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October 19, 1998

C. Lance Terry
*Senior Vice President
& Principal Nuclear Officer*

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

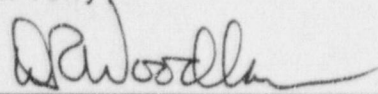
**SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
CONDITIONS PROHIBITED BY TECHNICAL SPECIFICATIONS
LICENSEE EVENT REPORT 445/98-008-00**

Enclosed is Licensee Event Report (LER) 98-008-00 for Comanche Peak Steam Electric Station Unit 1 and Unit 2, "Control Room HVAC Emergency Pressurization Unit Was Found to Be Outside Technical Specification Allowed Outage Time Limits."

There are no new licensing-based commitments in the communication.

Sincerely,

C. L. Terry

By: 
D. R. Woodlan
Docket Licensing Manager

OB/ob
Enclosure

cc: Mr. E. W. Merschoff, Region IV
Mr. J. I. Tapia, Region IV
Resident Inspectors, CPSES

9810230045 981019
PDR ADOCK 05000445
S PDR

COMANCHE PEAK STEAM ELECTRIC STATION
P.O. Box 1002 Glen Rose, Texas 76043-1002

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NRC FORM 366
(4-95)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 4/30/98

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC, 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

Facility Name (1)

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1

Docket Number (2)

05000445

Page (3)

1 OF 4

Title (4)

Control Room HVAC Emergency Pressurization Unit Was Found to Be Outside Technical Specification Allowed Outage Time Limits

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 Name		Docket Numbers								
09	18	98	98	008	00	10	19	98	CPSES UNIT 2		0	5	0	0	0	4	4	6	
									N/A		0	5	0	0	0				

Operating Mode (9)	1	This report is submitted pursuant to the requirements of 10 CFR 6. (Check one or more) (11)													
Power Level (10)	100	<input type="checkbox"/> 20.2201 (b)	<input type="checkbox"/> 20.2203 (a) (2) (v)	<input checked="" type="checkbox"/> 50.73 (a) (2) (i)	<input type="checkbox"/> 50.73 (a) (2) (vii)										
		<input type="checkbox"/> 20.2203 (a) (1)	<input type="checkbox"/> 20.2203 (a) (3) (i)	<input type="checkbox"/> 50.73 (a) (2) (ii)	<input type="checkbox"/> 50.73 (a) (2) (x)										
		<input type="checkbox"/> 20.2203 (a) (2) (i)	<input type="checkbox"/> 20.2203 (a) (3) (ii)	<input type="checkbox"/> 50.73 (a) (2) (iii)	73.71										
		<input type="checkbox"/> 20.2203 (a) (2) (ii)	<input type="checkbox"/> 20.2203 (a) (4)	<input type="checkbox"/> 50.73 (a) (2) (iv)	OTHER										
		<input type="checkbox"/> 20.2203 (a) (2) (iii)	<input type="checkbox"/> 50.36 (c) (1)	<input type="checkbox"/> 50.73 (a) (2) (v)	Specify in Abstract below or in NRC Form 366A										
		<input type="checkbox"/> 20.2203 (a) (2) (iv)	<input type="checkbox"/> 50.36 (c) (2)	<input type="checkbox"/> 50.73 (a) (2) (vi)											

Licensee Contact For This LER (12)				Telephone Number (Include Area Code)			
Raphael Flores, System Engineering Manager				(254)897-5590			

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)				EXPECTED SUBMISSION DATE (15)		Month	Day	Year
YES (If yes, completed EXPECTED SUBMISSION DATE)				X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

Comanche Peak Steam Electric Station (CPSES) Technical Specification 4.7.7.1a requires that the Control Room Filtration/Pressurization System Train be demonstrated operable by operating the train for equal or greater than ten-hours with the heaters operating. On September 18, 1998 after a review of several deficiency documents for Train A Emergency Pressurization Unit, it was determined that although the past three surveillances were stasured as satisfactorily, the heaters had tripped during the initial surveillance performance rendering the unit inoperable. Based on the approximate duration of the inoperable conditions, it was conservatively determined that the Technical Specification allowed outage time may have been exceeded.

The causes of the heater trips were attributed to the position of the sensing elements located in the airflow path, a reduction in airflow caused by a broken damper, and higher than normal evening temperatures in the region when reviewed against the past operating history of these units.

Corrective actions were to relocate the sensing elements and repair the damper. The unit was declared operable after a successful surveillance test.

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Text (if more space is required, use additional copies of NRC Form 366A) (17)

I. DESCRIPTION OF REPORTABLE EVENT**A. REPORTABLE EVENT CLASSIFICATION**

Any operation prohibited by the Technical Specification (TS).

B. PLANT OPERATING CONDITIONS PRIOR TO THE EVENT

At time of discovery, on September 18, 1998, Comanche Peak Steam Electric Station (CPSES) Unit 1 and Unit 2 were in Mode 1, Power Operations.

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

It was conservatively determined that Train A of the Control Room Filtration/Pressurization System was inoperable for more than 30 days.

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

Technical Specification surveillance requirement (SR) 4.7.7.1a, dictates that each Control Room Filtration/Pressurization System Train be demonstrated operable by operating the train for equal to or greater than ten-hours with the heaters operating. On July 6, August 3, and August 31, 1998, during three separate surveillance tests the Control Room Heating, Ventilation, and Air Conditioning (HVAC) Train A Emergency Pressurization Unit heaters tripped during performance of the initial surveillance. After each event, the surveillance was completed satisfactorily.

The heaters on the Emergency Pressurization Unit were tripped by temperature switch signals on three different ten-hour surveillances. On July 7, 1998, the first ten-hour surveillance was completed on the Control Room HVAC system the morning after the first heater trip. The temperature switches were verified to be within calibration. Because the surveillance had been completed successfully, operability was not considered an issue. Corrective action documents were initiated and were implemented immediately after the same heater tripped on the same Emergency Pressurization Unit at the next monthly surveillance, which was on August 3, 1998. At this time the Control Room HVAC system was declared inoperable until the temperature switch sensing elements were relocated and the new location was proven by temperature measurements to be a more representative location. The required surveillance was successfully completed and the unit was declared operable August 5, 1998.

On August 31, 1998, during the third performance of the surveillance the heaters on the Emergency Pressurization Unit were again tripped by temperature switch

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signals. During implementation of corrective actions for the third heater trip event, a broken damper was discovered on the Emergency Filtration Unit. The damper was found partially closed. The resulting reduction in airflow through the Emergency Pressurization Unit caused by the broken damper is believed to be a contributing factor combined with the location of the sensing elements for the heaters tripping. The higher than normal summer evening temperatures were also considered as a contributing factor.

The CPSES Technical Specifications Surveillance Requirement (SR) 4.7.7.1a. applies to Control Room Pressurization Unit Heaters. On September 18, 1998, it was conservatively concluded that while performing this SR, the heaters were potentially inoperable for a period greater than one month due to the position of the sensing elements located in the airflow path, a reduction in airflow caused by a broken damper, and higher than normal evening temperatures in the region. Based on the approximate duration of the inoperable condition, the Technical Specification allowed outage time could reasonably be assumed to have been exceeded. Based on our review the inoperable condition of the Control Room Pressurization heaters placed the plant in a condition prohibited by Plant Technical Specification and therefore is reportable under 10CFR50.73(a)(2)(I)(B).

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

On September 18, 1998, during the review of the three heater trips, it was conservatively concluded that while performing the SR, the heaters were potentially inoperable for a period greater than one month due to the position of the sensing elements located in the airflow path, a reduction in airflow caused by a broken damper, and higher than normal evening temperatures in the region.

II. COMPONENT OR SYSTEM FAILURES

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

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

B. DURATION OF SAFETY SYSTEM TRAIN INOPERABILITY

Train A of the Control Room Filtration/Pressurization System was outside the Technical Specification maximum allowed outage time for more than 30 days.

Based on the review of the previous surveillance records, no similar concerns were identified with respect to heater trips. Train B was tested on August 12 and the temperature readings were found to be acceptable. No relocation of sensing elements was required. Therefore, it was concluded that operability of Train B of the Control Room Filtration/Pressurization System was not affected.

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C. SAFETY CONSEQUENCES AND IMPLICATIONS

The purpose of the heater is to reduce the buildup of moisture on the charcoal absorbers and the HEPA filters. This is accomplished by running the Emergency Pressurization Unit with the heater energized for at least ten-hours each month. The heaters also assure that the relative humidity of the outside air going through the charcoal is reduced to 70 percent or lower even if the outside air relative humidity is 100 percent. Charcoal's ability to remove radioactive iodine is reduced as its moisture content increases. Based on engineering judgement, even with the Train A heaters inoperable, the control room HVAC system would still be capable of performing its safety function. The relative humidity of the air entering the emergency filtration units would not exceed 70 percent relative humidity since the outside air is mixed with re-circulated air from the control room complex in both Emergency Recirculation Mode and Emergency Ventilation Mode. The relative humidity in the control room complex is reduced by the safety related control room AC units. Therefore, the charcoal in the emergency filtration unit would have remained functional without the Emergency Pressurization Unit heaters being operable.

Based on this evaluation, it is concluded that the health and safety of the public would not have been affected by the conditions described above.

III. CAUSE OF THE EVENT

The cause of the heater trips were attributed to the position of the sensing elements located in the airflow path, a reduction in airflow caused by a broken damper, and higher than normal evening temperatures in the region, when reviewed against past operating history of these units.

The cause for the broken damper was the breaking of tack welds leaving the damper only partially open.

IV. CORRECTIVE ACTIONS

Immediate corrective actions were to modify the location of the sensing elements and repair the damper. A successful surveillance was performed after the modifications, and the system was declared operable.

V. PREVIOUS SIMILAR EVENTS

There have been no other events which involve control room ventilation that have similar root causes.