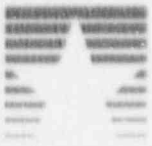

TU ELECTRIC

Log # TXX-901041
File # 10200
Ref. # 50.73(a)(2)(i)(b)

December 20, 1990

William J. Cahill, Jr.
Executive Vice President

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NO. 50-445
OPERATION PROHIBITED BY TECHNICAL SPECIFICATIONS
LICENSEE EVENT REPORT 90-042-00

Gentlemen:

Enclosed is Licensee Event Report 90-042-00 for Comanche Peak Steam Electric Station Unit 1, "Personnel Error in Review of Technical Specification Action Requirements Leading to the Disabling of ESF Actuator Circuitry."

Sincerely,

William J. Cahill, Jr.

JAA/daj

Enclosure

c - Mr. R. D. Martin, Region IV
Resident Inspectors, CPSES (3)

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Enclosure to TXX-901041

NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3 50-0104
EXPIRES: 4/30/ 2
ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FO WARD 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 IN REVIEW OF TECHNICAL SPECIFICATION ACTION REQUIREMENTS LEADING TO THE DISABLING OF ESF ACTUATION CIRCUITRY

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
1 1	2 0	9 0	9 0	- 0 4 2	- 0 0	1 2	2 0	9 0	N/A	0 5 0 0 0
									N/A	0 5 0 0 0

Operating Mode (9): 2

Power Level (10): 0 0 1 2

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
T. A. HOPE SUPERVISOR, COMPLIANCE	Area Code 8 1 1 7 8 9 7 - 1 6 3 7 0

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 November 20, 1990, Comanche Peak Steam Electric Station Unit 1 Control Room personnel were performing a reactor startup, preparing to start Main Feedwater Pump 01. Main Feedwater Pump 02 had been tripped and tagged out of service earlier to allow maintenance on the suction strainer. The startup procedure for the main feedwater pump requires that the pump be tripped after initial pump start to verify proper operation of the low pressure and high pressure stop valves and the pump discharge valve. The Reactor Operator recognized that tripping pump 01 with pump 02 out of service would result in an automatic actuation of the Auxiliary Feedwater System and isolation of the Auxiliary Boiler from its water supply. Following a preliminary review of the Technical Specifications, the Shift Supervisor directed that fuses be removed from the control circuit, disabling the actuation function. This placed the plant in a condition subject to the provisions of Technical Specification 3.0.3. The cause of the event was personnel error. Corrective actions included counselling and procedure enhancement.

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LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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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 operation prohibited by the plant's Technical Specifications.

B. PLANT OPERATING CONDITIONS BEFORE THE EVENT

On November 20, 1990, just prior to the event, Comanche Peak Steam Electric Station (CPSES) Unit 1 was in Mode 2, Startup, with the reactor at about 2 percent of rated thermal power. A plant startup was in progress; the auxiliary feedwater pumps (EIIS:(BA)(P)) were running, supplying feedwater to all four steam generators (EIIS:(SB)(SG)).

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

Main Feedwater Pump 02 (EIIS:(SJ)(P)) was tripped and tagged out of service to allow maintenance on the suction strainer (EIIS:(SJ)(STR)).

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

On November 20, 1990, at approximately 1000 CST, Control Room personnel were in the process of performing a plant startup. The Reactor Operator (utility, licensed) reached the point in the integrated operating procedure which requires that a main feedwater pump be started using the system operating procedure for the Feedwater System. As part of the feedwater pump start procedure, the pump is tripped to verify that the pump discharge valve and the low pressure and high pressure stop valves (EIIS:(SJ)(V)) operate as required. At this point the Reactor Operator recognized that tripping Main Feedwater Pump 01 with pump 02 tripped and tagged out of service would result in an Engineered Safeguards Feature (ESF) actuation signal providing an auto start signal to both motor driven auxiliary feedwater pumps. The auto-start signal would have isolated steam generator blowdown (EIIS:(WI)) and isolated the

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

Auxiliary Boiler (EIIS:(SA)(BLR)) from its water supply. The Auxiliary Boiler was supplying steam to the Auxiliary Steam System (EIIS:(SA)), and these responses were considered undesirable.

After discussion of operational options and a preliminary review of the Technical Specifications, the Shift Supervisor concluded that the fuses (EIIS:(JE)(FU)) could be removed from the auto-start circuitry. At approximately 1015 fuses were removed, disabling the Auxiliary Feedwater auto-start actuation from loss of both main feedwater pumps. At 1018 the Shift Technical Advisor (utility, licensed) completed his review of the Technical Specification, and concluded that removal of the fuses was not covered by Technical Specification Table 3.3.2.6.e, Action 23. The Shift Supervisor was advised that the plant was in a condition subject to the provisions of Technical Specification 3.0.3; the fuses were immediately reinstalled.

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

While reviewing the Limiting Condition for Operation Action Requirement for the affected Technical Specification, as required by Operations Department administrative procedures, the Shift Technical Advisor discovered that defeating the ESF actuation feature placed the unit in a condition subject to the provision of Technical Specification 3.0.3.

II. COMPONENT OR SYSTEM FAILURES

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

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

B. CAUSE OF EACH COMPONENT OR SYSTEM FAILURE

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

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LICENSEE EVENT REPORT (LER)
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C. SYSTEMS OR SECONDARY FUNCTIONS THAT WERE AFFECTED BY FAILURE OF COMPONENTS WITH MULTIPLE FUNCTIONS

Not applicable - there were no failures of components with multiple functions associated with this event.

D. FAILED COMPONENT INFORMATION

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 occurred as a result of this event.

B. DURATION OF SAFETY SYSTEM TRAIN INOPERABILITY

Not applicable - there were no safety systems which were rendered inoperable due to this event.

C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

The two motor driven auxiliary feedwater water pumps are automatically started as a result of a low-low level in any steam generator, a trip of both main feedwater pumps, a safety injection signal, or a loss of offsite power. Disabling the capability to auto-start the motor driven auxiliary feedwater pumps on loss of both main feedwater pumps had no safety consequences since both pumps were already in service, supplying water to all steam generators. The actuation is anticipatory, and no credit is taken for the capability in the analysis of the loss of main feedwater event described in CPSES Final Safety Analysis Report Section 15.2.7. The analysis assumes that auxiliary feedwater actuation occurs as a result of low-low level in any steam generator. It is concluded that the event did not adversely affect the safe operation of CPSES Unit 1 or the health and safety of the public.

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IV. CAUSE OF THE EVENT

ROOT CAUSE NO. 1

Self-checking by the Shift Supervisor was less than adequate. The Shift Supervisor misinterpreted the action requirement for Technical Specification Table 3.3-2, item 6.e, and incorrectly referred to Action 22. It was felt that a controlled entry into Action 22 could be made to allow completion of the main feedwater pump start procedure. Disabling the control circuitry for the auto-start of auxiliary feedwater on loss of both main feedwater pumps placed the plant in a condition not covered by an Action requirement, and therefore subject to the provisions of Technical Specification 3.0.3.

ROOT CAUSE NO. 2

Supervisory oversight was less than adequate. The Shift Supervisor did not rely on the standard review process prior to having fuses removed from the actuation circuit. The review conducted by the Shift Technical Advisor was successful at identifying the Technical Specification implications of the decision to remove fuses. But fuse removal had been performed prior to completion of the review.

CONTRIBUTING FACTORS

Failure to use the Operation Department administrative procedure controlling the Limiting Condition for Operation Action Tracking Program. The Shift Supervisor did not have the procedurally required documentation completed prior to directing fuse removal. Completion of this documentation would have reduced the risk of misinterpretation which led to the event.

V. CORRECTIVE ACTIONS

A. IMMEDIATE

Upon discovery of the condition the Shift Supervisor immediately initiated reinstallation of the fuses. The event was documented in accordance with plant procedures to ensure incident investigation and resolution.

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

B. ACTIONS TAKEN PREVENT RECURRENCE

Root Cause No. 1 : Less than adequate self-checking

Corrective Action : The Shift Supervisor was counselled by Management on the importance of communication with and the use of personnel on shift for review of Technical Specifications. The Shift Supervisor will conduct training on scenarios involving interpretation of Technical Specifications.

Root Cause No. 2 : Supervisory oversight less than adequate

Corrective Action : Personnel directly involved in the event were de-briefed by Management. Emphasis was placed on the exceptions for procedural compliance and crew communication.

Contributing Factor : Procedure not used

Corrective Action : The controlling administrative procedure has been changed to provide specific guidance for controlled entries into Technical Specification Action Statements. A letter from management has been distributed to all Shift Supervisors stressing the expectations for procedural compliance, crew communication and self-checking.

VI. PREVIOUS SIMILAR EVENTS

There have been no previous similar events reported pursuant to 10CFR50.73.