TU ELECTRIC

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Log # TXX-95290
File # 10120
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January 5, 1996

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES) - UNIT 1 AND UNIT 2
DOCKET NOS. 50-445 AND 50-446
IN 92-18, POTENTIAL FOR LOSS OF REMOTE SHUTDOWN CAPABILITY DURING A CONTROL ROOM FIRE- SUPPLEMENTAL INFORMATION

REF: 1) TU Electric letter logged TXX-92640 from Mr. William J. Cahill, Jr. to NRC dated December 23, 1992

2) TU Electric letter logged TXX-95055 from Mr. Charles L. Terry to NRC dated February 27, 1995

3) NRC Inspection Report No. 50-445;446/95-19 dated October 6,1995

Gentlemen:

In response to NRC's Information Notice (IN) 92-18 "Potential for Loss of Remote Shutdown Capability During a Control Room Fire", TU Electric committed to implement design changes in the control circuits of the affected Motor Operated Valves (MOVs) *as required* [emphasis added], to assure that the torque and limit switches in the valve operators are electrically connected downstream of the contacts in the motor controlled center compartments (Reference 1).

Via Reference 2 TU Electric informed the staff that it has completed the above mentioned design enhancements. TU Electric also stated that, these design enhancements should provide additional assurance, that a fire in either the control room or cable spreading rooms will not cause a spurious operation which will have impact on alternative shutdown capability.

During the NRC Generic Letter 89-10 closeout inspection (Reference 3), the inspectors expressed a concern regarding Reference 2. The inspectors stated that, Reference 2 leads the reader to assume that 'all' the valves which were affected by IN 92-18 were modified. Whereas, out of the 86 valves (for both Units) affected by IN 92-18 only 30 valves were modified. This modification consisted of

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changes in the control circuits of the affected Motor Operated Valves (MOVs) *as required*, to assure that the torque and limit switches in the valve operators are electrically connected downstream of the contacts in the motor controlled center compartments.

TU Electric acknowledged the inspectors' concerns, and agreed to provide a supplement to Reference 2 with respect to evaluations performed for IN 92-18. The following summary is being provided as a supplement to Reference 2:

For the 86 (total Units 1 and 2) valves required for control room/ cable spread room fire shutdown (58 Westinghouse gates, 4 Borg Warner flex wedge gates, 2 globes, 22 butterflies) that were determined to be vulnerable, TU Electric applied the following seven methods to resolve the concern:

1. Control Circuit Modification. The actuator control wiring of 30 valves, including Valve 2-8000A which had been previously modified, was rewired to relocate the connection of the motor-control center wiring and eliminate the potential for inadvertent stall closure.

2. Actuator Qualification. Twelve butterfly valves with HBC-type actuators were analyzed to be capable of surviving inadvertent stall closure. No control wiring modifications were performed.

3. Valve Qualification. Eighteen gate valves, including Westinghouse gate valves and 1/2-FCV-610 globe valves, were analyzed to be capable of surviving inadvertent stall closure. No control wiring modifications were performed.

4. Power Lockout. Eight valves were determined to be adequately protected against stall closure by administratively maintaining the motor-control center breaker open to remove power. No control-wiring modifications were performed.

5. Gear Ratio Modification. The actuators of 8 valves, 1/2-8351A/B/C/D, were modified to reduce the final thrust during closure. Once modified, the actuators and valves were analyzed and found capable of surviving closure under stall conditions. No control wiring modifications were performed.

6. Fire Safe Shutdown Analysis Revision. Two valves, 2-8110, and -8111, were eliminated from the fire safe shutdown analysis. No control wiring modifications were performed.

7. Manual Operation. Eight valves, 1/2-8808A/B/C/D, were credited for manual operation.

In Reference 3, the NRC inspectors stated that, "[A]lthough the licensee had not implemented modifications to all affected valves to preclude uncontrolled closure from a hot short, the inspectors concluded that the licensee had established an adequate design basis for the capability of each of the vulnerable valves. The inspectors considered that the adequacy of the alternate design measures (other than control circuit modification) to assure alternate safe shutdown capability required additional clarification. The licensee acknowledged the inspectors' concerns and stated that it intends to revise their previous letter to the NRC to clarify the extent of the actual modifications performed. The inspectors considered the technical issues associated with hot shorts to be adequately resolved."

Please do not hesitate to contact Obaid Bhatty at 817-897-5839, if you require additional information regarding this matter.

Sincerely,

C. L. Terry

OB/ob

cc: Mr. L. J. Callan, Region IV
Mr. W. D. Johnson, Region IV
Mr. T. J. Polich, NRR
Resident Inspectors