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C. Lance Terry
Senior Vice President & Principal Nuclear Officer

Ref. #10CFR50.90

CPSES-20001275
Log # TXX-00090
File # 00236

May 25, 2000

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
TECHNICAL SPECIFICATION CHANGE TO ALLOW USE OF ADMINISTRATIVE CONTROLS FOR OPEN PENETRATIONS DURING REFUELING OPERATIONS
(LAR-00-01)

Gentlemen:

Pursuant to 10 CFR 50.90, TXU Electric 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.

The proposed amendment would revise the CPSES Unit 1 and 2 Technical Specifications (TS) Limiting Condition for Operation (LCO) 3.9.4, "Containment Penetrations" to allow certain containment penetrations to be open during refueling activities under appropriate administrative controls. The changes fully adopt NRC approved Industry Standard Technical Specification Change Traveler TSTF-312, Revision 1.

Attachment 1 is the required Affidavit. Attachment 2 provides a detailed description of the proposed change, a safety analysis of the change, and TXU Electric's determination that the proposed change does not involve a significant hazards consideration. Attachment 3 provides the appropriate Unit 1 and 2 existing TS page marked-up to show the proposed change. Attachment 4 provides the existing TS Bases pages marked up to show the proposed change (for information only).

D029

NRR-057

TXU Electric
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Attachment 5 forwards the revised TS page which incorporates the proposed change. Attachment 6 provides proposed affected pages of Technical Specification Bases Section 3.9.4 (for information only). Attachment 7 provides a copy of TSTF-312, Revision 1.

This letter contains the following new commitments which will be added to the CPSES commitment management program and to appropriate station procedures.

1. Appropriate personnel will maintain an awareness of the open status of the penetrations flow paths during core alterations and movement of irradiated fuel assemblies within containment.

2. Specified individuals will be designated and readily available to promptly isolate open penetration flows paths in the event of a FHA inside containment.

TXU Electric requests that approval of this proposed License Amendment be provided approximately 30 days prior to beginning the Unit 2 Cycle 5 refueling outage scheduled for September 25, 2000, and that the revised TS be made effective within 30 days of NRC approval. Although receipt of the Amendment is not required to conduct the outage or to restart the unit following the outage, implementation of the requested TS change prior to the outage will allow planned outage work to proceed in conjunction with critical path activities, thereby shortening the outage.

In addition, CPSES is submitting this License Amendment Request as the lead plant for a group of five plants as a result of a mutual agreement known as Strategic Teaming and Resource Sharing or STARS. The STARS group consists of the five plants operated by TXU Electric, AmerenUE, Wolf Creek Nuclear Operating Corporation, Pacific Gas and Electric Company, and STP Nuclear Operating Company. Other members of the STARS group can also be expected to submit plant specific License Amendment Requests similar to this request. These additional License Amendment Requests will be submitted either in parallel with or upon approval of this request in order to reduce the amount of NRC resources required to evaluate and approve the requests.

In accordance with 10 CFR 50.91(b)(1), TXU Electric is providing the State of Texas with a copy of this proposed amendment.

If you have any questions about this change, please contact Mr. R. A. Slough at (817) 897-5727.

TXU Electric
P.O. Box 1002
Glen Rose, TX 76043

Sincerely,

C. L. Terry

RAS/gp

Attachments
1. Affidavit
2. Safety Analysis
3. Existing marked up Technical Specification pages
4. Existing marked up Technical Specification Bases pages (for information only)
5. Revised Technical Specification pages
6. Revised affected Technical Specification Bases pages (for information only)
7. Industry Technical Specification Change Traveler TSTF-312, Revision 1

c - E. W. Merschoff, Region IV
J. I. Tapia, Region IV
D. H. Jaffe, NRR
Resident Inspectors, CPSES

Mr. Arthur C. Tate
Bureau of Radiation Control
Texas Department of Public Health
1100 West 49th Street
Austin, Texas 78704

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)		
	)		
TXU Electric	)	Docket Nos.	50-445
	)		50-446
(Comanche Peak Steam Electric Station,	)	License Nos.	NPF-87
Units 1 & 2)	)		NPF-89

AFFIDAVIT

C. L. Terry being duly sworn, hereby deposes and says that he is Senior Vice President & Principal Nuclear Officer of TXU Electric, the licensee herein; that he is duly authorized to sign and file with the Nuclear Regulatory Commission this License Amendment Request 00-01; that he is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge, information and belief.

C. L. Terry
Senior Vice President & Principal
Nuclear Officer

STATE OF TEXAS)
)
COUNTY OF)
Somervell

Subscribed and sworn to before me, on this 26 day of May, 2000.

Notary Public

JEAN AMUNDSON
NOTARY PUBLIC
STATE OF TEXAS
My Commission Expires 08-31-2002

ATTACHMENT 2 to TXX-00090

DESCRIPTION AND ASSESSMENT

SAFETY ANALYSIS

1.0 INTRODUCTION

1.1 Proposed LAR number 00-01 is a request to revise Technical Specification (TS) 3.9.4, "Containment Penetrations," for Comanche Peak Steam Electric Station (CPSES) Units 1 and 2.

1.2 EXISTING TECHNICAL SPECIFICATION AND BASES

Technical Specification:	See Attachment 3
Technical Specification Bases:	See Attachment 4

1.3 PROPOSED TECHNICAL SPECIFICATION AND BASES

Technical Specification:	See Attachment 5
Technical Specification Bases:	See Attachment 6

1.4 FINAL SAFETY ANALYSIS REPORT (FSAR) SECTION

No changes to the CPSES Final Safety Analysis Report are anticipated at this time as a result of this License Amendment Request. The additional administrative controls of this proposed TS change do not meet the criteria in 10CFR50.71(e) for inclusion in the next FSAR update.

2.0 DESCRIPTION

The proposed License amendment would revise LCO 3.9.4, Item (c) by adding a NOTE to allow unisolating containment penetration flow path(s) under administrative controls during operations involving core alterations or fuel movement inside containment.

3.0 BACKGROUND

The current TS 3.9.4 does not permit opening certain containment penetrations during operations involving core alterations or fuel movement inside containment. The proposed Technical Specification change would allow opening these containment penetrations under administrative controls during operations involving core alterations or fuel movement inside containment.

Technical Specification 3.6.3, "Containment Isolation Valves," currently has a similar provision for temporarily opening containment penetration flow paths in Modes 1 through 4 under administrative controls. This allowance does not apply during refueling operations when the need for containment integrity is less. The allowance

to keep penetration flow paths open with administrative controls in place will support the performance of other outage activities concurrent with fuel handling activities. The current TS would require that some outage activities be interrupted while fuel handling activities or core alterations are in progress. The proposed revision will allow for more efficient performance of outage work while continuing to provide an acceptable barrier against the release of fission product radioactivity to the outside atmosphere during core alterations or fuel handling activities inside containment. Administrative controls will be implemented to ensure in the event of a Fuel Handling Accident (FHA) inside containment, the open penetrations will be promptly closed. These administrative controls include an awareness of the temporary flow path conditions and the designation of individuals to isolate the flow paths in the event of a FHA. The proposed change is described below and fully implements NRC approved Industry Standard Technical Specification Change Traveler TSTF-312, Revision 1.

4.0 TECHNICAL ANALYSIS

During core alterations or movement of irradiated fuel assemblies within containment, a release of fission product radioactivity to the environment due to a FHA inside containment will be restricted when the TS requirements are met.

The requirements of TS 3.9.4, "Containment Penetrations," ensure that the consequences of a postulated FHA inside containment during core alterations or fuel handling activities are minimized. The LCO establishes containment closure requirements, which limit the potential escape paths for fission products by ensuring that there is at least one integral barrier to the release of radioactive material. LCO 3.9.4 requires a minimum of one door in the emergency airlock to be closed and at least one door in the personnel airlock to be capable of being closed and requires that each penetration providing direct access from the containment atmosphere to the outside atmosphere either be closed by a manual or automatic isolation valve, blind flange, or "equivalent." As discussed in the TS Bases Background section for TS 3.9.4, "equivalent" isolation methods must be approved and may include use of a material that can provide a temporary, atmospheric pressure, ventilation barrier for containment penetrations during fuel movement.

The proposed TS change to allow the containment penetration flow paths to remain open while using administrative controls fully implements NRC approved TS traveler TSTF-312, Revision 1. Further, this approach is consistent with the administrative controls currently allowed by CPSES TS for more restrictive, higher operational modes. Current provisions in TS 3.6.3, "Containment Isolation Valves," allow penetration flow paths to be unisolated under administrative controls in Modes 1 through 4. The controls include a designated operator having continuous communication with the Control Room who can isolate the open valve in the event of an accident. This allowance has been determined to be an acceptable means to allow

the opening of flow paths in consideration of the administrative controls that minimize the impact of an accident. These modes are more significant than during refueling operations due to the RCS energy and potential to provide a significant motive force for the expulsion of radionuclides, subsequent to a design basis accident.

A similar allowance is acceptable for penetrations that are open during fuel movement or core alterations provided appropriate administrative controls are utilized. During core alterations or fuel movement activities inside containment, the potential for a fuel handling accident resulting in containment pressurization is negligible while the reactor is shutdown. Therefore, allowing penetration flow path(s) that have direct access from the containment atmosphere to the outside atmosphere to be unisolated is acceptable during refueling operations provided appropriate administrative controls are used. These proposed controls will include an awareness of the open penetration and designation of individual(s) readily available for closing the open penetration in the event of a FHA inside containment.

The CPSES design basis FHA is defined as the dropping of a spent fuel assembly in the spent fuel pool fuel storage area or inside containment. Both analyses assume the rupture of the cladding of all the fuel rods in the assembly. These FHA events are postulated for safety system design purposes even though many administrative controls and physical limitations are imposed on fuel handling operations. Chapter 15.7.4 of the FSAR (Reference 2) discusses the consequences of a postulated FHA inside and outside containment. The results from the current analysis of a FHA indicate an exclusion area boundary thyroid dose of 53.9 REM and whole body dose of 0.44 REM. These results are well within the 10 CFR 100 offsite dose limits of 300 REM and 25 REM, respectively, and less than the limits of Standard Review Plan, Section 15.7.4, Revision 1.

The fuel handling accident analyses presented in the FSAR (Reference 2) considered dropping a single irradiated fuel assembly in either the containment or fuel building with no credit for isolation or filtration. The postulated fuel handling accident outside containment remains the limiting FHA when considering the FHA inside containment with open penetration flow paths. In the event of a FHA inside containment with open penetrations, transmission of radionuclides to the outside environment is unlikely. This is because the dispersion of radioactive material through the containment will not be driven by any pressure differential resulting from the accident, but only due to the course of containment air circulation. The administrative controls for prompt closure of the containment penetration flow paths would minimize the potential spread of radioactive isotopes from the containment to the outside environment. Therefore, following a FHA inside containment, the lack of containment pressurization provides sufficient time to manually isolate the penetration flow paths to minimize dose consequences. The consequences of a FHA inside containment with open penetration flow paths are bounded by the current

analysis described in the FSAR. This ensures that offsite dose is well within the 10 CFR 100 regulatory limits and less than the limits of Standard Review Plan, Section 15.7.4, Revision 1.

Programmatic controls currently in place ensure that a FHA inside containment is quickly identified and appropriate actions implemented to assure that post accident doses are minimized. The additional administrative controls of this proposed TS change do not meet the criteria in 10CFR50.71(e) for inclusion in the next FSAR update. The additional administrative controls will be added to the CPSES commitment management program and to appropriate station procedures. In summary, these controls include:

1. Appropriate personnel will maintain an awareness of the open status of the penetrations flow paths during core alterations and movement of irradiated fuel assemblies within containment.

2. Specified individuals will be designated and readily available to promptly isolate open penetration flows paths in the event of a FHA inside containment.

Based on the analysis of the FHA inside and outside containment and the administrative controls specified for the proposed allowance to unisolate containment penetration flow paths, the proposed TS revision is acceptable. With respect to the proposed administrative controls, the proposed license amendment provides assurance that offsite dose levels associated with a FHA inside containment will be maintained well within the applicable regulatory limits of 10 CFR 100.

5.0 REGULATORY ANALYSIS

5.1 NO SIGNIFICANT HAZARDS DETERMINATION

TXU Electric has evaluated whether or not a significant hazards consideration is involved with the proposed changes by focusing on the three standards set forth in 10 CFR 50.92(c) as discussed below:

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 Technical Specification (TS) 3.9.4, "Containment Penetrations," would allow certain containment penetration flow paths to be open during core alterations and movement of irradiated fuel within

containment under specific administrative controls. The fuel handling accident radiological analysis does not take credit for containment isolation or filtration. Therefore, the time required to close any open penetrations is not relevant to the confirmatory radiological analysis dose calculations and the proposed change does not involve a significant increase in the consequences of an accident previously evaluated. The proposed administrative controls for containment penetrations are conservative even though not required by the accident analysis.

The status of the penetration flow paths during refueling operations has no affect on the probability of the occurrence of any accident previously evaluated. The proposed revision does not alter any plant equipment or operating practices in such a manner that the probability of an accident is increased. Because the FHA outside containment remains the limiting accident and the probability of a accident is not affected by the status of the penetration flow paths, the proposed change does not involve 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 open containment penetration flow paths are not accident initiators and do not represent a significant change in the configuration of the plant. The proposed allowance to open the containment penetrations during refueling operations will not adversely affect plant safety functions or equipment operating practices such that a new or different accident could be created. Therefore, the proposed revision will not create a new or different kind of accident from any accident previously evaluated.

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

Response: No

Technical Specification LCO 3.9.4 closure requirements for containment penetrations ensure that the consequences of a postulated FHA inside containment during core alterations or fuel handling activities are minimized. The LCO establishes containment closure requirements, which limit the potential escape paths for fission products by ensuring that there is at least one integral barrier to the release of radioactive material. The proposed

change to allow the containment penetration flow paths to be open during refueling operations under administrative controls does not significantly affect the expected dose consequences of a FHA because the limiting FHA is not changed. The proposed administrative controls provide assurance that prompt closure of the penetration flow paths will be accomplished in the event of a FHA inside containment thus minimizing the transmission of radioactive material from the containment to the outside environment. Under the proposed TS change, the provisions to promptly isolate open penetration flow paths provide assurance that the offsite dose consequences of a FHA inside containment will be minimized. Therefore, the proposed change to the Technical Specifications does not involve a significant reduction in the margin of safety.

Based on the above evaluations, TXU Electric concludes that the activities associated with the above described changes present no significant hazards consideration under the standards set forth in 10CFR50.92 and, accordingly, a finding by the NRC of no significant hazards consideration is justified.

5.2 Regulatory Safety Analysis

Applicable Regulatory Requirements/Criteria

The regulatory basis for Technical Specification (TS) 3.9.4, "Containment Penetrations," is to ensure that the primary containment is capable of containing fission product radioactivity that may be released from the reactor core following a fuel handling accident (FHA) inside containment.

GDC 61, "Fuel Storage and Handling and Radioactivity Control," requires that the fuel storage and handling, radioactive waste, and other systems which may contain radioactivity shall be designed to assure adequate safety under normal and postulated accident conditions.

U. S. NRC Regulatory Guide (RG) 1.25 is NRC guidance which describes a method acceptable to the NRC staff for licensee evaluation of the potential radiological consequences of a fuel handling accident.

NUREG-0800, "U. S. NRC Standard Review Plan," Section 15.7.4 provides guidance to the NRC staff for the review and evaluation of system design features and plant procedures provided for the mitigation of the radiological consequences of postulated fuel handling accidents.

The parameters of concern and the acceptance criteria applied are based on the requirements of 10CFR100 with respect to the calculated radiological consequences

of a fuel handling accident and GDC 61 with respect to appropriate containment, confinement, and filtering systems.

Analysis

The method of analysis used for evaluating the potential radiological consequences of the postulated fuel handling accident is in compliance with Regulatory Guide 1.25 and the guidance in NUREG-0800, Section 15.7.4. The analysis presented in Chapter 15.7.4 of the CPSES FSAR, demonstrating the adequacy of the system design features and plant procedures provided for the mitigation of the radiological consequences of postulated fuel handling accidents, assumes no credit for isolation or filtration of the radioactivity released to the containment. All radioactivity released to the containment is assumed to be released to the environment at ground level over a two hour period.

Conclusion

The technical analysis performed by TXU Electric demonstrates that the consequent doses at the exclusion area and low population zone boundaries are well within the limits of 10CFR100 even without crediting the primary containment for confinement or filtration of the radioactivity released. Therefore, the proposed License amendment is in compliance with GDC 61 as well as RG 1.25 and the criteria contained in NUREG-0800, Section 15.7.4.

6.0 ENVIRONMENTAL EVALUATION

TXU Electric has determined that the proposed amendment would change requirements with respect to the installation or use of a facility component located within the restricted area, as defined in 10CFR20, or would change an inspection or surveillance requirement. TXU Electric has evaluated the proposed change and has determined that the change does not involve (i) a significant hazards consideration, (ii) a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10CFR51.22(c)(9). Therefore, pursuant to 10CFR51.22(b), an environmental assessment of the proposed change is not required.

7.0 REFERENCES

1. FSAR Section 15.7.4

2. NUREG-0800, Standard Review Plan, Section 15.7.4, Rev. 1, July 1981.

3. 10 CFR Part 50, Appendix A, General Design Criterion 61, "Fuel Storage and Handling and Radioactivity Control."

4. 10 CFR Part 100, Paragraph 11, "Determination of Exclusion Area, Low Population Zone, and Population Center Distance."

5. Industry Standard Technical Specification Change Traveler TSTF-312, "Administratively Control Containment Penetrations", Rev. 1.

6. Federal Register 65 FR 9017 Vol. 65 NO36

7. Letter from Ronald W. Hernan, Office of Nuclear Reactor Regulation (USNRC) to J. A. Scalice, Chief Nuclear Officer and Executive Vice President, Tennessee Valley Authority dated February 11, 2000.

8.0 PRECEDENTS

There are precedents for allowing containment penetrations to be open during refueling activities using appropriate administrative controls. The Tennessee Valley Authority operating licenses for Sequoyah Unit 1, Operating License No. DPR-77 and Docket No. 50-327, and for Sequoyah Unit 2, Operating License No. DPR-79 and Docket No. 50-328, have been amended to allow containment penetrations to be open during refueling activities using appropriate administrative controls (Reference 6). These amendments, Nos. 249 and 240 respectively, were issued on February 11, 2000 (Reference 7).

The significant difference between the Sequoyah change and the change proposed herein is that the Sequoyah plant design includes a secondary containment enclosure which is designed to hold up radioactive gases prior to their filtered release (Reference 7) while the CPSES plant design includes no such system. The CPSES analysis of a fuel handling accident takes no credit for containment isolation or filtration but assumes that all activity released is released at ground level to the environment over a two hour period.

ATTACHMENT 3 to TXX-00090

AFFECTED TECHNICAL SPECIFICATION PAGE

Page 3.9-7

3.9 REFUELING OPERATIONS

3.9.4 Containment Penetrations

LCO 3.9.4 The containment penetrations shall be in the following status:

a. The equipment hatch closed and held in place by four bolts;

b. One door in the emergency air lock closed and one door in the personnel airlock capable of being closed; and

c. Each penetration providing direct access from the containment atmosphere to the outside atmosphere either:

1. closed by a manual or automatic isolation valve, blind flange, or equivalent, or

2. capable of being closed by an OPERABLE containment ventilation isolation valve.

---------- NOTE ----------
Penetration flow path(s) providing direct access from the containment atmosphere to the outside atmosphere may be unisolated under administrative controls.

APPLICABILITY: During CORE ALTERATIONS,
During movement of irradiated fuel assemblies within containment.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One or more containment penetrations not in required status.	A.1	Suspend CORE ALTERATIONS.	Immediately
	AND		
	A.2	Suspend movement of irradiated fuel assemblies within containment.	Immediately

ATTACHMENT 4 to TXX-00090

AFFECTED TECHNICAL SPECIFICATION BASES PAGES

B 3.9-15

BASES

LCO (continued)

containment ventilation penetrations and the personnel air locks. For the OPERABLE containment ventilation penetrations, this LCO ensures that these penetrations are isolable by the Containment Ventilation Isolation System. The OPERABILITY requirements for this LCO ensure that the automatic ventilation isolation valve closure function specified in the FSAR can be achieved and, therefore, meet the assumptions used in the safety analysis to ensure that releases through the valves are terminated, such that radiological doses are within the acceptance limit.

Both containment personnel air lock doors may be open during movement of irradiated fuel or CORE ALTERATION, provided an air lock door is capable of being closed and the water level in the refueling pool is maintained as required. Administrative controls ensure that: 1) appropriate personnel are aware of the open status of the containment during movement of irradiated fuel or CORE ALTERATIONS, 2) specified individuals are designated and readily available to close the air lock or an open penetration following an evacuation that would occur in the event of a fuel handling accident, and 3) any obstructions (e.g., cables and hoses) that would prevent rapid closure of an open air lock can be quickly removed.

The LCO is modified by a NOTE allowing penetration flow paths with direct access from the containment atmosphere to the outside atmosphere to be unisolated under administrative controls. Administrative controls ensure that 1) appropriate personnel are aware of the open status of the penetration flow path during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment, and 2) specified individuals are designated and readily available to isolate the flow path in the event of a fuel handling accident.

APPLICABILITY

The containment penetration requirements are applicable during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment because this is when there is a potential for a fuel handling accident. In MODES 1, 2, 3, and 4, containment penetration requirements are addressed by LCO 3.6.1. In MODES 5 and 6, when CORE ALTERATIONS or movement of irradiated fuel assemblies within containment are not being conducted, the potential for a fuel handling accident does not exist. Therefore, under these conditions no requirements are placed on containment penetration status.

ACTIONS

A.1 and A.2

If the containment equipment hatch, air locks, or any containment penetration that provides direct access from the containment atmosphere to the outside atmosphere is not in the required status, including the

(continued)

ATTACHMENT 5 to TXX-00090

PROPOSED TECHNICAL SPECIFICATION PAGE

Page 3.9-7

3.9 REFUELING OPERATIONS

3.9.4 Containment Penetrations

LCO 3.9.4 The containment penetrations shall be in the following status:

a. The equipment hatch closed and held in place by four bolts;

b. One door in the emergency air lock closed and one door in the personnel airlock capable of being closed; and

c. Each penetration providing direct access from the containment atmosphere to the outside atmosphere either:

1. closed by a manual or automatic isolation valve, blind flange, or equivalent, or

2. capable of being closed by an OPERABLE containment ventilation isolation valve.

---------- NOTE ----------
Penetration flow path(s) providing direct access from the containment atmosphere to the outside atmosphere may be unisolated under administrative controls.

APPLICABILITY: During CORE ALTERATIONS,
During movement of irradiated fuel assemblies within containment.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One or more containment penetrations not in required status.	A.1	Suspend CORE ALTERATIONS.	Immediately
	AND		
	A.2	Suspend movement of irradiated fuel assemblies within containment.	Immediately

ATTACHMENT 6 to TXX-00090

PROPOSED TECHNICAL SPECIFICATION BASES PAGES

B 3.9-15

BASES

LCO (continued)

containment ventilation penetrations and the personnel air locks. For the OPERABLE containment ventilation penetrations, this LCO ensures that these penetrations are isolable by the Containment Ventilation Isolation System. The OPERABILITY requirements for this LCO ensure that the automatic ventilation isolation valve closure function specified in the FSAR can be achieved and, therefore, meet the assumptions used in the safety analysis to ensure that releases through the valves are terminated, such that radiological doses are within the acceptance limit.

Both containment personnel air lock doors may be open during movement of irradiated fuel or CORE ALTERATION, provided an air lock door is capable of being closed and the water level in the refueling pool is maintained as required. Administrative controls ensure that: 1) appropriate personnel are aware of the open status of the containment during movement of irradiated fuel or CORE ALTERATIONS, 2) specified individuals are designated and readily available to close the air lock or an open penetration following an evacuation that would occur in the event of a fuel handling accident, and 3) any obstructions (e.g., cables and hoses) that would prevent rapid closure of an open air lock can be quickly removed.

The LCO is modified by a NOTE allowing penetration flow paths with direct access from the containment atmosphere to the outside atmosphere to be unisolated under administrative controls. Administrative controls ensure that 1) appropriate personnel are aware of the open status of the penetration flow path during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment, and 2) specified individuals are designated and readily available to isolate the flow path in the event of a fuel handling accident.

APPLICABILITY

The containment penetration requirements are applicable during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment because this is when there is a potential for a fuel handling accident. In MODES 1, 2, 3, and 4, containment penetration requirements are addressed by LCO 3.6.1. In MODES 5 and 6, when CORE ALTERATIONS or movement of irradiated fuel assemblies within containment are not being conducted, the potential for a fuel handling accident does not exist. Therefore, under these conditions no requirements are placed on containment penetration status.

ACTIONS A.1 and A.2

If the containment equipment hatch, air locks, or any containment penetration that provides direct access from the containment atmosphere to the outside atmosphere is not in the required status, including the

(continued)

ATTACHMENT 7 to TXX-00090

INDUSTRY TECHNICAL SPECIFICATION CHANGE
TRAVELER TSTF-312, REVISION 1

Industry/TSTF Standard Technical Specification Change Traveler

Administratively Control Containment Penetrations

Classification: 5) Plant Variation

NUREGs Affected: ☑ 1430 ☑ 1431 ☑ 1432 ☐ 1433 ☐ 1434

Description:

Add a note under LCO 3.9.4 allowing penetration flow path(s) that have a direct access from the containment atmosphere to the outside atmosphere to be unisolated under administrative control.

Justification:

LCO 3.6.3, Containment Isolation Valves, ACTION Note 1 allows CIVs to be opened in MODES 1 - 4 under administrative control. In this condition, the accident analyses credit the containment as a barrier. In the lower energy conditions of LCO 3.9.4, opening CIVs under administrative control is less risk significant. Therefore, this change is proposed to provide a consistent approach to containment boundary issues that utilizes previously approved acceptable compensatory measures.

Industry Contact:	Buschbaum, Denny	(254) 897-5851	dbuschb1@tuelectric.com
NRC Contact:	Giardina, Bob	301-314-3152	lbb1@nrc.gov

Revision History

OG Revision 0 Revision Status: Closed

Revision Proposed by: Wolf Creek

Revision Description:
Original Issue

Owners Group Review Information

Date Originated by OG: 10-Oct-96

Owners Group Comments
(No Comments)

Owners Group Resolution: Approved Date: 10-Oct-96

TSTF Review Information

TSTF Received Date: 11-Oct-96 Date Distributed for Review 29-Oct-96

OG Review Completed: ☑ BWOG ☑ WOG ☑ CEOG ☑ BWROG

TSTF Comments:

CEOG - Applicable and CEOG rejects.
BWOG/BWROG - WOG to rewrite justification and bring back to TSTF

New justification to be based on the allowance to have containment penetrations open during Modes 1 - 4 under administrative control and the lack of the ability to do the same in Modes 5 and 6, when the need for containment integrity is less.

TSTF Resolution: Superceeded Date: 19-Dec-96

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OG Revision 1 Revision Status: Closed

Revision Proposed by: WOG

Revision Description:
Revised justification to address TSTF comments.

Owners Group Review Information

Date Originated by OG: 04-Jun-98

Owners Group Comments
(No Comments)

Owners Group Resolution: Approved Date: 04-Jun-98

TSTF Review Information

TSTF Received Date: 04-Apr-98 Date Distributed for Review 28-May-98

OG Review Completed: ☑ BWOG ☑ WOG ☑ CEOG ☑ BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Approved Date: 10-Jul-98

NRC Review Information

NRC Received Date: 13-Nov-98

NRC Comments:

4/22/99 - Will go to Tech Review Branch with TSTF-51.
6/16/99 - In PSB.
7/17/99 - Comments received from NRC regarding the addition of a Reviewer's Note and two editorial corrections.

Final Resolution: Superceded by Revision Final Resolution Date: 17-Jul-99

TSTF Revision 1 Revision Status: Active Next Action: NRC

Revision Proposed by: NRC

Revision Description:
The NRC recommended three changes. First, a Reviewer's Note is added to the LCO Bases. The Reviewer's Note is consistent with the Note used in TSTF-68. Second, the location of Insert 2 for BWOG is corrected by moving it from the end of the Applicable Safety Analysis section to the end of the LCO section. Third, the WOG Insert "Insert LCO" is corrected to label it "Insert 2."

TSTF Review Information

TSTF Received Date: 17-Jul-99 Date Distributed for Review 17-Jul-99

OG Review Completed: ☑ BWOG ☑ WOG ☑ CEOG ☑ BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Approved Date: 17-Jul-99

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TSTF Revision 1 **Revision Status: Active** **Next Action: NRC**

Incorporation Into the NUREGs

File to BBS/LAN Date: TSTF Informed Date: TSTF Approved Date:

NUREG Rev Incorporated:

Affected Technical Specifications

LCO 3.9.3	Containment Penetrations	NUREG(s)- 1430 1432 Only
LCO 3.9.3 Bases	Containment Penetrations	NUREG(s)- 1430 1432 Only
LCO 3.9.4	Containment Penetrations	NUREG(s)- 1431 Only
LCO 3.9.4 Bases	Containment Penetrations	NUREG(s)- 1431 Only

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Insert 1

----------NOTE----------
Penetration flow path(s) providing direct access from the containment atmosphere to the outside atmosphere may be unisolated under administrative controls.

Insert 2

The LCO is modified by a Note allowing penetration flow paths with direct access from the containment atmosphere to the outside atmosphere to be unisolated under administrative controls. Administrative controls ensure that 1) appropriate personnel are aware of the open status of the penetration flow path during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment, and 2) specified individuals are designated and readily available to isolate the flow path in the event of a fuel handling accident.

Insert 3

----- REVIEWERS NOTE -----

The allowance to have containment personnel airlock doors open and penetration flow paths with direct access from the containment atmosphere to the outside atmosphere to be unisolated during fuel movement and CORE ALTERATIONS is based on (1) confirmatory dose calculations of a fuel handling accident as approved by the NRC staff which indicate acceptable radiological consequences and (2) commitments from the licensee to implement acceptable administrative procedures that ensure in the event of a refueling accident (even though the containment fission product control function is not required to meet acceptable dose consequences) that the open airlock can and will be promptly closed following containment evacuation and that the open penetration(s) can and will be promptly closed. The time to close such penetrations or combination of penetrations shall be included in the confirmatory dose calculations.

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3.9 REFUELING OPERATIONS

3.9.3 Containment Penetrations

LCO 3.9.3 The containment penetrations shall be in the following status:

a. The equipment hatch closed and held in place by four bolts;

b. One door in each air lock closed; and

c. Each penetration providing direct access from the containment atmosphere to the outside atmosphere either:

1. closed by a manual or automatic isolation valve, blind flange, or equivalent, or

2. capable of being closed by an OPERABLE Containment Purge and Exhaust Isolation System.

Insert 1 →

APPLICABILITY: During CORE ALTERATIONS,
During movement of irradiated fuel assemblies within containment.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more containment penetrations not in required status.	A.1 Suspend CORE ALTERATIONS. AND	Immediately
	A.2 Suspend movement of irradiated fuel assemblies within containment.	Immediately

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BASES (continued)

APPLICABLE SAFETY ANALYSES

During CORE ALTERATIONS or movement of fuel assemblies within containment with irradiated fuel in containment, the most severe radiological consequences result from a fuel handling accident. The fuel handling accident is a postulated event that involves damage to irradiated fuel (Ref. 2). Fuel handling accidents, analyzed in Reference 3, include dropping a single irradiated fuel assembly and handling tool or a heavy object onto other irradiated fuel assemblies. The requirements of LCO 3.9.6, "Refueling Canal Water Level," and the minimum decay time of [100] hours prior to CORE ALTERATIONS ensure that the release of fission product radioactivity subsequent to a fuel handling accident results in doses that are within the requirements specified in 10 CFR 100. The acceptance limits for offsite radiation exposure are contained in Reference 2.

Containment penetrations satisfy Criterion 3 of the NRC Policy Statement.

LCO

Insert 3

This LCO limits the consequences of a fuel handling accident in containment by limiting the potential escape paths for fission product radioactivity from containment. The LCO requires any penetration providing direct access from the containment atmosphere to the outside atmosphere to be closed except for the OPERABLE containment purge and exhaust penetrations. For the OPERABLE containment purge and exhaust penetrations, this LCO ensures that these penetrations are isolable by the RB purge isolation signal. The OPERABILITY requirements for this LCO ensure that the automatic purge and exhaust valve closure times specified in the FSAR can be achieved and therefore meet the assumptions used in the safety analysis to ensure releases through the valves are terminated such that radiological doses are within the acceptance limit.

Insert 2

APPLICABILITY

The containment penetration requirements are applicable during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment because this is when there is a potential for a fuel handling accident. In MODES 1, 2, 3, and 4, containment penetration requirements are addressed by LCO 3.6.1. In MODES 5 and 6, when CORE ALTERATIONS or movement of irradiated fuel assemblies within containment

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3.9 REFUELING OPERATIONS

3.9.4 Containment Penetrations

LCO 3.9.4 The containment penetrations shall be in the following status:

a. The equipment hatch closed and held in place by [four] bolts;

b. One door in each air lock closed; and

c. Each penetration providing direct access from the containment atmosphere to the outside atmosphere either:

1. closed by a manual or automatic isolation valve, blind flange, or equivalent, or

2. capable of being closed by an OPERABLE Containment Purge and Exhaust Isolation System.

Insert Note

APPLICABILITY: During CORE ALTERATIONS,
During movement of irradiated fuel assemblies within containment.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more containment penetrations not in required status.	A.1 Suspend CORE ALTERATIONS. AND A.2 Suspend movement of irradiated fuel assemblies within containment.	Immediately Immediately

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BASES

BACKGROUND (continued)

must be isolated on at least one side. Isolation may be achieved by an OPERABLE automatic isolation valve, or by a manual isolation valve, blind flange, or equivalent. Equivalent isolation methods must be approved and may include use of a material that can provide a temporary, atmospheric pressure, ventilation barrier for the other containment penetrations during fuel movements (Ref. 1).

APPLICABLE SAFETY ANALYSES

During CORE ALTERATIONS or movement of irradiated fuel assemblies within containment, the most severe radiological consequences result from a fuel handling accident. The fuel handling accident is a postulated event that involves damage to irradiated fuel (Ref. 2). Fuel handling accidents, analyzed in Reference 3, include dropping a single irradiated fuel assembly and handling tool or a heavy object onto other irradiated fuel assemblies. The requirements of LCO 3.9.7, "Refueling Cavity Water Level," and the minimum decay time of 100 hours prior to CORE ALTERATIONS ensure that the release of fission product radioactivity, subsequent to a fuel handling accident, results in doses that are well within the guideline values specified in 10 CFR 100. Standard Review Plan, Section 15.7.4, Rev. 1 (Ref. 3), defines "well within" 10 CFR 100 to be 25% or less of the 10 CFR 100 values. The acceptance limits for offsite radiation exposure will be 25% of 10 CFR 100 values or the NRC staff approved licensing basis (e.g., a specified fraction of 10 CFR 100 limits).

Containment penetrations satisfy Criterion 3 of the NRC Policy Statement.

LCO

Insert 3

This LCO limits the consequences of a fuel handling accident in containment by limiting the potential escape paths for fission product radioactivity released within containment. The LCO requires any penetration providing direct access from the containment atmosphere to the outside atmosphere to be closed except for the OPERABLE containment purge and exhaust penetrations. For the OPERABLE containment purge and exhaust penetrations, this LCO ensures that these penetrations are isolable by the Containment Purge and Exhaust Isolation System. The OPERABILITY requirements for this LCO ensure that the automatic purge and exhaust valve

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BASES

LCO (continued)

closure times specified in the FSAR can be achieved and, therefore, meet the assumptions used in the safety analysis to ensure that releases through the valves are terminated, such that radiological doses are within the acceptance limit.

Insert 2

APPLICABILITY

The containment penetration requirements are applicable during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment because this is when there is a potential for a fuel handling accident. In MODES 1, 2, 3, and 4, containment penetration requirements are addressed by LCO 3.6.1. In MODES 5 and 6, when CORE ALTERATIONS or movement of irradiated fuel assemblies within containment are not being conducted, the potential for a fuel handling accident does not exist. Therefore, under these conditions no requirements are placed on containment penetration status.

ACTIONS

A.1 and A.2

If the containment equipment hatch, air locks, or any containment penetration that provides direct access from the containment atmosphere to the outside atmosphere is not in the required status, including the Containment Purge and Exhaust Isolation System not capable of automatic actuation when the purge and exhaust valves are open, the unit must be placed in a condition where the isolation function is not needed. This is accomplished by immediately suspending CORE ALTERATIONS and movement of irradiated fuel assemblies within containment. Performance of these actions shall not preclude completion of movement of a component to a safe position.

SURVEILLANCE REQUIREMENTS

SR 3.9.4.1

This Surveillance demonstrates that each of the containment penetrations required to be in its closed position is in that position. The Surveillance on the open purge and exhaust valves will demonstrate that the valves are not blocked from closing. Also the Surveillance will

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3.9 REFUELING OPERATIONS

3.9.3 Containment Penetrations

LCO 3.9.3 The containment penetrations shall be in the following status:

a. The equipment hatch closed and held in place by [four] bolts;

b. One door in each air lock closed; and

c. Each penetration providing direct access from the containment atmosphere to the outside atmosphere either:

1. closed by a manual or automatic isolation valve, blind flange, or equivalent, or

2. capable of being closed by an OPERABLE Containment Purge and Exhaust Isolation System.

Insert 1 →

APPLICABILITY: During CORE ALTERATIONS,
During movement of irradiated fuel assemblies within containment.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more containment penetrations not in required status.	A.1 Suspend CORE ALTERATIONS. AND A.2 Suspend movement of irradiated fuel assemblies within containment.	Immediately Immediately

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BASES

BACKGROUND (continued)

must be isolated on at least one side. Isolation may be achieved by an OPERABLE automatic isolation valve, or by a manual isolation valve, blind flange, or equivalent. Equivalent isolation methods must be approved and may include use of a material that can provide a temporary, atmospheric pressure ventilation barrier for the other containment penetrations during fuel movements (Ref. 1).

APPLICABLE SAFETY ANALYSES

During CORE ALTERATIONS or movement of irradiated fuel assemblies within containment, the most severe radiological consequences result from a fuel handling accident. The fuel handling accident is a postulated event that involves damage to irradiated fuel (Ref. 2). Fuel handling accidents, analyzed in Reference 3, include dropping a single irradiated fuel assembly and handling tool or a heavy object onto other irradiated fuel assemblies. The requirements of LCO 3.9.6, "Refueling Water Level," and the minimum decay time of [72] hours prior to CORE ALTERATIONS ensure that the release of fission product radioactivity, subsequent to a fuel handling accident, results in doses that are well within the guideline values specified in 10 CFR 100. The acceptance limits for offsite radiation exposure are contained in Standard Review Plan Section 15.7.4, Rev. 1 (Ref. 2), which defines "well within" 10 CFR 100 to be 25% or less of the 10 CFR 100 values.

Containment penetrations satisfy Criterion 3 of the NRC Policy Statement.

LCO

Insert 3

This LCO limits the consequences of a fuel handling accident in containment by limiting the potential escape paths for fission product radioactivity released within containment. The LCO requires any penetration providing direct access from the containment atmosphere to the outside atmosphere to be closed except for the OPERABLE containment purge and exhaust penetrations. For the OPERABLE containment purge and exhaust penetrations, this LCO ensures that these penetrations are isolable by the Containment Purge and Exhaust Isolation System. The OPERABILITY requirements for this LCO ensure that the automatic purge and exhaust valve closure times specified in the FSAR can be achieved and therefore meet the assumptions used in the safety analysis

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BASES

LCO (continued) to ensure releases through the valves are terminated, such that the radiological doses are within the acceptance limit.

Insert 2 →

APPLICABILITY The containment penetration requirements are applicable during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment because this is when there is a potential for a fuel handling accident. In MODES 1, 2, 3, and 4, containment penetration requirements are addressed by LCO 3.6.1, "Containment." In MODES 5 and 6, when CORE ALTERATIONS or movement of irradiated fuel assemblies within containment are not being conducted, the potential for a fuel handling accident does not exist. Therefore, under these conditions no requirements are placed on containment penetration status.

ACTIONS A.1 and A.2

With the containment equipment hatch, air locks, or any containment penetration that provides direct access from the containment atmosphere to the outside atmosphere not in the required status, including the Containment Purge and Exhaust Isolation System not capable of automatic actuation when the purge and exhaust valves are open, the unit must be placed in a condition in which the isolation function is not needed. This is accomplished by immediately suspending CORE ALTERATIONS and movement of irradiated fuel assemblies within containment. Performance of these actions shall not preclude completion of movement of a component to a safe position.

SURVEILLANCE REQUIREMENTS SR 3.9.3.1

This Surveillance demonstrates that each of the containment penetrations required to be in its closed position is in that position. The Surveillance on the open purge and exhaust valves will demonstrate that the valves are not blocked from closing. Also, the Surveillance will demonstrate that each valve operator has motive power, which will ensure each valve is capable of being closed by an

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