Log # TXX-92086
File # 10200
Ref. # 10CFR50.73(a)(2)(i)

February 7, 1992

William J. Cahill, Jr.
Group Vice President

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NO. 50-445
OPERATION PROHIBITED BY TECHNICAL SPECIFICATIONS
LICENSEE EVENT REPORT 90-024-01

Gentlemen:

Enclosed is Licensee Report 90-024-01 for Comanche Peak Steam Electric Station Unit 1, "Failure to Comply With Technical Specification Action Statement Due to Inadequate Post Trip Review."

This report is being provided to revise corrective actions previously identified for Licensee Event Report 90-024-00.

Sincerely,

William J. Cahill, Jr.

OB/tg

c - Mr. R. D. Martin, Region IV
Resident Inspectors, CPSES (2)

P. O. Box 1002 Glen Rose, Texas 76043-1002

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Enclosure to TXX-92086

NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92
ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC. 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC. 20503.

LICENSEE EVENT REPORT (LER)

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Title (4) PERSONNEL ERROR RESULTING IN FAILURE TO SATISFY TECHNICAL SPECIFICATION STAGGERED TEST BASIS REQUIREMENT

Event Date (5)			LER Number (6)			Report Date (7)			Other Facilities Involved (8)	
Month	Day	Year	Year	Sequential Number	Revision Number	Month	Day	Year	Facility Names	Docket Numbers
									N/A	0 5 0 0 0
0 8	2 4	9 0	9 0	- 0 2 4	- 0 1	0 2	0 7	9 2	N/A	0 5 0 0 0

Operating Mode (9): 1

Power Level (10): 1 0 0

This report is submitted pursuant to the requirements of 10 CFR §: (Check one or more of the following) (11)

- [ ] 20.402(b)
- [ ] 20.405(a)(1)(i)
- [ ] 20.405(a)(1)(ii)
- [ ] 20.405(a)(1)(iii)
- [ ] 20.405(a)(1)(iv)
- [ ] 20.405(a)(1)(v)
- [ ] 20.405(c)
- [ ] 50.36(c)(1)
- [ ] 50.36(c)(2)
- [X] 50.73(a)(2)(i)
- [ ] 50.73(a)(2)(ii)
- [ ] 50.73(a)(2)(iii)
- [ ] 50.73(a)(2)(iv)
- [ ] 50.73(a)(2)(v)
- [ ] 50.73(a)(2)(vii)
- [ ] 50.73(a)(2)(viii)(A)
- [ ] 50.73(a)(2)(viii)(B)
- [ ] 50.73(a)(2)(x)
- [ ] 73.71(b)
- [ ] 73.71(c)
- [ ] Other (Specify in Abstract below and in Text, NRC Form 366A)

Licensee Contact For This LER (12)

Name	Telephone Number Area Code
D. E. BUSCHBAUM SUPERVISOR, COMPLIANCE	8 1 1 7 8 9 7 - 5 8 5 1

Complete One Line For Each Component Failure Described in This Report (13)

Cause	System	Component	Manufacturer	Reportable To NPRDS		Cause	System	Component	Manufacturer	Reportable To NPRDS	

Supplemental Report Expected (14)

- [ ] Yes (If yes, complete Expected Submission Date)
- [X] No

Expected Submission Date (15): Month | Day | Year

Abstract (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On August 24, 1990, Comanche Peak Steam Electric Station Unit 1 was in Mode 1, Power Operations, with Reactor Power at 100 percent. While preparing to perform surveillance testing on containment purge and hydrogen purge isolation valves, Test Department personnel discovered that testing activities were not being performed on a STAGGERED TEST BASIS as specified by the associated Technical Specification. The event was caused by personnel error during initial surveillance program development. The individual responsible for inputting data to the scheduling database overlooked the requirement. Corrective actions included testing and program review.

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Text (If more space is required, use additional NRC Form 366A's) (17)

I. DESCRIPTION OF THE REPORTABLE EVENT

A. REPORTABLE EVENT CLASSIFICATION

Any deviation from the plant's Technical Specifications.

B. PLANT OPERATING CONDITIONS BEFORE THE EVENT

On August 24, 1990 just prior to 1237 hours CDT, Comanche Peak Steam Electric Station (CPSES) Unit 1 was in Mode 1, Power Operations, with reactor power at approximately 100 percent.

C. STATUS OF STRUCTURES, SYSTEMS, OR COMPONENTS THAT WERE INOPERABLE AT THE START OF THE EVENT AND THAT CONTRIBUTED TO THE EVENT

There were no inoperable structures, systems or components that contributed to the event.

D. NARRATIVE SUMMARY OF THE EVENT, INCLUDING DATES AND APPROXIMATE TIMES

On August 24, 1990, prior to event discovery, a test engineer (utility, non-licensed) was preparing to perform surveillance testing on containment purge and hydrogen purge isolation valves (EIIS:(BB)(VA)(ISV)) to satisfy Technical Specification Surveillance Requirement 4.6.1.7.2. While reviewing associated documents prior to performing the test, the test engineer made the following observations:

- The Technical Specification requires the surveillance to be performed at least once per 184 days on a STAGGERED TEST BASIS, as defined by Technical Specification Definition 1.34.

- The surveillance test procedure did not indicate this test is performed on a STAGGERED TEST BASIS.

- The Surveillance Work Orders (SWOs) specified a 6 month frequency for this activity and had no indication this test is performed on a STAGGERED TEST BASIS.

- The Managed Maintenance Computer Program (MMCP) surveillance scheduling system contained only one database entry with a 6 month frequency to schedule this activity. This database entry had no indication this test is performed on a STAGGERED TEST BASIS.

- Approximately 5 1/2 months had passed since all of the valves had been previously tested together on a previous SWO with no STAGGERED TEST BASIS interval.

The test engineer then initiated discussion with other plant personnel (utility and contractor, non-licensed) to determine the applicability of the STAGGERED TEST BASIS definition to the testing of these containment isolation valves. At approximately 1237 CDT, it was concluded that the testing had not been scheduled so as to satisfy the STAGGERED TEST BASIS requirement.

E. THE METHOD OF DISCOVERY OF EACH COMPONENT OR SYSTEM FAILURE OR PROCEDURAL OR PERSONNEL ERROR

While reviewing Technical Specifications Surveillance Requirement 4.6.1.7.2, prior to testing, the test engineer noted the STAGGERED TEST BASIS requirement. After inquiring about the applicability of the STAGGERED TEST BASIS definition to the testing of these containment penetration (EIIS:(BB)(VA)(PEN)) isolation valves, plant personnel realized the valves had not been tested at the proper intervals.

II. COMPONENT OR SYSTEM FAILURES

A. FAILED COMPONENT INFORMATION

Not applicable - there were no component failures associated with this event.

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B. FAILURE MODE, MECHANISM AND EFFECT OF EACH FAILED COMPONENT

Not applicable - there were no component failures associated with this event.

C. CAUSE OF EACH COMPONENT OR SYSTEM FAILURE

Not applicable - there were no component failures associated with this event.

D. SYSTEMS OR SECONDARY FUNCTIONS THAT WERE AFFECTED BY FAILURE OF COMPONENTS WITH MULTIPLE FUNCTIONS

Not applicable - there were no component failures associated with this event.

III. ANALYSIS OF THE EVENT

A. SAFETY SYSTEM RESPONSES THAT OCCURRED

Not applicable - no safety system responses associated with this event.

B. DURATION OF SAFETY SYSTEM INOPERABILITY

Not applicable - there were no safety systems rendered inoperable due to a failure.

C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

The containment purge and hydrogen purge isolation valves are designed to limit the leakage of radioactive material from containment (EIIS:(NH)) during normal operation and accident conditions. General Design Criteria 56 of 10CFR50, Appendix A, requires that two isolation valves in series be provided to assure that the isolation function is maintained in the event of any single active failure. Surveillance testing of those valves is performed to demonstrate operability of the components, ensuring that the boundary doses specified in 10CFR100 are not exceeded. Staggered testing is performed to reduce the probability of system failure due to a common cause, and failure to perform the required testing on a staggered basis increases the length of time that a common cause system failure could have gone

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undetected. The successful testing of the subject penetrations following discovery of the condition demonstrates that the penetrations were at all times capable of performing their intended safety function of limiting radioactive emissions from containment. It is concluded that the short term failure to satisfy the STAGGERED TEST BASIS requirement associated with testing of these valves did not adversely affect the safe operation of CPSES Unit 1 or the health and safety of the public.

IV. CAUSE OF THE EVENT

A. IMMEDIATE CAUSE

STAGGERED TEST BASIS requirements were not incorporated into the surveillance scheduling methodology for this activity.

B. ROOT CAUSE

The root cause of the event was personnel error which led to omission of the STAGGERED TEST BASIS requirement.

The station administrative procedure controlling the surveillance test program requires that each organization responsible for performing surveillance activities develop implementing procedures and incorporate methods for scheduling and statusing all surveillances for which they have responsibility. Plant personnel responsible for establishing the testing interval for this surveillance overlooked the STAGGERED TEST BASIS requirement during initial test and scheduling development.

V. CORRECTIVE ACTIONS

A. IMMEDIATE

The test engineer documented the condition in accordance with station procedures and reported the status of the surveillance requirement to the Shift Supervisor (utility, licensed). It was determined that the intent of STB requirement could be satisfied by testing the inboard and outboard isolation valves of one containment purge

penetration and one hydrogen purge penetration at the subinterval. Compliance with the STAGGERED TEST BASIS requirement was restored by successful testing of two of the four containment and hydrogen purge penetrations as specified by the Technical Specification action requirements.

B. ACTIONS TO PREVENT RECURRENCE

A satisfactory review was performed of all surveillance activities with a STAGGERED TEST BASIS requirement to ensure that the requirement is acknowledged and implemented in activity scheduling. The administrative procedure controlling the surveillance program is being enhanced to clarify the STAGGERED TEST BASIS requirement and provide formal guidance ensuring consistent site wide scheduling of affected activities.

VI. PREVIOUS SIMILAR EVENTS

LER 90-005 and LER 90-010 describe reportable events resulting from failure to perform Technical Specification surveillance activities. However, the details of the events described in those LERs and the resultant corrective actions are sufficiently different from those of this LER to conclude that the previous corrective actions could not be expected to have prevented the scheduling error described in this report.

VII. ADDITIONAL INFORMATION

Corrective action described in the initial submittal of this LER included application of the STAGGERED TEST BASIS requirement to testing of the containment and hydrogen purge valves such that one isolation valve associated with each containment and hydrogen purge penetration would be tested at the first subinterval, with the other valve(s) tested in the second subinterval.

Additional review of related NRC correspondence following submittal of this LER revealed that the basis for the STAGGERED TEST BASIS requirement on leakage rate testing of the purge valves is to detect common mode failure (excess leakage) caused by seasonal

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weather variations. Staggering the inlet and outlet penetrations accomplishes the goal of testing under a variety of weather conditions, and meets the STAGGERED TEST BASIS requirements. This testing is consistent with the purge penetration design, which does not allow the inboard and outboard valves to be tested individually.

Accordingly, testing of the containment and hydrogen purge valves to satisfy the requirements of Technical Specification 4.6.1.7.2 will be conducted on a STAGGERED TEST BASIS so as to stagger testing of penetrations rather than individual valves.