In this situation the boron dilution event may not be detected quickly enough to assure sufficient time is available for operations to manually isolate the unborated water sources and stop the dilution prior to the loss of SHUTDOWN MARGIN. Therefore, action must be taken to prevent an inadvertent boron dilution event from occurring. This is accomplished by isolating all of the unborated water flow paths to the reactor coolant system. Isolating these flow paths ensures an inadvertent dilution of the reactor coolant boron concentration is prevented. The Completion Time of "Immediately" assures a prompt response by operations and requires an operator to initiate actions to isolate an affected flow path immediately. Once actions are initiated they must be continued until all the necessary flow paths are isolated or the circuit is restored to OPERABLE status.

SURVEILLANCE REQUIREMENTS

SR 3.9.2.1

SR 3.9.2.1 is the performance of a CHANNEL CHECK, which is a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that the two indication channels should be consistent with core conditions. Changes in fuel loading and core geometry can result in significant differences between source range channels, but each channel should be consistent with its local conditions.

The Frequency of 12 hours is consistent with the CHANNEL CHECK Frequency specified similarly for the same instruments in LCO 3.3.1.

SR 3.9.2.2

SR 3.9.2.2 is the performance of a CHANNEL CALIBRATION every 18 months. This SR is modified by a Note stating that neutron detectors are excluded from the CHANNEL CALIBRATION. The CHANNEL CALIBRATION for the source range neutron flux monitors consists of obtaining the detector plateau or preamp discriminator curves, evaluating those curves, and comparing the curves to the manufacturer's data. The CHANNEL CALIBRATION also includes verification of the audible count rate function. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage. Operating experience has shown these components usually pass the Surveillance when performed at the 18 month Frequency.

BASES

REFERENCES

1. FSAR. Sections 1.3.5, 3.1, 7.1 and 9.3.

2. FSAR. Section 14.1.4.