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PSEG
Nuclear LLC

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

REQUEST FOR CHANGE TO TECHNICAL SPECIFICATIONS
CONTAINMENT VENTILATION SYSTEM
CONTAINMENT ISOLATION VALVES
SALEM GENERATING STATION – UNIT 1 AND UNIT 2
DOCKET NOS. 50-272 AND 50-311
FACILITY OPERATING LICENSE NOS. DPR-70 AND DPR-75

In accordance with the provisions of 10 CFR 50.90, PSEG Nuclear, LLC (PSEG) hereby transmits a request for amendment of the Technical Specifications (TS) for Salem Generating Station Unit 1 and Unit 2. In accordance with 10 CFR 50.91(b)(1), a copy of the transmittal has been sent to the State of New Jersey.

The proposed amendment would revise TS 3.6.3.1 (TS 3.6.3 for Unit 2) to allow a blind flange to be used for containment isolation in each of the two flow paths (supply and exhaust) of the containment purge system in Modes 1 through 4 without remaining in TS 3.6.3.1 Action C. In addition, the requirements of TS 3.6.1.7 will be relocated to TS 3.6.3.1 (TS 3.6.3 for Unit 2) in order to integrate the TS containment isolation requirements for the containment purge system.

Attachment 1 provides a description of the proposed changes. Attachment 2 provides the existing TS pages marked up to show the proposed changes. For your information, Attachment 3 provides the existing TS Bases pages marked-up to reflect the associated changes to the TS Bases. Both Calvert Cliffs and Palo Verde have submitted similar License Amendment Requests.

PSEG requests the license amendment by March 1, 2007 to support refueling outage 1R18, with a 60-day implementation period after amendment approval.

Should you have any questions regarding this request, please contact Mr. Jamie Mallon at (610) 765-5507.

A001

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

Executed on 7/19/06
(Date)

Sincerely,

Thomas P. Joyce
Site Vice President
Salem Generating Station

Attachments (3)

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REQUEST FOR CHANGE TO TECHNICAL SPECIFICATIONS
CONTAINMENT VENTILATION SYSTEM
CONTAINMENT ISOLATION VALVES

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CHANGES TO TECHNICAL SPECIFICATIONS

1. DESCRIPTION

Currently TS 3.6.3.1 (TS 3.6.3 for Unit 2) Action C requires that with one or more of the isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange. The proposed amendment would revise TS 3.6.3.1 (TS 3.6.3 for Unit 2), and related surveillance requirements, to allow a blind flange to be used for containment isolation in each of the two flow paths (supply and exhaust) of the containment purge system (a closed penetration) in Modes 1 through 4 without remaining in TS 3.6.3.1 Action C.

Currently TS 3.6.1.7, Containment Ventilation System, requires that the containment purge supply and exhaust isolation valves be closed (valves immobilized in shut position with control air to valve operators isolated and tagged out of service) in Modes 1, 2, 3, and 4. The requirements of TS 3.6.1.7 will be relocated to TS 3.6.3.1 (TS 3.6.3 for Unit 2) in order to integrate the TS containment isolation requirements for the containment purge system. This is consistent with NUREG 1431, "Standard Technical Specifications for Westinghouse Plants."

The containment purge system valves are currently on a 6-month surveillance frequency for leak rate testing, in accordance with TS SR 4.6.3.1.6. Based on the valve type there is a history of the valves requiring repair in order to pass the leak rate test, and spare parts are not readily obtainable. Consequently, PSEG has decided to reconfigure these penetrations by replacing the inboard supply valve and inboard exhaust valve with a double o-ring, testable, blind flange. The blind flange will improve containment integrity reliability, will be leak rate tested to ensure containment integrity, and is similar in design to other applications (e.g., the fuel transfer canal containment isolation design).

2. PROPOSED CHANGE

The proposed changes are:

- The current NOTE under TS 3.6.3.1 (TS 3.6.3 for Unit 2) will be renumbered NOTE 1.

- Add the following as Note 2 to TS 3.6.3.1 (TS 3.6.3 for Unit 2)

  "A containment purge valve is not a required containment isolation valve when its flow path is isolated with a testable blind flange tested in accordance with SR 4.6.1.2.b"

- Revise SR 4.6.3.1.2.d (SR 4.6.3.2.d for Unit 2) as follows:

  Verifying that on a Containment Purge and Pressure-Vacuum Relief isolation test signal, each *required* Purge and *each* Pressure-Vacuum Relief valve actuates to its isolation position.

- Revise SR 4.6.3.1.5 (SR 4.6.3.5 for Unit 2) as follows:

  Each *required* containment purge isolation valve shall be demonstrated OPERABLE within 24 hours after each closing of the valve, except when the valve is being used for multiple cyclings, then at least once per 72 hours, by verifying that when the measured leakage rate is added to the leakage rates determined pursuant to Specification 4.6.1.2.b for all other Type B and C penetrations, the combined leakage rate is less than or equal to 0.60La.

- Revise SR 4.6.3.1.6.a (SR 4.6.3.6.a for Unit 2) as follows:

  A pressure drop test to identify excessive degradation of resilient valve seals shall be conducted on the:

  a. *Required* Containment Purge Supply and Exhaust Isolation Valves at least once per 6 months.

- Relocate the following, revised, requirements from TS 3/4.3.6.1.7 to TS 3/4 3.6.3.1 (TS 3/4 3.6.3 for Unit 2):

  - <u>Included as part of the new Note 2</u>: The *required* containment purge supply and exhaust isolation valves shall be closed. (Valves immobilized in shut position with control air to valve operators isolated and tagged out of service).

  - <u>New TS 3.6.3.1 Action 2 (TS 3.6.3 for Unit 2)</u>: With one *required* containment purge supply and/or exhaust isolation valve open, close the open valve(s) within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

  - <u>New SR 4.6.3.1.7 (SR 4.6.3.7 for Unit 2)</u>: The *required* containment purge supply and exhaust isolation valves shall be determined closed at least once per 31 days.

- The following asterisk note from TS 3/4 3.6.1.7 will be relocated to TS 3.6.3.1 (TS 3.6.3 for Unit 2) as NOTE 3:

  - The containment pressure-vacuum relief isolation valves may be opened on an intermittent basis, under administrative control, as necessary to satisfy the requirement of Specification 3.6.1.4",

3. BACKGROUND

The Containment Ventilation System (CVS) consists of a number of independent systems, which perform specific functions for the containment during normal power generation, the design basis LOCA and a loss of offsite power. With the exception of the Containment Purge System and the Pressure-vacuum Relief System, the CVS functions as a re-circulation system, completely contained within the containment.

Valves VC1 (outboard) and VC2 (inboard) are containment isolation valves for the purge supply line. Valves VC3 (inboard) and VC4 (outboard) are containment isolation valves for the purge exhaust line. The Containment Purge System is a normally closed, deactivated system that is manually energized as required to perform purging the containment atmosphere during normal plant shutdown. All exhaust is directed to the plant vent where it is monitored to assure that releases to the environment are within the limits specified in 10CFR20.

TS 3.6.1.7 states that the containment purge supply and exhaust isolation valves shall be closed (valves immobilized in shut position with control air to valve operators isolated and tagged out of service) in Modes 1, 2, 3, and 4. With one containment supply and / or exhaust valve open, the open valve must be closed within one hour, or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within following 30 hours. These valves are required to be leak tested in accordance with the following TS:

- SR 4.3.6.1.6 Unit 1 and 4.6.3.6 for Unit 2
- SR 4.6.3.1.5 for Unit 1and 4.3.6.5 for Unit 2
- SR 4.6.1.2.b (Units 1 and 2)

Based on the valve type there is a history of the valves requiring repair in order to pass the leak rate test, and spare parts are not readily obtainable. Consequently, PSEG has found it necessary to reconfigure these penetrations by replacing the inboard supply valve (VC2) and inboard exhaust valve (VC3) with a double o-ring, testable, blind flange. The blind flange will be leak rate tested to ensure containment integrity. Installation of the blind flanges are in accordance with TS 3.6.3.1 (TS 3.6.3 for Unit 2), Action C for a closed penetration in Modes 1 - 4. Although TS 3.6.3 Action C has no time limit, this change is being pursued so that the plant will not have to remain in Action C as a normal situation.

4. TECHNICAL ANALYSIS

The installation of a double o-ring, testable blind flange in place of the inboard supply valve (VC2) and inboard exhaust valve (VC3) will have no adverse affect on the Containment Ventilation System and the containment purge system or its function. The use of two separate concentric O-rings provides two passive barriers in series so that no single credible failure or malfunction can result in a loss of isolation or leakage that exceeds limits assumed in the safety analysis.

TS 3/4.6.1.7 currently states that the Containment purge supply and exhaust isolation valves shall be closed (valves immobilized in shut position with control air to valve operators isolated and tagged out of service.) in Modes 1, 2, 3, and 4. Installation of a blind flange in the supply and exhaust lines will not alter its design basis. TS 3.6.3.1 (TS 3.6.3 for Unit 2) Action C currently permits, without time limit, the installation of a blind flange in place of inoperable containment valve(s) in Mode 1, 2, 3, and 4 for a closed penetration. In Modes 5 and 6, the blind flanges can be removed and the purge path re-established for containment purging.

Containment integrity is maintained in accordance with the Salem TS Definition of Containment Integrity. TS Definition 1.7.1 states, in part, that Containment Integrity shall exist when all penetrations required to be closed during accident conditions are capable of being closed automatically, or are closed by manual valves, blind flanges, or deactivated automatic valves in their closed position. TS Bases 3/4 6.1.7, "Containment Ventilation System" states that excessive quantities of radioactive materials will not be released via the containment purge system by maintaining the purge valves, or equivalent isolation device [i.e., blind flange], closed during plant operation (Modes 1-4).

The proposed changes will have no impact on UFSAR accident analyses because the containment isolation assumed in the analyses will continue to be provided by the blind flanges instead of the purge valves. Since the blind flanges use two separate concentric O-rings to provide two passive barriers in series, no single credible failure or malfunction can result in a loss of isolation or leakage that exceeds limits assumed in the safety analysis.

The penetrations with blind flanges now become Appendix J Type B boundaries (containment penetrations whose design incorporates resilient seals, gaskets, or sealant compounds), instead of Type C boundaries with two isolation valves. Type B penetrations are required to be tested under Option B of 10 CFR 50 Appendix J at least once every 30 months unless they are eligible to be placed on extended test frequency based. Initially, these blind flanges will be on a once per refueling outage test frequency to comply with the 30-month frequency. The blind flanges will be subject to the requirements of TS SR 4.6.1.2.b for containment leakage, which states:

> "Type B and C tests shall be conducted in accordance with the Containment Leakage Rate Testing Program."

The blind flanges will also be subject to the requirements of TS SR 4.6.1.1.a2 for containment integrity, which states:

> "Primary CONTAINMENT INTEGRITY shall be demonstrated: Prior to entering Mode 4 from Mode 5 if not performed within the last 92 days by verifying that each containment manual valve or blind flange that is located inside

containment and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls. Valves and blind flanges in high radiation areas may be verified by use of administrative controls."

Because the blind flanges now meet the containment boundary requirement, the outboard valves (VC1 and VC4) no longer fulfill any operational containment barrier or isolation function in Modes 1 - 4. These valves will be used for normal system operation (containment purging) during shutdown conditions. Consequently, the outboard valves do not require any Appendix J type testing. The outboard supply and exhaust valves will continue to meet the isolation requirements of TS 3.9.4.c, and will isolate on: (1) a Containment Purge and Pressure-Vacuum Relief isolation signal as required by TS SR 4.6.3.1.2.d for Unit 1 and TS 4.6.3.2.d for Unit 2, and (2) a Containment Ventilation Isolation Signal which is required under TS 3.3.2.1 "Engineered Safety Feature Actuation Systems" functional unit (FU) 3.C.

5. REGULATORY SAFETY ANALYSIS

5.1 No Significant Hazards Consideration

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

Response: No

The proposed change to the Containment purge supply and exhaust penetrations presents no change in the probability or the consequence of an accident, since the penetrations continue to conform to the TS requirements for containment integrity, and will be appropriately tested as required by 10 CFR 50 Appendix J. The blind flanges are passive devices not susceptible to an active failure or malfunction that could result in a loss of isolation or leakage that exceeds limits assumed in the safety analysis. The blind flanges are leak rate tested in accordance with the containment leakage rate testing program. Containment integrity is not lessened by this change.

The change to the Containment Purge System does not affect the design basis limit for any fission product barrier.

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

Response: No

The proposed change to the Containment purge supply and exhaust penetrations does not change the function of the system and does not alter containment integrity. The penetrations continue to conform to the TS

requirements for containment integrity and will be appropriately tested as required by 10 CFR 50 Appendix J. No new accident scenarios, failure mechanisms, or limiting single failures are introduced as a result of the proposed changes.

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

Response: No

The proposed change will not alter any assumptions, initial conditions or results specified in any accident analysis. The Containment purge supply and exhaust penetrations will continue to conform to the TS requirements for containment integrity, and will be appropriately tested as required by 10 CFR 50 Appendix J. The blind flanges are passive devices not susceptible to an active failure or malfunction that could result in a loss of isolation or leakage that exceeds limits assumed in the safety analysis. The blind flanges are leak rate tested in accordance with the containment leakage rate testing program. Containment integrity is not lessened by this change. Therefore, there is no reduction in the margin of safety.

Based on the above, PSEG concludes that the proposed change presents no significant hazards under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Applicable Regulatory Requirements/Criteria

Currently, TS 3.6.3.1 (TS 3.6.3 for Unit 2), Action C allows a blind flange to be used to isolate a purge valve flow path when one or both of the purge valves in that flow path is not within leakage limits. This proposed change will allow a blind flange to be used for containment isolation in each of the two purge valve flow paths (supply and exhaust) without relying on the valves or remaining in the TS Action. The blind flanges will provide the containment integrity accident mitigation function instead of the valves. The reconfigured penetrations will meet the following requirements:

(1) Appendix A to Part 50 Criterion 16 - "Containment Design"

The installed flange will be leak tested to ensure GDC 16 criteria are met.

(2) Appendix A to Part 50 Criterion 50 - "Containment Design Basis"
Since there is no change to any accident analysis, the design parameters of the containment are unchanged. This penetration will continue to be tested to ensure that the designed leak rate is not exceeded.

(3) Appendix A to Part 50 Criterion 51 - "Fracture Prevention of Containment Pressure Boundary"
The installed flange will meet the seismic criteria, and is a passive, redundant system

(4) Appendix A to Part 50 Criterion 52 and 53

The containment purge pathways will have the capability to be leak rate tested, and will be tested under TS 4.6.1.2.b.

(5) Appendix J to 10 CFR Part 50

The purge valve flow paths' blind flanges will be Type B tested in accordance with 10 CFR 50 Appendix J.

In conclusion, based on the considerations discussed above:

1) There is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner;
2) Such activities will be conducted in compliance with the Commissions' regulations; and
3) Issuance of the amendment will not be inimical to the common defense and security or the health and safety of the public.

6. ENVIRONMENTAL CONSIDERATIONS

The proposed change to the Containment purge supply and exhaust penetrations presents no change in the probability or the consequence of an accident, since the penetrations continue to conform to the TS requirements for containment integrity, and will be appropriately tested as required by 10 CFR 50 Appendix J. Containment integrity is not lessened by this change.

These changes have no adverse impact to off site radiological dose; the function of the Containment purge supply and exhaust system is not changed, and there is no change to containment integrity.

PSEG has determined the proposed amendment relates to changes in a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or relates to changes in an inspection or a surveillance requirement. The proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released off site, or (iii) a significant increase in individual or cumulative occupational exposure. Accordingly, the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22 (c) (9). Therefore, pursuant to 10 CFR 51.22(b), an environmental

impact statement or environmental assessment of the proposed change is not required.

7. REFERENCES

7.1 Appendix A to 10 CFR Part 50--General Design Criteria for Nuclear Power Plants, Criterion 16, 50, 51 52, 53, 54 and 56.

7.2 Appendix J to 10 CFR Part 50--Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors

SALEM GENERATING STATION UNIT 1 and UNIT 2
FACILITY OPERATING LICENSE NO. DPR-70 and NO. DPR-75
DOCKET NO. 50-272 and NO. 50-311
REVISIONS TO THE TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATION PAGES WITH PROPOSED CHANGES

The following Technical Specifications for Facility Operating License DPR-70 are affected by this change request:

Technical Specification	Page
3/4.6.1.7	3/4 6-8a
3.6.3.1	3/4 6-12
4.6.3.1.2.d	3/4 6-13
4.6.3.1.5	3/4 6-13
4.6.3.1.6	3/4 6-13
4.6.3.1.7	3/4 6-13

TECHNICAL SPECIFICATION PAGES WITH PROPOSED CHANGES

The following Technical Specifications for Facility Operating License DPR-75 are affected by this change request:

Technical Specification	Page
3/4.6.1.7	3/4 6-9
3.6.3	3/4 6-14
4.6.3.2.d	3/4 6-15
4.6.3.5	3/4 6-15
4.6.3.6	3/4 6-15
4.6.3.7	3/4 6-15

~~CONTAINMENT SYSTEMS~~

~~CONTAINMENT VENTILATION SYSTEM~~

Relocated as TS 3.6.3.1 Note 2

~~LIMITING CONDITION FOR OPERATION~~

3.6.1.7 The containment purge supply and exhaust isolation valves* shall be closed. (Valves immobilized in shut position with control air to valve operators isolated and tagged out of service).

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

~~ACTION:~~

With one containment purge supply and/or exhaust isolation valve open, close the open valve(s) within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Relocated as TS 3.6.3.1 Action 2

~~SURVEILLANCE REQUIREMENTS~~

4.6.1.7 The containment purge supply and exhaust isolation valves shall be determined closed at least once per 31 days.

Relocated as SR 3.6.3.1.7

Relocated to TS 3.6.3.1 as NOTE 3

*The containment pressure-vacuum relief isolation valves may be opened on an intermittent basis, under administrative control, as necessary to satisfy the requirement of Specification 3.6.1.4.

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3.1 Each containment isolation valve shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

NOTE 1

Penetration flow paths, except for the containment purge valves, may be unisolated intermittently under administrative controls.

Note 2

A containment purge valve is not a required containment isolation valve when its flow path is isolated with a testable blind flange tested in accordance with SR 4.6.1.2.b. The *required* containment purge supply and exhaust isolation valves shall be closed. (Valves immobilized in shut position with control air to valve operators isolated and tagged out of service).

NOTE 3

The containment pressure-vacuum relief isolation valves may be opened on an intermittent basis, under administrative control, as necessary to satisfy the requirement of Specification 3.6.1.4.

1. With one or more of the isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and either:

   a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

   b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

   c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or

   d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

2. With one required containment purge supply and/or exhaust isolation valve open, close the open valve(s) within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours

SURVEILLANCE REQUIREMENTS

4.6.3.1.1 Each containment isolation valve shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test and verification of isolation time.

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by:

a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position.

b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position.

c. Not used.

d. Verifying that on a Containment Purge and Pressure-Vacuum Relief isolation test signal, each required Purge and each Pressure-Vacuum Relief valve actuates to its isolation position.

e. Verifying that the Containment Pressure-Vacuum Relief Isolation valves are limited to ≥ 60%opening angle.

4.6.3.1.3 At least once per 18 months, verify that on a main steam isolation test signal, each main steam isolation valve actuates to its isolation position.

4.6.3.1.4 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

4.6.3.1.5 Each required containment purge isolation valve shall be demonstrated OPERABLE within 24 hours after each closing of the valve, except when the valve is being used for multiple cyclings, then at least once per 72 hours, by verifying that when the measured leakage rate is added to the leakage rates determined pursuant to Specification 4.6.1.2.b for all other Type B and C penetrations, the combined leakage rate is less than or equal to 0.60La.

4.6.3.1.6 A pressure drop test to identify excessive degradation of resilient valve seals shall be conducted on the:

a. Required Containment Purge Supply and Exhaust Isolation Valves at least once per 6 months.

b. Deleted.

4.6.3.1.7 The required containment purge supply and exhaust isolation valves shall be determined closed at least once per 31 days.

~~CONTAINMENT SYSTEMS~~

~~CONTAINMENT VENTILATION SYSTEM~~

Relocated as TS 3.6.3 Note 2

~~LIMITING CONDITION FOR OPERATION~~

3.6.1.7 The containment purge supply and exhaust isolation valves* shall be closed. (Valves immobilized in shut position with control air to valve operators isolated and tagged out of service).

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

~~ACTION:~~

With one containment purge supply and/or exhaust isolation valve open, close the open valve(s) within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Relocated as SR 3.6.3 Action 2

~~SURVEILLANCE REQUIREMENTS~~

4.6.1.7 The containment purge supply and exhaust isolation valves shall be determined closed at least once per 31 days.

Relocated as SR 3.6.3.7

Relocated to TS 3.6.3 as NOTE 3

* The containment pressure-vacuum relief isolation valves may be opened on an intermittent basis, under administrative control, as necessary to satisfy the requirement of Specification 3.6.1.4.

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 Each containment isolation valve shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

NOTE 1

Penetration flow paths, except for the containment purge valves, may be unisolated intermittently under administrative controls.

Note 2

A containment purge valve is not a required containment isolation valve when its flow path is isolated with a testable blind flange tested in accordance with SR 4.6.1.2.b. The *required* containment purge supply and exhaust isolation valves shall be closed. (Valves immobilized in shut position with control air to valve operators isolated and tagged out of service).

NOTE 3

The containment pressure-vacuum relief isolation valves may be opened on an intermittent basis, under administrative control, as necessary to satisfy the requirement of Specification 3.6.1.4.

1. With one or more of the containment isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and either:

   a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

   b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

   c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or

   d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

2. With one required containment purge supply and/or exhaust isolation valve open, close the open valve(s) within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.3.1 Each containment isolation valve shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test and verification of isolation time.

4.6.3.2 Each containment isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by:

a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position.

b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position.

c. NOT USED

d. Verifying that on a Containment Purge and Pressure-Vacuum Relief isolation test signal, each required Purge and each Pressure-Vacuum Relief valve actuates to its isolation position.

e. Verifying that the Containment Pressure-Vacuum Relief Isolation valves are limited to ≥ 60° opening angle.

4.6.3.3 At least once per 18 months, verify that on a main steam isolation test signal, each main steam isolation valve actuates to its isolation position.

4.6.3.4 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

4.6.3.5 Each required containment purge isolation valve shall be demonstrated OPERABLE within 24 hours after each closing of the valve, except when the valve is being used for multiple cyclings, then at least once per 72 hours, by verifying that when the measured leakage rate is added to the leakage rates determined pursuant to Specification 4.6.1.2.b for all other Type B and C penetrations, the combined leakage rate is less than or equal to 0.60La.

4.6.3.6 A pressure drop test to identify excessive degradation of resilient valve seals shall be conducted on the:

a. Required Containment Purge Supply and Exhaust Isolation Valves at least once per 6 months.

b. Deleted.

4.6.3.7 The required containment purge supply and exhaust isolation valves shall be determined closed at least once per 31 days.

PROPOSED CHANGES TO TS BASES PAGES

The following Technical Specifications Bases for Salem Generating Station Unit 1 and Unit 2, Facility Operating License Nos. DPR-70 and DPR-75 are affected by this change request:

Technical Specification	Page
Bases 3/4 6.1.7	B 3/4 6-2

3/4.6.1.4 INTERNAL PRESSURE

The limitations on containment internal pressure ensure that: 1) the containment structure is prevented from exceeding its design negative pressure differential with respect to the outside atmosphere of 3.5 psig and 2) the containment peak pressure does not exceed the design pressure of 47 psig during the limiting pipe break conditions. The pipe breaks considered are LOCA and steam line breaks.

The limit of 0.3 psig for initial positive containment pressure is consistent with the accident analyses initial conditions.

The maximum peak pressure expected to be obtained from a LOCA or steam line break event is ≤ 47 psig.

3/4.6.1.5 AIR TEMPERATURE

The limitations on containment average air temperature ensure that the overall containment average air temperature does not exceed the initial temperature condition assumed in the accident analysis for a LOCA or steam line break. In order to determine the containment average air temperature, an average is calculated using measurements taken at locations within containment selected to provide a representative sample of the overall containment atmosphere.

3/4.6.1.6 CONTAINMENT STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the containment will be maintained comparable to the original design standards for the life of the facility. Structural integrity is required to ensure that the containment will withstand the design pressure. The visual inspections of the concrete and liner and the Type A leakage test both in accordance with the Containment Leakage Rate Testing Program are sufficient to demonstrate this capability.

3/4.6.1.7 CONTAINMENT VENTILATION SYSTEM

The containment purge supply and exhaust isolation valves are required to be closed during plant operation since these valves have not been demonstrated capable of closing during a LOCA. Maintaining these valves (or equivalent isolation device) closed during plant operations ensures that excessive quantities of radioactive materials will not be released via the containment purge system.

A containment purge valve is not a required containment isolation valve when its flow path is isolated with a blind flange tested in accordance with SR 4.6.1.2.b The inboard valve of the containment purge supply and exhaust penetrations has been replaced with a testable, double o-ring blind flange. This blind flange serves as the containment boundary and performs the containment integrity function in Modes 1, 2, 3, and 4. The outboard valves of the containment purge supply and exhaust penetrations perform no containment integrity function; they operate during shutdown for normal system purging when the blind flanges are removed.

3/4.6.1.4 INTERNAL PRESSURE

The limitations on containment internal pressure ensure that: 1) the containment structure is prevented from exceeding its design negative pressure differential with respect to the outside atmosphere of 3.5 psig, and 2) the containment peak pressure does not exceed the design pressure of 47 psig during the limiting pipe break conditions. The pipe breaks considered are LOCA and steam line breaks.

The limit of 0.3 psig for initial positive containment pressure is consistent with the accident analyses initial conditions.

The maximum peak pressure expected to be obtained from a LOCA or steam line break event is ≤ 47 psig.

3/4.6.1.5 AIR TEMPERATURE

The limitations on containment average air temperature ensure that the overall containment average air temperature does not exceed the initial temperature condition assumed in the accident analysis for a LOCA or steam line break. In order to determine the containment average air temperature, an average is calculated using measurements taken at locations within containment selected to provide a representative sample of the overall containment atmosphere.

3/4.6.1.6 CONTAINMENT STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the containment will be maintained comparable to the original design standards for the life of the facility. Structural integrity is required to ensure that the containment will withstand the design pressure. The visual inspections of the concrete and liner and the Type A leakage test, both in accordance with the Containment Leakage Rate Testing Program, are sufficient to demonstrate this capability.

3/4.6.1.7 CONTAINMENT VENTILATION SYSTEM

The containment purge supply and exhaust isolation valves are required to be closed during plant operation since these valves have not been demonstrated capable of closing during a LOCA. Maintaining these valves closed during plant operations ensures that excessive quantities of radioactive materials will not be released via the containment purge system.

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