LCO 3.6.1

A.3 A.2 A.1

D. Containment Integrity*

Containment integrity is defined to exist when:

< See LCOs 3.6.2 and 3.6.3 >

1) Penetrations required to be isolated during accident conditions are either:
   a. Capable of being closed by an operable automatic containment isolation valve,
      OR
   b. Closed by an operable containment isolation valve,
      OR
   c. Closed in accordance with Specifications 15.3.6.A.1.b and 15.3.6.A.1.c.
2) The equipment hatch is properly closed.
3) ~~At least one door in each personnel air lock is properly closed.~~
4) The overall uncontrolled containment leakage is less than La.**

< See LCO 3.6.2 for Airlock contribution to the overall leakage rate limit >

E. Protective Instrumentation Logic
   1) Analog Channel
      An analog channel is an arrangement of components and modules as required to generate a single protective action signal when required by a plant condition. An analog channel loses its identity where single action signals are combined.

< See Section 1.0 >

SR 3.6.1.1 A.4

SR 3.6.1.1 and CLRTP Specification 5.5.16

A.4

A.2

~~* Containment isolation valves are discussed in FSAR Section 5.2.~~

** Prior to the first startup after performing a required Containment Leakage Rate Testing Program leakage test, the applicable leakage limits specified in TS 15.6.12.D.2 must be met.

A.5

15.3.6 CONTAINMENT SYSTEM

Applicability: Applies to the ~~integrity of reactor containment~~.

Objective:

To define the ~~operating~~ status of the reactor containment for plant operation.

A.9

Specification:

<See LCO 3.6.2 and LCO 3.6.3 for Airlock and Containment Isolation Valve provisions>

A. Containment Integrity

A.7

L.1

LCO 3.6.1 Applicability

1. The containment integrity (as defined in 15.1) shall be maintained when a nuclear core is installed in the reactor unless the reactor is in the cold shutdown condition. The ~~containment~~ integrity shall be ~~maintained~~ ~~when~~ the reactor vessel ~~head~~ is removed unless ~~the reactor~~ is in the refueling ~~shutdown~~ condition. If containment integrity is not maintained when required, enter the applicable LCO(s) listed below. If the LCO is met or is no longer applicable prior to expiration of the specified completion time(s), completion of the required action(s) is not required unless otherwise stated.

a. Containment Operability

Cond A

(1) If the containment is inoperable, restore the containment to operable status within one hour.

Cond B

(2) If the above action cannot be completed within the time specified, place the affected unit in:
(a) hot shutdown within six hours,
AND
(b) cold shutdown within 36 hours.

A.1

< See LCO 3.6.3 >

c. Containment Purge Supply and Exhaust Valves

The containment purge supply and exhaust valves shall be locked closed and may not be opened unless the reactor is in the cold shutdown or refueling shutdown condition.

(1) One of the redundant valves in the purge supply and exhaust lines may be opened to perform the repairs required to conform with the Containment Leakage Rate Testing Program.

A.8

(2) If containment purge supply and exhaust ~~penetration~~ leakage results in exceeding ~~the overall~~ containment leakage rate ~~acceptance~~ criteria (L_a), enter 15.3.6.A.1.a.

A.1

< See LCO 3.6.4 >

B. Internal Pressure

1. If the internal pressure exceeds 3 psig or the internal vacuum exceeds 2.0 psig, the condition shall be corrected within one hour.

2. If the above action cannot be completed within the time specified, place the affected unit in:

   a. hot shutdown within six hours,

   AND

   b. cold shutdown within 36 hours.

C. Positive reactivity changes shall not be made by rod drive motion when the containment integrity is not intact except for the testing of one bank of rods at a time, rod disconnecting, and rod reconnecting provided the reactor is initially subcritical by at least 5% $\Delta k/k$.

D. Positive reactivity changes shall not be made by boron dilution when the containment integrity is not intact unless the boron concentration in the reactor is maintained $>$ 2100 ppm*.

* This boron concentration value is in effect following U1R25 for Unit 1 and following U2R23 for Unit 2: and takes effect prior to loading fuel for those outages. Prior to U1R25, the Unit 1 boron concentration value of this specification is 1800 ppm. Prior to U2R23, the Unit 2 boron concentration value of this specification is 1800 ppm.

L.1

A.1

LCO 3.6.1

SR 3.6.1.1

E. CONTAINMENT STRUCTURAL INTEGRITY

The structural integrity of the reactor containment shall be maintained in accordance with the surveillance criteria specified in the Containment Leakage Rate Testing Program and 15.4.4.II.

SR 3.6.1.2 and 5.5.6 (Tendon Testing Program)

M.1

1. If more than one tendon is observed with a prestressing force between the predicted lower limit (PLL) and 90% of the PLL or if one tendon is observed with prestressing force less than 90% of the PLL, the tendon(s) shall be restored to the required level of integrity within 15 days or the reactor shall be in hot standby within the next six hours and in cold shutdown within the following 30 hours. An engineering evaluation of the situation shall be conducted and a special report submitted in accordance with Specification 15.4.4.II.D within 30 days.

2. With an abnormal degradation of the containment structural integrity in excess of that specified in 15.3.6.E.1, and at a level below the acceptance criteria of Specification 15.4.4.II, restore the containment structural integrity to the required level within 72 hours or be in hot shutdown within the next six hours and in cold shutdown within the following 30 hours. Perform an engineering evaluation of the containment structural integrity and provide a special report in accordance with Specification 15.4.4.II.D within 30 days.

< See Section 5.0. >

A.6

Basis

Specification 15.3.6.A.1

The Reactor Coolant System conditions of cold shutdown assure that no steam will be formed and hence there would be no pressure buildup in the containment if the Reactor Coolant System ruptures.

Specification 15.3.6.A.1.a.

The safety design basis for the containment is that the containment must withstand the pressures and temperatures of the design basis LOCA without exceeding the design leakage rate. The design allowable leakage rate (L_a) is 0.4% of containment air weight per day at 60 psig (P_a).[1]

Containment operability is maintained by limiting the overall containment leakage rate to within the design allowable leakage rate (L_a). Prior to the first startup after performing a required Containment Leakage Rate Testing Program leakage test, however, the applicable leakage limits specified in TS 15.6.12.D.2 must be met. Compliance with Specification 15.3.6.A.1.a. will ensure a containment configuration that is structurally sound and that will limit leakage to those leakage rates assumed in the safety analysis.

If penetration or air lock leakage results in exceeding L_a, Specification 15.3.6.A.1.a. shall be entered simultaneously with the LCO applicable to the penetration or air lock with the excessive leakage. Once the overall containment leakage rate is restored to less than L_a, Specification 15.3.6.A.1.a. may be exited and operation continued in accordance with the applicable LCO.

Specification 15.3.6.A.1.a.(1)

In the event the containment is inoperable, containment must be restored to operable status within one hour. The one hour completion time provides a period of time to correct the problem commensurate with the importance of maintaining containment integrity during plant operation. This time period also ensures that the probability of an accident (requiring containment integrity) occurring during periods when containment is inoperable is minimal.

A.6

Specification 15.3.6.A.1.a.(2)

If the containment cannot be restored to operable status within one hour, the plant must be brought to a condition in which the LCO does not apply. To achieve this status, the plant must be brought to at least hot shutdown within six hours and to cold shutdown within 36 hours of entering 15.3.6.A.1.a.(2). The allowed completion times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

Specification 15.3.6.A.1.b

The containment isolation valves form part of the containment pressure boundary and provide non-essential (i.e., not required to mitigate the consequences of an accident) fluid penetrations with two isolation barriers that are closed on a containment isolation signal. These isolation barriers are either passive or active (automatic). Passive isolation barriers are manual valves, de-activated automatic valves secured in their closed position (including check valves with flow through the valve secured), blind flanges, and closed systems. Active isolation barriers are check valves or other automatic valves designed to close without operator action following an accident. Two barriers in series are provided for each penetration so that no single credible failure or malfunction of an active component can result in a loss of isolation or leakage that exceeds limits assumed in the safety analyses.

The automatic containment isolation valves are required to have isolation times within limits and to actuate on an automatic isolation signal. The containment purge supply and exhaust valves are too large to be qualified for automatic closure from their open positions under DBA conditions and must be maintained closed and deactivated except as defined in Specification 15.3.6.A.1.c. The normally closed containment isolation valves are considered operable when manual valves are closed, automatic valves are de-activated in their closed position, blind flanges are in place, and closed systems are intact. Specification 15.3.6.A.1.b. provides assurance that the containment isolation valves will perform their designed safety functions to control leakage from the containment during accidents.

< See LCO 3.6.3 >

< See LCO 3.6.4 >

experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

~~Specifications 15.3.6.C. and D.~~

~~The shutdown conditions of the reactor are selected based on the type of activities that are being carried out. When the reactor head is not to be removed, the specified cold shutdown margin of 1% Δk/k precludes criticality under any occurrence. During refueling the reactor is subcritical by 5% Δk/k. Positive reactivity changes for the purpose of rod assembly testing will not result in criticality because no control bank worth exceeds 3%. Positive reactivity changes by boron dilution may be required or small concentration fluctuations may occur during preparation for, recovery from, or during refueling but maintaining the boron concentration greater than 2100 ppm* precludes criticality under these circumstances. 2100 ppm* is a nominal value that ensures 5% shutdown for typical reload cores. Should continuous dilution occur, the time intervals for this incident are discussed in Section 14.1.4 of the FSAR.~~

L.1

References
(1) FSAR - Section 5.1.1
(2) FSAR - Section 14.3.4
(3) FSAR - Section 5.5.2

A.6

~~* This boron concentration value is in effect following U1R25 for Unit 1 and following U2R23 for Unit 2; and takes effect prior to loading fuel for those outages. Prior to U1R25, the Unit 1 boron concentration value of this specification is 1800 ppm. Prior to U2R23, the Unit 2 boron concentration value of this specification is 1800 ppm.~~

B. In-Service Inspection and Testing of Safety Class Components Other than Steam Generator Tubes

1. Inservice inspection of ASME Code Class 1, Class 2 and Class 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g) modified by Section 50.55a(b), except where specific written relief is granted by the NRC, pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).

   a. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

SR 3.6.1.1

2. Containment isolation valves will be tested in accordance with the Containment Leakage Rate Testing Program.

3. Inservice testing of ASME Code Class 1, 2, and 3 pumps, valves, and snubbers shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a.

   a. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

Basis

The steam generator tube inspection requirements are based on the guidance given in NRC Regulatory Guide 1.83, "Inservice Inspection of Pressurized Water Reactor Steam Generator Tubes." ASME Section XI Appendix IV is being used for defining the basic requirements or the inspection method. However, at the present time, changes and improvements in steam generator eddy current inspection are occurring faster than the code can be revised. Thus, in order to ensure that the best possible exam of the tubing and/or sleeves is being done, the technique utilized will, in general, be the latest industry-accepted technique. This means that complete word-for-word compliance with Appendix IV may not be possible. However, the basic requirements and intent will be met, to the extent practical.

Specification 15.4.2.B delineates programmatic requirements for establishing Inservice Inspection and Testing programs in accordance with the ASME Section XI Code and 10 CFR 50.55a requirements. The Code establishes criteria for system and component inspection and testing to ensure an appropriate level of reliability and detection of abnormal conditions. Failure to meet Code requirements is evaluated on an individual system or component bases to determine operability. Appropriate LCOs are entered if a system or component is determined to be inoperable.

As stated in 15.4.2.B.1, safety class components, other than the steam generator tubing, will be inspected in accordance with ASME Section XI. The code edition/addenda utilized for the inspection interval will be as defined in

< See Section 5.0 >

15.4.4 CONTAINMENT TESTS

Applicability

Applies to containment leakage and structural integrity.

A.5

Objective

To verify that potential leakage from the containment and the pre-stressing tendon loads are maintained within acceptable values.

A.9

Specification

SR 3.6.1.1

I. Perform required visual examinations and leakage rate testing in accordance with the Containment Leakage Rate Testing Program.

II. TENDON SURVEILLANCE

SR 3.6.1.2, specifically references this testing as an attribute of containment integrity (operability), details of the testing are moved to a program in Section 5 of the ITS.

A. Object

In order to insure containment structural integrity, selected tendons shall be periodically inspected for symptoms of material deterioration or lift-off force reduction. The tendons for inspection shall be randomly but representatively selected from each group for each inspection; however, to develop a history and to correlate the observed data, one tendon from each group shall be kept unchanged after initial selection. Tendons selected for inspection will consist of five hoop tendons, three vertical tendons located approximately 120° apart, and three dome tendons, one from each of the three dome tendon groups.

B. Frequency

Tendon surveillance shall be conducted at five-year intervals in accordance with the following schedule:*

Unit	Year	Surveillance Required
1	1984	Physical
2	1984	Visual
1	1989	Visual
2	1989	Physical

*Subsequent five-year interval inspections repeat this pattern.

< See Section 5.0 >

Justification For Deviations - NUREG-1431 Section 3.06.01

13-Nov-99

JFD Number	JFD Text	
01	The Bases for LCO 3.6.1 of NUREG 1431 was developed to address four groups of containment Designs; Ice Condensers, Sub-Atmospheric, Dual, and Atmospheric. Point Beach containment is an atmospheric design, as such the Bases for the Ice Condenser, Dual, and Sub-Atmospheric designs have not been incorporated. The Titles for LCO 3.6.1 and it associated Bases have been shortened to simply state "Containment". Inclusion of the type of design (e.g. Ice Condenser, Dual, Atmospheric, or Sub-Atmospheric) is a detail only relevant in distinguishing the NUREG variations.	
	ITS:	**NUREG:**
	B 3.06.01	B 3.06.01
	LCO 3.06.01	LCO 3.06.01
02	The containment for Point Beach contains ungrouted tendons. The NUREG 1431 containment Bases was written generically to address several design considerations, with qualifying statements like "For containments with ungrouted tendons". Plant specific application make this qualifying statement unnecessary, as the Bases is written to reflect actual design. As such, these qualifying statements have been deleted. For the same reason, the brackets associated with SR 3.6.1.2 an associated Bases, have been removed as well.	
	ITS:	**NUREG:**
	B 3.06.01	B 3.06.01
	SR 3.06.01.02	SR 3.06.01.02

JFD Number	JFD Text
03	LCO 3.6.1 and its associated Bases have been modified to incorporate Option B to 10 CFR 50 Appendix J. These modifications include: 1) Revision of SR 3.6.1.1 to reference the Containment Leakage Rate Testing Program for containment inspections and leakage testing requirements, frequencies and acceptance criteria. Moving the details associated with containment leakage rate testing to a program facilitates the presentation of details necessary to implement Option B in accordance with 10 CFR 50 Appendix J. This presentation is also consistent with the implementation of Option B in the Current Technical Specification. The Frequency Note stating that the provisions of SR 3.0.2 are not applicable, was similarly moved to the CLRTP to facilitate usage. 2) The Bases of LCO 3.6.1 states that the containment is designed to contain radioactive material following a design basis accident. This statement was revised to state that the containment is designed to contain radioactive material following a design basis "loss of coolant accident". As re-enforced by the positions established in Appendix J, Option B of 10 CFR 50 and its implementing documents, radioactive release from the containment as the result of a design basis accident is assumed to occur from primary system loss of coolant accidents. This change is consistent with the CTS Bases wording approved in amendment 169/173 on October 9, 1996 for the implementation of Option B. This change results in defining DBA as an acronym for Design Basis Accident in a later paragraph in this Bases section. 3) Various references to 10 CFR 50 Appendix J have been revised to 10 CFR 50 Appendix J Option B to provide for proper and complete reference to Appendix J. 4) Bases discussions regarding test acceptance criteria and actions associated with exceeding leakage limits have been revised to reference the limit contained in the Containment Leakage Rate Testing Program. These changes are consistent with the Point Beach current licensing basis as approved in Amendment 169/173 on October 9, 1996. **ITS:** B 3.06.01; SR 3.06.01.01 **NUREG:** B 3.06.01; SR 3.06.01.01; SR 3.06.01.01
04	The Bases for NUREG 1431 LCO 3.6.1 lists the pressurized sealing mechanism as an attribute associated with the containment penetration boundaries as a bracketed (design specific) discussion. Point Beach does not have a penetration pressurization system, therefore, reference to this bracketed attribute has been omitted. **ITS:** B 3.06.01 **NUREG:** B 3.06.01

JFD Number	JFD Text
05	The brackets have been removed and the proper plant specific information has been provided. **ITS:** B 3.06.01 **NUREG:** B 3.06.01
06	NUREG 1431 contains the Surveillance Requirements and Actions for containment purge valves with resilient seals in LCO 3.6.3. This presentation establishes surveillance frequencies and Actions for containment purge valves which differ from those contained in LCO 3.6.1 for other containment isolation valves. Surveillance frequencies and Actions above and beyond those established in LCO 3.6.1 and through the Containment Leakage Rate Testing Program (SR 3.6.1.1) are not necessary for Point Beach. The CTS prior to October 9, 1996 (Technical Specification Amendment 169/173) required testing of the containment purge valves every 6 months based on the findings of generic issue B-20 "Containment Leakage Due to Seal Degradation". Amendment 169/173 eliminated the requirement for increased testing of the containment purge valves. As cited in the SER for amendments 169/173, the containment purge valve can be tested in accordance with the Regulatory Guide 1.163 "Performance-Based Containment Leak-Testing Program". The basis of this conclusion was that there has not been observable degradation supportive of increased testing frequencies which were established as part of Generic issue B-20. Since 1992 there had been no leakage rate failures in excess of the previous Technical Specification or Appendix J acceptance criteria, nor were there failures in excess of the administrative leakage limit of 2000 standard cubic centimeters per minute. Accordingly, the bracketed information contained in the Bases of SR 3.6.1.1, referring to LCO 3.6.3 for purge valve leakage limitations was not adopted. **ITS:** B 3.06.01 **NUREG:** B 3.06.01
07	The Bases for containment states that compliance with this LCO will ensure a containment configuration, including equipment hatches, that is structurally sound and that will limit leakage to those leakage rates assumed in the safety analysis. Specifically calling out the containment hatches is not necessary, as no exception is ever taken to these components within this or any other LCO which addresses containment integrity. The equipment hatch is addressed under this LCO as it is a Type B barrier, with Type B leakage being a specific acceptance limit addressed through SR 3.6.1.1. **ITS:** B 3.06.01 **NUREG:** B 3.06.01

Justification For Deviations - NUREG-1431 Section 3.06.01

13-Nov-99

JFD Number	JFD Text
08	The Bases of NUREG 1431 LCO 3.6.1 describes the containment penetrations that form the containment leakage barrier. Contained within the listing is a statement that "all equipment hatches are closed". The Point Beach containment has only a single containment equipment hatch which incorporates an airlock as well. As such, the ITS Bases has been changed requiring "the equipment hatch to be installed". The requirement for the airlock, which is incorporated into the equipment hatch to be closed and sealed is addressed as part of the previous Bases statement requiring each airlock to be operable. This deviation from the NUREG is necessary to reflect the Point Beach design. **ITS:** B 3.06.01 **NUREG:** B 3.06.01
09	NUREG 1431 LCO 3.9.2, "Unborated Water Source Isolation Valves", is not applicable to Point Beach as described in Justification for Deviation 01 of LCO 3.9.2. Corresponding reference changes have been made as necessary to maintain proper reference. **ITS:** B 3.06.01 **NUREG:** B 3.06.01

1

3.6 CONTAINMENT SYSTEMS

3.6.1 Containment ~~(Atmospheric, Subatmospheric, Ice Condenser, and Dual)~~

LCO 3.6.1 Containment shall be OPERABLE.

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Containment inoperable.	A.1 Restore containment to OPERABLE status.	1 hour
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3. AND B.2 Be in MODE 5.	6 hours 36 hours

1

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.1.1	Perform required visual examinations and leakage rate testing ~~except for containment air lock testing,~~ ~~in~~ accordance with ~~10 CFR 50, Appendix J, as modified by approved exemptions.~~ ~~The leakage rate acceptance criterion is ≤ 1.0 L_a. However, during the first unit startup following testing performed in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, the leakage rate acceptance criteria are ≤ 0.6 L_a for the Type B and Type C tests, and ≤ 0.75 L_a for the Type A test.~~	~~-----NOTE----- SR 3.0.2 is not applicable~~ In accordance with ~~10 CFR 50, Appendix J, as modified by approved exemptions~~
SR 3.6.1.2	Verify containment structural integrity in accordance with the Containment Tendon Surveillance Program.	In accordance with the Containment Tendon Surveillance Program

containment

3

the Containment Leakage Rate Testing Program.

2

B 3.6 CONTAINMENT SYSTEMS

B 3.6.1 Containment (Ice Condenser)

BASES

BACKGROUND

The containment is a free standing steel pressu re vessel surrounded by a reinforced concrete shield building. The containment vessel, including all its penetrations, is a low leakage steel shell designed to contain the radioactive material that may be released from the reactor core following a Design Basis Accident (DBA). Additionally, the containment and shield building provide shielding from the fission products that may be present in the containment atmosphere following accident conditions.

The containment vessel is a vertical cylindrical steel pressure vessel with hemispherical dome and a concrete base mat with steel membrane. It is completely enclosed by a reinforced concrete shield building. An annular space exists between the walls and domes of the steel containment vessel and the concrete shield building to provide for the collection, mixing, holdup, and controlled release of containment out leakage. Ice condenser containments utilize an outer concrete building for shielding and an inner steel containment for leak tightness.

Containment piping penetration assemblies provide for the passage of process, service, sampling, and instrumentation pipelines into the containment vessel while maintaining containment integrity. The shield building provides shielding and allows controlled release of the annulus atmosphere under accident conditions, as well as environmental missile protection for the containment vessel and Nuclear Steam Supply System.

The inner steel containment and its penetrations establish the leakage limiting boundary of the containment. Maintaining the containment OPERABLE limits the leakage of fission product radioactivity from the containment to the environment. SR 3.6.1.1 leakage rate requirements comply with 10 CFR 50, Appendix J (Ref. 1), as modified by approved exemptions.

The isolation devices for the penetrations in the containment boundary are a part of the containment leak tight barrier. To maintain this leak tight barrier:

B 3.6 CONTAINMENT SYSTEMS

B 3.6.1 Containment ~~(Atmospheric)~~ 1

BASES

BACKGROUND

3 design basis Loss of Coolant Accident

The containment consists of the concrete r eactor building, its steel liner, and the penetrations through this structure. The structure is designed to contain radioactive material that may be released from the reactor core following a ~~Design Basis Accident (DBA)~~. Additionally, this structure provides shielding from the fission products that may be present in the containment atmosphere following accident conditions.

The containment is a reinforced concrete structure with a cylindrical wall, a flat foundation mat, and a shallow dome roof. The inside surface of the containment is lined with a carbon steel liner to ensure a high degree of leak tightness during operating and accident conditions.

2 The

~~For containments with ungrouted tendons, the~~ cylinder wall is prestressed with a post tensioning system in the vertical and horizontal directions, and the dome roof is prestressed utilizing a three way post tensioning system.

3 design basis Loss of Coolant Accident

The concrete reactor building is required for structural integrity of the containment under ~~DBA~~ conditions. The steel liner and its penetrations establish the leakage limiting boundary of the containment. Maintaining the containment OPERABLE limits the leakage of fission product radioactivity from the containment to the environment. SR 3.6.1.1 leakage rate requirements comply with 10 CFR 50, Appendix J (Ref. 1), as modified by approved exemptions.

3 , Option B

The isolation devices for the penetrations in the containment boundary are a part of the containment leak tight barrier. To maintain this leak tight barrier:

a. All penetrations required to be closed during accident conditions are either:

   1. capable of being closed by an OPERABLE automatic containment isolation system, or

BASES

BACKGROUND (continued)

2. closed by manual valves, blind flanges, or de-activated automatic valves secured in their closed positions, except as provided in LCO 3.6.3, "Containment Isolation Valves";

8

b. Each air lock is OPERABLE, except as provided in LCO 3.6.2, "Containment Air Locks"; and 4

the equipment hatch is installed.

c. ~~All equipment hatches are closed;~~

4

~~[d. The pressurized sealing mechanism associated with a penetration is OPERABLE, except as provided in LCO 3.6.[ ].]~~

APPLICABLE SAFETY ANALYSES

The safety design basis for the containment is th at the containment must withstand the pressures and temperatures of the limiting ~~DBA~~ design basis Loss of Coolant Accident without exceeding the design leakage rate.

~~The DBAs that result in a challenge to containment OPERABILITY from high pressures and temperatures are a loss of coolant accident (LOCA), a steam line break, and a rod ejection accident (REA) (Ref. 2). In addition, release of significant fission product radioactivity within containment can occur from a LOCA or REA. In the DBA~~ analyses, it is assumed that the containment is OPERABLE such that, ~~for the DBAs involving~~ For the design basis Loss of Coolant Accident 3 release of fission product radioactivity, release to the environment is controlled by the rate of containment leakage. The containment was designed with an allowable leakage rate of [0.1]% 0.4 5 of containment air weight per day (Ref. 3). This leakage rate, used to evaluate offsite doses resulting from accidents, is defined in 10 CFR 50, Appendix J, Option B (Ref. 1), as L_a: the maximum allowable containment leakage rate at the calculated peak containment internal pressure (P_a) resulting from the limiting ~~DBA~~ design basis LOCA 3. The allowable leakage rate represented by L_a forms the basis for the acceptance criteria imposed on all containment leakage rate testing. L_a is assumed to be [0.1]% 0.4 per day in the safety analysis at P_a = [44.1] 60 psig (Ref. 3).

Satisfactory leakage rate test results are a requirement for the establishment of containment OPERABILITY.

APPLICABLE SAFEETY ANALYSES (Continued)

The containment satisfies Criterion 3 of the NRC Policy Statement.

minimum pathway leakage

LCO

Containment OPERABILITY is maintained by limiting leakage to $\leq 1.0\ L_a$, except prior to the first startup after performing a required ~~10 CFR 50, Appendix J~~, leakage test. At this time, ~~the combined Type B and C leakage must be < 0.6 L_a, and the overall Type A leakage must be < 0.75 L_a~~.

Containment Leakage Rate Testing Program

the leakage limits contained in the Containment Leakage Rate Testing Program must be met.

Compliance with this LCO will ensure a containment configuration, ~~including equipment hatches~~, that is structurally sound and that will limit leakage to those leakage rates assumed in the safety analysis.

7

, Option B

3

6

Individual leakage rates specified for the containment air lock (LCO 3.6.2) ~~[and purge valves with resilient seals (LCO 3.6.3)]~~ are not specifically part of the acceptance criteria of 10 CFR 50, Appendix J. Therefore, leakage rates exceeding these individual limits only result in the containment being inoperable when the leakage results in exceeding the acceptance criteria ~~of Appendix J~~.

overall

specified in the Containment Leakage Rate Testing Program

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material into containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, containment is not required to be OPERABLE in MODE 5 to prevent leakage of radioactive material from containment. The requirements for containment during MODE 6 are addressed in LCO 3.9.~~4~~ "Containment Penetrations."

design basis Loss of Coolant Accident

3

3

9

ACTIONS

A.1

In the event containment is inoperable, containment must be restored to OPERABLE status within 1 hour. The 1 hour Completion Time provides a period of time to correct the problem commensurate with the importance of maintaining containment during MODES 1, 2, 3, and 4. This time period

ACTIONS (Continued)

also ensures that the probability of an accident (requiring containment OPERABILITY) occurring during periods when containment is inoperable is minimal.

B.1 and B.2

If containment cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant 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 plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1

3

Maintaining the containment OPERABLE requires compliance with the visual examinations and leakage rate test requirements of ~~10 CFR 50, Appendix J (Ref. 1), as modified by approved exemptions~~ the Containment Leakage Rate Testing Program. Failure to meet air lock ~~[and purge valve with resilient seal]~~ leakage limits specified in LCO 3.6.2 ~~[and LCO 3.6.3]~~ does not invalidate the acceptability of these overall leakage determinations unless their contribution to overall Type A, B, and C leakage causes that to exceed limits. As left leakage prior to the first startup after performing a required ~~10 CFR 50, Appendix J~~ Containment Leakage Rate Testing Program leakage test is required to be ~~<~~ ≤ ~~[0.6]~~ 0.6 L_a for combined Type B and C maximum pathway leakage following an outage or shutdown that included Type B and C testing only, and ~~<~~ ≤ ~~[0.75]~~ 0.75 L_a for overall Type A leakage following an outage or shutdown that included a Type A test. At all other times between required leakage ~~rate tests~~, the acceptance criteria is based on an overall Type A leakage limit of ≤ 1.0 L_a. At ≤ 1.0 L_a the offsite dose consequences are bounded by the assumptions of the safety analysis. SR Frequencies are as required by ~~Appendix J, as modified by approved exemptions. Thus, SR 3.0.2 (which allows Frequency extensions) does not apply~~ the Containment Leakage Rate Testing Program. ~~These periodic testing requirements verify that the~~ containment leakage rate does not exceed the leakage rate assumed in the safety analysis.

4 6 3 3 3

BASES

SURVEILLANCE REQUIREMENTS (continued)

[SR 3.6.1.2

For ungrouted, post tensioned tendons, this SR ensures that the structural integrity of the containment will be maintained in accordance with the provisions of the Containment Tendon Surveillance Program. Testing and Frequency are consistent with the recommendations of Regulatory Guide 1.35 (Ref. 4).] 2

REFERENCES

1. 10 CFR 50, Appendix J., Option B 3
2. FSAR, Chapter [15] 14 5
3. FSAR, Section [6.2] 5.1
4. Regulatory Guide 1.35, Revision [1] 3

B 3.6 CONTAINMENT SYSTEMS

B 3.6.1 Containment (Subatmospheric)

BASES

BACKGROUND

The containment consists of the concrete react or building, its steel liner, and the penetrations through this structure. The structure is designed to contain radioactive material that may be released from the reactor core following a Design Basis Accident (DBA). Additionally, this structure provides shielding from the fission products that may be present in the containment atmosphere following accident conditions.

The containment is a reinforced concrete structure with a cylindrical wall, a flat foundation mat, and a shallow dome roof. The inside surface of the containment is lined with a carbon steel liner to ensure a high degree of leak tightness during operating and accident conditions.

For containments with ungrouted tendons, the cylinder wall is prestressed with a post tensioning system in the vertical and horizontal directions, and the dome roof is prestressed utilizing a three way post tensioning system.

The concrete reactor building is required for structural integrity of the containment under DBA conditions. The steel liner and its penetrations establish the leakage limiting boundary of the containment. Maintaining the containment OPERABLE limits the leakage of fission product radioactivity from the containment to the environment. SR 3.6.1.1 leakage rate requirements comply with 10 CFR 50, Appendix J (Ref. 1), as modified by approved exemptions.

The isolation devices for the penetrations in the containment boundary are a part of the containment leak tight barrier. To maintain this leak tight barrier:

a. All penetrations required to be closed during accident conditions are either:

   1. capable of being closed by an OPERABLE automatic containment isolation system, or

B 3.6 CONTAINMENT SYSTEMS

B 3.6.1 Containment (Dual)

BASES

BACKGROUND

The containment is a free standing steel pressure vesse l surrounded by a reinforced concrete shield building. The containment vessel, including all its penetrations, is a low leakage steel shell designed to contain radioactive material that may be released from the reactor core following a Design Basis Accident (DBA). Additionally, the containment and shield building provide shielding from the fission products that may be present in the containment atmosphere following accident conditions.

The containment vessel is a vertical cylindrical steel pressure vessel with a hemispherical dome and ellipsoidal bottom, completely enclosed by a reinforced concrete shield building. A 4 ft wide annular space exists between the walls and domes of the steel containment vessel and the concrete shield building to permit inservice inspection and collection of containment outleakage. Dual containments utilize an outer concrete building for shielding and an inner steel containment for leak tightness.

Containment piping penetration assemblies provide for the passage of process, service, sampling and instrumentation pipelines into the containment vessel while maintaining containment OPERABILITY. The shield building provides shielding and allows controlled release of the annulus atmosphere under accident conditions, as well as environmental missile protection for the containment vessel and the Nuclear Steam Supply System.

The inner steel containment and its penetrations establish the leakage limiting boundary of the containment. Maintaining the containment OPERABLE limits the leakage of fission product radioactivity from the containment to the environment. SR 3.6.1.1 leakage rate requirements comply with 10 CFR 50, Appendix J (Ref. 1), as modified by approved exemptions.

NSHC Number	NSHC Text
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.

NSHC Number	NSHC Text
L.01	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? Containment integrity is not an initial condition of, or event precursor in any analyzed shutdown event (less than or equal to 200 degrees). Fuel handling events do not credit containment integrity nor filtration; dilution and rod withdrawal events are not impacted by containment status and are terminated prior to any release taking place; and liquid and gaseous release events are not impacted by containment status as the containment is not the assumed source of release for these events. Accordingly, the probability for analyzed event is not significantly increased as a result of this change. As previously stated, containment integrity is not assumed for any shutdown event, therefore, the consequences of an analyzed event is not significantly increased as a result of this change. 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. This proposed change makes the Mode of Applicability for the Containment consistent with the accident analyses which assume containment integrity. 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 change in applicability for containment integrity is consistent with the assumptions made in the various Point Beach accident analyses. Containment integrity will continue to be maintained in the various Operational Modes and Conditions for which containment integrity was assumed to be met. Therefore, the margin of safety is not significantly reduced as a result of this change

NSHC Number	NSHC Text
M	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.

3.6 CONTAINMENT SYSTEMS

3.6.1 Containment

LCO 3.6.1 Containment shall be OPERABLE.

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Containment inoperable.	A.1 Restore containment to OPERABLE status.	1 hour
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3. AND B.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.1.1	Perform required visual examinations and containment leakage rate testing in accordance with the Containment Leakage Rate Testing Program.	In accordance with the Containment Leakage Rate Testing Program
SR 3.6.1.2	Verify containment struc tural integrity in accordance with the Containment Tendon Surveillance Program.	In accordance with the Containment Tendon Surveillance Program

B 3.6 CONTAINMENT SYSTEMS

B 3.6.1 Containment

BASES

BACKGROUND

The containment consists of the concrete reactor building, its steel liner, and the penetrations through this structure. The structure is designed to contain radioactive material that may be released from the reactor core following a design basis Loss of Coolant Accident. Additionally, this structure provides shielding from the fission products that may be present in the containment atmosphere following accident conditions.

The containment is a reinforced concrete structure with a cylindrical wall, a flat foundation mat, and a shallow dome roof. The inside surface of the containment is lined with a carbon steel liner to ensure a high degree of leak tightness during operating and accident conditions.

The cylinder wall is prestressed with a post tension ing system in the vertical and horizontal directions, and the dome roof is prestressed utilizing a three way post tensioning system.

The concrete reactor building is required for structural integrity of the containment under design basis Loss of Coolant Accident conditions. The steel liner and its penetrations establish the leakage limiting boundary of the containment. Maintaining the containment OPERABLE limits the leakage of fission product radioactivity from the containment to the environment. SR 3.6.1.1 leakage rate requirements comply with 10 CFR 50, Appendix J, Option B (Ref. 1), as modified by approved exemptions.

The isolation devices for the penetrations in the containment boundary are a part of the containment leak tight barrier. To maintain this leak tight barrier:

a. All penetrations required to be closed during accident conditions are either:

   1. capable of being closed by an OPERABLE automatic containment isolation system, or

BASES

BACKGROUND (continued)

2. closed by manual valves, blind flanges, or de-activated automatic valves secured in their closed positions, except as provided in LCO 3.6.3, "Containment Isolation Valves";

b. Each air lock is OPERABLE, except as provided in LCO 3.6.2, "Containment Air Locks"; and

c. the equipment hatch is installed.

APPLICABLE SAFETY ANALYSES

The safety design basis for the containment is that the containment must withstand the pressures and temperatures of the limiting design basis Loss of Coolant Accident without exceeding the design leakage rate.

For the design basis Loss of Coolant Accident analyses, it is assumed that the containment is OPERABLE such that, the release of fission product radioactivity, release to the environment is controlled by the rate of containment leakage. The containment was designed with an allowable leakage rate of 0.4% of containment air weight per day (Ref. 3). This leakage rate, used to evaluate offsite doses resulting from accidents, is defined in 10 CFR 50, Appendix J, Option B (Ref. 1), as L_a: the maximum allowable containment leakage rate at the calculated peak containment internal pressure (P_a) resulting from the limiting design basis LOCA. The allowable leakage rate represented by L_a forms the basis for the acceptance criteria imposed on all containment leakage rate testing. L_a is assumed to be .04% per day in the safety analysis at P_a = 60 psig (Ref. 3).

Satisfactory leakage rate test results are a requirement for the establishment of containment OPERABILITY.

The containment satisfies Criterion 3 of the NRC Policy Statement.

LCO

Containment OPERABILITY is maintained by limiting minimum pathway leakage to ≤ 1.0 L_a, except prior to the first startup after performing a required Containment Leakage Rate Testing Program leakage test. At this time, the leakage limits contained in the Containment Leakage Rate Testing

BASES

LCO (continued)

Program must be met.

Compliance with this LCO will ensure a containment configuration, that is structurally sound and that will limit leakage to those leakage rates assumed in the safety analysis.

Individual leakage rates specified for the containment air lock (LCO 3.6.2) are not specifically part of the acceptance criteria of 10 CFR 50, Appendix J, Option B. Therefore, leakage rates exceeding these individual limits only result in the containment being inoperable when the leakage results in exceeding the overall acceptance criteria specified in the Containment Leakage Rate Testing Program.

APPLICABILITY

In MODES 1, 2, 3, and 4, a design basis Loss of Coolant Accident could cause a release of radioactive material into containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, containment is not required to be OPERABLE in MODE 5 to prevent leakage of radioactive material from containment. The requirements for containment during MODE 6 are addressed in LCO 3.9.3, "Containment Penetrations."

ACTIONS

A.1

In the event containment is inoperable, containment must be restored to OPERABLE status within 1 hour. The 1 hour Completion Time provides a period of time to correct the problem commensurate with the importance of maintaining containment during MODES 1, 2, 3, and 4. This time period also ensures that the probability of an accident (requiring containment OPERABILITY) occurring during periods when containment is inoperable is minimal.

ACTIONS (continued)

B.1 and B.2

If containment cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant 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 plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1

Maintaining the containment OPERABLE requires compliance with the visual examinations and containment leakage rate test requirements of the Containment Leakage Rate Testing Program. Failure to meet air lock leakage limits specified in LCO 3.6.2 does not invalidate the acceptability of these overall leakage determinations unless their contribution to overall Type A, B, and C leakage causes that to exceed limits. As left leakage prior to the first startup after performing a required Containment Leakage Rate Testing Program, leakage test is required to be $\leq 0.6\ L_a$ for combined Type B and C maximum pathway leakage following an outage or shutdown that included Type B and C testing only, and $\leq 0.75\ L_a$ for overall Type A leakage followiing an outage or shutdown that included a Type A test. At all other times between required leakage rate tests, the acceptance criteria is based on an overall Type A leakage limit of $\leq 1.0\ L_a$. At $\leq 1.0\ L_a$ the offsite dose consequences are bounded by the assumptions of the safety analysis. SR Frequencies are as required by the Containment Leakage Rate Testing Program. These periodic testing requirements verify that the containment leakage rate does not exceed the leakage rate assumed in the safety analysis.

SR 3.6.1.2

For ungrouted, post tensioned tendons, this SR ensures that the structural integrity of the containment will be maintained in accordance with the provisions of the Containment Tendon Surveillance Program. Testing and Frequency are consistent with the recommendations of

BASES

SURVEILLANCE REQUIREMENTS (continued)

Regulatory Guide 1.35 (Ref. 4).

REFERENCES

1. 10 CFR 50, Appendix J, Option B.
2. FSAR, Chapter 14.
3. FSAR, Section 5.1.
4. Regulatory Guide 1.35, Revision 3.

Cross-Reference Report - NUREG-1431 Section 3.06.02
ITS to CTS

13-Nov-99

ITS	CTS	DOC
B 3.06.02	BASES	A.04
LCO 3.06.02	15.03.06.A.01	A.03
LCO 3.06.02 COND NOTE 1	15.03.06.A.01.D	A.01
LCO 3.06.02 COND NOTE 2	15.03.06.A.01.D	A.01
LCO 3.06.02 COND NOTE 3	15.03.06.A.01.D	A.01
LCO 3.06.02 COND A	15.03.06.A.01.D.01	A.01
LCO 3.06.02 COND A RA A.1	15.03.06.A.01.D.01.A	A.01
LCO 3.06.02 COND A RA A.1 NOTE 1	15.03.06.A.01.D.01	A.01
LCO 3.06.02 COND A RA A.1 NOTE 2	15.03.06.A.01.D.01	A.01
LCO 3.06.02 COND A RA A.2	15.03.06.A.01.D.01.B	A.01
LCO 3.06.02 COND A RA A.3	15.03.06.A.01.D.01.C	A.01
LCO 3.06.02 COND A RA A.3 NOTE	15.03.06.A.01.D.01.C	A.01
LCO 3.06.02 COND B	15.03.06.A.01.D.02	A.01
LCO 3.06.02 COND B RA B.1	15.03.06.A.01.D.02.A	A.01
LCO 3.06.02 COND B RA B.1 NOTE 1	15.03.06.A.01.D.02	A.01
LCO 3.06.02 COND B RA B.1 NOTE 2	15.03.06.A.01.D.02	A.01
LCO 3.06.02 COND B RA B.2	15.03.06.A.01.D.02.B	A.01
LCO 3.06.02 COND B RA B.3	15.03.06.A.01.D.02.C	A.01
LCO 3.06.02 COND B RA B.3 NOTE	15.03.06.A.01.D.02.C	A.01
LCO 3.06.02 COND C	15.03.06.A.01.D.03	A.01
LCO 3.06.02 COND C RA C.1	15.03.06.A.01.D.03.A	A.01
LCO 3.06.02 COND C RA C.2	15.03.06.A.01.D.03.B	A.01
LCO 3.06.02 COND C RA C.3	15.03.06.A.01.D.03.C	A.01
LCO 3.06.02 COND D	15.03.06.A.01.D.04	A.01
LCO 3.06.02 COND D RA D.1	15.03.06.A.01.D.04.A	A.01
LCO 3.06.02 COND D RA D.2	15.03.06.A.01.D.04.B	A.01
SR 3.06.02.01	NEW	M.01
SR 3.06.02.02	15.01.D.03	A.02
	NEW	M.02

Cross-Reference Report - NUREG-1431 Section 3.06.02
CTS to ITS

13-Nov-99

CTS	ITS	DOC
15.01.D.03	SR 3.06.02.02	A.02
15.03.06.A.01	DELETED	L.01
	LCO 3.06.02	A.03
15.03.06.A.01.D	LCO 3.06.02 COND NOTE 1	A.01
	LCO 3.06.02 COND NOTE 2	A.01
	LCO 3.06.02 COND NOTE 3	A.01
15.03.06.A.01.D.01	LCO 3.06.02 COND A	A.01
	LCO 3.06.02 COND A RA A.1 NOTE 1	A.01
	LCO 3.06.02 COND A RA A.1 NOTE 2	A.01
15.03.06.A.01.D.01.A	LCO 3.06.02 COND A RA A.1	A.01
15.03.06.A.01.D.01.B	LCO 3.06.02 COND A RA A.2	A.01
15.03.06.A.01.D.01.C	LCO 3.06.02 COND A RA A.3	A.01
	LCO 3.06.02 COND A RA A.3 NOTE	A.01
15.03.06.A.01.D.02	LCO 3.06.02 COND B	A.01
	LCO 3.06.02 COND B RA B.1 NOTE 1	A.01
	LCO 3.06.02 COND B RA B.1 NOTE 2	A.01
15.03.06.A.01.D.02.A	LCO 3.06.02 COND B RA B.1	A.01
15.03.06.A.01.D.02.B	LCO 3.06.02 COND B RA B.2	A.01
15.03.06.A.01.D.02.C	LCO 3.06.02 COND B RA B.3	A.01
	LCO 3.06.02 COND B RA B.3 NOTE	A.01
15.03.06.A.01.D.03	LCO 3.06.02 COND C	A.01
15.03.06.A.01.D.03.A	LCO 3.06.02 COND C RA C.1	A.01
15.03.06.A.01.D.03.B	LCO 3.06.02 COND C RA C.2	A.01
15.03.06.A.01.D.03.C	LCO 3.06.02 COND C RA C.3	A.01
15.03.06.A.01.D.04	LCO 3.06.02 COND D	A.01
15.03.06.A.01.D.04.A	LCO 3.06.02 COND D RA D.1	A.01
15.03.06.A.01.D.04.B	LCO 3.06.02 COND D RA D.2	A.01
BASES	B 3.06.02	A.04

Description of Changes - NUREG-1431 Section 3.06.02

13-Nov-99

DOC Number	DOC Text
A.01	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:
15.03.06.A.01.D	LCO 3.06.02 COND NOTE 1
	LCO 3.06.02 COND NOTE 2
	LCO 3.06.02 COND NOTE 3
15.03.06.A.01.D.01	LCO 3.06.02 COND A
	LCO 3.06.02 COND A RA A.1 NOTE 1
	LCO 3.06.02 COND A RA A.1 NOTE 2
15.03.06.A.01.D.01.A	LCO 3.06.02 COND A RA A.1
15.03.06.A.01.D.01.B	LCO 3.06.02 COND A RA A.2
15.03.06.A.01.D.01.C	LCO 3.06.02 COND A RA A.3
	LCO 3.06.02 COND A RA A.3 NOTE
15.03.06.A.01.D.02	LCO 3.06.02 COND B
	LCO 3.06.02 COND B RA B.1 NOTE 1
	LCO 3.06.02 COND B RA B.1 NOTE 2
15.03.06.A.01.D.02.A	LCO 3.06.02 COND B RA B.1
15.03.06.A.01.D.02.B	LCO 3.06.02 COND B RA B.2
15.03.06.A.01.D.02.C	LCO 3.06.02 COND B RA B.3
	LCO 3.06.02 COND B RA B.3 NOTE
15.03.06.A.01.D.03	LCO 3.06.02 COND C
15.03.06.A.01.D.03.A	LCO 3.06.02 COND C RA C.1
15.03.06.A.01.D.03.B	LCO 3.06.02 COND C RA C.2
15.03.06.A.01.D.03.C	LCO 3.06.02 COND C RA C.3
15.03.06.A.01.D.04	LCO 3.06.02 COND D
15.03.06.A.01.D.04.A	LCO 3.06.02 COND D RA D.1
15.03.06.A.01.D.04.B	LCO 3.06.02 COND D RA D.2

DOC Number	DOC Text	
A.02	The definition of Containment Integrity has moved from the Definitions Section of the Current Technical Specifications to proposed ITS LCO 3.6.1, Containment; LCO 3.6.2, Containment Air Locks; and LCO 3.6.3, Containment Isolation Valves. This change is administrative in that all of the CTS requirements continue to be addressed within the aforementioned LCOs. This change eliminates confusion associated with meeting the definition of CONTAINMENT INTEGRITY when required equipment/components are inoperable. CTS 15.1.D.3 defines containment integrity as existing when at least one door in the air lock is properly closed. While not explicitly stated in the ITS, proposed SR 3.6.2.2 requires the performance of an airlock interlock test, which verifies that only one door in an airlock can be opened at a time. This test in combination with the Required Actions for an inoperable interlock mechanism require at least one door to be closed in each airlock making this CTS statement unnecessary in the ITS. Thus, the LCO requirements ensure at least one door in an airlock to be properly closed replacing the CTS 15.1.D.3 requirement making this change administrative.	
	CTS:	**ITS:**
	15.01.D.03	SR 3.06.02.02
A.03	CTS 15.3.6.A.1 requires containment integrity whenever a nuclear core is installed in the reactor, unless the reactor is in the cold shutdown condition. Proposed ITS LCO 3.6.2 require the containment to be operable in Modes 1, 2, 3,and 4. The ITS definition of Mode requires there to be fuel in the reactor to be in a defined Mode of Applicability (e.g. Mode 1, 2, 3, 4, 5, or 6) making the CTS and ITS equivalent regarding the presence of fuel. The CTS definition of Cold Shutdown requires the reactor to have a shutdown margin of at least 1% with RCS temperature less than or equal to 200 degrees. The ITS definition of Cold Shutdown (ITS Table 1.1-1 - Mode 5), is defined as Keff less than 0.99 with RCS temperature of less than or equal to 200 degrees making the CTS and ITS equivalent relative to temperature and reactivity. Based on the above, this change is administrative.	
	CTS:	**ITS:**
	15.03.06.A.01	LCO 3.06.02
A.04	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 3.06.02
		B 3.06.02

DOC Number	DOC Text
L.01	The CTS requires containment integrity (airlocks) to be operable under a number of conditions to include: 1) Whenever a nuclear core is installed in the reactor and the reactor is not in the cold or refueling shutdown condition; 2) When the reactor vessel head is removed unless the reactor is in the refueling shutdown condition; 3) Whenever positive reactivity changes are made by rod drive motion, except when testing one bank of rods at a time, rod disconnecting, and rod reconnecting provided the reactor is initially subcritical by at least 5% delta k/k; and 4) Whenever making positive reactivity changes by boron dilution unless the RCS boron concentration in is maintained > 2100 ppm. The ITS will require the containment airlocks to be operable in Modes 1, 2, 3, and 4 (whenever the reactor is not in cold shutdown). All other conditions and limitations have been deleted from the Technical Specifications. There are no shutdown events (RCS temperature less than or equal to 200 degrees) in the Point Beach current licensing basis which credit containment integrity (airlocks) for event mitigation. Specifically; inadvertent RCS dilution in cold shutdown and refueling is terminated by operator action before the reactor reaches a Keff of 1.0, inadvertent rod withdrawal is terminated by the reactor protection system before fuel damage occurs, and accidental release of liquid and gaseous wastes are independent of containment airlock status. This relaxation is consistent with analysis assumptions for Point Beach. Accordingly, these requirements may be deleted from the Technical Specifications as they are not required to provide protection of public health and safety. **CTS:** 15.03.06.A.01 — **ITS:** DELETED
M.01	The CTS containment airlocks leakage limit simply requires compliance with the overall Type B and C leakage limits specified in the current Containment Leakage Rate Testing Program. The proposed ITS includes a surveillance requirement for leakage rate testing of the containment airlocks which imposes a fixed airlock leakage limit which is contained in the Containment Leakage Rate Monitoring Program (CLRTP). Inclusion of this fixed limit is a more restrictive change imposed on plant operations to ensure that containment airlock leakage is limited to a small fraction of the allowable overall containment leakage rate limit. The specific leakage limitations proposed are discussed in Section 5.0 of the conversion package. **CTS:** NEW — **ITS:** SR 3.06.02.01

DOC Number	DOC Text
M.02	The CTS does not contain any periodic surveillances which verify the operability of the containment airlock interlock mechanism. The proposed ITS includes a Surveillance Requirement (SR 3.6.2.2) which requires verification that no more than one door and its associated equalization valve in the airlock can be opened at one time (verification of interlock operability). The proposed surveillance frequency of 24 months is consistent with that contained in NUREG 1431, which is based on the inherent reliability of the interlock mechanism, and that fact that plant practice does not challenge this interlock.

CTS:	ITS:
NEW	SR 3.06.02.02

A.1

D. Containment Integrity* < See LCO 3.6.1 >

Containment integrity is defined to exist when:

1) Penetrations required to be isolated during accident conditions are either:
   a. Capable of being closed by an operable automatic containment isolation valve,
      OR
   b. Closed by an operable containment isolation valve,
      OR
   c. Closed in accordance with Specifications 15.3.6.A.1.b and 15.3.6.A .1.c.
2) The equipment hatch is properly closed.
3) At least one door in each personnel air lock is properly closed. A.2
4) The overall uncontrolled containment leakage is less than La.** < See LCO 3.6.1 >

E. Protective Instrumentation Logic
1) Analog Channel
An analog channel is an arrangement of components and modules as required to generate a single protective action signal when required by a plant condition. An analog channel loses its identity where single action signals are combined.

< See Section 1.0 >

< See LCO 3.6.1 >

---

* Containment isolation valves are discussed in FSAR Section 5.2.
** Prior to the first startup after performing a required Containment Leakage Rate Testing Program leakage test, the applicable leakage limits specified in TS 15.6.12.D.2 must be met.

15.3.6 CONTAINMENT SYSTEM

< See LCO 3.6.1 >

Applicability: Applies to the integrity of reactor containment.

Objective:

To define the operating status of the reactor containment for plant operation.

Specification:

< See LCO 3.6.1 and LCO 3.6.3 for Containment Vessel/Tendons/ Leakage and Containment Isolation Valve provisions

A. Containment Integrity

A.3

L.1

1. The containment integrity (as defined in 15.1) shall be maintained when a nuclear core is installed in the reactor unless the reactor is in the cold shutdown condition. ~~The containment integrity shall be maintained when the reactor vessel head is removed unless the reactor is in the refueling shutdown condition.~~ If containment integrity is not maintained when required, enter the applicable LCO(s) listed below. If the LCO is met or is no longer applicable prior to expiration of the specified completion time(s), completion of the required action(s) is not required unless otherwise stated.

LCO 3.6.2 Applicability

a. Containment Operability

(1) If the containment is inoperable, restore the containment to operable status within one hour.

(2) If the above action cannot be completed within the time specified, place the affected unit in:
(a) hot shutdown within six hours,
AND
(b) cold shutdown within 36 hours.

< See LCO 3.6.1 >

< See LCO 3.6.1 >

d. Containment Air Locks

LCO Notes 1, 2, and 3

Both containment air locks shall be operable. Entry and exit is permissible to perform repairs on the affected air lock components. Separate LCO entry is allowed for each air lock.

If air lock leakage results in exceeding the overall containment leakage rate acceptance criteria (L_a), enter 15.3.6.A.1.a. in addition to the applicable LCO below.

Cond A and Cond A Note 3

(1) If ONE door is inoperable in a containment air lock:
   (a) verify the operable door is closed in the affected air lock within one hour,
   AND
   (b) lock the operable door in the affected air lock within 24 hours,
   AND
   (c) verify the operable door is locked closed in the affected air lock once per 31 days. Air lock doors in high radiation areas may be verified locked closed by administrative means.

Cond A Notes 1 and 2

The actions listed above are not applicable if both doors in the same air lock are inoperable and Specification 15.3.6.A.1.d.(3) is entered. Entry and exit is permissible for 7 days under administrative controls if both air locks are inoperable.

Cond B

(2) If the containment air lock door interlock mechanism is inoperable:
   (a) verify an operable door is closed in the affected air lock within one hour,
   AND
   (b) lock an operable door closed in the affected air lock within 24 hours,
   AND

Cond B and Notes

(c) verify an operable door is locked closed in the affected air lock once per 31 days. Air lock doors in high radiation areas may be verified locked closed by administrative means.

The actions listed above are not applicable if both doors in the same air lock are inoperable and Specification 15.3.6.A.1.d.(3) is entered. Entry and exit of containment is permissible under the control of a dedicated operator.

Cond C

(3) If an air lock is inoperable for reasons other than 15.3.6 .A.1.d.(1) or (2):
   (a) initiate action to evaluate overall containment leakage rate per Specification 15.3.6.A.1.a. immediately,
   AND
   (b) verify a door is closed in the affected air lock within one hour,
   AND
   (c) restore air lock to operable status within 36 hours.

Cond D

(4) If any of the above actions cannot be completed within the time specified, place the affected unit in:
   (a) hot shutdown within six hours,
   AND
   (b) cold shutdown within 36 hours.

M.1 Add new SR 3.6.2.1 - Airlock leakage testing

M.2 Add new SR 3.6.2. 2 - Airlock door interlock testing

< See LCO 3.6.3 >

from full power conditions in an orderly manner and without challenging plant systems.

Specification 15.3.6.A.1.c.

The containment purge supply and exhaust valves are required to be locked closed during plant operations since these valves have not been demonstrated capable of closing from the full open position during a design basis loss-of-coolant accident. Maintaining these valves locked closed during plant operation ensures that excessive quantities of radioactive materials will not be released via the containment purge system in the event of a design basis loss-of-coolant accident. The containment purge supply and exhaust valves will be locked closed by providing locking devices on the control board operators for these valves.

A.4

Specification 15.3.6.A.1.d.

Containment air locks form part of the containment pressure boundary and provide a means for personnel access during all operating conditions. The doors are interlocked to prevent simultaneous opening. During periods when containment is not required to be operable, the door interlock mechanism may be disabled, allowing both doors of an air lock to remain open for extended periods when frequent containment entry is necessary. Each air lock door has been designed and tested to certify its ability to withstand a pressure in excess of the maximum expected pressure following a DBA in containment. As such, closure of a single door supports containment integrity. Each of the doors contains double gasketed seals and local leakage rate testing capability to ensure pressure integrity. To effect a leak tight seal, the air lock design uses pressure seated doors (i.e., an increase in containment internal pressure results in increased sealing force on each door).

Each air lock is required to be operable. For the air lock to be considered operable, the air lock interlock mechanism must be operable, the air lock must be in compliance with the Type B air lock leakage test, and both air lock doors must be operable. For the purposes of this section, 'air lock door' includes the door itself, equalizing valve, operating mechanism seal, and door seals. The interlock mechanism allows only one air lock door of an air lock to be opened at one time. This provision ensures that a gross breach of containment does not exist when containment is required to be operable. Closure of a single door in each air lock is sufficient to provide a leak tight barrier following postulated events. Nevertheless, both doors are kept closed when the air lock is not being used for normal entry into and exit from containment.

Specification 15.3.6.A.1.d. allows entry and exit to perform repairs on the affected air lock component. If the outer door is inoperable, then it may be easily accessed to repair. If the inner door is the one that is inoperable, however, then a short time exists when the containment boundary is not intact (during access through the outer door). The ability to open the operable door, even if it means the containment boundary is temporarily not intact, is acceptable due to the low probability of an event that could pressurize the containment during the short time in which the operable door is expected to be open. After each entry and exit, the operable door must be immediately closed. If ALARA conditions permit, entry and exit should be via an operable air lock.

Specification 15.3.6.A.1.d.(1)

If one air lock door in a containment air lock is inoperable, the operable door must be verified closed in the affected air lock. This ensures that a leak tight containment barrier is maintained by the use of an operable air lock door. This action must be completed within one hour. This time period is consistent with Specification 15.3.6.A.1.a., which requires that containment be restored to operable status within one hour.

In addition, the affected air lock penetration must be isolated by locking closed the operable air lock door within 24 hours. Locking the door may be accomplished using a padlock or red seal. The 24 hour completion time is reasonable for locking the operable air lock door, considering the operable door of the affected air lock is being maintained closed.

Specification 15.3.6.A.1.d.(1)(c) verifies that an air lock with an inoperable door has been isolated by the use of a locked and closed operable air lock door. This ensures that an acceptable containment leakage boundary is maintained. The completion time of once per 31 days is based on engineering judgment and is considered adequate in view of the low likelihood of a locked door being mispositioned and other administrative controls. Air lock doors located in high radiation areas are allowed to be verified locked closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door, once it has been verified to be in the proper position, is small.

Specification 15.3.6.A.1.d.(1) does not apply when both doors in an air lock are inoperable. If both doors in the same air lock are inoperable, an operable door is not available to be closed. Specification 15.3.6.A.1.d.(3) contains the appropriate remedial actions.

Specification 15.3.6.A.1.d.(1) allows use of the air lock for entry and exit for 7 days under administrative controls. Containment entry may be required on a periodic basis to perform TS Surveillances and required actions, as well as other activities on equipment inside containment that are required by TS or activities on equipment that support TS-required equipment. This is not intended to preclude performing other activities (i.e., non-TS-required activities) if the containment is entered, using the inoperable air lock, to perform an allowed activity listed above. This allowance is acceptable due to the low probability of an event that could pressurize the containment during the short time that the operable door is expected to be open.

Specification 15.3.6.A.1.d.(2)

For an inoperable air lock door interlock mechanism in a containment air lock, the required actions and associated completion times are consistent with those specified in 15.3.6.A.1.d.(1).

Air lock doors located in high radiation areas are allowed to be verified locked closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door, once it has been verified to be in the proper position, is small.

Specification 15.3.6.A.1.d.(2) does not apply when both doors in an air lock are inoperable. If both doors in the same air lock are inoperable, an operable door is not available to be closed. Specification 15.3.6.A.1.d.(3) contains the appropriate remedial actions.

Specification 15.3.6.A.1.d.(2) allows entry into and exit from containment under the control of a dedicated individual stationed at the air lock to ensure that only one door is opened at a time (i.e., the individual performs the function of the interlock).

Specification 15.3.6.A.1.d.(3)

If an air lock is inoperable for reasons other than those described in Specification 15.3.6.A.1.d.(1) or (2), Specification 15.3.6.A.1.d.(3) requires action be initiated immediately to evaluate previous combined leakage rates using current air lock test results. An evaluation is acceptable, since it is overly conservative to immediately declare the containment inoperable if both doors in an air lock have failed a seal test or if the overall air lock leakage is not within limits. In many instances (e.g., only one seal per door has failed), containment remains operable, yet only one hour (per 15.3.6.A.1.a.) would be provided to restore the air lock door to operable status prior to requiring a plant shutdown. In addition, even with both doors failing the seal test, the overall containment leakage rate can still be within limits.

Specification 15.3.6.A.1.d.(3) requires that one door in the affected containment air lock must be verified to be closed within one hour. This time period is consistent with Specification 15.3.6.A.1.a., which requires that containment be restored to operable status within one hour.

Additionally, the affected air lock(s) must be restored to operable status within 36 hours. The specified time period is considered reasonable for restoring an inoperable air lock to operable status, including a post-maintenance pressure test, assuming that at least one door is maintained closed in each affected air lock.

A.4

Specification 15.3.6.A.1.d.(3) may be exited as soon as the air lock is repaired to the extent that Specification 15.3.6.A.1.d.(1) or (2) applies.

Specification 15.3.6.A.1.d.(4)

If the required actions and associated completion times are not met, the plant must be brought to a condition in which the LCO does not apply. To achieve this status, the plant must be brought to at least hot shutdown within six hours and to cold shutdown within 36 hours of entering 15.3.6.A.1.d.(4). The allowed completion times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

Specification 15.3.6.B.

Regarding internal pressure limitations, the containment design pressure of 60 psig would not be exceeded if the internal pressure before a major loss-of-coolant accident were as much as 6 psig.[2] The containment is designed to withstand an internal vacuum of 2.0 psig.[3]

Specification 15.3.6.B.1

When containment pressure is not within the limits of the LCO, it must be restored to within these limits within one hour. The required action is necessary to return operation to within the bounds of the containment analysis. The one hour completion time is consistent with the actions of Specification 15.3.6.A.1.a., which requires the containment be restored to operable status within one hour.

Specification 15.3.6.B.2.

If containment pressure cannot be restored to within limits within the required completion time, the plant must be brought to a condition in which the LCO does not apply. To achieve this status, the plant must be brought to at least hot shutdown within six hours and to cold shutdown within 36 hours of entering 15.3.6.B.2. The allowed completion times are reasonable, based on operating

< See LCO 3.6.4 >

Justification For Deviations - NUREG-1431 Section 3.06.02

13-Nov-99

JFD Number	JFD Text	
01	The Titles for LCO 3.6.2 and it associated Bases have been shortened to simply state "Containment Airlocks". Inclusion of the type of design (e.g. Ice Condenser, Dual, Atmospheric, or Sub-Atmospheric) is a detail relevant only in distinguishing which variation of NUREG 1431 is to be used.	
	ITS:	**NUREG:**
	B 3.06.02	B 3.06.02
	LCO 3.06.02	LCO 3.06.02
02	The containment for Point Beach has two airlocks. Accordingly, the bracketed statement applicable to designs with two airlock are retained in the proposed Point Beach ITS.	
	ITS:	**NUREG:**
	LCO 3.06.02 COND A RA A.1 NOTE 2	LCO 3.06.02 COND A RA A.1 NOTE 2
	SR 3.06.02.02	SR 3.06.02.02
03	NUREG 1431 Condition C Required Action C.3 allows 24 hours to restore an inoperable air lock to operable status as long as the overall containment Type A, B, and C leakage limits are met. CTS 15.3.6.A.1.D.3 allows 36 hours to restore an inoperable containment to operable status when the overall containment Type A, B, and C leakage limits are met. The proposed ITS for Point Beach retains the CTS 36 hour restoration period based on unique plant design considerations. The Point Beach airlocks are exposed to ambient temperature conditions which make the 24 hour restoration period allowed in NUREG 1431 insufficient. Additional time is necessary to perform the return to service leakage rate testing based on an increase in leakage rate temperature stabilization time. The 36 hour return to service period was accepted in Amendment 160/169 of the Point Beach CTS, approved on January 18, 1995.	
	ITS:	**NUREG:**
	B 3.06.02	B 3.06.02
	LCO 3.06.02 COND C RA C.3	LCO 3.06.02 COND C RA C.3

Justification For Deviations - NUREG-1431 Section 3.06.02

13-Nov-99

JFD Number	JFD Text
04	LCO 3.6.2 and its associated Bases have been modified to incorporate Option B to 10 CFR 50 Appendix J. These modifications include: 1) Revision of SR 3.6.2.1 to reference the Containment Leakage Rate Testing Program (CLRTP) for containment airlock leakage testing requirements, frequencies and acceptance criteria. Moving the details associated with containment airlock leakage rate testing to a program facilitates the presentation of details necessary to implement Option B. This presentation is consistent with the implementation of Option B relative to containment leakage rate testing in the Current Technical Specification. The Frequency Note stating that the provisions of SR 3.0.2 are not applicable, was similarly moved to the CLRTP to facilitate usage. 2) The Bases of LCO 3.6.2 provides reference to 10 CFR 50 Appendix J and its associated definition of peak containment pressure. This statement was revised to provide reference to 10 CFR 50, Appendix J, Option B and its revised definition of peak containment pressure (Pa) for design basis "loss of coolant accident" conditions. This change is consistent with the CTS Bases wording approved in amendment 169/173 on October 9, 1996 for the implementation of Option B. 3) Various references to 10 CFR 50 Appendix J have been revised to 10 CFR 50 Appendix J Option B to provide for proper and complete reference to Appendix J. 4) Bases discussions regarding surveillance test acceptance criteria have been revised to reference the limit contained in the Containment Leakage Rate Testing Program. These changes are consistent with the Point Beach current licensing basis as approved in Amendment 169/173 on October 9, 1996. **ITS:** B 3.06.02 — **NUREG:** B 3.06.02 **ITS:** SR 3.06.02.01 — **NUREG:** SR 3.06.02.01
05	SR 3.6.2.1 contains a Note which requires containment air lock leakage test result to be utilized in the determination of Type B and C containment leakage. The Bases for this SR states that it is used for determining overall leakage. The Bases has been clarified to reference the combined Type B and C leakage limits as stated in 10 CFR 50 Appendix J and required by the Containment Leakage Rate Testing Program. **ITS:** B 3.06.02 — **NUREG:** B 3.06.02

JFD Number	JFD Text	
06	The Bases for LCO 3.6.2 provides a description of the containment airlocks which includes the diameter of the airlock. The diameter referenced is 10 feet, while the diameter of the Point Beach air locks is approximately nine feet 2 inches. Accordingly, this statement has been revised to contain the diameter of Point Beach's air locks.	
	ITS:	**NUREG:**
	B 3.06.02	B 3.06.02
07	The Bases of LCO 3.6.2 has been modified to reflect the alarms/indications associated with the air lock doors. The Bases makes reference to an alarm in the control room that alerts operators when the containment air lock interlock mechanism is defeated. This alarm does not exist in the Point Beach design. This statement has been omitted from the proposed ITS for Point Beach. In addition, an indication of door position is provided via limit switches on each door's latch.	
	ITS:	**NUREG:**
	B 3.06.02	B 3.06.02
08	The brackets have been removed and the proper plant specific information has been provided.	
	ITS:	**NUREG:**
	B 3.06.02	B 3.06.02
09	The Bases for SR 3.6.2.1 states that the acceptance criteria for airlock leakage is based upon data obtained during initial airlock and containment operability testing. The air lock leakage limits for Point Beach were not established using initial testing data, but are rather based on a small percentage of the overall acceptable Type B and C leakage limit. The Bases has been revised to reflect this as the basis for the leakage limit.	
	ITS:	**NUREG:**
	B 3.06.02	B 3.06.02

JFD Number	JFD Text
10	NUREG 1431 LCO 3.6.2 and its associated Bases have been modified to reflect the Point Beach containment airlock design and licensing basis. Each airlock has two bulkheads that form redundant pressure boundaries. Each bulkhead includes; a bulkhead door and seals, a pressure equalizing vent valve, and bulkhead actuating shaft seals. In addition to these pressure retaining components, the airlock outer bulkhead also includes pressure retaining penetrations on the cylindrical portion of the airlock. The bulkhead doors are interlocked with each other to prevent simultaneous opening of the doors and or equalizing valves in the redundant bulkheads. The equalizing valves are interlocked to open prior to the bulkhead door, equalizing pressure across the door prior to the latching mechanism disengaging, allowing the door to be opened. Similarly, the equalizing valve closes after its respective bulkhead door is closed and latched. Only one of the two bulkheads is required to provide assurance of containment integrity. The CTS recognizes the airlock design by defining each door in the Bases to includes its associated equalizing valve, operating mechanisms and seals, while the ITS only recognizes the existence of the doors themselves. As such, the ITS is silent in regards to verification of equalization valve function and interlock, and the ITS also does not establish appropriate Conditions and Required Actions for failure of pressure retaining barriers other than the door itself (e.g. equalization valve, shaft seals, electrical penetrations, etc;). The ITS has been modified to address the Point Beach design and licensing basis. Equalization valve function and interlock have been added to the door interlock test, the Conditions and Required Actions have been changed to reflect an inoperable bulkhead, and complementary Bases changes proposed. As addressed by the CTS and it's associated Bases, bulkhead inoperability is equivalent to door inoperability, as in either case overall air lock leakage must be maintained within analytical limits, and for a single bulkhead being inoperable, the redundant barrier is required to be operable to support continued operation.

ITS:	NUREG:
B 3.06.02	B 3.06.02
LCO 3.06.02 COND A	LCO 3.06.02 COND A
LCO 3.06.02 COND A RA A.1	LCO 3.06.02 COND A RA A.1
LCO 3.06.02 COND A RA A.1 NOTE 1	LCO 3.06.02 COND A RA A.1 NOTE 1
LCO 3.06.02 COND A RA A.2	LCO 3.06.02 COND A RA A.2
LCO 3.06.02 COND A RA A.3	LCO 3.06.02 COND A RA A.3
LCO 3.06.02 COND A RA A.3 NOTE	LCO 3.06.02 COND A RA A.3 NOTE
LCO 3.06.02 COND B RA B.1	LCO 3.06.02 COND B RA B.1
LCO 3.06.02 COND B RA B.1 NOTE 1	LCO 3.06.02 COND B RA B.1 NOTE 1

JFD Number	JFD Text	
	LCO 3.06.02 COND B RA B.2	LCO 3.06.02 COND B RA B.2
	LCO 3.06.02 COND B RA B.3	LCO 3.06.02 COND B RA B.3
	LCO 3.06.02 COND B RA B.3 NOTE	LCO 3.06.02 COND B RA B.3 NOTE
	LCO 3.06.02 COND C RA C.2	LCO 3.06.02 COND C RA C.2
	SR 3.06.02.02	SR 3.06.02.02
11	Entry into containment or air lock may be necessary to effect repairs. It is possible that entry will need to be through the locked door on an operable bulkhead. It is necessary to unlock the door to effect entry. This is an allowable condition by the NUREG LCO. If entry is through a locked door in an air lock, the door is allowed to remain unlocked while repairs are in progress to facilitate egress of personnel.	
	ITS:	**NUREG:**
	B 3.06.02	B 3.06.02

1

3.6 CONTAINMENT SYSTEMS

3.6.2 Containment Air Locks (~~Atmospheric~~, Subatmospheric, ~~Ice Condenser~~, and ~~Dual~~)

1

LCO 3.6.2 [Two] containment air lock[s] shall be OPERABLE.

2

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

ACTIONS

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

1. Entry and exit is permissible to perform repairs on the affected air lock components.

2. Separate Condition entry is allowed for each air lock.

3. Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when air lock leakage results in exceeding the overall containment leakage rate.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more containment air locks with one ~~containment air lock~~ door bulkhead inoperable. 10	------------NOTES------------ 1. Required Actions A.1, A.2, and A.3 are not applicable if both ~~doors~~ bulkheads in the same air lock are inoperable and Condition C is entered. 10 2. Entry and exit is permissible for 7 days under administrative controls [if both air locks are inoperable]. 2 ----------------------------	(continued)

1

10

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. (continued)	A.1	~~Verify the OPERABLE door is closed in the affected air lock.~~ Verify the bulkhead door and equalizing valve are closed on the OPERABLE bulkhead in the affected air lock.	1 hour
	<u>AND</u>		
	A.2	~~Lock the OPERABLE door closed in the affected air lock.~~ Lock the bulkhead door and equalizing valve closed on the OPERABLE bulkhead in the affected air lock.	24 hours
	<u>AND</u>		
	A.3	~~--------NOTE-------- Air lock doors in high radiation areas may be verified locked closed by administrative means. --------------------~~ ~~Verify the OPERABLE door is locked closed in the affected air lock.~~ --------NOTE-------- Bulkhead doors and equalizing valves in high radiation areas may be verified locked closed by administrative means. -------------------- Verify the bulkhead door and equalizing valve on the OPERABLE bulkhead in the affected air lock are locked closed.	Once per 31 days

(continued)

1

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
B. One or more containment air locks with containment air lock interlock mechanism inoperable.	-----------NOTES----------- 1. Required Actions B.1, B.2, and B.3 are not applicable if both ~~doors~~ bulkheads in the same air lock are inoperable and Condition C is entered. 2. Entry and exit of containment is permissible under the control of a dedicated individual. ---------------------------		bulkheads 10
	B.1	~~Verify an OPERABLE door is closed in the affected air lock.~~ Verify the bulkhead door and equalizing valve are closed on an OPERABLE bulkhead in the affected airlock.	1 hour
	AND		
	B.2	~~Lock an OPERABLE door closed in the affected air lock.~~ Lock the bulkhead door and equalizing valve closed in an OPERABLE bulkhead in the affected airlock.	24 hours
	AND		
10	B.3	--------NOTE-------- ~~Air lock doors~~ Bulkhead doors and equalizing valves in high radiation areas may be verified locked closed by administrative means. -------------------- ~~Verify an OPERABLE door is locked closed in the affected air lock.~~ Verify the bulkhead door and equalizing valve on an OPERABLE bulkhead in the affected airlock are locked closed.	Once per 31 days

(continued)

1

ACTIONS (continued)

CONDITIONS	REQUIRED ACTION	COMPLETION TIME
C. One or more containment air locks inoperable for reasons other than Condition A or B.	C.1 Initiate action to evaluate overall containment leakage rate per LCO 3.6.1.	Immediately
	AND	
	10 bulkhead door and associated equalizing valve are C.2 Verify a ~~door is~~ closed in the affected air lock.	1 hour
	AND	
	C.3 Restore air lock to OPERABLE status.	36 ← 3 ~~24~~ hours
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3.	6 hours
	AND	
	D.2 Be in MODE 5.	36 hours

1

SURVEILLANCE REQUIREMENTS

10

	SURVEILLANCE	FREQUENCY
SR 3.6.2.1	-------------------NOTES------------------- 1. An inoperable air lock ~~door~~ bulkhead does not invalidate the previous successful performance of the overall air lock leakage test. 2. Results shall be evaluated against acceptance criteria ~~of~~ applicable to SR 3.6.1.1 ~~in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions.~~ . --- Perform required air lock leakage rate testing in accordance with ~~10 CFR 50, Appendix J, as modified by approved exemptions.~~ the Containment Leakage Rate Testing Program. ~~The acceptance criteria for air lock testing are:~~ ~~a. Overall air lock leakage rate is ≤ [0.05 L_a] when tested at ≥ P_a.~~ ~~b. For each door, leakage rate is ≤ [.01 L_a] when tested at ≥ [psig].~~	~~-----NOTE----- SR 3.0.2 is not applicable -----------~~ In accordance with ~~10 CFR 50, Appendix J, as modified by approved exemptions~~ the Containment Leakage Rate Testing Program. 4
SR 3.6.2.2	~~-------------------NOTE------------------- Only required to be performed upon entry or exit through the containment air lock. ---~~ Verify only one ~~door~~ bulkhead door and its associated equalizing valve in the air lock can be opened at a time.	~~184 days~~ 24 months

10

Approved TSTF 17

2

1 1

B 3.6 CONTAINMENT SYSTEMS

B 3.6.2 Containment Air Locks ~~(Atmospheric, Subatmospheric, Ice Condenser, and Dual)~~

6 approximately 9 ft 2 inches

BASES

BACKGROUND

Containment air locks form part of the containment pressure boundary and provide a means for personnel access during all MODES of operation.

10 Replace with Insert B 3.6.2-1

Each air lock is nominally a right cir cular cylinder, ~~10 ft~~ in diameter, ~~with a door at each end. The doors are interlocked to prevent simultaneous opening. During periods when containment is not required to be OPERABLE, the door interlock mechanism may be disabled, allowing both doors of an air lock to remain open for extended periods when frequent containment entry is necessary. Each air lock door has been designed and tested to certify its ability to withstand a pressure in excess of the maximum expected pressure following a Design Basis Accident (DBA) in containment. As such, closure of a single door supports containment OPERABILITY. Each of the doors contains double gasketed seals and local leakage rate testing capability to ensure pressure integrity.~~ To effect a leak tight seal, the air lock design uses pressure seated doors (i.e., an increase in containment internal pressure results in increased sealing force on each door).

door's latches

Each personnel air lock is provided with limit switches on both doors that provide control room indication of door position. ~~Additionally, control room indication is provided to alert the operator whenever an air lock door interlock mechanism is defeated.~~

7

The containment air locks form part of the containment pressure boundary. As such, air lock integrity and leak tightness is essential for maintaining the containment leakage rate within limit in the event of a DBA. Not maintaining air lock integrity or leak tightness may result in a leakage rate in excess of that assumed in the unit safety analyses.

1

4

, Option B (Ref. 1), as the maximum allowable containment leakage rate at the calculaated peak design containment internal pressure, Pa of 60 psig, following a design basis LOCA.

BASES

s is 4

APPLICABLE SAFETY ANALYSES

The DBA that result in a release of radioactive material within containment ~~are~~ a loss of coolant accident ~~and a rod ejection accident~~ (Ref. 2). In the analysis of ~~each of these~~ accident, it is assumed that containment is OPERABLE ~~such that release~~ of fission products to the environment is controlled by the rate of containment leakage. The containment was designed with an allowable leakage rate of [0.1]% of containment air weight per day (Ref. 2). This leakage rate is defined in 10 CFR 50, Appendix J ~~(Ref. 1), as L_a = [0.1]% of containment air weight per day, the maximum allowable containment leakage rate at the calculated peak containment internal pressure P_a = [14.4] psig following a DBA.~~ This allowable leakage rate forms the basis for the acceptance criteria imposed on the SRs associated with the air locks.

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0.4

The containment air locks satisfy Criterion 3 of the NRC Policy Statement.

LCO

Each containment air lock forms part of the containment pressure boundary. As part of containment, the air lock safety function is related to control of the containment leakage rate resulting from a DBA. Thus, each air lock's structural integrity and leak tightness are essential to the successful mitigation of such an event.

10 bulkheads

Each air lock is required to be OPERABLE. For the air lock to be considered OPERABLE, the air lock interlock mechanism must be OPERABLE, the air lock must be in compliance with the Type B air lock leakage test, and both air lock ~~doors~~ must be OPERABLE. The interlock allows only one air lock door of an air lock to be opened at one time. This provision ensures that a gross breach of containment does not exist when containment is required to be OPERABLE. ~~Closure of a single door~~ in each air lock is sufficient to provide a leak tight barrier following postulated events. Nevertheless, both doors are kept closed when the air lock

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and its associated equalization valve

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The OPERABILITY of a single bulkhead (e.g., bulkhead door, door seals, equalization valve, interlock shaft seals, etc;)

and their associated equalization valves

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LCO (continued)

is not being used for normal entry into and exit from containment.

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design basis LOCA

a design basis LOCA

APPLICABILITY

4

as a result of a design basis LOCA

In MODES 1, 2, 3, and 4, a ~~DBA~~ could cause a release of radioactive material to containment. In MODES 5 and 6, the probability and consequences of ~~these events~~ are reduced due to the pressure and temperature limitations of these MODES. Therefore, the containment air locks are not required in MODE 5 to prevent leakage of radioactive material from containment. The requirements for the containment air locks during MODE 6 are addressed in LCO 3.9.3, "Containment Penetrations."

ACTIONS

The ACTIONS are modified by a Note that allows entry and exit to perform repairs on the affected air lock component. If the outer door is inoperable, then it may be easily accessed for most repairs. It is preferred that the air lock be accessed from inside primary containment by entering through the other OPERABLE air lock. However, if this is not practicable, or if repairs on either door must be performed from the barrel side of the door then it is permissible to enter the air lock through the OPERABLE door, which means there is a short time during which the containment boundary is not intact (during access through the OPERABLE door). The ability to open the OPERABLE door, even if it means the containment boundary is temporarily not intact, is acceptable due to the low probability of an event that could pressurize the containment during the short time in which the OPERABLE door is expected to be open. After each entry and exit, the OPERABLE door must be immediately closed. If ALARA conditions permit, entry and exit should be via an OPERABLE air lock.

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but is not required to be locked while repairs are being performed on the inoperable bulkhead

A second Note has been added to provide clarification that, for this LCO, separate Condition entry is allowed for each air lock. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable air lock. Complying with the Required

BASES

ACTIONS (continued)

Actions may allow for continued operation, and a subsequent inoperable air lock is governed by subsequent Condition entry and application of associated Required Actions.

In the event the air lock leakage results in exceeding the overall containment leakage rate, Note 3 directs entry into the applicable Conditions and Required Actions of LCO 3.6.1, "Containment."

A.1, A.2, and A.3

With one air lock ~~door~~ in one or more containment air locks inoperable, the ~~OPERABLE~~ door must be verified closed (Required ~~Action A.1)~~ in each affected containment air lock. This ensures that a leak tight containment barrier is maintained by the use of an OPERABLE ~~air lock door.~~ This action must be completed within 1 hour. This specified time period is consistent with the ACTIONS of LCO 3.6.1, which requires containment be restored to OPERABLE status within 1 hour.

In addition, the affected air lock penetration must be isolated by locking closed the ~~OPERABLE air lock door~~ within the 24 hour Completion Time. The 24 hour Completion Time is reasonable for locking the ~~OPERABLE air lock door,~~ ~~considering the OPERABLE door of~~ the affected air lock is being maintained closed.

Required Action A.3 verifies that an air lock with an inoperable ~~door~~ has been isolated by the use of a locked and closed ~~OPERABLE air lock door.~~ This ensures that an acceptable containment leakage boundary is maintained. The Completion Time of once per 31 days is based on engineering judgment and is considered adequate in view of the low likelihood of a locked door being mispositioned and other administrative controls. Required Action A.3 is modified by a Note that applies to air lock doors located in high radiation areas and allows these doors to be verified locked closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of

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10 or equalization valve

ACTIONS (continued)

the door, once it has been verified to be in the proper position, is small.

10 bulkheads

10 isolation boundary

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both ~~doors~~ in the same air lock are inoperable. With both ~~doors~~ in the same air lock inoperable, an OPERABLE ~~door~~ is not available ~~to be closed~~. Required Actions C.1 and C.2 are the appropriate remedial actions. The exception of Note 1 does not affect tracking the Completion Time from the initial entry into Condition A; only the requirement to comply with the Required Actions. Note 2 allows use of the air lock for entry and exit for 7 days under administrative controls if both air locks have an inoperable ~~door~~. This 7 day restriction begins when the second air lock is discovered inoperable. Containment entry may be required on a periodic basis to perform Technical Specifications (TS) Surveillances and Required Actions, as well as other activities on equipment inside containment that are required by TS or activities on equipment that support TS-required equipment. This Note is not intended to preclude performing other activities (i.e., non-TS-required activities) if the containment is entered, using the inoperable air lock, to perform an allowed activity listed above. This allowance is acceptable due to the low probability of an event that could pressurize the containment during the short time that the OPERABLE door is expected to be open.

10 bulkhead

<u>B.1, B.2, and B.3</u>

With an air lock interlock mechanism inoperable in one or more air locks, the Required Actions and associated Completion Times are consistent with those specified in Condition A.

10 bulkheads

10 isolation boundary

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both ~~doors~~ in the same air lock are inoperable. With both ~~doors~~ in the same air lock inoperable, an OPERABLE ~~door~~ is not available ~~to be closed~~. Required Actions C.1 and C.2 are the

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ACTIONS (continued)

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appropriate remedial actions. Note 2 allows entry into and exit from containment under the control of a dedicated individual stationed at the air lock to ensure that only one ~~door~~ bulkhead door and its associated equalization valve is opened at a time (i.e., the individual performs the function of the interlock).

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Required Action B.3 is modified by a Note that applies to air lock doors and equalization valves located in high radiation areas and allows these doors and valves to be verified locked closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door or equalization valve, once it has been verified to be in the proper position, is small.

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C.1, C.2, and C.3

With one or more air locks inoperable for reasons other than those described in Condition A or B, Required Action C.1 requires action to be initiated immediately to evaluate previous combined leakage rates using current air lock test results. An evaluation is acceptable, since it is overly conservative to immediately declare the containment inoperable if both ~~doors~~ bulkheads in an air lock ~~have failed a seal test or if the overall air lock leakage is not within limits~~ are inoperable. In many instances (e.g., only one seal per door has failed), containment remains OPERABLE, yet only 1 hour (per LCO 3.6.1) would be provided to restore the air lock ~~door~~ bulkhead to OPERABLE status prior to requiring a plant shutdown. In addition, even with both doors failing the seal test, the overall containment leakage rate can still be within limits.

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Required Action C.2 requires that one door and its associated equalization valve in the affected containment air lock must be verified to be closed within the 1 hour Completion Time. This specified time period is consistent with the ACTIONS of LCO 3.6.1, which requires that containment be restored to OPERABLE status within 1 hour.

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Additionally, the affected air lock(s) must be restored to OPERABLE status within the ~~24~~ 36 hour Completion Time. The specified time period is considered reasonable for restoring

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ACTIONS (continued)

an inoperable air lock to OPERABLE status, assuming that at least one door ~~is~~ maintained closed in each affected air lock.

and its associated equalization valve are

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D.1 and D.2

If the inoperable containment air lock cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant 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 plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

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SR 3.6.2.1

The acceptance criteria specified in the Containment Leakage Rate Testing Program for the air locks, limits airlock leakage to a small precentage of the combined Type B and C leakage limit.

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the Containment Leakage Rate Testing Program.

Maintaining containment air locks OPERABLE requires compliance with the leakage rate test requirements of ~~10 CFR 50, Appendix J (Ref. 1), as modified by approved exemptions.~~ This SR reflects the leakage rate testing requirements with regard to air lock leakage (Type B leakage tests). ~~The acceptance criteria were established during initial air lock and containment OPERABILITY testing. The periodic testing requirements verify that the air lock leakage does not exceed the allowed fraction of the overall containment leakage rate.~~ The Frequency is required by ~~Appendix J (Ref. 1), as modified by approved exemptions. Thus, SR 3.0.2 (which allows Frequency extensions) does not apply.~~

The SR has been modified by two Notes. Note 1 states that an inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. This is considered reasonable since either air lock door is capable of providing a fission product barrier in the event of a DBA. Note 2 has been added to this SR requiring the results to be evaluated against the acceptance criteria of SR 3.6.1.1. This ensures that air lock le akage is properly

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SURVEILLANCE REQUIREMENTS (continued)

accounted for in determining the ~~overall~~ combined Type B and C containment leakage rate.

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[SR 3.6.2.2

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Replace with Insert B 3.6.2-2

~~The air lock interlock is designed to prevent simultaneous opening of both doors in a single air lock. Since both the inner and outer doors of an air lock are designed to withstand the maximum expected post accident containment pressure, closure of either door will support containment OPERABILITY. Thus, the door interlock feature supports containment OPERABILITY while the air lock is being used for personnel transit in and out of the containment. Periodic testing of this interlock demonstrates that the interlock will function as designed and that simultaneous opening of the inner and outer doors will not inadvertently occur.~~ Due to the purely mechanical nature of this interlock, and given that the interlock mechanism is ~~only~~ not normally challenged when the containment air lock door is ~~opened~~ used for entry and exit (procedures require strict adherence to single door ~~opening~~), this test is only required to be performed upon entering or exiting a containment air lock but is not required ~~more frequently than every 184 days. The 184 day Frequency is based on engineering judgment and is considered adequate in view of other indications of door and interlock mechanism status available to operations personnel.~~ every 24 months. The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage, and the potential for loss of containment OPERABILITY if the Surveillance were performed with the reactor at power. The 24 month Frequency for the interlock is justified based on generic operating experience. The Frequency is based on engineering judgment and is considered adequate given that the interlock is not challenged during the use of the ~~airlock.~~]

2 Approved TSTF 17

Approved TSTF 17

REFERENCES

1. 10 CFR 50, Appendix J, Option B

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2. FSAR, Section ~~[6.2]~~ 5.5.

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Insert B 3.6.2-1:

with a bulkhead at each end. Each bulkhead includes: a bulkhead door and seals, a pressure equalizing vent valve, and bulkhead actuating shaft seals. In addition to these pressure retaining components, the airlock outer bulkhead also includes pressure retaining penetrations on the cylindrical portion of the airlock. The bulkhead doors are interlocked with each other to prevent simultaneous opening of the doors and or equalizing valves in the redundant bulkheads. The equalizing valves are interlocked to open prior to the bulkhead door, equalizing pressure across the door prior to the latching mechanism disengaging, allowing the door to be opened. Similarly, the equalizing valve closes after its respective bulkhead door is closed and latched. During periods when containment is not required to be OPERABLE, the interlock mechanism may be disabled, allowing both doors of an air lock to remain open for extended periods when frequent containment entry is necessary. Each air lock bulkhead has been designed and tested to certify its ability to withstand a pressure in excess of the maximum expected pressure following a Design Basis Accident (DBA) in containment. As such, OPERABILITY of a single bulkhead supports containment OPERABILITY. Each of the bulkhead doors contains double gasketed seals and local leakage rate testing capability to ensure pressure integrity.

Insert B 3.6.2-2:

The bulkhead doors and equalization valves are interlocked with each other to prevent simultaneous opening of the doors and or equalizing valves in the redundant bulkheads. Since both the inner and outer bulkheads of an air lock are designed to withstand the maximum expected post accident containment pressure, OPERABILITY of either bulkhead will support containment OPERABILITY. Thus, the airlock interlock feature supports containment OPERABILITY while the air lock is being used for personnel transit in and out of the containment. Periodic testing of this interlock demonstrates that the interlock will function as designed and that simultaneous opening of the inner and outer doors and or equalizing valves in redundant bulkheads will not inadvertently occur.

NSHC Number	NSHC Text
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.

NSHC Number	NSHC Text
L.01	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? Containment integrity is not an initial condition of, or event precursor in any analyzed shutdown event (less than or equal to 200 degrees). Fuel handling events do not credit containment integrity nor filtration; dilution and rod withdrawal events are not impacted by containment status and are terminated prior to any release taking place; and liquid and gaseous release events are not impacted by containment status as the containment is not the assumed source of release for these events. Accordingly, the probability for analyzed event is not significantly increased as a result of this change. As previously stated, containment integrity is not assumed for any shutdown event, therefore the consequences of analyzed event is not significantly increased as a result of this change. 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. This proposed change makes the Mode of Applicability for the Containment consistent with the accident analyses which assume containment integrity. 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 change in applicability for containment integrity is consistent with the assumptions made in the various Point Beach accident analyses. Containment integrity will continue to be maintained in the various Operational Modes and Conditions for which containment integrity was assumed to be met. Therefore, the margin of safety is not significantly reduced as a result of this change

NSHC Number	NSHC Text
M	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.

3.6 CONTAINMENT SYSTEMS

3.6.2 Containment Air Locks

LCO 3.6.2 Two containment air locks shall be OPERABLE.

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

ACTIONS

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

1. Entry and exit is permissible to perform repairs on the affected air lock components.

2. Separate Condition entry is allowed for each air lo ck.

3. Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when air lock leakage results in exceeding the overall containment leakage rate.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more containment air locks with one bulkhead inoperable.	------------NOTES------------ 1. Required Actions A.1, A.2, and A.3 are not applicable if both bulkheads in the same air lock are inoperable and Condition C is entered. 2. Entry and exit is permissible for 7 days under administrative controls if both air locks are inoperable. -----------------------------	

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. (continued)	A.1	Verify the bulkhead door and equalizing valve are closed on the OPERABLE bulkhead in the affected air lock.	1 hour
	AND		
	A.2	Lock the bulkhead door and equalizing valve closed on the OPERABLE bulkhead in the affected air lock.	24 hours
	AND		
	A.3	--------NOTE--------- Bulkhead doors and equalizing valves in high radiation areas may be verified locked closed by administrative means. --------------------- Verify the bulkhead door and equalizing valve on the OPERABLE bulkhead in the affected air lock are locked closed.	Once per 31 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One or more containment air locks with containment air lock interlock mechanism inoperable.	------------NOTES------------ 1. Required Actions B.1, B.2, and B.3 are not applicable if both bulkheads in the same air lock are inoperable and Condition C is entered. 2. Entry and exit of containment is permissible under the control of a dedicated individual. ----------------------------	
	B.1 Verify the bulkhead door and equalizing valve are closed on an OPERABLE bulkhead in the affected air lock.	1 hour
	AND	
	B.2 Lock the bulkhead door and equalizing valve closed on an OPERABLE bulkhead in the affected air lock.	24 hours
	AND	
	B.3 --------NOTE--------- Bulkhead doors and equalizing valves in high radiation areas may be verified locked closed by administrative means. -------------------- Verify the bulkhead door and equalizing valve on an OPERABLE bulkhead in the affected airlock are locked closed.	Once per 31 days

(continued)

ACTIONS (continued)

CONDITIONS	REQUIRED ACTION		COMPLETION TIME
C. One or more containment air locks inoperable for reasons other than Condition A or B.	C.1	Initiate action to evaluate overall containment leakage rate per LCO 3.6.1.	Immediately
	AND		
	C.2	Verify a bulkhead door and associated equalizing valve are closed in the affected air lock.	1 hour
	AND		
	C.3	Restore air lock to OPERABLE status.	36 hours
D. Required Action and associated Completion Time not met.	D.1	Be in MODE 3.	6 hours
	AND		
	D.2	Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.2.1	-------------------NOTES------------------- 1. An inoperable air lock bulkhead does not invalidate the previous successful performance of the overall air lock leakage test. 2. Results shall be evaluated against acceptance criteria applicable to SR 3.6.1.1. --- Perform required air lock leakage rate testing in accordance with the Containment Leakage Rate Testing Program.	In accordance with the Containment Leakage Rate Testing Program
SR 3.6.2.2	Verify only one bulkhead door and its associated equalizing valve in the air lock can be opened at a time.	24 months

B 3.6 CONTAINMENT SYSTEMS

B 3.6.2 Containment Air Locks

BASES

BACKGROUND

Containment air locks form part of the containment pressure boundary and provide a means for personnel access during all MODES of operation.

Each air lock is nominally a right circular cylinder, approximately 9 feet 2 inches in diameter, with a bulkhead at each end. Each bulkhead includes; a bulkhead door and seals, a pressure equalizing vent valve, and bulkhead actuating shaft seals. In addition to these pressure retaining components, the airlock outer bulkhead also includes pressure retaining penetrations on the cylindrical portion of the airlock. The bulkhead doors are interlocked with each other to prevent simultaneous opening of the doors and or equalizing valves in the redundant bulkheads. The equalizing valves are interlocked to open prior to the bulkhead door, equalizing pressure across the door prior to the latching mechanism disengaging, allowing the door to be opened. Similarly, the equalizing valve closes after its respective bulkhead door is closed and latched. During periods when containment is not required to be OPERABLE, the interlock mechanism may be disabled, allowing both doors of an air lock to remain open for extended periods when frequent containment entry is necessary. Each air lock bulkhead has been designed and tested to certify its ability to withstand a pressure in excess of the maximum expected pressure following a Design Basis Accident (DBA) in containment. As such, OPERABILITY of a single bulkhead supports containment OPERABILITY. Each of the bulkhead doors contains double gasketed seals and local leakage rate testing capability to ensure pressure integrity. To effect a leak tight seal, the air lock design uses pressure seated doors (i.e., an increase in containment internal pressure results in increased sealing force on each door).

Each personnel air lock is provided with limit switches on both door's latches that provide control room indication of door position

The containment air locks form part of the containment

BASES

BACKGROUND (continued)

pressure boundary. As such, air lock integrity and leak tightness is essential for maintaining the containment leakage rate within limit in the event of a DBA. Not maintaining air lock integrity or leak tightness may result in a leakage rate in excess of that assumed in the unit safety analyses.

APPLICABLE SAFETY ANALYSES

The DBA that results in a release of radioactive material within containment is a loss of coolant accident (Ref. 2). In the analysis of this accident, it is assumed that containment is OPERABLE such that release of fission products to the environment is controlled by the rate of containment leakage. The containment was designed with an allowable leakage rate of 0.4% of containment air weight per day (Ref. 2). This leakage rate is defined in 10 CFR 50, Appendix J, Option B (Ref. 1), as the maximum allowable containment leakage rate at the calculated peak design containment internal pressure, Pa of 60 psig, following a design basis LOCA. This allowable leakage rate forms the basis for the acceptance criteria imposed on the SRs associated with the air locks.

The containment air locks satisfy Criterion 3 of the NRC Policy Statement.

LCO

Each containment air lock forms part of the containment pressure boundary. As part of containment, the air lock safety function is related to control of the containment leakage rate resulting from a DBA. Thus, each air lock's structural integrity and leak tightness are essential to the successful mitigation of such an event.

Each air lock is required to be OPERABLE. For the air lock to be considered OPERABLE, the air lock interlock mechanism must be OPERABLE, the air lock must be in compliance with the Type B air lock leakage test, and both air lock bulkheads must be OPERABLE. The interlock allows only one air lock door and its associated equalization valve of an air lock to be opened at one time. This provision ensures

BASES

LCO (continued)

that a gross breach of containment does not exist when containment is required to be OPERABLE. The OPERABILITY of a single bulkhead (e.g., bulkhead door, door seals, equalization valve, interlock shaft seals, etc;) in each air lock is sufficient to provide a leak tight barrier following postulated events. Nevertheless, both doors and their associated equalization valves are kept closed when the air lock is not being used for normal entry into and exit from containment.

APPLICABILITY

In MODES 1, 2, 3, and 4, a design basis LOCA could cause a release of radioactive material to containment. In MODES 5 and 6, the probability and consequences of a design basis LOCA are reduced due to the pressure and temperature limitations of these MODES. Therefore, the containment air locks are not required in MODE 5 to prevent leakage of radioactive material from containment as a result of a design basis LOCA. The requirements for the containment air locks during MODE 6 are addressed in LCO 3.9.3, "Containment Penetrations."

ACTIONS

The ACTIONS are modified by a Note that allows entry and exit to perform repairs on the affected air lock component. If the outer door is inoperable, then it may be easily accessed for most repairs. It is preferred that the air lock be accessed from inside primary containment by entering through the other OPERABLE air lock. However, if this is not practicable, or if repairs on either door must be performed from the barrel side of the door then it is permissible to enter the air lock through the OPERABLE door, which means there is a short time during which the containment boundary is not intact (during access through the OPERABLE door). The ability to open the OPERABLE door, even if it means the containment boundary is temporarily not intact, is acceptable due to the low probability of an event that could pressurize the containment during the short time in which the OPERABLE door is expected to be open. After each entry and exit, the OPERABLE door must be immediately closed but is not required to be locked while repairs are

BASES

ACTIONS (continued)

being performed on the inoperable bulkhead. If ALARA conditions permit, entry and exit should be via an OPERABLE air lock.

A second Note has been added to provide clarification that, for this LCO, separate Condition entry is allowed for each air lock. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable air lock. Complying with the Required Actions may allow for continued operation, and a subsequent inoperable air lock is governed by subsequent Condition entry and application of associated Required Actions.

In the event the air lock leakage results in exceeding the overall containment leakage rate, Note 3 directs entry into the applicable Conditions and Required Actions of LCO 3.6.1, "Containment."

A.1, A.2, and A.3

With one air lock bulkhead in one or more containment air locks inoperable, the door and its associated equalization valve in the OPERABLE bulkhead must be verified closed (Required Action A.1) in each affected containment air lock. This ensures that a leak tight containment barrier is maintained by the use of an OPERABLE bulkhead. This action must be completed within 1 hour. This specified time period is consistent with the ACTIONS of LCO 3.6.1, which requires containment be restored to OPERABLE status within 1 hour.

In addition, the affected air lock penetration must be isolated by locking closed the bulkhead door and equalization valve on the OPERABLE bulkhead within the 24 hour Completion Time. The 24 hour Completion Time is reasonable for locking the bulkhead door and equalization valve on the OPERABLE bulkhead, considering the bulkhead door and equalization valve on the OPERABLE bulkhead of the affected air lock is being maintained closed.

Required Action A.3 verifies that an air lock with an inoperable bulkhead has been isolated by the use of a locked and closed bulkhead door and equalization valve on the OPERABLE bulkhead. This ensures that an acceptable

BASES

ACTIONS (continued)

containment leakage boundary is maintained. The Completion Time of once per 31 days is based on engineering judgment and is considered adequate in view of the low likelihood of a locked door or equalization valve being mispositioned and other administrative controls. Required Action A.3 is modified by a Note that applies to air lock doors and equalization valves located in high radiation areas and allows these doors and valves to be verified locked closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door or equalization valve, once it has been verified to be in the proper position, is small.

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both bulkheads in the same air lock are inoperable. With both bulkheads in the same air lock inoperable, an OPERABLE isolation boundary is not available. Required Actions C.1 and C.2 are the appropriate remedial actions. The exception of Note 1 does not affect tracking the Completion Time from the initial entry into Condition A; only the requirement to comply with the Required Actions. Note 2 allows use of the air lock for entry and exit for 7 days under administrative controls if both air locks have an inoperable bulkhead. This 7 day restriction begins when the second air lock is discovered inoperable. Containment entry may be required on a periodic basis to perform Technical Specifications (TS) Surveillances and Required Actions, as well as other activities on equipment inside containment that are required by TS or activities on equipment that support TS -required equipment. This Note is not intended to preclude performing other activities (i.e., non -TS-required activities) if the containment is entered, using the inoperable air lock, to perform an allowed activity listed above. This allowance is acceptable due to the low probability of an event that could pressurize the containment during the short time that the OPERABLE door is expected to be open.

BASES

ACTIONS (continued)

B.1, B.2, and B.3

With an air lock interlock mechanism inoperable in one or more air locks, the Required Actions and associated Completion Times are consistent with those specified in Condition A.

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both bulkheads in the same air lock are inoperable. With both bulkheads in the same air lock inoperable, an OPERABLE isolation boundary is not available. Required Actions C.1 and C.2 are the appropriate remedial actions. Note 2 allows entry into and exit from containment under the control of a dedicated individual stationed at the air lock to ensure that only one bulkhead door and its associated equalization valve is opened at a time (i.e., the individual performs the function of the interlock).

Required Action B.3 is modified by a Note that applies to air lock doors and equalization valves located in high radiation areas and allows these doors and valves to be verified locked closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door or equalization valve, once it has been verified to be in the proper position, is small.

C.1, C.2, and C.3

With one or more air locks inoperable for reasons other than those described in Condition A or B, Required Action C.1 requires action to be initiated immediately to evaluate previous combined leakage rates using current air lock test results. An evaluation is acceptable, since it is overly conservative to immediately declare the containment inoperable if both bulkheads in an air lock are inoperable. In many instances (e.g., only one seal per door has failed), containment remains OPERABLE, yet only 1 hour (per LCO 3.6.1) would be provided to restore the air lock bulkhead to OPERABLE status prior to requiring a plant

BASES

ACTIONS (continued)

shutdown. In addition, even with both doors failing the seal test, the overall containment leakage rate can still be within limits.

Required Action C.2 requires that one door and its associated equalization valve in the affected containment air lock must be verified to be closed within the 1 hour Completion Time. This specified time period is consistent with the ACTIONS of LCO 3.6.1, which requires that containment be restored to OPERABLE status within 1 hour.

Additionally, the affected air lock(s) must be restored to OPERABLE status within the 36 hour Completion Time. The specified time period is considered reasonable for restoring an inoperable air lock to OPERABLE status, assuming that at least one door and its associated equalization valve are maintained closed in each affected air lock.

D.1 and D.2

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

SURVEILLANCE REQUIREMENTS

SR 3.6.2.1

Maintaining containment air locks OPERABLE requires compliance with the leakage rate test requirements of the Containment Leakage Rate Testing Program. This SR reflects the leakage rate testing requirements with regard to air lock leakage (Type B leakage tests). The acceptance criteria specified in the Containment Leakage Rate Testing Program for the air locks, limits airlock leakage to a small precentage of the combined Type B and C leakage limit.

SURVEILLANCE REQUIREMENTS (continued)

The Frequency is required by the Containment Leakage Rate Testing Program.

The SR has been modified by two Notes. Note 1 states that an inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. This is considered reasonable since either air lock door is capable of providing a fission product barrier in the event of a DBA. Note 2 has been added to this SR requiring the results to be evaluated against the acceptance criteria of SR 3.6.1.1. This ensures that air lock leakage is properly accounted for in determining the coombined Type B and C containment leakage rate.

SR 3.6.2.2

The bulkhead doors and equalization valves are interlocked with each other to prevent simultaneous opening of the doors and or equalizing valves in the redundant bulkheads. Since both the inner and outer bulkheads of an air lock are designed to withstand the maximum expected post accident containment pressure, OPERABILITY of either bulkhead will support containment OPERABILITY. Thus, the airlock interlock feature supports containment OPERABILITY while the air lock is being used for personnel transit in and out of the containment. Periodic testing of this interlock demonstrates that the interlock will function as designed and that simultaneous opening of the inner and outer doors and or equalizing valves in redundant bulkheads will not inadvertently occur. Due to the purely mechanical nature of this interlock, and given that the interlock mechanism is not normally challenged when the containment air lock door is used for entry and exit (procedures require strict adherence to single door opening), this test is only required to be performed every 24 months. The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage, and the potential for loss of containment OPERABILITY if the Surveillance were performed with the reactor at power. The 24 month Frequency for the interlock is justified based on generic operating experience. The Frequency is based on engineering judgment and is considered adequate given that the interlock is not challenged during the use of the airlock.

BASES

REFERENCES

1. 10 CFR 50, Appendix J, Option B.

2. FSAR, Section 5.5.

Cross-Reference Report - NUREG-1431 Section 3.06.03

ITS to CTS

13-Nov-99

ITS	CTS	DOC
B 3.06.03	BASES	A.08
LCO 3.06.01 COND A	15.03.06.A.01.C.01	A.01
LCO 3.06.03	15.01.D	A.02
	15.03.06.A.01	A.03
	15.03.06.A.01.C	A.01
LCO 3.06.03 COND NOTE 1	15.03.06.A.01.B	A.01
LCO 3.06.03 COND NOTE 2	15.03.06.A.01.B	A.01
LCO 3.06.03 COND NOTE 3	15.03.06.A.01.B	A.01
LCO 3.06.03 COND NOTE 4	15.03.06.A.01.B	A.01
	15.03.06.A.01.C.01	A.01
LCO 3.06.03 COND A	15.01.D.01.c	A.01
	15.03.06.A.01.B.01.A	A.01
LCO 3.06.03 COND A NOTE	15.03.06.A.01.B.01	A.01
LCO 3.06.03 COND A RA A.1	15.03.06.A.01.B.01.A.I	A.01
LCO 3.06.03 COND A RA A.2	15.03.06.A.01.B.01.A.II	A.01
	15.03.06.A.01.B.01.A.II.01	A.01
	15.03.06.A.01.B.01.A.II.02	A.01
	15.03.06.A.01.B.01.B.II	A.05
	15.03.06.A.01.B.01.B.II.01	A.05
	15.03.06.A.01.B.01.B.II.02	A.05
LCO 3.06.03 COND A RA A.2 NOTE 1	15.03.06.A.01.B.01.A.II	A.01
	15.03.06.A.01.B.01.B.II	A.05
LCO 3.06.03 COND A RA A.2 NOTE 2	NEW	L.03
LCO 3.06.03 COND B	15.01.D.01.c	A.01
	15.03.06.A.01.B.01.B	A.01
LCO 3.06.03 COND B NOTE	15.03.06.A.01.B.01	A.01
LCO 3.06.03 COND B RA B.1	15.03.06.A.01.B.01.B.I	A.01
LCO 3.06.03 COND C	15.01.D.01.c	A.01
	15.03.06.A.01.B.02.A	A.01
LCO 3.06.03 COND C NOTE	15.03.06.A.01.B.02	A.01
LCO 3.06.03 COND C RA C.1	15.03.06.A.01.B.02.A.I	L.02
LCO 3.06.03 COND C RA C.2	15.03.06.A.01.B.02.A.II	A.01
	15.03.06.A.01.B.02.A.II.01	A.01
	15.03.06.A.01.B.02.A.II.02	A.01

ITS	CTS	DOC
LCO 3.06.03 COND C RA C.2 NOTE 1	15.03.06.A.01.B.02.A.II	A.01
LCO 3.06.03 COND C RA C.2 NOTE 2	NEW	L.03
LCO 3.06.03 COND D	15.03.06.A.01.B.03	A.01
LCO 3.06.03 COND D RA D.1	15.03.06.A.01.B.03.A	A.01
LCO 3.06.03 COND D RA D.2	15.03.06.A.01.B.03.B	A.01
SR 3.06.03.01	15.03.06.A.01.C	A.06
	15.03.06.A.01.C.01	A.06
	15.04.01 T 15.04.01-02 23	A.01
	BASES	A.01
SR 3.06.03.02	15.01.D.01.B	A.02
	New	M.02
SR 3.06.03.02 NOTE	New	M.02
SR 3.06.03.03	15.01.D.01.B	A.02
	15.01.D.02	A.02
	New	M.02
SR 3.06.03.03 NOTE	New	M.02
SR 3.06.03.04	15.01.D.01.A	A.02
	15.01.G.03	L.01
	15.04.01 T 15.04.01-02 13	M.01

Cross-Reference Report - NUREG-1431 Section 3.06.03
CTS to ITS

13-Nov-99

CTS	ITS	DOC
15.01.D	LCO 3.06.03	A.02
15.01.D.01.A	SR 3.06.03.04	A.02
15.01.D.01.B	SR 3.06.03.02	A.02
	SR 3.06.03.03	A.02
15.01.D.01.c	LCO 3.06.03 COND A	A.01
	LCO 3.06.03 COND B	A.01
	LCO 3.06.03 COND C	A.01
15.01.D.02	SR 3.06.03.03	A.02
15.01.G.03	SR 3.06.03.04	L.01
15.03.06.A.01	DELETED	L.01
	LCO 3.06.03	A.03
15.03.06.A.01.B	DELETED	A.04
	LCO 3.06.03 COND NOTE 1	A.01
	LCO 3.06.03 COND NOTE 2	A.01
	LCO 3.06.03 COND NOTE 3	A.01
	LCO 3.06.03 COND NOTE 4	A.01
15.03.06.A.01.B.01	LCO 3.06.03 COND A NOTE	A.01
	LCO 3.06.03 COND B NOTE	A.01
15.03.06.A.01.B.01.A	LCO 3.06.03 COND A	A.01
15.03.06.A.01.B.01.A.I	LCO 3.06.03 COND A RA A.1	A.01
15.03.06.A.01.B.01.A.II	LCO 3.06.03 COND A RA A.2	A.01
	LCO 3.06.03 COND A RA A.2 NOTE 1	A.01
15.03.06.A.01.B.01.A.II.01	LCO 3.06.03 COND A RA A.2	A.01
15.03.06.A.01.B.01.A.II.02	LCO 3.06.03 COND A RA A.2	A.01
15.03.06.A.01.B.01.B	LCO 3.06.03 COND B	A.01
15.03.06.A.01.B.01.B.I	LCO 3.06.03 COND B RA B.1	A.01
15.03.06.A.01.B.01.B.II	LCO 3.06.03 COND A RA A.2	A.05
	LCO 3.06.03 COND A RA A.2 NOTE 1	A.05
15.03.06.A.01.B.01.B.II.01	LCO 3.06.03 COND A RA A.2	A.05
15.03.06.A.01.B.01.B.II.02	LCO 3.06.03 COND A RA A.2	A.05
15.03.06.A.01.B.02	LCO 3.06.03 COND C NOTE	A.01
15.03.06.A.01.B.02.A	LCO 3.06.03 COND C	A.01
15.03.06.A.01.B.02.A.I	LCO 3.06.03 COND C RA C.1	L.02

Cross-Reference Report - NUREG-1431 Section 3.06.03
CTS to ITS
13-Nov-99

CTS	ITS	DOC
15.03.06.A.01.B.02.A.II	LCO 3.06.03 COND C RA C.2	A.01
	LCO 3.06.03 COND C RA C.2 NOTE 1	A.01
15.03.06.A.01.B.02.A.II.01	LCO 3.06.03 COND C RA C.2	A.01
15.03.06.A.01.B.02.A.II.02	LCO 3.06.03 COND C RA C.2	A.01
15.03.06.A.01.B.03	LCO 3.06.03 COND D	A.01
15.03.06.A.01.B.03.A	LCO 3.06.03 COND D RA D.1	A.01
15.03.06.A.01.B.03.B	LCO 3.06.03 COND D RA D.2	A.01
15.03.06.A.01.C	LCO 3.06.03	A.01
	SR 3.06.03.01	A.06
15.03.06.A.01.C.01	LCO 3.06.01 COND A	A.01
	LCO 3.06.03 COND NOTE 4	A.01
	SR 3.06.03.01	A.06
15.04.01 T 15.04.01-02 13	SR 3.06.03.04	M.01
15.04.01 T 15.04.01-02 23	SR 3.06.03.01	A.01
15.04.01 T 15.04.01-02 23 (9)	DELETED	A.07
	DELETED	L.01
BASES	B 3.06.03	A.08
	SR 3.06.03.01	A.01

Description of Changes - NUREG-1431 Section 3.06.03

13-Nov-99

DOC Number	DOC Text
A.01	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 interpretation). 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:
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
	N/A
15.01.D.01.c	LCO 3.06.03 COND A
	LCO 3.06.03 COND A
	LCO 3.06.03 COND B
	LCO 3.06.03 COND B
	LCO 3.06.03 COND C
	LCO 3.06.03 COND C
15.03.06.A.01.B	LCO 3.06.03 COND NOTE 1
	LCO 3.06.03 COND NOTE 1
	LCO 3.06.03 COND NOTE 2
	LCO 3.06.03 COND NOTE 2
	LCO 3.06.03 COND NOTE 3
	LCO 3.06.03 COND NOTE 3
	LCO 3.06.03 COND NOTE 4
	LCO 3.06.03 COND NOTE 4
15.03.06.A.01.B.01	LCO 3.06.03 COND A NOTE
	LCO 3.06.03 COND A NOTE

Description of Changes - NUREG-1431 Section 3.06.03

13-Nov-99

DOC Number	DOC Text
15.03.06.A.01.B.01	LCO 3.06.03 COND B NOTE
	LCO 3.06.03 COND B NOTE
15.03.06.A.01.B.01.A	LCO 3.06.03 COND A
	LCO 3.06.03 COND A
15.03.06.A.01.B.01.A.I	LCO 3.06.03 COND A RA A.1
	LCO 3.06.03 COND A RA A.1
15.03.06.A.01.B.01.A.II	LCO 3.06.03 COND A RA A.2
	LCO 3.06.03 COND A RA A.2
	LCO 3.06.03 COND A RA A.2 NOTE 1
	LCO 3.06.03 COND A RA A.2 NOTE 1
15.03.06.A.01.B.01.A.II.01	LCO 3.06.03 COND A RA A.2
	LCO 3.06.03 COND A RA A.2
15.03.06.A.01.B.01.A.II.02	LCO 3.06.03 COND A RA A.2
	LCO 3.06.03 COND A RA A.2
15.03.06.A.01.B.01.B	LCO 3.06.03 COND B
	LCO 3.06.03 COND B
15.03.06.A.01.B.01.B.I	LCO 3.06.03 COND B RA B.1
	LCO 3.06.03 COND B RA B.1
15.03.06.A.01.B.02	LCO 3.06.03 COND C NOTE
	LCO 3.06.03 COND C NOTE
15.03.06.A.01.B.02.A	LCO 3.06.03 COND C
	LCO 3.06.03 COND C
15.03.06.A.01.B.02.A.II	LCO 3.06.03 COND C RA C.2
	LCO 3.06.03 COND C RA C.2
	LCO 3.06.03 COND C RA C.2 NOTE 1
	LCO 3.06.03 COND C RA C.2 NOTE 1
15.03.06.A.01.B.02.A.II.01	LCO 3.06.03 COND C RA C.2
	LCO 3.06.03 COND C RA C.2
15.03.06.A.01.B.02.A.II.02	LCO 3.06.03 COND C RA C.2
	LCO 3.06.03 COND C RA C.2
15.03.06.A.01.B.03	LCO 3.06.03 COND D
	LCO 3.06.03 COND D
15.03.06.A.01.B.03.A	LCO 3.06.03 COND D RA D.1
	LCO 3.06.03 COND D RA D.1
15.03.06.A.01.B.03.B	LCO 3.06.03 COND D RA D.2
	LCO 3.06.03 COND D RA D.2

13-Nov-99

DOC Number	DOC Text	
	15.03.06.A.01.C	LCO 3.06.03
		LCO 3.06.03
	15.03.06.A.01.C.01	LCO 3.06.01 COND A
		LCO 3.06.01 COND A
		LCO 3.06.03 COND NOTE 4
		LCO 3.06.03 COND NOTE 4
	15.04.01 T 15.04.01-02 23	SR 3.06.03.01
		SR 3.06.03.01
		SR 3.06.03.01
		SR 3.06.03.01
	BASES	SR 3.06.03.01
		SR 3.06.03.01

DOC Number	DOC Text
A.02	The CTS definition of containment integrity requires all penetrations which are required to be isolated during accident conditions to be capable of being closed by an operable containment isolation valve; closed by an operable containment isolation valve; or closed in accordance with the Technical Specification Actions for an inoperable valve. In addition, the definition requires the equipment hatch to be properly closed. The definition of containment integrity has been omitted for the ITS, however, all of the attributes addressed above are captured in the proposed Technical Specifications.

The operability of automatic containment isolation valves (CTS 15.1.D.1.a) is addressed by proposed SR 3.6.3.4 and SR 3.6.3.5. SR 3.6.3.4 verifies that each power operated automatic containment isolation valve is capable of closure by performing isolation stroke timing in accordance with the Inservice Testing Program. SR 3.6.3.5 verifies the capability of each automatic containment isolation valve which is not locked, sealed, or otherwise secured in position to actuate to its correct position on a simulated or actual containment isolation signal. These surveillances define the operability requirements for automatic containment isolation valves as addressed in LCO 3.6.3, thereby incorporating CTS item 15.1.D.1.a into LCO 3.6.1.

CTS item 15.1.D.1.b (penetration closed by an operable containment isolation valve) is addressed through SR 3.6.3.4 and SR 3.6.3.5 above relative to automatic valves which may be closed, while SR 3.6.3.2 and SR 3.6.3.3 verify that manual valves and blank flanges are closed, thereby incorporating CTS item 15.1.D.1.b into LCO 3.6.3.

CTS item 15.1.D.1.c addresses inoperable containment isolation valves and purge valves. These actions allow continued operation as long as the penetration is isolated and verified closed on a periodic basis. The proposed ITS continues this practice through LCO Conditions A, B, and C, thereby incorporating CTS item 15.1.D.1.c into LCO 3.6.3.

CTS item 15.1.D.2, requires the equipment hatch to be properly closed. The equipment hatch is a Type B penetration. Proper installation is concluded through performance of an acceptable Type B leakage test as addressed by ITS SR 3.6.1.1. Proposed SR 3.6.3.3 requires isolation valves and blind flanges located inside the containment to be verified closed prior to entry into Mode 4 from Mode 5 if not performed in the previous 92 days. The combination of these two SRs provides assurance that the equipment hatch is properly closed, thereby incorporating CTS item 15.1.D.2 into LCO 3.6.3 and LCO 3.6.1.

CTS:	ITS:
15.01.D	LCO 3.06.03
15.01.D.01.A	SR 3.06.03.04
15.01.D.01.B	SR 3.06.03.02 SR 3.06.03.03
15.01.D.02	SR 3.06.03.03

DOC Number	DOC Text	
A.03	CTS 15.3.6.A.1 requires containment integrity (isolation valve operability) whenever a nuclear core is installed in the reactor, unless the reactor is in the cold shutdown condition. Proposed ITS LCO 3.6.3 require the containment to be operable in Modes 1, 2, 3, and 4. The ITS definition of Mode requires there to be fuel in the reactor to be in a defined Mode of Applicability (e.g. Mode 1, 2, 3, 4, 5, or 6) making the CTS and ITS equivalent regarding the presence of fuel. The CTS definition of Cold Shutdown requires the reactor to have a shutdown margin of at least 1% with RCS temperature less than or equal to 200 degrees. The ITS definition of Cold Shutdown (ITS Table 1.1-1 - Mode 5), is defined as Keff less than 0.99 with RCS temperature of less than or equal to 200 degrees making the CTS and ITS equivalent relative to temperature and reactivity. Based on the above, this change is administrative.	
	CTS:	**ITS:**
	15.03.06.A.01	LCO 3.06.03
A.04	CTS 15.3.6.A.1.b requires each penetration to be operable to satisfy containment integrity. This requirement is fulfilled through meeting proposed ITS LCOs 3.6.1, 3.6.2, and 3.6.3. LCO 3.6.1 encompasses meeting the containment leakage rate requirements for containment penetrations with the exception of the containment airlocks which are addressed by LCO 3.6.2, while LCO 3.6.3 addresses the containment isolation valve operability with the exception of leakage. The combination of these three LCOs ensures that the containment penetrations are operable. Deletion of this statement is administrative based on the necessary attributes for operability being addressed in the aforementioned LCOs.	
	CTS:	**ITS:**
	15.03.06.A.01.B	DELETED
A.05	CTS 15.3.6.A.1.b.1.b.ii requires isolation devices which are closed to isolate a penetration flow path with two inoperable containment isolation valves to be verified closed on a periodic basis. This periodic verification has been incorporated into proposed Action A.2 of ITS LCO 3.6.3. Condition A is applicable to penetrations with two containment isolation valves and must be performed anytime there is one or more inoperable valve. As such, the CTS periodic verification is still required to be performed, making this change administrative.	
	CTS:	**ITS:**
	15.03.06.A.01.B.01.B.II	LCO 3.06.03 COND A RA A.2 LCO 3.06.03 COND A RA A.2 NOTE 1
	15.03.06.A.01.B.01.B.II.01	LCO 3.06.03 COND A RA A.2
	15.03.06.A.01.B.01.B.II.02	LCO 3.06.03 COND A RA A.2

DOC Number	DOC Text	
A.06	CTS 15.3.6.A.1.c.1 requires the containment purge supply and exhaust valves to be locked closed (control board locking devices) however, a single containment purge supply or exhaust valve may be opened to allow repair of a penetration which is leaking in excess of that allowed by the Containment Leakage Rate Testing Program. ITS SR 3.6.3.1 requires the containment purge supply and exhaust to be secured in the closed position, but will allow one containment purge valve to be opened in a penetration flowpath to perform leakage rate corrective maintenance. This change is administrative.	
	CTS:	**ITS:**
	15.03.06.A.01.C	SR 3.06.03.01
	15.03.06.A.01.C.01	SR 3.06.03.01
A.07	The CTS does not require performance of the surveillance which verifies closure of the containment purge supply and exhaust valve when the unit is in the cold shutdown or refueling shutdown condition; however, performance of this surveillance prior to exceeding 200 degrees is required if the test had not been performed within its required frequency of 31 days. The Mode of Applicability for this LCO and hence its associated Surveillance Requirement has been revised to Modes 1, 2, 3, and 4 (greater than or equal to 200 degrees) as addressed in Description of Change A.3 and L.1 of this LCO conversion package. ITS SR 3.0.4 precludes entry into a Mode or specified condition unless all surveillances associated with the LCO are met (inclusive of the specified interval). Accordingly, the CTS requirement which requires the containment purge valves be verified locked closed prior to exceeding 200 degrees is not necessary in the ITS. This requirement is adequately addressed through the defined Mode of Applicability for the purge valves in addition to the general usage rule associated with LCO SR 3.0.4. Deletion of this CTS item is administrative.	
	CTS:	**ITS:**
	15.04.01 T 15.04.01-02 23 (9)	DELETED
A.08	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 3.06.03

DOC Number	DOC Text
L.01	The CTS requires containment integrity (isolation valve operability) under a number of condition to include: 1) Whenever a nuclear core is installed in the reactor and the reactor is not in the cold shutdown condition; 2) When the reactor vessel head is removed unless the reactor is in the refueling shutdown condition; 3) Whenever positive reactivity changes are made by rod drive motion, except when testing one bank of rods at a time, rod disconnecting, and rod reconnecting provided the reactor is initially subcritical by at least 5% delta k/k; and 4) Whenever making positive reactivity changes by boron dilution unless the RCS boron concentration is maintained > 2100 ppm. In addition, the containment purge supply and exhaust isolation valves are required to be verified closed once per month except during periods of cold shutdown or refueling shutdown. The ITS will require containment integrity to be maintained in Modes 1, 2, 3, and 4 (whenever the reactor is not in cold shutdown). The Mode of Applicability for this LCO also establish the required mode of performance for the containment purge valve surveillances as well. All conditions and limitations other than Mode 1, 2, 3, and 4 have been deleted from the Technical Specifications. There are no shutdown events (RCS temperature less than or equal to 200 degrees) in the Point Beach licensing basis which credit containment integrity for event mitigation. Specifically; inadvertent RCS dilution in cold shutdown and refueling is terminated by operator action before the reactor reaches a Keff of 1.0, inadvertent rod withdrawal is terminated by the reactor protection system before fuel damage occurs, and accidental release of liquid and gaseous wastes are independent of containment status. This relaxation is consistent with analysis assumptions for Point Beach. Accordingly, these requirements may be deleted from the Technical Specifications as they are not required to provide adequate protection of public health and safety.

CTS:	ITS:
15.01.G.03	SR 3.06.03.04
15.03.06.A.01	DELETED
15.04.01 T 15.04.01-02 23 (9)	DELETED

DOC Number	DOC Text	
L.02	CTS 15.3.6.A.1.b.2.a.i requires isolation of containment penetrations which are equipped with only one containment isolation valve to be isolated within four hours if that isolation valve becomes inoperable. The ITS will allow 72 hours to isolate these types of penetrations. Penetrations with single isolation valves use closed systems to provide a second isolation boundary. Closed systems are designed to maintain their integrity during postulated design basis events for which containment integrity is credited. 72 hours is an acceptable time frame to isolate an affected penetration based on the stability and reliability of a penetration which uses a closed system as a redundant isolation barrier.	
	CTS:	**ITS:**
	15.03.06.A.01.B.02.A.I	LCO 3.06.03 COND C RA C.1
L.03	CTS allows isolation devices that are used to isolate penetration flowpaths to comply with the required actions to be verified shut by administrative means when the isolation device is located in high radiation areas. The ITS will also allow administrative means to verify a penetration flowpath is isolated when the isolation device is locked, sealed or otherwise secured in position. Locking, sealing, or otherwise securing components in position is a normal practice to ensure certain system and components remain in the desired condition and are not inadvertently repositioned. Therefore, the addition of this allowance is acceptable.	
	CTS:	**ITS:**
	NEW	LCO 3.06.03 COND A RA A.2 NOTE 2 LCO 3.06.03 COND C RA C.2 NOTE 2
M.01	CTS Table 15.4.1-2 item 13 requires the performance of a functional test of the containment isolation trip function once each refueling shutdown. Refueling shutdown is defined in the CTS as being a shutdown for the purpose of moving fuel to and from the reactor core. ITS SR 3.6.3.5 requires each automatic containment isolation valve that is not locked, sealed or otherwise secured in position to be actuated by an actual or simulated actuation signal to its required position once per 18 months. These tests are intended to ensure that all automatic containment isolation valves receive their isolation signal. Accordingly, while the CTS and the ITS require the same basic testing, the CTS does not define a specific frequency of performance for these Surveillances. The CTS test interval is considered to be a plant evolution, which can vary significantly from outage to outage with no bounding limit. Changes in cycle lengths by default establish the required frequency. Accordingly, the adoption of a bounding frequency (18 months) is a more restrictive change.	
	CTS:	**ITS:**
	15.04.01 T 15.04.01-02 13	SR 3.06.03.04

DOC Number	DOC Text
M.02	CTS 15.1.D defines containment integrity to exist when containment penetrations required to be isolated during an accident are capable of being closed by an operable automatic containment isolation valve or are closed by an operable containment isolation valve. The definition does not contain blank flanges, nor are there any Surveillance specified which perform periodic verifications of the isolation devices. The ITS has proposed two new surveillances (SR 3.6.3.2 and 3.6.3.3) which verify closure of manual isolation valves and blank flanges. SR 3.6.3.2 is applicable to manual valves and blank flanges located outside of the containment and is required to be performed on a 31 day frequency. SR 3.6.3.3 is applicable to manual valves and blank flanges located inside the containment and is required to be performed prior to entry into Mode 4 from Mode 5 if not performed in the previous 92 days. Both of these SRs are modified by notes which allow verification of devices located in high radiation areas to be performed by administrative means. In addition valves which are open under administrative controls are exempted from both SRs. These frequencies, notes, and exceptions are acceptable based on accessibility and access control over high radiation and limited access locations, the controls placed on valves which are unisolated under administrative controls, and the low probability of misalignment.

CTS:	ITS:
New	SR 3.06.03.02
	SR 3.06.03.02 NOTE
	SR 3.06.03.03
	SR 3.06.03.03 NOTE

SR 3.6.3.2 / SR 3.6.3.3 / SR 3.6.3.4 / Cond A/B/C

A.2

A.1

D. Containment Integrity*

< See LCO 3.6.1 >

Containment integrity is defined to exist when:

1) Penetrations required to be isolated during accident conditions are either:
   a. Capable of being closed by an operable automatic containment isolation valve,
   OR
   b. Closed by an operable containment isolation valve,
   OR
   c. Closed in accordance with Specifications 15.3.6.A.1.b and 15.3.6.A.1.c.

A.1

Cond A/B/C

2) The equipment hatch is properly closed.

3) ~~At least one door in each personnel air lock is properly closed.~~

< See LCO 3.6.2 >

SR 3.6.3.3

4) ~~The overall uncontrolled containment leakage is less than La.**~~

< See LCO 3.6.1 >

A.2

E. Protective Instrumentation Logic

1) Analog Channel

An analog channel is an arrangement of components and modules as required to generate a single protective action signal when required by a plant condition. An analog channel loses its identity where single action signals are combined.

< See Section 1.0 >

M.2

ADD NEW SRS 3.6.3.2 AND 3.6.3.3 TO PERIODICALLY VERIFY POSITION OF MANUAL CONTAINMENT ISOLATION VALVES AND BLANK FLANGES

< See LCO 3.6.1 >

* ~~Containment isolation valves are discussed in FSAR Section 5.2.~~

** ~~Prior to the first startup after performing a required Containment Leakage Rate Testing Program leakage test, the applicable leakage limits specified in TS 15.6.12.D.2 must be met.~~

< See LCO 3.6.1 and the CLRTP 5.5.16 >

< See 1.0 >

A.1

L.1

2) Cold Shutdown
The reactor is in the cold shutdown condition when the reactor has a shutdown margin of at least 1 percent Δk/k and reactor coolant temperature is ≤200°F.

3) Refueling Shutdown
The reactor is in the refueling shutdown condition when the reactor is subcritical by at least 5 percent Δk/k and T_{avg} is ≤140°F. A refueling shutdown refers to a shutdown to move fuel to and from the reactor core.

4) Shutdown Margin
Shutdown margin is the instantaneous amount of reactivity by which the reactor core would be subcritical if all withdrawn control rods were tripped into the core but the highest worth withdrawn RCCA remains fully withdrawn. If the reactor is shut down from a power condition, the hot shutdown temperature should be assumed. In other cases, no change in temperature should be assumed.

h. Power Operation
The reactor is in power operating condition when the reactor is critical and the average neutron flux of the power range instrumentation indicates greater than 2 percent of rated power.

i. Refueling Operation
Refueling operation is any operation involving movement of core components (those that could affect the reactivity of the core) within the containment when the vessel head is removed.

j. Rated Power
Rated power is here defined as a steady state reactor core output of 1518.5 MWT.*

k. Thermal Power
Thermal power is defined as the total core heat transferred from the fuel to the coolant.

* For Unit 2: If the Reactor Coolant System raw measured total flow rate is <174,000 gpm but ≥169,500 gpm, Unit 2 shall be limited to ≤98% rated power.

< See 1.0 >

A.1

< See LCO 3.6.1 >

15.3.6 CONTAINMENT SYSTEM

Applicability: Applies to the integrity of reactor containment.

Objective:

To define the operating status of the reactor containment for plant operation.

Specification:

A. Containment Integrity

LCO 3.6.3 Applicability

A.3

1. The containment integrity (as defined in 15.1) shall be maintained when a nuclear core is installed in the reactor unless the reactor is in the cold shutdown condition. ~~The containment integrity shall be maintained when the reactor vessel head is removed unless the reactor is in the refueling shutdown condition.~~ If containment integrity is not maintained when required, enter the applicable LCO(s) listed below. If the LCO is met or is no longer applicable prior to expiration of the specified completion time(s), completion of the required action(s) is not required unless otherwise stated.

L.1

< See LCO 3.6.1 >

a. Containment Operability

(1) If the containment is inoperable, restore the containment to operable status within one hour.

(2) If the above action cannot be completed within the time specified, place the affected unit in:
(a) hot shutdown within six hours,
AND
(b) cold shutdown within 36 hours.

< See LCO 3.6.1 >

A.1

ACTIONS Note 1

b. Containment Isolation Valves, EXCEPT Purge Supply and Exhaust Valves

A.4

~~Each containment penetration must be operable to satisfy containment integrity.~~ Penetration flow paths may be unisolated intermittently under administrative controls. Separate LCO entry is allowed for each penetration flow path. ~~Enter applicable LCOs for systems made inoperable by inoperable~~ containment isolation valves.

ACTIONS Note 3

ACTIONS Note 2

ACTIONS Note 4

If penetration leakage results in exceeding the overall containment leakage rate acceptance criteria (L_a), enter 15.3.6.A.1.a. in addition to the applicable LCO below.

Cond A and B Notes

(1) For penetration flow paths with two containment isolation valves and

Cond A, Actions, and Note

(a) ONE containment isolation valve inoperable:

(i) isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured within four hours,

AND

(ii) verify the affected penetration flow path is isolated;

- once every 31 days for isolation devices outside containment,

  AND

- prior to exceeding 200 °F, if not performed within the previous 92 days, for isolation devices inside containment.

Valves and blind flanges in high radiation areas may be verified by use of administrative means.

Cond B and Actions

(b) TWO containment isolation valves inoperable:

(i) isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange within one hour,

AND

A.5

A.1

Cond A Action A.2 and associated Note 1

L.03

Cond A Action A.2 Associated Note 2

(ii) verify the affected penetration flow path is isolated;
- once every 31 days for isolation devices outside containment,
AND
- prior to exceeding 200 °F, if not performed within the previous 92 days, for isolation devices inside containment.
Valves and blind flanges in high radiation areas may be verified by use of administrative means.

Cond C Note

(2) For penetration flow paths with one containment isolation valve and a closed system and
(a) one containment isolation valve inoperable:
(i) isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange within ~~four~~ 72 hours,
AND

L.2

Cond C, Actions, and Action Note 1

(ii) verify the affected penetration flow path is isolated;
- once every 31 days for isolation devices outside containment,
AND
- prior to exceeding 200 °F, if not performed within the previous 92 days, for isolation devices inside containment.
Valves and blind flanges in high radiation areas may be verified by use of administrative means.

L.03

Cond C Action C.2 Associated Note 2

Cond D and Actions

(3) If any of the above actions cannot be completed within the time specified, place the affected unit in:
(a) hot shutdown within six hours,
AND
(b) cold shutdown within 36 hours.

c. Containment Purge Supply and Exhaust Valves

A.6

SR 3.6.3.1

The containment purge supply and exhaust valves shall be locked closed and may not be opened unless the reactor is in the cold shutdown or refueling shutdown condition.

(1) One of the redundant valves in the purge supply and exhaust lines may be opened to perform the repairs required to conform with the Containment Leakage Rate Testing Program.

< See 3.6.1 >

(2) If containment purge supply and exhaust penetration leakage results in exceeding the overall containment leakage rate acceptance criteria (L_a), enter 15.3.6.A.1.a.

Specification 15.3.6.A.1.a.(2)

If the containment cannot be restored to operable status within one hour, the plant must be brought to a condition in which the LCO does not apply. To achieve this status, the plant must be brought to at least hot shutdown within six hours and to cold shutdown within 36 hours of entering 15.3.6.A.1.a.(2). The allowed completion times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

Specification 15.3.6.A.1.b

The containment isolation valves form part of the containment pressure boundary and provide non-essential (i.e., not required to mitigate the consequences of an accident) fluid penetrations with two isolation barriers that are closed on a containment isolation signal. These isolation barriers are either passive or active (automatic). Passive isolation barriers are manual valves, de-activated automatic valves secured in their closed position (including check valves with flow through the valve secured), blind flanges, and closed systems. Active isolation barriers are check valves or other automatic valves designed to close without operator action following an accident. Two barriers in series are provided for each penetration so that no single credible failure or malfunction of an active component can result in a loss of isolation or leakage that exceeds limits assumed in the safety analyses.

The automatic containment isolation valves are required to have isolation times within limits and to actuate on an automatic isolation signal. The containment purge supply and exhaust valves are too large to be qualified for automatic closure from their open positions under DBA conditions and must be maintained closed and deactivated except as defined in Specification 15.3.6.A.1.c. The normally closed containment isolation valves are considered operable when manual valves are closed, automatic valves are de-activated in their closed position,
blind flanges are in place, and closed systems are intact. Specification 15.3.6.A.1.b. provides assurance that the containment isolation valves will perform their designed safety functions to control leakage from the containment during accidents.

For the purposes of this section, 'de-activated automatic valve' is defined as the valve closed with the motive force removed.

Specification 15.3.6.A.1.b. applies to all penetration flow paths, except for purge supply and exhaust penetration flow paths. Containment penetration flow paths may be unisolated intermittently under administrative controls. These administrative controls consist of stationing a dedicated operator at the valve controls who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for containment isolation is indicated. Due to the size of the containment purge line penetration and the
fact that those penetrations exhaust directly from the containment atmosphere to the environment, the penetration flow path containing these valves may not be opened under administrative controls. A single purge valve in a penetration flow path may be opened to effect repairs to an inoperable valve, as allowed by Specification 15.3.6.A.1.c.

Specification 15.3.6.A.1.b.(1)(a)

If one containment isolation valve in a penetration flow path with two containment isolation valves is inoperable (except for purge supply and exhaust valves) the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic containment isolation valve, a closed manual valve, a blind flange, and a check valve with flow through the valve secured. For a penetration flow path isolated in accordance with Specification 15.3.6.A.1.b.(1)(a)(i), the valve used to isolate the penetration should be the closest available one to containment. The penetration must be isolated within four hours. The four hour completion time is reasonable, considering the time required to isolate the penetration and the relative importance of supporting containment operability during plant operation.

Penetration flow paths isolated in accordance with Specification 15.3.6.A.1.b.(1)(a)(i) must be verified to be isolated on a periodic basis. This is necessary to ensure that containment penetrations required to be isolated following an accident, and no longer capable of being automatically isolated, will be in the isolation position should an event occur. This required action does not require any testing or valve manipulation. Rather, it involves verification, through a system walkdown, that those isolation devices outside containment and capable of being mispositioned are in the correct position. The completion time of once per 31 days for isolation devices outside containment is appropriate considering the fact that the valves are operated under administrative controls and the probability of their misalignment is low. For the isolation devices inside containment, the time period specified as "prior to exceeding 200°F, if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

Specification 15.3.6.A.1.b.(1)(a)(ii) allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these valves, once they have been verified to be in the proper position, is small.

Specification 15.3.6.A.1.b.(1)(b)

If two containment isolation valves in a penetration flow path are inoperable (except for purge supply and exhaust valves) the affected penetration flow path must be isolated within one hour. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual valve, and a blind flange. The one hour completion time is consistent with Specification 15.3.6.A.1.a.

Penetrations isolated in accordance with Specification 15.3.6.A.1.b.(1)(b)(i) must be verified to be isolated on a periodic basis. The reason for this action and the basis for the completion times are the same as for Specification 15.3.6.A.1.b.(1)(a)(i). Specification 15.3.6.A.1.b.(1)(b)(ii) allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these valves, once they have been verified to be in the proper position, is small.

Specification 15.3.6.A.1.b.(2)

If a containment isolation valve in a penetration with one containment isolation valve and a closed system is inoperable, the affected penetration flow path must be isolated within four hours. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual valve, and a blind flange. A check valve may not be used to isolate the affected penetration flow path. The four hour completion time is reasonable considering the relative stability of the closed system (hence, reliability) to act as a penetration isolation boundary and the relative importance of maintaining containment integrity during plant operation.

Penetrations isolated in accordance with Specification 15.3.6.A.1.b.(2)(a)(i) must be verified to be isolated on a periodic basis. The reason for this action and the basis for the completion times are the same as for Specification 15.3.6.A.1.b.(1)(a)(i). Specification 15.3.6.A.1.b.(2)(a)(ii) allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these valves, once they have been verified to be in the proper position, is small.

Specification 15.3.6.A.1.b.(3)

If the required actions and associated completion times are not met, the plant must be brought to a condition in which the LCO does not apply. To achieve this status, the plant must be brought to at least hot shutdown within six hours and to cold shutdown within 36 hours of entering 15.3.6.A.1.b.(3). These times are reasonable, based on operating experience, to reach the required plant conditions

A.8

from full power conditions in an orderly manner and without challenging plant systems.

Specification 15.3.6.A.1.c.

The containment purge supply and exhaust valves are required to be locked closed during plant operations since these valves have not been demonstrated capable of closing from the full open position during a design basis loss-of-coolant
accident. Maintaining these valves locked closed during plant operation ensures that excessive quantities of radioactive materials will not be released via the containment purge system in the event of a design basis loss-of-coolant accident. The containment purge supply and exhaust valves will be locked closed by providing locking devices on the control board operators for these valves.

Specification 15.3.6.A.1.d.

Containment air locks form part of the containment pressure boundary and provide a means for personnel access during all operating conditions. The doors are interlocked to prevent simultaneous opening. During periods when containment is not required to be operable, the door interlock mechanism may be disabled, allowing both doors of an air lock to remain open for extended periods when frequent containment entry is necessary. Each air lock door has been designed
and tested to certify its ability to withstand a pressure in excess of the maximum expected pressure following a DBA in containment. As such, closure of a single door supports containment integrity. Each of the doors contains double gasketed seals and local leakage rate testing capability to ensure pressure integrity. To effect a leak tight seal, the air lock design uses pressure seated doors (i.e., an increase in containment internal pressure results in increased sealing force on each door).

Each air lock is required to be operable. For the air lock to be considered operable, the air lock interlock mechanism must be operable, the air lock must be in compliance with the Type B air lock leakage test, and both air lock doors must be operable. For the purposes of this section, 'air lock door' includes the door itself, equalizing valve, operating mechanism seal, and door seals. The interlock mechanism allows only one air lock door of an air lock to be opened at

TABLE 15.4.1-2 (Continued)

		Test		Frequency
7.	Spent Fuel Pit < See LCOs 3.7.15 and 3.7.16 >	a) Boron Concentration b) Water Level Verification		Monthly Weekly
8.	Secondary Coolant < See LCO 3.7.18 >	Gross Beta-gamma Activity or gamma isotopic analysis Iodine concentration		Weekly[6] Weekly when gross Beta-gamma activity equals or exceeds 1.0 μCi/g [6]
9.	Control Rods < See LCO 3.1.5 >	a) Rod drop times of all full length rods [3] b) Rodworth measurement shutdown prior to		Each refueling or after maintenance that could affect proper functioning [4] Following each refueling commencing power operation
10.	Control Rod	Partial movement of all rods		Every 2 weeks [18]
11.	Pressurizer Safety Valves	Set point	< See LCO 3.4.10 >	Every five years [11]
12.	Main Steam Safety Valves	Set Point	< See LCO 3.7.1 >	Every five years [11]
13.	Containment Isolation Trip	Functioning		Each refueling shutdown
14.	Refueling System Interlocks	Functioning	< See LCO 3.9.1 >	Each refueling shutdown
15.	Service Water System	Functioning	< See LCO 3.7.8 >	Each refueling shutdown
16.	Primary System Leakage	Evaluate	< See LCO 3.4.13 >	Monthly [6]
17.	Diesel Fuel Supply	Fuel inventory	< See LCO 3.8.3 >	Daily
18.	Deleted			
19.	Deleted			
20.	Boric Acid System < See LCO 3.5.2 >	Storage Tank and piping temperatures ≥ temperature required by Table 15.3.2-1		Daily[19]

SR 3.6.3.4

18 months

M.1

A.1

TABLE 15.4.1-2 (Continued)

		Test	Frequency	
21.	PORV Block Valves < See Section 3.4 >	a. Complete Valve Cycle b. Open position check	Quarterly (13) Every 72 hours (14)	
22.	Integrity of Post Accident Recovery Systems Outside Containment	Evaluate < See Section 5.0 >	Each refueling cycle	
23.	Containment Purge Supply and Exhaust Isolation Valves	Verify valves are locked closed	Monthly (9)	L.1/A.7 SR 3.6.3.1
24.	Reactor Trip Breakers < See LCO 3.3.1 >	a.Verify independent operability of automatic shunt and undervoltage trip functions. b.Verify independent of man- ual trip to shunt and undervoltage trip functions.	Monthly (9) Each refueling shutdown	operability
25.	Reactor Trip Bypass Breakers	a.Verify operability of the undervoltage trip function. b.Verify operability of the shunt trip functions. c.Verify operability of the manual trip to undervoltage trip functions.	Prior to breaker use Each refueling shutdown Each refueling shutdown	
26.	120 VAC Vital Instr Bus Power < See Section 3.8 >	Verify Energized(12)	Shiftly	
27.	Power Operated Relief Valves (PORVs), PORV Solenoid Air Control Valves, and Air System Check	Operate(16) < See Section 3.4 >	Each shutdown(17)	
28.	Atmospheric Steam Dumps	Complete valve cycle	Quarterly	< See Section 3.7 >
29.	Deleted			

TABLE 15.4.1-2 (Continued)

30.	Pressurizer Heaters	Verify that 100 KW of heaters are available.	Quarterly
31.	CVCS Charging Pumps	Verify operability pumps.[17]	Quarterly
32.	Potential Dilution in Progress Alarm	Verify operability of alarm.	Prior to placing plant in cold shutdown.
33.	Core Power Distribution	Perform power distribution maps using movable incore detector system to confirm hot channel factors.	Monthly [20]
34.	Shutdown Margin	Perform shutdown margin calculation.	Daily [21]

< See LCO 3.4.9 >

< See LCO 3.5.2 >

< See LCO 3.3.9 >

Associated Specification removed with Amendment 176/180.

< See LCO 3.2.1/2 >

< See Section 3.1 >

< See LCO 3.4.16 >

< See LCO 3.1.5 >

(1) ~~Required only during periods of power operation.~~
(2) Q determination will be started when the gross activity analysis of a filtered sample indicates ≥10μCi/cc and will be redetermined if the primary coolant gross radioactivity of a filtered sample increases by more than 10μCi/cc.
(3) Drop test shall be conducted at rated reactor coolant flow. Rods shall be dropped under both cold and hot condition, but cold drop tests need not be timed.
(4) Drop tests will be conducted in the hot condition for rods on which maintenance was performed.
(5) ~~As accessible without disassembly of rotor.~~
(6) ~~Not required during periods of refueling shutdown.~~
(7) At least once per week during periods of refueling shutdown.
(8) At least three times per week (with maximum time of 72 hours between samples) during periods of refueling shutdown.
(9) ~~Not required during periods of cold or refueling shutdown, but must be performed prior to exceeding 200°F if it has not been performed during the previous surveillance period.~~
(10) Sample to be taken after a minimum of 2 EFPD and 20 days power operation since the reactor was last subcritical for 48 hours or longer.
(11) An approximately equal number of valves shall be tested each refueling outage such that all valves will be tested within a five year period. If any valve fails its tests, an additional number of valves equal to the number originally tested shall be tested. If any of the additional tested valves fail, all remaining valves shall be tested.
(12) The specified buses shall be determined energized in the required manner at least once per shift by verifying correct static transfer switch alignment and indicated voltage on the buses.
(13) Not required if the block valve is shut to isolate a PORV that is inoperable for reasons other than excessive seat leakage.
(14) Only applicable when the overpressure mitigation system is in service.
(15) Required to be performed only if conditions will be established, as defined in Specification 15.3.15, where the PORVs are used for low temperature overpressure protection. The test must be performed prior to establishing these conditions.

L.1

Modes 1, 2, 3, and 4

< See LCO 3.4.16, 3.5.4, 3.4.13, 3.7.18 >

A.7

< See LCO 3.4.11 >

< See Section 3.8 >

< See LCO 3.4.12 >

< See LCO 3.4.16 >

< See LCO 3.7.1/ 3.4.10 >

< See LCO 3.4.16 >

B. In-Service Inspection and Testing of Safety Class Components Other than Steam Generator Tubes

1. Inservice inspection of ASME Code Class 1, Class 2 and Class 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g) modified by Section 50.55a(b), except where specific written relief is granted by the NRC, pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).

   a. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

2. Containment isolation valves will be tested in accordance with the Containment Leakage Rate Testing Program.

3. Inservice testing of ASME Code Class 1, 2, and 3 pumps, valves, and snubbers shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a.

< See 5.0 >

   a. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

Basis

The steam generator tube inspection requirements are based on the guidance given in NRC Regulatory Guide 1.83, "Inservice Inspection of Pressurized Water Reactor Steam Generator Tubes." ASME Section XI Appendix IV is being used for defining the basic requirements or the inspection method. However, at the present time, changes and improvements in steam generator eddy current inspection are occurring faster than the code can be revised. Thus, in order to ensure that the best possible exam of the tubing and/or sleeves is being done, the technique utilized will, in general, be the latest industry-accepted technique. This means that complete word-for-word compliance with Appendix IV may not be possible. However, the basic requirements and intent will be met, to the extent practical.

Specification 15.4.2.B delineates programmatic requirements for establishing Inservice Inspection and Testing programs in accordance with the ASME Section XI Code and 10 CFR 50.55a requirements. The Code establishes criteria for system and component inspection and testing to ensure an appropriate level of reliability and detection of abnormal conditions. Failure to meet Code requirements is evaluated on an individual system or component bases to determine operability. Appropriate LCOs are entered if a system or component is determined to be inoperable.

As stated in 15.4.2.B.1, safety class components, other than the steam generator tubing, will be inspected in accordance with ASME Section XI. The code edition/addenda utilized for the inspection interval will be as defined in

< See Section 5.0 >

Justification For Deviations - NUREG-1431 Section 3.06.03

13-Nov-99

JFD Number	JFD Text	
01	The Titles for LCO 3.6.3 and it associated Bases have been shortened to simply state "Containment Isolation Valves". Inclusion of the type of design (e.g. Ice Condenser, Dual, Atmospheric, or Sub-Atmospheric) is relevant only in distinguishing which variation of NUREG 1431 is to be used.	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03
	LCO 3.06.03	LCO 3.06.03
02	The brackets have been removed and the proper plant specific information has been provided.	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03
	SR 3.06.03.01	SR 3.06.03.01
	SR 3.06.03.04	SR 3.06.03.08
03	The bracketed information contained in LCO 3.6.3 relative to Actions and Surveillance Requirements for shield building bypass leakage has been omitted from the Point Beach ITS. Point Beach does not have as part of its design a shield building. Accordingly, these statements are not applicable to Point Beach.	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03
	LCO 3.06.03 COND A	LCO 3.06.03 COND A
	LCO 3.06.03 COND B	LCO 3.06.03 COND B
	N/A	LCO 3.06.03 COND D
		LCO 3.06.03 COND D RA D.1
		SR 3.06.03.11
		SR 3.06.03.11 FREQ NOTE

JFD Number	JFD Text
04	The containment purge valves at Point Beach contain resilient seals, however, specific penetration flowpath leakage limits and surveillance frequencies above and beyond those established through the Containment Leakage Rate Testing Program are not necessary. The CTS prior to October 9, 1996 (Technical Specification Amendment 169/173) required testing of the containment purge valves every 6 months based on the findings of generic issue B-20 "Containment Leakage Due to Seal Degradation". Amendment 169/173 eliminated the requirement for increased testing of the containment purge valves. As cited in the SER for amendments 169/173, the containment purge valve can be tested in accordance with the Regulatory Guide 1.163 "Performance-Based Containment Leak-Testing Program". The basis of this conclusion was that there has not been observable degradation supportive of increased testing frequencies which were established as part of Generic issue B-20. Since 1992 there had been no leakage rate failures in excess of the previous Technical Specification or Appendix J acceptance criteria, nor were there failures in excess of the administrative leakage limit of 2000 standard cubic centimeters per minute. Reference to Generic Issue 20 in the references section has been omitted based on the deletion of this material.

ITS:	NUREG:
B 3.06.03	B 3.06.03
LCO 3.06.03 COND A	LCO 3.06.03 COND A
LCO 3.06.03 COND B	LCO 3.06.03 COND B
N/A	LCO 3.06.03 COND E LCO 3.06.03 COND E RA E.1 LCO 3.06.03 COND E RA E.2 LCO 3.06.03 COND E RA E.2 NOTE LCO 3.06.03 COND E RA E.3 SR 3.06.03.07

JFD Number	JFD Text
05	ITS LCO 3.6.3, Condition C is applicable to containment penetrations which have only one containment isolation valve and a closed system. NUREG 1431 Required Action C.2 requires the performance of a periodic verification of isolation devices (once every 31 days), which is based on designs for which the isolation device would be located outside of containment. The Point Beach design includes containment penetration provisions consisting of a closed system outside containment with a single containment isolation valve (device) located inside the containment. Based on this design consideration, the CTS contains a provision which allows verification every 31 days for devices outside containment and prior to exceeding 200 degrees if not performed in the previous 92 days for devices located inside the containment. Based on this design, the frequency for verification of isolation devices from the CTS has been retained. The revised frequency is consistent with NUREG 1431 Required Action A.2 which allows verification of isolation devices located inside the containment prior to entry into Mode 4 from Mode 5 if not performed within the previous 92 days. This frequency is considered acceptable based on engineering judgment, the inaccessibility of isolation devices inside the containment, and administrative controls that will ensure that isolation device misalignment is unlikely.

ITS:	NUREG:
B 3.06.03	B 3.06.03
LCO 3.06.03 COND C RA C.2	LCO 3.06.03 COND C RA C.2
	LCO 3.06.03 COND C RA C.2
	LCO 3.06.03 COND C RA C.2

JFD Number	JFD Text
06	Required Actions, Surveillance Requirements, and References have been renumbered to reflect Conditions, Surveillance Requirements, and References that were not adopted as part of the conversion to the ITS. These changes are administrative.

ITS:	NUREG:
B 3.06.03	B 3.06.03
LCO 3.06.03 COND D	LCO 3.06.03 COND F
LCO 3.06.03 COND D RA D.1	LCO 3.06.03 COND F RA F.1
LCO 3.06.03 COND D RA D.2	LCO 3.06.03 COND F RA F.2
SR 3.06.03.02	SR 3.06.03.03
SR 3.06.03.02 NOTE	SR 3.06.03.03 NOTE
SR 3.06.03.03	SR 3.06.03.04
SR 3.06.03.03 NOTE	SR 3.06.03.04 NOTE
SR 3.06.03.04	SR 3.06.03.08

JFD Number	JFD Text	
07	Several bracketed surveillance requirements were not adopted. These components are not incorporated into Point Beach's design and are therefore not appropriate to adopt. These components include: containment mini purge valves, spring or weight loaded vacuum breaker check valves, and blocking devices installed on containment purge valves.	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03
	N/A	SR 3.06.03.02
		SR 3.06.03.06
		SR 3.06.03.09
		SR 3.06.03.10
08	The automatic power operated containment isolation valves at Point Beach are tested in accordance with the inservice test program. However, this SR is not being retained in the Point Beach ITS. See JFD 16 for justification.	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03
	N/A	SR 3.06.03.05
09	NUREG 1431 SR 3.6.3.1 contains a provision which allows one purge valve in a penetration flowpath to be opened while in Condition E of LCO 3.6.3 (purge valve leakage not within limits). CTS 15.3.6.A1.c.1 contains this same provision, allowing a containment purge supply or exhaust valve to be opened to perform repairs required to conform to the Containment Leakage Rate Testing Program. Proposed ITS SR 3.6.3.1 retains a provision which will allow one containment purge valve in a flowpath to be opened to perform leakage rate corrective maintenance. As discussed in Justification for Deviation 4 of this section, containment purge valve leakage was not adopted as an attribute of purge valve operability under LCO 3.6.3, but was retained as part of ITS SR 3.6.1.1 which addresses the Type A, B, and C leakage testing requirements. Accordingly, reference of the SR 3.6.3.1 to Condition E is not appropriate as condition E was not adopted. Reference to the performance of leakage rate repairs provides the flexibility necessary to do corrective maintenance in accordance with the current licensing basis.	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03
	SR 3.06.03.01	SR 3.06.03.01
		SR 3.06.03.01

JFD Number	JFD Text
10	NUREG 1431 SR 3.6.1.1 and its associated Bases have been modified to reflect the Point Beach current licensing basis relative to securing containment purge supply and exhaust valves in the closed position during operation. SR 3.6.1.1 states that the containment purge supply and exhaust valves are to be sealed closed. The Bases states that the containment purge supply and exhaust valves are sealed closed when the motive power to the valve actuator is removed (e.g. breaker de-energized, air removed from the valve actuator). The manner in which the purge supply and exhaust valves are secured closed consists of locking devices on the control switches for the valves. This method was reviewed and accepted by the NRC in SER dated October 4, 1982 for amendment 69/74 of the Point Beach Technical Specifications. **ITS:** B 3.06.03; SR 3.06.03.01 **NUREG:** B 3.06.03; SR 3.06.03.01
11	The Bases of NUREG 1431 LCO 3.6.3 contains a bracketed discussion regarding design of the containment purge valves which is not applicable to the Point Beach Design. NUREG 1431 states that the single failure criterion is addressed by having diverse power sources (motor operated valve and a pneumatic operator) for the inboard and outboard containment purge valves. Point Beach's containment purge valves are of similar design, but are required to be closed with their control switches locked in the closed position in Modes 1, 2, 3, and 4. Application of a single active failure in this configuration would only result in a single valve in the penetration being affected, thereby maintaining containment integrity. **ITS:** B 3.06.03 **NUREG:** B 3.06.03
12	The Bases for SR 3.6.1.1 states that for some units the containment purge supply and exhaust valves are not rated to close under DBA conditions. This is true for Point Beach; therefore, the statement has been changed from its current form to an absolute statement reflective of Point Beach's design. In addition the Bases discusses purge valves which have blocking devices installed to limit valve travel. The Point Beach containment vent and purge valves do not have blocking devices; therefore, this statement has been omitted. **ITS:** B 3.06.03 **NUREG:** B 3.06.03

Justification For Deviations - NUREG-1431 Section 3.06.03

13-Nov-99

JFD Number	JFD Text	
13	The Point Beach accident analysis does not explicitly assume that the containment purge valves are closed. The containment purge valves are not rated to close under DBA conditions as addressed in the Bases for SR 3.6.1.1. Based on the valves not being rated for DBA conditions, the containment purge flow path is required to be secured closed whenever the unit is in Mode 1, 2, 3, and 4. As such, this statement regarding accident analysis assumptions is not correct for Point Beach and has been deleted.	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03
14	The Bases elaborates on entering the conditions and required actions of LCO 3.6.1 if "containment airlock" leakage results in exceeding the overall containment leakage limit, while the LCO Note itself requires entry if "containment isolation valves" result in exceeding the leakage limits. The Bases is in error and appears to be a copy of the Bases for LCO 3.6.2. The Bases has been corrected to state "containment isolation valves" versus "airlocks".	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03
15	Point Beach has only one set of containment vent and purge lines, which are the 36 inch lines required to be closed with their control switches secured in the locked position in Modes 1, 2, 3, and 4. Based on there being only one set vent and purge valves, the terminology used in the ITS and its associated Bases has been changed from a presentation which discriminates based on the size, type, and usage of the valve (e.g. mini-purge, 42 inch, etc;) to simply "purge supply and exhaust". This change is reflects the Point Beach design and plant terminology used.	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03
	LCO 3.06.03 COND NOTE 1	LCO 3.06.03 COND NOTE 1
	SR 3.06.03.01	SR 3.06.03.01

JFD Number	JFD Text
16	NUREG SR 3.6.3.5 omitted and various Bases sections have been deleted or modified, as specific automatic power operated containment isolation valve closure times are not contained or tested for in the current Technical Specifications, and there is no specific analytical acceptance criteria assumed in any Point Beach accident analysis. The isolation time of each automatic power operated containment isolation is fulfilled by performance of ASME section XI stoke time testing which will continue to be required by 10CFR 50.55a and Section 5.0 of the Improved Technical Specifications. Containment isolation times are established for the purpose of ensuring that ECCS performance is not impaired through a reduction in containment backpressure and to minimize the release of containment atmosphere to the environs following a loss of coolant accident. The Point Beach offsite dose analysis simply assumes that containment isolation occurs in a manner that will maintain containment leakage rates less than or equal to La (0.4% of containment air weight per day). All automatic non-essential penetrations are associated with; closed systems, or involve torturous release paths through systems and components which would result in significant system resistance, transport times, and dispersion factors. The only containment penetrations which provides a direct pathway from the containment are the containment vent and purge lines (36 inch). These penetrations are required to be closed, with their control switches locked in the closed position (rendered non-active) during Modes 1, 2, 3, and 4. Similarly, there are no active automatic containment penetrations which will create a significant containment pressure release path. These factors render the offsite dose and ECCS performance analysis insensitive to isolation time lesser than those imposed by the valve performance testing (ASME isolation times) required by Section 5.0 of the Improved Technical Specifications and 10CFR 50.55.a.

ITS:	**NUREG:**
B 3.06.03	B 3.06.03
N/A	SR 3.06.03.05
SR 3.06.03.04	SR 3.06.03.08

JFD Number	JFD Text	
17	The Bases of NUREG 1431 LCO 3.6.3, states that containment penetrations not serving accident consequence limiting systems are provided with two isolation barriers that are closed on a containment isolation signal. Not all of the Point Beach containment isolation barriers not serving accident consequence limiting systems (non-essential penetrations) close on a containment isolation signal. The Point Beach containment design incorporate two barriers as described in the NUREG; however, not all non-essential penetrations are equipped with barriers that close on a containment isolation signal. Several non-essential penetrations utilize closed systems, or have normally closed manual containment isolation valves. In addition, the NUREG 1431 Bases addresses a plant design which incorporates multiple levels of containment isolation (Phase "A" and Phase "B"). Point Beach has a single containment isolation signal generated directly from a Safety Injection. As such, the Bases has been modified to reflect the Point Beach design.	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03
18	The LOCA acronym has been previously defined, therefore defining LOCA in this section of the Bases is not necessary.	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03
19	A clarification has been made to the Bases to ensure that position verification of passive isolation valves (normally closed manual valves, or closed and deactivated automatic isolation valves) is performed as necessary to comply with required actions. The reference has been corrected to point to the location of the plant specific information. These changes are administrative only.	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03
20	The Bases of NUREG 1431 LCO 3.6.3 states that the LCO provides assurance that the containment isolation valves and purge valves will perform their designed safety functions. The containment purge valve are containment isolation valve. Specifically calling out the purge valves does not add any value or clarification to this statement. Reference to the purge valves has been omitted.	
	ITS:	**NUREG:**
	B 3.06.03	B 3.06.03

JFD Number	JFD Text
21	The Bases of NUREG 1431 LCO 3.6.3 states that Condition C is modified by a Note indicating that this Condition is only applicable to those penetration flow paths with only one containment isolation valve and a closed system. This Note is necessary since this Condition is written to specifically address those penetration flow paths in a closed system. Penetration flowpaths do not exist in a closed system. Closed systems are a containment isolation boundary. As such, the Bases has been modified to reflect the actual usage of the closed system relative to containment isolation boundaries. **ITS:** B 3.06.03 **NUREG:** B 3.06.03
22	The Bases of LCO 3.6.3 states that the containment is designed to contain radioactive material following a design basis accident. This statement was revised to state that the containment is designed to contain radioactive material following a design basis "loss of coolant accident". As re-enforced by the positions established in Appendix J, Option B of 10 CFR 50 and its implementing documents, radioactive release from the containment as the result of a design basis accident is assumed to occur from primary system loss of coolant accidents. This change is consistent with the CTS Bases wording approved in amendment 169/173 on October 9, 1996 for the implementation of Option B. This change results in defining DBA as an acronym for Design Basis Accident in a later paragraph in this Bases section. **ITS:** B 3.06.03 **NUREG:** B 3.06.03

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3.6 CONTAINMENT SYSTEMS

3.6.3 Containment Isolation Valves ~~(Atmospheric, Subatmospheric, Ice Condenser, and Dual)~~

LCO 3.6.3 Each containment isolation valve shall be OPERABLE.

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

ACTIONS

except for the purge supply and exhaust flow path 15

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

1. Penetration flow path(s) ~~[except for [42] inch purge valve flow paths]~~ may be unisolated intermittently under administrative controls.

2. Separate Condition entry is allowed for each penetration flow path.

3. Enter applicable Conditions and Required Actions for systems made inoperable by containment isolation valves.

4. Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. ---------NOTE--------- Only applicable to penetration flow paths with two containment isolation valves. ---------------------- One or more penetration flow paths with one containment isolation valve inoperable ~~[except for purge valve or shield building bypass leakage not within limit]~~. (4)	A.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured. AND	4 hours (continued)

3

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ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.2 --------NOTES------ 1. Isolation devices in high radiation areas may be verified by use of administrative means. 2. Isolation devices that are locked, sealed or otherwise secured may be verified by use of administrative means. -------------------- Verify the affected penetration flow path is isolated.	Once per 31 days for isolation devices outside containment AND Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment
B. ---------NOTE--------- Only applicable to penetration flow paths with two containment isolation valves. --------------------- One or more penetration flow paths with two containment isolation valves inoperable ~~[except for purge valve or shield building bypass leakage not within limit]~~.	B.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.	1 hour

Approved TSTF 269

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(continued)

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ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. ---------NOTE--------- Only applicable to penetration flow paths with only one containment isolation valve and a closed system. ---------------------	C.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.	~~[4]~~ 72 hours Approved TSTF 30
One or more penetration flow paths with one containment isolation valve inoperable.	AND	
Approved TSTF 269	C.2 --------NOTE--------- 1. Isolation devices in high radiation areas may be verified by use of administrative means. 2. Isolation devices that are locked sealed or otherwise secured may be verified by use of administrative means. -------------------- Verify the affected penetration flow path is isolated.	5 Once per 31 days for isolation devices outside containment AND Prior to entering Mode 4 from Mode 5 if not performed within the previous 92 days for isolation devices inside containment ~~Once per 31 days~~
3 ~~D. Shield building bypass leakage not within limit.~~	~~D.1 Restore leakage within limit.~~	~~4 hours~~
~~E. One or more penetration flow paths with one or more containment purge valves not within purge valve leakage limits.~~	~~E.1 Isolate the affected penetration flow path by use of at least one [closed and de-activated automatic valve, closed manual valve, or blind flange].~~ ~~AND~~	~~24 hours~~

~~(continued)~~

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ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
E. (continued)	E.2	--------NOTE-------- 1. Isolation devices in high radiation areas may be verified by use of administrative means. 2. Isolation devices that are locked, sealed or otherwise secured may be verified by use of administrative means. -------------------- Verify the affected penetration flow path is isolated.	Once per 31 days for isolation devices outside containment AND Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment
	AND		
	E.3	Perform SR 3.6.3.7 for the resilient seal purge valves closed to comply with Required Action E.1.	Once per [92] days
F. Required Action and associated Completion Time not met.	F.1	Be in MODE 3.	6 hours
	AND		
	F.2	Be in MODE 5.	36 hours

Approved TSTF 269

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with the control switch locked in the closed position

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15

purge supply and exhaust

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SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.6.3.1	Verify each ~~[42] inch purge~~ valve is ~~sealed~~ closed except for one purge valve in a penetration flow path while in Condition ~~E of this LCO.~~	31 days
		to perform leakage rate corrective maintenance.
~~SR 3.6.3.2~~	~~Verify each [8] inch purge valve is closed, except when the [8] inch containment purge valves are open for pressure control, ALARA or air quality considerations for personnel entry, or for Surveillances that require the valves to be open.~~	~~31 days~~
SR 3.6.3.~~3~~ 2	------------------NOTE------------------ Valves and blind flanges in high radiation areas may be verified by use of administrative controls. -- Verify each containment isolation manual valve and blind flange that is located outside containment and not locked sealed or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.	31 days

(continued)

and not locked sealed or otherwise secured

Approved TSTF 45

and not locked, sealed, or otherwise secured

Approved TSTF 45

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.3.~~4~~ 3 6	------NOTE------ Valves and blind flanges in high radiation areas may be verified by use of administrative means. ------ Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.	Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days
~~SR 3.6.3.5~~	~~Verify the isolation time of each power operated and each automatic containment isolation valve is within limits.~~ power operated Approved TSTF 46	~~In accordance with the Inservice Testing Program or 92 days~~
~~SR 3.6.3.6~~	~~Cycle each weight or spring loaded check valve testable during operation through one complete cycle of full travel, and verify each check valve remains closed when the differential pressure in the direction of flow is ≤ [1.2] psid and opens when the differential pressure in the direction of flow is ≥ [1.2] psid and < [5.0] psid.~~	~~92 days~~

16 8 7

(continued)

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
~~[SR 3.6.3.7~~	~~Perform leakage rate testing for containment purge valves with resilient seals.~~	~~184 days AND Within 92 days after opening the valve]~~
SR 3.6.3.~~8~~ 4	Verify each automatic containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal.	[18] months
~~[SR 3.6.3.9~~	~~Cycle each weight or spring loaded check valve not testable during operation through one complete cycle of full travel, and verify each check valve remains closed when the differential pressure in the direction of flow is ≤ [1.2] psid and opens when the differential pressure in the direction of flow is ≥ [1.2] psid and < [5.0] psid.~~	~~18 months]~~
~~[SR 3.6.3.10~~	~~Verify each [ ] inch containment purge valve is blocked to restrict the valve from opening > [50]%.~~	~~[18] months]~~

4 6/16 2 4

(continued)

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
~~SR 3.6.3.11~~	~~Verify the combined leakage rate for all shield building bypass leakage paths is ≤ [L_a] when pressurized to ≥ [psig].~~	~~-----NOTE----- SR 3.0.2 is not applicable -------------- In accordance with 10 CFR 50, Appendix J, as modified by approved exemptions~~

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B 3.6 CONTAINMENT SYSTEMS

B 3.6.3 Containment Isolation Valves (Atmospheric, Subatmospheric, Ice Condenser, and Dual)

BASES

BACKGROUND

Replace with Insert B 3.6.3-3

17

~~The containment isolation valves form part of the containment pressure boundary and provide a means for fluid penetrations not serving accident consequence limiting systems to be provided with two isolation barriers that are closed on a containment isolation signal. These isolation devices are either passive or active (automatic). Manual valves, de-activated automatic valves secured in their closed position (including check valves with flow through the valve secured), blind flanges, and closed systems are considered passive devices. Check valves, or other automatic valves designed to close without operator action following an accident, are considered active devices. Two barriers in series are provided for each penetration so that no single credible failure or malfunction of an active component can result in a loss of isolation or leakage that exceeds limits assumed in the safety analyses. One of these barriers may be a closed system. These barriers (typically containment isolation valves) make up the Containment Isolation System.~~

~~Automatic isolation signals are produced during accident conditions. Containment Phase "A" isolation occurs upon receipt of a safety injection signal. The Phase "A" isolation signal isolates nonessential process lines in order to minimize leakage of fission product radioactivity. Containment Phase "B" isolation occurs upon receipt of a containment pressure High-High signal and isolates the remaining process lines, except systems required for accident mitigation. In addition to the isolation signals listed above, the purge and exhaust valves receive an isolation signal on a containment high radiation condition. As a result, the containment isolation valves (and blind flanges) help ensure that the containment atmosphere will be isolated from the environment in the event of a release of fission product radioactivity to the containment atmosphere as a result of a Design Basis Accident (DBA).~~

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16 BASES

BACKGROUND (Continued)

integrity is established and maintained in accordance with

The OPERABILITY requirements for containm ent isolation valves help ensure that containment ~~is isolated within the time limits assumed in~~ the safety analyses. Therefore, the OPERABILITY requirements provide assurance that the containment function assumed in the safety analyses will be maintained.

15

Containment

15

can be operated

~~Shutdown~~ Purge System (~~[42] inch purge~~ valves)

whenever the unit is not in MODES 1, 2, 3, or 4.

The ~~Shutdown~~ Purge System ~~operates~~ to supply outside air into the containment for ventilation and cooling or heating and may also be used to reduce the concentration of noble gases within containment ~~prior to and during personnel access~~. The supply and exhaust lines each contain two isolation valves. Because of their large size, the ~~[42] inch purge~~ valves ~~in some units~~ are not qualified for automatic closure from their open position under DBA conditions. Therefore, the ~~[42] inch purge~~ valves are normally maintained closed in MODES 1, 2, 3, and 4 to ensure the containment boundary is maintained.

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15

12

(purge supply and exhaust

with their control switches locked in the closed position

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~~Minipurge System ([8] inch purge valves)~~

~~The Minipurge System operates to:~~

~~a. Reduce the concentration of noble gases within containment prior to and during personnel access, and~~

~~b. Equalize internal and external pressures.~~

~~Since the valves used in the Minipurge System are designed to meet the requirements for automatic containment isolation valves, these valves may be opened as needed in MODES 1, 2, 3, and 4.~~

APPLICABLE SAFETY ANALYSES

The containment isolation valve LCO was derived from the assumptions related to minimizing the loss of reactor coolant inventory and establishing the containment boundary during major accidents. As part of the containment boundary, containment isolation valve OPERABILITY supports leak tightness of the containment. Therefore, the safety

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BASES

APPLICABLE SAFETY ANALYSES (Continued)

analyses of any event requiring isolation of containment is applicable to this LCO.

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capable of closure to isolate non-essential penetrations.

The DBA~~s~~ that result in a release of radioactive material within containment ~~are~~ a ~~loss of coolant accident~~ (LOCA) ~~and a rod ejection accident~~ (Ref. 1). In the analyses for ~~each of these~~ accident~~s~~, it is assumed that containment isolation valves are either closed or ~~function to close within the required isolation time following event initiation.~~ This ensures that potential paths to the environment through containment isolation valves ~~(including containment purge valves)~~ are minimized. ~~The safety analyses assume that the [42] inch purge valves are closed at event initiation.~~

13 13

Replace with Insert B 3.6.3-4

16

~~The DBA analysis assumes that, within 60 seconds after the accident, isolation of the containment is complete and leakage terminated except for the design leakage rate, L a. The containment isolation total response time of 60 seconds includes signal delay, diesel generator startup (for loss of offsite power), and containment isolation valve stroke times.~~

11

~~[The single failure criterion required to be imposed in the conduct of plant safety analyses was considered in the original design of the containment purge valves. Two valves in series on each purge line provide assurance that both the supply and exhaust lines could be isolated even if a single failure occurred. The inboard and outboard isolation valves on each line are provided with diverse power sources, motor operated and pneumatically operated spring closed, respectively. This arrangement was designed to preclude common mode failures from disabling both valves on a purge line.]~~

closed with its control switch locked in the closed position

2 10

[The purge valves may be unable to close in the environment following a LOCA. Therefore, each of the purge valves is required to remain ~~sealed closed~~ during MODES 1, 2, 3, and 4. ~~In this case, the~~ single failure criterion ~~remains~~ applicable to the containment purge valves due to failure in the control circuit associated with each valve. ~~Again,~~ the purge system valve design precludes a single failure from compromising the containment boundary as long as the system is operated in accordance with the subject LCO.]

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is still

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However,

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the potential for a

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BASES

APPLICABLE SAFETY ANALYSES (Continued)

The containment isolation valves satisfy Criterion 3 of the NRC Policy Statement.

LCO

Containment isolation valves form a part of the containment boundary. The containment isolation valves' safety function is related to minimizing the loss of reactor coolant inventory and establishing the containment boundary during a DBA.

Replace with Insert B 3.6.3-5

10/16

12

~~The automatic power operated isolation valves are required to have isolation times within limits and to actuate on an automatic isolation signal. The [42] inch purge valves must be maintained sealed closed [or have blocks installed to prevent full opening]. [Blocked purge valves also actuate on an automatic signal.] The valves covered by this LCO are listed along with their associated stroke times in the FSAR (Ref. 2).~~

19

Insert B 3.6.3-7

2

The normally closed isolation valves are considered OPERABLE when manual valves are closed, automatic valves are de-activated and secured in their closed position, blind ~~flanges are in place, and closed systems are intact.~~ These passive isolation valves/devices are those listed in Reference 1.

4

~~Purge valves with resilient seals [and secondary containment bypass valves] must meet additional leakage rate requirements. The other containment isolation valve leakage rates are addressed by LCO 3.6.1, "Containment," as Type C testing.~~

20

This LCO provides assurance that the containment isolation valves ~~and purge valves~~ will perform their designed safety functions to minimize the loss of reactor coolant inventory and establish the containment boundary during accidents.

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment. In MODES 5 and 6, the

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BASES

APPLICABILITY (Continued)

probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, the containment isolation valves are not required to be OPERABLE in MODE 5. The requirements for containment isolation valves during MODE 6 are addressed in LCO 3.9.4, "Containment Penetrations.

ACTIONS

containment purge supply and exhaust

15

penetrations

15

in MODES 1, 2, 3, and 4

The ACTIONS are modified by a Note allowing penetration flow paths, except for ~~[42] inch purge~~ valve penetration flow paths, to be unisolated intermittently under administrative controls. These administrative controls consist of stationing a dedicated operator at the valve controls, who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for containment isolation is indicated. Due to the size of the containment purge line ~~penetration~~ and the fact that those penetrations exhaust directly from the containment atmosphere to the environment, the penetration flow path containing these valves may not be opened under administrative controls. A single purge valve in a ~~penetration flow path~~ may be opened to effect repairs to an inoperable valve, as allowed by SR 3.6.3.1.

A second Note has been added to provide clarification that, for this LCO, separate Condition entry is allowed for each penetration flow path. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable containment isolation valve. Complying with the Required Actions may allow for continued operation, and subsequent inoperable containment isolation valves are governed by subsequent Condition entry and application of associated Required Actions.

The ACTIONS are further modified by a third Note, which ensures appropriate remedial actions are taken, if necessary, if the affected systems are rendered inoperable by an inoperable containment isolation valve.

14

the containment isolation valve

In the event ~~the air lock~~ leakage results in exceeding the overall containment leakage rate, Note 4 directs entry into

1

BASES

ACTIONS (Continued)

the applicable Conditions and Required Actions of LCO 3.6.1.

A.1 and A.2

3/4

In the event one containment isolation valve in one or more penetration flow paths is inoperable [except for purge valve or shield building bypass leakage not within limit], the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic containment isolation valve, a closed manual valve, a blind flange, and a check valve with flow through the valve secured. For a penetration flow path isolated in accordance with Required Action A.1, the device used to isolate the penetration should be the closest available one to containment. Required Action A.1 must be completed within 4 hours. The 4 hour Completion Time is reasonable, considering the time required to isolate the penetration and the relative importance of supporting containment OPERABILITY during MODES 1, 2, 3, and 4.

For affected penetration flow paths that cannot be restored to OPERABLE status within the 4 hour Completion Time and that have been isolated in accordance with Required Action A.1, the affected penetration flow paths must be verified to be isolated on a periodic basis. This is necessary to ensure that containment penetrations required to be isolated following an accident and no longer capable of being automatically isolated will be in the isolation position should an event occur. This Required Action does not require any testing or device manipulation. Rather, it involves verification, through a system walkdown, that those isolation devices outside containment and capable of being mispositioned are in the correct position. The Completion Time of "once per 31 days for isolation devices outside containment" is appropriate considering the fact that the devices are operated under administrative controls and the probability of their misalignment is low. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering

BASES

ACTIONS (Continued)

Approved TSTF-269

two

s. Note 1

Insert B 6.5.3-8

judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

Condition A has been modified by a Note indicating that this Condition is only applicable to those penetration flow paths with two containment isolation valves. For penetration flow paths with only one containment isolation valve and a closed system, Condition C provides the appropriate actions. Required Action A.2 is modified by a Note that applies to isolation devices located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these devices once they have been verified to be in the proper position, is small.

B.1

With two containment isolation valves in one or more penetration flow paths inoperable, the affected penetration flow path must be isolated within 1 hour. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual valve, and a blind flange. The 1 hour Completion Time is consistent with the ACTIONS of LCO 3.6.1. In the event the affected penetration is isolated in accordance with Required Action B.1, the affected penetration must be verified to be isolated on a periodic basis per Required Action A.2, which remains in effect. This periodic verification is necessary to assure leak tightness of containment and that penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying each affected penetration flow path is isolated is appropriate considering the fact that the valves are operated under administrative control and the probability of their misalignment is low.

Condition B is modified by a Note indicating this Condition

BASES

ACTIONS (Continued)

is only applicable to penetration flow paths with two containment isolation valves. Condition A of this LCO addresses the condition of one containment isolation valve inoperable in this type of penetration flow path.

C.1 and C.2

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With one or more penetration flow paths with one containment isolation valve inoperable, the inoperable valve flow path must be restored to OPERABLE status or the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual valve, and a blind flange. A check valve may not be used to isolate the affected penetration flow path. Required Action C.1 must be completed within the ~~[4] hour~~ 72 Completion Time. The specified time period is reasonable considering the relative stability of the closed system (hence, reliability) to act as a penetration isolation boundary and the relative importance of maintaining containment integrity during MODES 1, 2, 3, and 4. In the event the affected penetration flow path is isolated in accordance with Required Action C.1, the affected penetration flow path must be verified to be isolated on a periodic basis. This periodic verification is necessary to assure leak tightness of containment and that containment penetrations requiring isolation following an accident are isolated. ~~The Completion Time of once per 31 days for verifying that each affected penetration flow path is isolated is appropriate because the valves are operated under administrative controls and the probability of their misalignment is low.~~

5

Insert B3.6.3-01

Condition C is modified by a Note indicating that this Condition is only applicable to those penetration flow paths with only one containment isolation valve and a closed system. This Note is necessary since this Condition is written to specifically address those penetration flow paths ~~in a closed system~~

21

which utilize closed systems as one of the two containment barrier.

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Required Action C.2 is modified by ~~a~~ two Note**s**. Note 1 that applies to valves and blind flanges located in high radiation areas and

1

BASES

ACTIONS (Continued)

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Insert B 3.6.3-8

allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of these valves, once they have been verified to be in the proper position, is small.

3

~~[D.1~~

~~With the shield building bypass leakage rate not within limit, the assumptions of the safety analyses are not met. Therefore, the leakage must be restored to within limit within 4 hours. Restoration can be accomplished by isolating the penetration(s) that caused the limit to be exceeded by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. When a penetration is isolated the leakage rate for the isolated penetration is assumed to be the actual pathway leakage through the isolation device. If two isolation devices are used to isolate the penetration, the leakage rate is assumed to be the lesser actual pathway leakage of the two devices. The 4 hour Completion Time is reasonable considering the time required to restore the leakage by isolating the penetration(s) and the relative importance of secondary containment bypass leakage to the overall containment function.]~~

4

~~[E.1, E.2, and E.3~~

~~In the event one or more containment purge valves in one or more penetration flow paths are not within the purge valve leakage limits, purge valve leakage must be restored to within limits, or the affected penetration flow path must be isolated. The method of isolation must be by the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a [closed and de-activated automatic valve, closed manual valve, or blind flange]. A purge valve with resilient seals utilized to satisfy Required Action E.1 must have been demonstrated to meet the leakage requirements of SR 3.6.3.7. The specified Completion Time is reasonable, considering that one~~

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BASES

ACTIONS (Continued)

containment purge valve remains closed so that a gross breach of containment does not exist.

In accordance with Required Action E.2, this penetration flow path must be verified to be isolated on a periodic basis. The periodic verification is necessary to ensure that containment penetrations required to be isolated following an accident, which are no longer capable of being automatically isolated, will be in the isolation position should an event occur. This Required Action does not require any testing or valve manipulation. Rather, it involves verification, through a system walkdown, that those isolation devices outside containment capable of being mispositioned are in the correct position. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

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For the containment purge valve with resilient seal that is isolated in accordance with Required Action E.1, SR 3.6.3.7 must be performed at least once every [92] days. This assures that degradation of the resilient seal is detected and confirms that the leakage rate of the containment purge valve does not increase during the time the penetration is isolated. The normal Frequency for SR 3.6.3.7, 184 days, is based on an NRC initiative, Generic Issue B-20 (Ref. 3). Since more reliance is placed on a single valve while in this Condition, it is prudent to perform the SR more often. Therefore, a Frequency of once per [92] days was chosen and has been shown to be acceptable based on operating experience.]

Insert B 3.6.3-9

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6

D

~~E~~.1 and ~~E~~.2

If the Required Actions and associated Completion Times are not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 5

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BASES

ACTIONS (Continued)

within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

2

10 with their control board switches locked in the closed position

SURVEILLANCE REQUIREMENTS

[SR 3.6.3.1

15 supply and exhaust

Each ~~[42] inch~~ containment purge valve is required to be verified ~~sealed~~ closed at 31 day intervals. This Surveillance is designed to ensure that a gross breach of containment is not caused by an inadvertent or spurious opening of a containment purge valve. Detailed analysis of the purge valves failed to conclusively demonstrate their ability to close ~~during a LOCA in time to limit offsite doses. Therefore, these valves are required to be in the sealed closed position during MODES 1, 2, 3, and 4. A containment purge valve that is sealed closed must have motive power to the valve operator removed. This can be accomplished by de-energizing the source of electric power or by removing the air supply to the valve operator. In this application, the term "sealed" has no connotation of leak tightness.~~ The Frequency is a result of an NRC initiative, Generic Issue B-24 (Ref. [4]), related to containment purge valve use during plant operations. In the event purge valve leakage ~~requires entry into Condition E,~~ the Surveillance permits opening one purge valve in a penetration flow path to perform repairs.]

Replace with Insert B 3.6.3-6

10

6

3

9

of

in excess of that allowed by the Containment Leakage Rate Testing Program,

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~~[SR 3.6.3.2~~

~~This SR ensures that the minipurge valves are closed as required or, if open, open for an allowable reason. If a purge valve is open in violation of this SR, the valve is considered inoperable. If the inoperable valve is not otherwise known to have excessive leakage when closed, it is not considered to have leakage outside of limits. The SR is not required to be met when the minipurge valves are open for the reasons stated. The valves may be opened for pressure control, ALARA or air quality considerations for personnel entry, or for Surveillances that require the valves to be open. The minipurge valves are capable of~~

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BASES

SURVEILLANCE REQUIREMENTS (continued)

7

~~closing in the environment following a LOCA. Therefore, these valves are allowed to be open for limited periods of time. The 31 day Frequency is consistent with other containment isolation valve requirements discussed in SR 3.6.3.3.]~~

SR 3.6.3.3

This SR requires verification that each containment isolation manual valve and blind flange located outside containment and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification, through a system walkdown, that those containment isolation valves outside containment and capable of being mispositioned are in the correct position. Since verification of valve position for containment isolation valves outside containment is relatively easy, the 31 day Frequency is based on engineering judgment and was chosen to provide added assurance of the correct positions. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time the valves are open. Insert B 3.6.3-02

Approved TSTF 45

and not locked, sealed, or otherwise secured

Approved TSTF 45

The Note applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, 3 and 4 for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in the proper position, is small.

SR 3.6.3.~~4~~ 3 6

This SR requires verification that each containment ~~isolation~~ manual valve and blind flange located inside containment and required to be closed during accident conditions is closed. The SR helps to ensure that post

1

BASES

SURVEILLANCE REQUIREMENTS (continued)

accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. For containment isolation valves inside containment, the Frequency of "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is appropriate since these containment isolation valves are operated under administrative controls and the probability of their misalignment is low. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time they are open.

Insert B 3.6.3-02

Approved TSTF 45

This Note allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, 3, and 4, for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in their proper position, is small.

16

Approved TSTF 46

power operated

SR 3.6.3.5

~~Verifying~~ that the isolation ~~time~~ of each ~~power operated and~~ automatic containment ~~isolation~~ valve is within limits is required to demonstrate OPERABILITY. The isolation time test ensures the valve will isolate in a time period less than or equal to that assumed in the safety analyses. [The isolation time and Frequency of this SR are in accordance with the Inservice Testing Program or 92 days.]

7

~~[SR 3.6.3.6~~

~~In subatmospheric containments, the check valves that serve a containment isolation function are weight or spring loaded to provide positive closure in the direction of flow. This ensures that these check valves will remain closed when the inside containment atmosphere returns to subatmospheric conditions following a DBA. SR 3.6.3.6 requires verification of the operation of the check valves that are testable during unit operation. The Frequency of 92 days is consistent with the Inservice Testing Program requirement for valve testing on a 92 day Frequency.]~~

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BASES

SURVEILLANCE REQUIREMENTS (continued)

4

~~[SR 3.6.3.7~~

~~For containment purge valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J, is required to ensure OPERABILITY. Operating experience has demonstrated that this type of seal has the potential to degrade in a shorter time period than do other seal types. Based on this observation and the importance of maintaining this penetration leak tight (due to the direct path between containment and the environment), a Frequency of 184 days was established as part of the NRC resolution of Generic Issue B-20, "Containment Leakage Due to Seal Deterioration" (Ref. 3).~~

~~Additionally, this SR must be performed within 92 days after opening the valve. The 92 day Frequency was chosen recognizing that cycling the valve could introduce additional seal degradation (beyond that occurring to a valve that has not been opened). Thus, decreasing the interval (from 184 days) is a prudent measure after a valve has been opened.]~~

SR 3.6.3.~~8~~ 4 6/16 in non-essential penetrations 17

Automatic containment isolation valves close on a containment isolation signal to prevent leakage of radioactive material from containment following a DBA. This SR ensures that each automatic containment isolation valve will actuate to its isolation position on a containment isolation signal. This surveillance is not required for valves that are locked, sealed, or otherwise secured in the ~~required~~ closed position under administrative controls. The [18] month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant 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 this Surveillance when performed at the [18] month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

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BASES

SURVEILLANCE REQUIREMENTS (continued)

7

[SR 3.6.3.9

In subatmospheric containments, the check valves that serve a containment isolation function are weight or spring loaded to provide positive closure in the direction of flow. This ensures that these check valves will remain closed when the inside containment atmosphere returns to subatmospheric conditions following a DBA. SR 3.6.3.9 verifies the operation of the check valves that are not testable during unit operation. The Frequency of 18 months is based on such factors as the inaccessibility of these valves, the fact that the unit must be shut down to perform the tests, and the successful results of the tests on an 18 month basis during past unit operation.]

7

SR 3.6.3.10

[Reviewer's Note: This SR is only required for those units with resilient seal purge valves allowed to be open during [MODE 1, 2, 3, or 4] and having blocking devices on the valves that are not permanently installed.]

Verifying that each [42] inch containment purge valve is blocked to restrict opening to ≤ [50]% is required to ensure that the valves can close under DBA conditions within the times assumed in the analyses of References 1 and 2. If a LOCA occurs, the purge valves must close to maintain containment leakage within the values assumed in the accident analysis. At other times when purge valves are required to be capable of closing (e.g., during movement of irradiated fuel assemblies), pressurization concerns are not present, thus the purge valves can be fully open. The 18 month Frequency is appropriate because the blocking devices are typically removed only during a refueling outage.

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[SR 3.6.3.11

This SR ensures that the combined leakage rate of all shield building bypass leakage paths is less than or equal to the specified leakage rate. This provides assurance that the assumptions in the safety analysis are met. The leakage

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BASES

SURVEILLANCE REQUIREMENTS (continued)

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~~rate of each bypass leakage path is assumed to be the maximum pathway leakage (leakage through the worse of the two isolation valves) unless the penetration is isolated by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. In this case, the leakage rate of the isolated bypass leakage path is assumed to be the actual pathway leakage through the isolation device. If both isolation valves in the penetration are closed, the actual leakage rate is the lesser leakage rate of the two valves. This method of quantifying maximum pathway leakage is only to be used for this SR (i.e., Appendix J maximum pathway leakage limits are to be quantified in accordance with Appendix J). The Frequency is required by 10 CFR 50, Appendix J, as modified by approved exemptions (and therefore, the Frequency extensions of SR 3.0.2 may not be applied), since the testing is an Appendix J, Type C test. This SR simply imposes additional acceptance criteria.~~

~~[Bypass leakage is considered part of L_a. [Reviewer's Note: Unless specifically exempted].]]~~

REFERENCES

2

1. FSAR, Section [15] 14
2. FSAR, Section [6.2] 5.2

4

3. ~~Generic Issue B-20, "Containment Leakage Due to Seal Deterioration."~~
4. Generic Issue B-24.

3 6

LCO 3.6.3 BASES INSERTS

Insert B 3.6.3-01:

The Completion Time of "once per 31 days for isolation devices outside containment" is appropriate considering the fact that the devices are operated under administrative controls and the probability of their misalignment is low. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

Insert B 3.6.3-02:

This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

Insert B 3.6.3-03:

The containment isolation valves form part of the containment pressure boundary and provide a means for non-essential penetrations to be provided with two isolation barriers. These isolation barriers are either passive or active. Manual valves, de-activated automatic valves secured in their closed position (including check valves with flow through the valve secured), blind flanges, and closed systems are considered passive barriers. Valves designed to close either automatically or manually (including check valves with flow through the valve not secured), are considered active barriers. Two barriers in series are provided for each penetration so that no single credible failure or malfunction of an active barrier can result in a loss of isolation or leakage that exceeds limits assumed in the safety analyses. These barriers (typically containment isolation valves) make up the Containment Isolation System.

An automatic containment isolation signal is produced upon receipt of a safety injection signal. The containment isolation signal isolates non-essential process lines in order to minimize leakage of fission product radioactivity. As a result, the containment isolation valves (and passive barriers) help ensure that the containment atmosphere will be isolated from the environment in the event of a release of fission product radioactivity to the containment atmosphere as a result of a Design Basis Loss of Coolant Accident (LOCA).

LCO 3.6.3 BASES INSERTS

Insert B 3.6.3-4:

No specific containment isolation time was assumed in the LOCA analysis. However, containment isolation is an implicit assumption in maintaining containment leakage within it's design leakage rate, La, and containment back pressure relative to RCS blowdown rate.

Insert B 3.6.3-5:

The automatic power operated isolation valves are required to actuate to the closed position on an automatic isolation signal. The containment purge supply and exhaust valves must be maintained closed with their control switches in the locked closed position. The valves covered by this LCO are listed in the FSAR (Ref. 2).

Insert B 3.6.3-6:

under LOCA conditions. Therefore, these valves are required to be in the closed position with their control switches locked in the closed position during MODES 1, 2, 3, and 4.

Insert B 3.6.3-7:

Position verification, when necessary in accordance with the required actions, is still required for these valves.

Insert B 3.6.3-8:

Note 2 applies to isolation devices that are locked sealed or otherwise secured in position and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the function of locking, sealing, or securing components is to ensure that these devices are not inadvertently repositioned.

Insert B 3.6.3-9:

Required Action E.2 is modified by two Notes. Note 1 applies to isolation devices located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted. Note 2 applies to isolation devices that are locked, sealed, or otherwise secured in position and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the function of locking, sealing, or securing components is to ensure that these devices are not inadvertently repositioned.

No Significant Hazards Considerations - NUREG-1431 Section 3.06.03

13-Nov-99

NSHC Number	NSHC Text
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.

NSHC Number	NSHC Text
L.01	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? Containment integrity (Containment Isolation Valve - CIV operability) is not an initial condition of, or event precursor in any analyzed shutdown event (less than or equal to 200 degrees). Fuel handling events do not credit containment integrity or filtration. Dilution and rod withdrawal event are not impacted by containment status and are terminated prior to any release taking place. Liquid and gaseous release events are not impacted by containment status as the containment is not the assumed source of release for these events. Accordingly, the probability for previously analyzed events is not significantly increased. As previously stated, containment integrity and CIV operability is not assumed for any shutdown event, therefore the consequences of previously analyzed event is similarly not increased significantly. 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. This change makes the Mode of Applicability for the CIVs consistent with the current accident analyses assumptions. The Mode in which containment integrity/CIV operability is established is not directly linked to any chain of event which could present an event giving rise to public health and safety. 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 change in applicability for CIV applicability is consistent with the assumptions made in the various Point Beach accident analyses. Containment integrity/CIV operability will continue to be maintained in the various Operational Modes and Conditions for which containment integrity was assumed. Therefore, the margin of safety is not reduced as a result of this change.

NSHC Number	NSHC Text
L.02	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 CTS requires containment penetrations which are equipped with only one containment isolation valve to be isolated within 4 hours if that penetrations containment isolation valve becomes inoperable. The ITS will allow 72 hours to isolate these types of penetrations allowing an additional 68 hours to restore the penetration to operable status before requiring a unit shutdown. 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 allowable time period that a containment isolation valve may be inoperable before requiring a plant shutdown is not assumed to be an initiator of any analyzed event. Extending the Completion Time to restore closed system isolation valves to operable status does not affect the probability of an accident. The consequences of an event occurring during the proposed Completion Time are the same as the consequences of an event occurring under the current Actions. The proposed 72 hour Completion Time is reasonable considering the relative stability of the closed system (hence, reliability) to act as a penetration isolation boundary. Therefore, the proposed 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 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 provide an additional 68 hours to restore an inoperable closed system isolation valve before requiring a plant shutdown. Based on this change *altering only the restoration time, and not introducing any new failure modes, it has been* concluded that 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 additional 68 hours to restore a closed system isolation valve to operable status prior to requiring a unit shutdown is reasonable considering the relative stability and reliability of closed systems to act as isolation boundaries. Allowing an additional 68 hours to return an isolation valve to operable status will minimize the potential for plant transients that can occur during the shutdown seeing that most penetrations involving closed systems cannot be isolated during power operation. As such, any reduction in a margin of safety will be insignificant and most likely offset by the benefit of avoiding an unnecessary plant transient.