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Ref. 10 CFR 50.90

December 19, 2006

CPSES-200602341
TXX-06190
File # 236

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

Subject: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES) UNITS 1 AND 2, DOCKET NOS. 50-445 AND 50-446, LICENSE AMENDMENT REQUEST (LAR) 06-006 REVISION TO TECHNICAL SPECIFICATION (TS) 5.5.8, "INSERVICE TESTING PROGRAM"

Dear Sir or Madam:

Pursuant to 10CFR50.90, TXU Generation Company LP (TXU Power) hereby requests an amendment to the CPSES Unit 1 Operating License (NPF-87) and CPSES Unit 2 Operating License (NPF-89) by incorporating the attached change into the CPSES Unit 1 and 2 Technical Specifications. This change request applies to both units.

Revise Technical Specifications (TS) Administrative Controls 5.5.8, "Inservice Testing Program" to indicate that the Inservice Testing Program shall include testing frequencies applicable to the ASME Code for Operations and Maintenance (ASME OM Code), and to indicate that there may be other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing Program to which the provisions of SR 3.0.2 are applicable. The proposed changes are consistent with NRC-approved Technical Specification Task Force (TSTF) Travelers TSTF-479, Revision 0, "Changes to Reflect Revision of 10 CFR 50.55a" and TSTF-497, Revision 0, "Limit Inservice Testing Program Application to Frequencies of 2 Years or Less." TXU Power has determined

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that this License Amendment Request (LAR) does not involve a significant hazard consideration as determined per 10 CFR 50.92.

TXU Power's technical and regulatory evaluation of this LAR, the TS changes, and the TS Bases changes (for information only) are enclosed.

TXU Power is submitting this LAR in conjunction with an industry consortium of six plants as a result of a mutual agreement known as Strategic Teaming and Resource Sharing (STARS). The STARS group consists of the six plants operated by Union Electric Company AmerenUE, TXU Generation Company LP, Pacific Gas and Electric Company, Arizona Public Service Company, STP Nuclear Operating Company, and Wolf Creek Nuclear Operating Corporation. Callaway, Diablo Canyon, and Palo Verde also plan to submit a similar LAR.

The TS marked-up pages are provided in Attachment 1 of Enclosure 1. The TS Bases marked-up pages are provided in Attachment 2 of Enclosure 1 for information only. The retyped TS pages are provided in Attachment 3 of Enclosure 1.

The changes in this LAR are not required to address an immediate safety concern. TXU Power requests approval of this LAR no later than December 31, 2007. Once approved, the amendment will be implemented within 120 days from the date of issuance. If you have any questions or require additional information, please contact Mr. Carl Corbin at (254) 897-0121.

This communication contains no new or revised commitments.

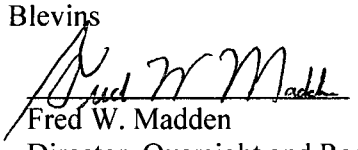
I state under penalty of perjury that the foregoing is true and correct.

Executed on December 19, 2006.

TXU Generation Company LP

By: TXU Generation Management Company LLC
Its General Partner

Mike Blevins

By: 
Fred W. Madden
Director, Oversight and Regulatory Affairs

CBC

Enclosure:
1. Licensee Evaluation
- Attachment 1 – TS Page Markups
- Attachment 2 – Changes to TS Bases
- Attachment 3 – Retyped TS Pages

cc: B. S. Mallett, Region IV
M. C. Thadani, NRR
Resident Inspectors, CPSES

Ms. Alice Rogers
Environmental & Consumer Safety Section
Texas Department of State Health Services
1100 West 49Ih Street
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LICENSEE EVALUATION

Subject: Application for amendment to TS 5.5.8, "Inservice Testing Program" to include testing Frequencies applicable to the ASME OM Code, and to indicate that there may be other normal and accelerated IST Frequencies in which the provisions of SR 3.0.2 are applicable.

1.0 SUMMARY DESCRIPTION

This evaluation supports a request to amend Operating License NPF-87 for Comanche Peak Steam Electric Station (CPSES) Unit 1, and Operating License NPF-89 for CPSES Unit 2 to update references to the source of requirements for the inservice testing of ASME Code Class 1, 2, and 3 pumps and valves and to address the applicability of Surveillance Requirement (SR) 3.0.2 to other normal and accelerated pump and valve testing frequencies.

The proposed changes are consistent with NRC-approved Technical Specification Task Force (TSTF) Travelers TSTF-479, Revision 0, "Changes to Reflect Revision of 10 CFR 50.55a" (Reference 1) and TSTF-497, Revision 0, "Limit Inservice Testing Program Application to Frequencies of 2 Years or Less" (Reference 2).

2.0 DETAILED DESCRIPTION

The proposed changes revise the requirements in Technical Specification (TS) 5.5.8, "Inservice Testing Program," to update references to the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI as the source of requirements for the inservice testing of ASME Code Class 1, 2, and 3 pumps and valves. The proposed changes delete reference to Section XI of the Code and incorporate reference to the ASME Code for Operation and Maintenance of Nuclear Power Plants (ASME OM Code) (Reference 3) and address the applicability of Surveillance Requirement (SR) 3.0.2 to other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing (IST) Program.

The proposed changes are consistent with the implementation of the Comanche Peak Second 10-Year Interval IST Program in accordance with the requirements of 10 CFR 50.55a(f). The Second 10-Year Interval for Units 1 and 2 started on August 3, 2004.

2.1 Proposed Changes

TS 5.5.8, "Inservice Testing Program," is revised to indicate that the Inservice Testing Program shall have testing Frequencies applicable to the ASME OM Code.

TS 5.5.8b. is revised to indicate that there may be some nonstandard Frequencies utilized in the IST Program to which the provisions of SR 3.0.2 are applicable. Specifically, TS 5.5.8b. is revised to state:

"The provisions of SR 3.0.2 are applicable to the above required Frequencies and to other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing Program for performing inservice testing activities;"

Various sections of the TS Bases are also revised for consistency with the requirements of 10 CFR 50.55a(f)(4). The changes to the affected TS Bases pages will be incorporated in accordance with TS 5.5.14, "Technical Specifications (TS) Bases Control Program."

2.2 Background

In 1990, the ASME published the initial edition of the ASME OM Code that provides rules for inservice testing of pumps and valves. The ASME OM Code replaced Section XI of the Boiler and Pressure Vessel Code for inservice testing of pumps and valves. The 1995 edition of the ASME OM Code was incorporated by reference into 10 CFR 50.55a(b). Since 10 CFR 50.55a(f)(4)(ii) requires that inservice testing during successive 10-year intervals comply with the requirements of the latest edition and addenda of the Code incorporated into 10 CFR 50.55a(b), TS 5.5.8 must be revised to reference the ASME OM Code.

3.0 TECHNICAL EVALUATION

The purposes of the Inservice Testing Program are to assess the operational readiness of pumps and valves, to detect degradation that might affect component OPERABILITY, and to maintain safety margins with provisions for increased surveillance and corrective action. NRC regulation, 10 CFR 50.55a, defines the requirements for applying industry codes to each licensed nuclear powered facility. Section XI of the ASME Codes has been revised on a continuing basis over the years to provide updated requirements for the inservice inspection and inservice testing of components. Until 1990, the ASME Code requirements addressing the inservice testing of pumps and valves were contained in Section XI, Subsections IWP (pumps) and IWV (valves). In 1990, the ASME published the initial edition of the OM Code that provides the rules for the inservice testing of pumps and valves. Since the establishment of the 1990 Edition of the OM Code, the rules for inservice testing are no longer being updated in Section XI. As identified in NRC SECY-99-017 (Reference 4), the NRC has generally considered the evolution of the ASME Code to result in a net improvement in the measures for inspecting piping and components and testing pumps and valves.

By final rule issued on September 22, 1999 (Reference 5) the NRC amended 10 CFR 50.55a(b) to reference the latest approved edition of the ASME OM Code. 10 CFR 50.55a(f)(4)(ii) requires inservice tests to comply with the requirements

of the latest edition and addenda of the Code, as referenced in 10 CFR 50.55a(b), 12 months before the start of the new 10 year (120 month) interval. TS 5.5.8 currently references the ASME Boiler and Pressure Vessel Code, Section XI, as the source of the IST Program requirements for ASME Code 1, 2, and 3 components. The Code of record for the ongoing Second 10-Year IST Program interval is the ASME OM Code 1998 Edition through 2000 Addenda. The proposed changes to TS 5.5.8 are necessary for consistency with the IST requirements of 10 CFR 50.55a.

Additionally, the proposed changes to TS 5.5.8 indicate the provisions of SR 3.0.2 are applicable to other normal and accelerated IST Frequencies that are not specifically listed in the testing Frequencies that are identified in TS 5.5.8. The IST Program may have Frequencies for testing that are based on risk or other factors and do not conform to the standard testing Frequencies specified in TS 5.5.8. The Frequency of the Surveillance may be determined through a mix of risk informed and performance based means in accordance with the IST Program. Application of SR 3.0.2 to other IST Frequencies specified as 2 years or less is consistent with the guidance in NUREG-1482, paragraph 3.1.3 (Reference 6). This would indicate that the 25% tolerance specified in SR 3.0.2 is applicable to any IST Frequency specified as 2 years or less.

4.0 REGULATORY EVALUATION

The proposed changes revise the requirements in Technical Specification (TS) 5.5.8, "Inservice Testing Program," to update references to the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI as the source of requirements for the inservice testing of ASME Code Class 1, 2, and 3 pumps and valves. The proposed changes delete reference to Section XI of the Code and incorporate reference to the ASME Code for Operation and Maintenance of Nuclear Power Plants (ASME OM Code) and addresses the applicability of Surveillance Requirement (SR) 3.0.2 to other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing (IST) Program.

4.1 Significant Hazards Consideration

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

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

Response: No.

The proposed changes revise TS 5.5.8, "Inservice Testing Program," for consistency with the requirements of 10 CFR 50.55a(f)(4) regarding the inservice testing of pumps and valves. The proposed change incorporates revisions to the ASME Code that result in a net improvement in the measures for testing pumps and valves.

The proposed changes do not impact any accident initiators or analyzed events or assumed mitigation of accident or transient events. They do not involve the addition or removal of any equipment, or any design changes to the facility. Therefore, the proposed changes do not represent a significant increase in the probability or consequences of an accident previously evaluated.

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 changes revise TS 5.5.8, "Inservice Testing Program," for consistency with the requirements of 10 CFR 50.55a(f) regarding the inservice testing of pumps and valves. The proposed changes incorporate revisions to the ASME Code that result in a net improvement in the measures for testing pumps and valves.

The proposed changes do not involve a modification to the physical configuration of the plant (i.e., no new equipment will be installed) or change in the methods governing normal plant operation. The proposed changes will not impose any new or different requirements or introduce a new accident initiator, accident precursor, or malfunction mechanism. Additionally, there is no change in the types or increases in the amounts of any effluent that may be released off-site and there is no increase in individual or cumulative occupational exposure. Therefore, these proposed changes do not create the possibility of an accident of a different kind than previously evaluated.

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

Response: No

The proposed changes revise TS 5.5.8, "Inservice Testing Program," for consistency with the requirements of 10 CFR 50.55a(f)(4) regarding the inservice testing of pumps and valves. The proposed changes incorporate revisions to the ASME Code that result in a net improvement in the measures for testing pumps and valves. The safety function of the affected pumps and valves will be maintained. Therefore, these proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, TXU Power concludes that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.2 Applicable Regulatory Requirements/Criteria

NRC regulation, 10 CFR 50.55a, defines the requirements for applying industry codes to each licensed nuclear powered facility. The regulations require that during successive 120-month intervals, programs be developed utilizing the latest edition and addenda incorporated into paragraph (b) of 10 CFR 50.55a on the date 12 months prior to the date of issuance of the operating license subject to the limitations and modifications identified in paragraph (b).

There are no changes being proposed such that compliance with any of the regulatory requirements above would come into question. The evaluations documented above confirm that TXU Power will continue to comply with all applicable regulatory requirements.

4.3 Precedent

NRC accepted TSTF-479 in December, 2005 (Reference 7) and accepted TSTF-497 in October, 2006 (Reference 8).

A similar change was approved for the Wolf Creek Generating Station in Amendment No. 172 on November 15, 2006. However, even though TSTF-497 was not approved at the time of this license amendment application, this amendment addressed the application of SR 3.0.2 to other IST Frequencies with the same wording that is now included in the approved TSTF-497.

4.4 Conclusions

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 Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

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

6.0 REFERENCES

1. Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-479, Revision 0, "Changes to Reflect Revision of 10 CFR 50.55a."

2. Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-497, Revision 0, "Limit Inservice Testing Program SR 3.0.2 Application to Frequencies of 2 Years or Less."

3. ASME Operation and Maintenance Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda.

4. SECY-99-017, "Proposed Amendment to 10 CFR 50.55a," January 13, 1999.

5. Federal Register Notice: Industry Codes and Standards; Amended Requirements, published September 22, 1999 (64 FR 51370).

6. NUREG-1482, Revision 1, "Guidelines for Inservice Testing at Nuclear Power Plants," January 2005.

7. Letter dated December 6, 2005, from USNRC to Technical Specifications Task Force.

8. Letter dated October 4, 2006, from USNRC to Technical Specifications Task Force.

TS PAGE MARKUPS

5.5 Programs and Manuals (continued)

5.5.8 Inservice Testing Program

applicable to the ASME Code for Operations and Maintenance of Nuclear Power Plants (ASME OM Code)

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components. The program shall include the following:

a. Testing frequencies specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as follows:

OM

ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice testing activities	Required Frequencies for performing inservice testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

and to other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing Program

b. The provisions of SR 3.0.2 are applicable to the above required Frequencies for performing inservice testing activities;

c. The provisions of SR 3.0.3 are applicable to inservice testing activities; and

OM

d. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any TS.

(continued)

CHANGES TO TS BASES

1. Add Bases Insert 1 to the following pages:

   Page B 3.4-53,
   Page B 3.4-61,
   Page B 3.4-62,
   Page B 3.4-75,
   Page B 3.4-78,
   Page B 3.4-90,
   Page B 3.4-92,
   Page B 3.5-21,
   Page B 3.6-43
   Page B 3.6-45,
   Page B 3.7-7,
   Page B 3.7-8,
   Page B 3.7-33,
   Page B 3.7-34,
   Page B 3.7-19,
   Page B 3.8-29,

Bases Insert 1 ASME Code for Operation and Maintenance of Nuclear Power Plants.

BASES (continued)

SURVEILLANCE REQUIREMENTS

SR 3.4.10.1

SRs are specified in the Inservice Testing Program. Pressurizer safety valves are to be tested in accordance with the requirements of Section XI of the ASME Code (Ref. 4), which provides the activities and Frequencies necessary to satisfy the SRs. No additional requirements are specified.

REFERENCES

1. ASME, Boiler and Pressure Vessel Code, Section III.
2. FSAR, Chapter 15.
3. WCAP-7769, Rev. 1, June 1972.
4. ASME, Boiler and Pressure Vessel Code, Section XI.

Insert 1

BASES (continued)

SURVEILLANCE REQUIREMENTS

SR 3.4.11.1

Block valve cycling verifies that the valve(s) can be opened and closed. The basis for the Frequency of 92 days is the ASME Code, Section XI (Ref. 3).

This SR is modified by two Notes. Note 1 modifies this SR by stating that it is not required to be performed with the block valve closed, in accordance with the Required Actions of this LCO. Opening the block valve in this condition increases the risk of an unisolable leak from the RCS since the PORV is already inoperable. Note 2 modifies this SR to allow entry into and operation in MODE 3 prior to performing the SR. This allows the surveillance to be performed in MODE 3 under operating temperature and pressure conditions, prior to entering MODE 1 or 2. In accordance with References 4, 5 and 6, administrative controls require this test be performed in MODES 3, 4 or 5 to adequately simulate operating temperature and pressure effects on PORV operation.

SR 3.4.11.2

SR 3.4.11.2 requires a complete cycle of each PORV. Operating a PORV through one complete cycle ensures that the PORV can be manually actuated for mitigation of an SGTR. The Frequency of 18 months is based on a typical refueling cycle and industry accepted practice. The Note modifies this SR to allow entry into and operation in MODE 3 prior to performing the SR. This allows the surveillance to be performed in MODE 3 under operating temperature and pressure conditions, prior to entering MODE 1 or 2. In accordance with References 4, 5 and 6, administrative controls require this test be performed in MODES 3, 4 or 5 to adequately simulate operating temperature and pressure effects on PORV operation.

(continued)

BASES (continued)

REFERENCES

1. Regulatory Guide 1.32, February 1977.

2. FSAR, Chapter 15.

3. ASME, Boiler and Pressure Vessel Code, Section XI.

4. Generic Letter 90-06, "resolution of Generic Issue 70, 'Power-Operated Relief Valve and Block Valve Reliability,' and generic issue 94, 'Additional Low-Temperature Overpressure for Light-Water Reactors,' Pursuant to 10CFR50.54(f)," June 25, 1990.

5. CPSES License Amendment 11, July 15, 1992.

6. NUREG-0797, Supplement 25, September 1992.

Insert 1

BASES

SURVEILLANCE REQUIREMENTS

SR 3.4.12.1, SR 3.4.12.2, and SR 3.4.12.3 (continued)

employed to prevent a pump start such that a single failure will not result in an injection into the RCS. Providing pumps are rendered incapable of injecting into the RCS, they may be energized for purposes such as testing or for filling accumulators.

The Frequency of 12 hours is sufficient, considering other indications and alarms available to the operator in the control room, to verify the required status of the equipment.

SR 3.4.12.4

Each required RHR suction relief valve shall be demonstrated OPERABLE by verifying its RHR suction isolation valves are open and by testing it in accordance with the Inservice Testing Program. This Surveillance is only required to be performed if the RHR suction relief valve is being used to meet this LCO.

The RHR suction isolation valves are verified to be opened every 72 hours. The Frequency is considered adequate in view of other administrative controls such as valve status indications available to the operator in the control room that verify the RHR suction valve remains open.

The ASME Code, Section XI (Ref. 8), test per Inservice Testing Program verifies OPERABILITY by proving proper relief valve mechanical motion and by measuring and, if required, adjusting the lift setpoint.

SR 3.4.12.5

The RCS vent of ≥ 2.98 square inches is proven OPERABLE by verifying its open condition either:

a. Once every 12 hours for a valve that is not locked, sealed, or otherwise secured in the open position.

(continued)

BASES

REFERENCES (continued)

6. 10 CFR 50, Appendix K.

7. Generic Letter 90-06.

Insert 1

8. ~~ASME, Boiler and Pressure Vessel Code, Section XI.~~

9. FSAR, Chapter 5

BASES

ACTIONS (continued)

C.1

The inoperability of the RHR System interlock renders the RHR suction isolation valves capable of inadvertent opening at RCS pressures in excess of the RHR systems design pressure. If the RHR System interlock is inoperable, operation may continue as long as the affected RHR suction penetration is closed by at least one closed manual or deactivated automatic valve within 4 hours. This Action accomplishes the purpose of the function.

SURVEILLANCE REQUIREMENTS

SR 3.4.14.1

Performance of leakage testing on each RCS PIV or isolation valve used to satisfy Required Action A.1 and Required Action A.2 is required to verify that leakage is below the specified limit and to identify each leaking valve. The leakage limit of 0.5 gpm per inch of nominal valve diameter up to 5 gpm maximum applies to each valve. Leakage testing requires a stable pressure condition greater than 150 psig.

For the two PIVs in series, the leakage requirement applies to each valve individually and not to the combined leakage across both valves. If the PIVs are not individually leakage tested, one valve may have failed completely and not be detected if the other valve in series meets the leakage requirement. In this situation, the protection provided by redundant valves would be lost.

Testing is to be performed every 18 months, a typical refueling cycle, if the plant does not go into MODE 5 for at least 7 days. The 18 month Frequency is consistent with 10 CFR 50.55a(g) (Ref. 8) as contained in the Inservice Testing Program, is within frequency allowed by the American Society of Mechanical Engineers (ASME) Code, Section XI (Ref. 7), and is based on the need to perform such surveillances under the conditions that apply during an outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.4.14.2

Verifying that the RHR System interlocks are OPERABLE ensures that RCS pressure will not overpressurize the RHR system. The interlock setpoint that prevents the valves from being opened is set so the actual RCS pressure must be < 442 psig to open the valves. This setpoint ensures the RHR design pressure will not be exceeded and the RHR relief valves will not lift. The 18 month Frequency is based on the need to perform the Surveillance under conditions that apply during a plant outage. The 18 month Frequency is also acceptable based on consideration of the design reliability (and confirming operating experience) of the equipment.

This SR is not applicable when using the RHR System suction relief valves for cold overpressure protection in accordance with SR 3.4.12.7.

REFERENCES

1. 10 CFR 50.2.
2. 10 CFR 50.55a(c).
3. 10 CFR 50, Appendix A, Section V, GDC 55.
4. WASH-1400 (NUREG-75/014), Appendix V, October 1975.
5. NUREG-0677, May 1980.
6. Technical Requirements Manual
7. ASME, Boiler and Pressure Vessel Code, Section XI.
8. 10 CFR 50.55a(g).

Insert 1

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.5.2.4

Periodic surveillance testing of ECCS pumps to detect gross degradation caused by impeller structural damage or other hydraulic component problems is required by Section XI of the ASME Code. This type of testing may be accomplished by measuring the pump developed head at only one point of the pump characteristic curve. The following ECCS pumps are required to develop the indicated differential pressure on recirculation flow:

1)	Centrifugal charging pump	≥ 2370 psid,
2)	Safety injection pump	≥ 1440 psid, and
3)	RHR pump	> 170 psid.

This verifies both that the measured performance is within an acceptable tolerance of the original pump baseline performance and that the performance at the test flow is greater than or equal to the performance assumed in the plant safety analysis. SRs are specified in the Inservice Testing Program, which encompasses Section XI of the ASME Code. Section XI of the ASME Code and the Technical Requirements Manual provides the activities and Frequencies necessary to satisfy the requirements.

SR 3.5.2.5 and SR 3.5.2.6

These Surveillances demonstrate that each automatic ECCS valve actuates to the required position on an actual or simulated SI signal and that each ECCS pump starts on receipt of an actual or simulated SI signal. This Surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The 18 month Frequency is based on the need to perform these Surveillances under the conditions that apply during a plant outage and the potential for unplanned plant transients if the Surveillances were performed with the reactor at power. The 18 month Frequency is also acceptable based on consideration of the design reliability (and confirming operating experience) of the equipment. The actuation logic is tested as part of ESF Actuation System testing, and equipment performance is monitored as part of the Inservice Testing Program.

(continued)

BASES (continued)

SURVEILLANCE REQUIREMENTS

SR 3.6.6.1

Verifying the correct alignment for manual, power operated, and automatic valves in the containment spray flow path provides assurance that the proper flow paths will exist for Containment Spray System operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since these were verified to be in the correct position prior to locking, sealing, or securing. This SR does not require any testing or valve manipulation. Rather, it involves verification through a system walkdown (which may include the use of local or remote indicators), that those valves outside containment (only check valves are inside containment) and capable of potentially being mispositioned are in the correct position.

SR 3.6.6.2

Not Used

SR 3.6.6.3

Not Used

SR 3.6.6.4

Verifying each containment spray pump's developed head at the flow test point is greater than or equal to the required developed head (specified in the Technical Requirements Manual) ensures that spray pump performance has not degraded during the cycle. Flow and differential pressure are normal tests of centrifugal pump performance required by Section XI of the ASME Code (Ref. 5). Since the containment spray pumps cannot be tested with flow through the spray headers, they are tested on recirculation flow via a test header. This test confirms one point on the pump design curve and is indicative of overall performance. Such inservice tests confirm component OPERABILITY, trend performance, and detect incipient failures by abnormal performance. The Frequency of the SR is in accordance with the Inservice Testing Program.

(continued)

BASES (continued)

REFERENCES

1. 10 CFR 50, Appendix A, GDC 38, GDC 39, GDC 40, GDC 41, , and GDC 43.
2. 10 CFR 50, Appendix K.
3. FSAR, Section 6.2.1.
4. FSAR, Section 6.2.2.
5. ASME, Boiler and Pressure Vessel Code, Section XI.
6. Technical Requirements Manual.
7. FSAR, Section 6.3.

Insert 1

BASES (continued)

SURVEILLANCE REQUIREMENTS

SR 3.7.1.1

This SR verifies the OPERABILITY of the MSSVs by the verification of each MSSV lift setpoint in accordance with the Inservice Testing Program. The ASME Code, Section XI (Ref. 4), requires that safety and relief valve tests be performed in accordance with ANSI/ASME OM-1-1987 (Ref. 5). According to Reference 5, the following tests are required:

a. Visual examination;

b. Seat tightness determination;

c. Setpoint pressure determination (lift setting);

d. Compliance with owner's seat tightness criteria; and

e. Verification of the balancing device integrity on balanced valves.

The ANSI/ASME Standard requires that all valves be tested every 5 years, and a minimum of 20% of the valves be tested every 24 months. The ASME Code specifies the activities and frequencies necessary to satisfy the requirements. Table 3.7.1-2 allows a ± 3% setpoint tolerance for OPERABILITY; however, the valves are reset to ± 1% during the Surveillance to allow for drift. The lift settings, according to Table 3.7.1-2 correspond to ambient conditions of the valve at nominal operating temperature and pressure.

This SR is modified by a Note that allows entry into and operation in MODE 3 prior to performing the SR. The MSSVs may be either bench tested or tested in situ at hot conditions using an assist device to simulate lift pressure. If the MSSVs are not tested at hot conditions, the lift setting pressure shall be corrected to ambient conditions of the valve at operating temperature and pressure.

(continued)

BASES (continued)

REFERENCES

1. FSAR, Section 10.3.1 and 10.3.2.
2. ASME, Boiler and Pressure Vessel Code, Section III, Article NC-7000, Class 2 Components.
3. FSAR, Chapter 15.
4. ASME, Boiler and Pressure Vessel Code, Section XI.
5. ANSI/ASME OM-1-1987.

Insert 1

BASES (continued)

SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.5.2

Verifying that each AFW pump's developed head at the flow test point is greater than or equal to the required developed head ensures that AFW pump performance has not degraded during the cycle. Flow and differential head are normal tests of centrifugal pump performance required by Section XI of the ASME Code (Ref. 2). The motor driven pumps should develop a differential pressure of ≥ 1380 psid at a flow of ≥ 430 gpm. The turbine driven pump should develop a differential pressure of ≥ 1438 psid at a flow of ≥ 860 gpm. Because it is undesirable to introduce cold AFW into the steam generators while they are operating, this testing is performed on recirculation flow through a test line. This test confirms one point on the pump design curve and is indicative of overall performance. Instrument uncertainty is not included in the above flow and differential pressure values but is addressed in the surveillance testing procedure. Such inservice tests confirm component OPERABILITY, trend performance, and detect incipient failures by indicating abnormal performance. Performance of inservice testing discussed in the ASME Code, Section XI (Ref. 2) (only required at 3 month intervals) satisfies this requirement.

This SR is modified by a Note indicating that the SR should be deferred until suitable test conditions are established. This deferral is required because there is insufficient steam pressure to perform the test.

SR 3.7.5.3

This SR verifies that AFW can be delivered to the appropriate steam generator in the event of any accident or transient that generates an ESFAS, by demonstrating that each automatic valve in the flow path actuates to its correct position on an actual or simulated actuation generated by an auxiliary feedwater actuation signal. The Steam Generator Blowdown, Steam Generator Blowdown Sample, and Feedwater Split Flow Bypass valves close on an auxiliary feedwater actuation to ensure auxiliary feedwater is delivered to the steam generator upper nozzles and is retained in the steam generator for decay heat removal. The AFW flow control valves trip to auto (open) on an auxiliary feedwater actuation to ensure full flow is delivered to each steam generator flow path. The steam admission valves open to supply the turbine driven auxiliary feedwater pump. This Surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. The 18 month Frequency is acceptable based on operating experience and the design reliability of the equipment.

This SR is modified by a note stating that one or more AFW trains may be considered OPERABLE during alignment and operation for steam generator water level control, if it is capable of being manually realigned to the AFW mode of operation and provided it is not otherwise inoperable.

(continued)

BASES (continued)

SURVEILLANCE REQUIREMENTS

SR 3.7.5.3 (continued)

This exception allows the system to be out of its normal standby alignment and temporarily incapable of automatic initiation without declaring the train(s) inoperable and applies only when the unit is below 10% RATED THERMAL POWER. Since AFW may be used during startup, shutdown, hot standby operations, and hot shutdown operations for steam generator level control, and these manual operations are an accepted function of the AFW system, OPERABILITY is maintained. The ability to realign the affected AFW train(s) to a standby condition or to an in-service condition supplying feedwater to the steam generator(s) assures the intended safety function is available. Realignment of the AFW train(s) is normally performed from the Control Room. However, when explicitly allowed by Operations' procedure, this provision may also be applied to local manual operation of AFW valves.

SR 3.7.5.4

This SR verifies that the AFW pumps will start in the event of any accident or transient that generates an ESFAS by demonstrating that each AFW pump starts automatically on an actual or simulated actuation generated by an auxiliary feedwater actuation signal in MODES 1, 2, and 3. In MODE 4, the required pump is already operating and the autostart function is not required. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.

This SR is modified by two notes. Note 1 indicates that the SR be deferred until suitable test conditions are established. This deferral is required because there is insufficient steam pressure to perform the test. Note 2 states that one or more AFW trains may be considered OPERABLE during alignment and operation for steam generator water level control, if it is capable of being manually realigned to the AFW mode of operation and provided it is not otherwise inoperable. This exception allows the system to be out of its normal standby alignment and temporarily incapable of automatic initiation without declaring the train(s) inoperable and applies only when the unit is below 10% RATED THERMAL POWER. Since AFW may be used during startup, shutdown, hot standby operations, and hot shutdown operations for steam generator level control, and these manual operations are an accepted function of the AFW system, OPERABILITY is maintained. The ability to realign the affected AFW train(s) to a standby condition or to an in-service condition supplying feedwater to the steam generator(s) assures the intended safety function is available. Realignment of the AFW train(s) is normally performed from the Control Room. However, when explicitly allowed by Operations' procedure, this provision may also be applied to local manual operation of AFW valves.

REFERENCES

1. FSAR, Sections 7.3 and 10.4.9.
2. ASME, Boiler and Pressure Vessel Code, Section XI.

Insert 1

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.8.1.6

This Surveillance demonstrates that each required fuel oil transfer pump operates and transfers fuel oil from its associated storage tank to its associated day tank. This is required to support continuous operation of standby power sources. This Surveillance provides assurance that the fuel oil transfer pump is OPERABLE, the fuel oil piping system is intact, the fuel delivery piping is not obstructed, and the controls and control systems for automatic fuel transfer systems are OPERABLE.

The frequency of 92 days is adequate to verify proper automatic operation of the fuel transfer pumps to maintain the required volume of fuel oil in the day tanks. This frequency corresponds to the testing requirements for pumps as contained in the ASME Code, Section XI (Ref. 11).

SR 3.8.1.7

See SR 3.8.1.2.

SR 3.8.1.8

Transfer of each 6.9 kV ESF bus power supply from the normal offsite circuit to the alternate offsite circuit demonstrates the OPERABILITY of the alternate circuit distribution network to power the shutdown loads. The 18 month Frequency of the Surveillance is based on engineering judgment, taking into consideration the unit conditions required to perform the Surveillance, and is intended to be consistent with expected fuel cycle lengths. Operating experience has shown that these components usually pass the SR when performed at the 18 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

This SR is modified by a Note. The reason for the Note is that, during operation with the reactor critical, performance of this SR could cause perturbations to the electrical distribution systems that could challenge continued steady state operation and, as a result, unit safety systems. This restriction from normally performing the Surveillance in MODE 1 or 2 is further amplified to allow the Surveillance to be performed for the purpose of reestablishing OPERABILITY (e.g. post work testing following corrective maintenance, corrective modification, deficient or incomplete surveillance testing, and other unanticipated OPERABILITY concerns) provided an assessment determines plant safety is maintained or enhanced. This assessment shall, as a minimum, consider the potential

(continued)

BASES (continued)

REFERENCES

1. 10 CFR 50, Appendix A, GDC 17.
2. FSAR, Chapter 8.
3. Regulatory Guide 1.9 Rev 3, July 1993.
4. FSAR, Chapter 6.
5. FSAR, Chapter 15.
6. Regulatory Guide 1.93, Rev. 0, December 1974.
7. Generic Letter 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," July 2, 1984.
8. 10 CFR 50, Appendix A, GDC 18.
9. Regulatory Guide 1.108, Rev. 1, August 1977.
10. Regulatory Guide 1.137, January 1978.
11. ASME, Boiler and Pressure Vessel Code, Section XI.
12. IEEE Standard 308-1974.
13. IEEE Standard 387-1977
14. Generic Letter 94-01, "Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators," May 31, 1994.
15. ANSI C84.1

Insert 1

RETYPED TS PAGES

5.5 Programs and Manuals (continued)

5.5.8 Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components. The program shall include the following:

a. Testing frequencies applicable to the ASME Code for Operations and Maintenance of Nuclear Power Plants (ASME OM Code) and applicable Addenda as follows:

ASME OM Code and applicable Addenda terminology for inservice testing activities	Required Frequencies for performing inservice testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

b. The provisions of SR 3.0.2 are applicable to the above required Frequencies and to other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing Program for performing inservice testing activities;

c. The provisions of SR 3.0.3 are applicable to inservice testing activities; and

d. Nothing in the ASME OM Code shall be construed to supersede the requirements of any TS.

(continued)