UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

JAN 22 1993

Docket Nos. 50-445
50-446
License No. NPF-87
Construction Permit No. CPPR-127

TU Electric
ATTN: W. J. Cahill, Jr., Group Vice President
Nuclear Engineering and Operations
Skyway Tower
400 North Olive Street, L.B. 81
Dallas, Texas 75201

Gentlemen:

SUBJECT: NRC INSPECTION REPORT NO. 50-445/92-43; 50-446/92-43

Thank you for your letter of December 22, 1992, in response to our letter and Notice of Violation dated November 24, 1992. We have reviewed your reply and find it responsive to the concerns raised in our Notice of Violation. We will review the implementation of your corrective actions during a future inspection to determine that full compliance has been achieved and will be maintained.

Sincerely,

for Thomas

A. Bill Beach, Director
Division of Reactor Projects

cc:
TU Electric
ATTN: Roger D. Walker, Manager of
Regulatory Affairs for Nuclear
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bcc to DMB (IE01)

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RIV:DRP/B	C:DRP/B	DD:DRP	D:DRP
TReis:df	LAYandell	TPGwynn	ABBeach
1/21/93	1/21/93	1/21/93	1/22/93

bcc to DMB (IE01)

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DEC 23 1992

TU ELECTRIC

Log # TXX-92602
File # 10130
IR 92-43
Ref. # 10CFR2.201

December 22, 1992

William J. Cahill, Jr.
Group Vice President

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES) - UNIT 1
DOCKET NO. 50-445
NRC INSPECTION REPORT NOS. 50-445/92-43; 50-446/92-43
RESPONSE TO NOTICE OF VIOLATION

REF: 1) TU Electric letter to the NRC dated November 23, 1992 logged TXX-92565 (LER-92-024-00)

Gentlemen:

TU Electric has reviewed the NRC's letter dated November 24, 1992, concerning the inspection conducted by the NRC staff during the period October 19 through October 26, 1992. This inspection covered activities authorized by NRC Operating License NPF-87 and Construction Permit CPPR-127. Attached to the November 24, 1992, letter was a Notice of Violation (NOV).

TU Electric hereby responds to the Notice of Violation (445/9243-01) in the attachment to this letter.

Sincerely,

William J. Cahill, Jr.

William J. Cahill, Jr.

By: Roger D. Walker

Roger D. Walker
Manager of Regulatory Affairs
for NEO

OB/tg
Attachment

c - Mr. J. L. Milhoan, Region IV
Resident Inspectors, CPSES (2)

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IE01

NOTICE OF VIOLATION
(445/9243-01)

Technical Specification 3.3.3.3 requires that the accident monitoring instrumentation channels, shown in Table 3.3-6, "Accident Monitoring Instrumentation," be operable. Technical Specification Surveillance Requirement 4.3.3.3b, specifies that each accident monitoring instrumentation channel be demonstrated operable at least once per 18 months by performance of a channel calibration.

Technical Specification Surveillance Requirement 4.0.3 specifies, in part, that failure to perform a surveillance requirement within the allowed surveillance interval, defined by Technical Specification 4.0.2, shall constitute noncompliance with the operability requirements for a limiting condition for operation. Technical Specification 4.0.2 requires that each surveillance requirement be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.

Contrary to the above, on October 21, 1992, the inspector determined that the two containment wide range water level instruments, Channels 4779 and 4781, were not demonstrated OPERABLE within the last 18 months by performance of a channel calibration. A channel calibration was last performed for each channel in October 1989.

RESPONSE TO NOTICE OF VIOLATION
(445/9243-01)

TU Electric accepts the violation and the requested information follows:

1. Reason for Violation

   The containment water level indicating system includes an 11 point, dual resistive temperature detector (RTD) sensing array and associated electronics. The electronics supply the 4 to 20 ma signal to the control board indicators and Emergency Response Facility (ERF) computer points. The signal changes in incremental steps as a function of the number of wetted points. There are no alarms or trips associated with these channels. The channels provide indication for post accident monitoring as required by Regulatory Guide 1.97.

   The sensor arrays are unique in that they use a heater element which is thermally connected to the RTDs which are used to detect a dry or wet condition in containment from the 808 foot 3 inch level to the 817 foot 6 inch level in 6 to 12 inch increments. When level reaches one of the sensor points, the heated RTD cools as the thermal energy is dissipated

in the water, lowering the temperature of the heated or active RTD. This results in a decreasing resistance value approaching the resistance of the reference RTD. Both RTDs comprise half of a bridge circuit which converts the resistance into a voltage output which is processed by the signal processor cards located in the Control Room. The signal is summed and converted to a 4 to 20 ma signal which is read on the control board to give indication of water level.

The vendor manual describes two methods of testing the level sensor 11-point array. The first method employs the use of calibration cups, which are placed over the RTD sensor points and filled with water to provide an actual wetted condition. The second method uses shorting adapters, which are plugged into the signal processing cards in the control room to simulate a wetted condition by simulating sensor action. The shorting adapters do not check the actual sensing elements but merely allow a check of the electronics. The vendor manual specifically states that the test using the shorting adapters will give essentially the same information as using the calibration caps, but without the necessity of entering containment.

The first method was not included in calibration procedures because of the undesirability of entering containment during power operations. The second method was included in all revisions of the Unit 1 and Unit 2 containment water level instrumentation surveillance procedures. A third method was developed on site after discussion with the vendor and incorporated in revision 2 of the Unit 1 procedure as a functional test of the sensors following the shorting adapter calibration. This third methodology checked the sensor without having to enter containment and satisfied the requirement of Technical Specification section 4.3.3.3b, Table 3.3-6, Item 8, and section 1.5, which requires that "the channel calibration shall encompass the entire channel including the sensors...."

On June 22, 1990, Revision 3 to the Unit 1 calibration procedure was prepared as part of the biennial procedure review process and to update the procedure format to meet current administrative guidelines. During that revision, the third method of testing the sensors was deleted from the procedure. Revision 3 of the Unit 1 procedure was approved on July 24, 1990, and on March 25, 1991, the procedure was performed to satisfy the requirements of the associated Technical Specification surveillance activity. Because the sensor check had been deleted from the procedure, the Technical Specification requirement was not satisfied.

As stated above, the equipment vendor manual states that the use of shorting adapters will give essentially the same information without the necessity of entering containment. This information was understood by the preparer of revision 3 as justification for deletion of the alternate testing method.

The individual performing the technical review on revision number 3 noted that the sensor was not checked and questioned how the procedure satisfied the surveillance requirement. He directed that comment to the interdiscipline reviewer of revision number 2 who responded that the use of calibration cups was not required. That individual was not aware that the alternate method (method 3) had been deleted from the test procedure in revision number 3.

The technical justification for including the third method of checking the sensor added in revision 2 of the Unit 1 procedure was not documented and saved. This third method was added in revision 2 following discussions with the vendor, but this information was not documented for later reference. The preparer of revision 3 did not find this third method anywhere in the vendor documentation as an acceptable method, and subsequently deleted it. The technical reviewer of revision 3 was also unaware that this method had existed.

The procedure revision process contains a provision for description of the changes resulting from a procedure revision. The description of the changes resulting from revision 3 stated, "major revision due to format change," but did not mention deletion of the third method of checking sensors. Omission of this information reduced the opportunities for other reviewers to recognize the impact of the deletion.

In 1991, the Unit 2 containment level indicating system calibration procedure was prepared using the Unit 1 procedure as a model. During the technical review process, the question of sensor calibration was raised, but the issue was not adequately resolved, because the procedure writer believed that the vendor manual was correct.

2. Corrective Steps Taken and Results Achieved

A ONE Form was issued to document the condition. CPSES Unit 1 was in MODE 1 preparing for shutdown to perform its second refueling outage. A limiting condition for operation was initiated by the shift supervisor. The affected Unit 1 and Unit 2 procedures were corrected to restore method three of performing the required sensor checks.

The required surveillance activities were performed using the revised procedures. Point 8 of the 11 points on the sensor array was found failed in the open circuit condition, and was reworked. The surveillance activities were successfully performed on Unit 1 containment post accident water level indicating instrumentation. Finally, Licensee Event Report (LER)-92-024-00 (Reference 1) was issued pursuant to the requirements of 10CFR50.73.

3. Corrective Actions Taken to Preclude Recurrence

A review of similar Unit 1 surveillance procedures was initiated to ensure that satisfactory sensor checks are performed. Following

completion of the review, any affected Unit 2 procedures will be corrected, as required. The related vendor manual will be amended to include justification for the third method of checking the level sensors. An instructional memorandum will be distributed to personnel within the affected organizations reviewing the event and stressing the importance of thorough reviews and effective communication. The administrative procedure controlling the procedure revision process is being revised to require a more thorough description of the changes resulting from a procedure revision if change bars are not used to identify changes.

4. Date When Full Compliance Will Be Achieved

Full compliance has been achieved. The activities described in section 3 above will be completed by February 28, 1992.