



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV

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MAY 6 1997

Mr. C. L. Terry  
TU Electric  
Group Vice President, Nuclear  
ATTN: Regulatory Affairs Department  
P.O. Box 1002  
Glen Rose, Texas 76043

SUBJECT: NRC INSPECTION REPORT 50-445/96-16; 50-446/96-16

Thank you for your letter of April 7, 1997, in response to our letter and Inspection Report dated January 16, 1997. We have reviewed your reply and find it responsive to the concerns raised in the Inspection Report. We will review the implementation of your corrective actions during a future inspection.

Sincerely,



Thomas P. Gwynn, Director  
Division of Reactor Projects

Docket Nos.: 50-445  
50-446  
License Nos.: NPF-87  
NPF-89

cc:  
Mr. Roger D. Walker  
TU Electric  
Regulatory Affairs Manager  
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bcc to DCD (IE45)

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Log # TXX-97022  
File # 10130  
IR 96-16

C. Lance Terry  
Group Vice President

April 7, 1997

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



SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
DOCKET NO. 50-445 and 50-446  
NRC INSPECTION REPORT NOS. 50-445/96-16 and 50-446/96-16

TU Electric has reviewed the NRC's letter dated January 16, 1997, concerning the inspections conducted by your resident inspection staff and others. The subject inspection report identified several specific examples and expressed concerns regarding, "operator inattentiveness, potential supervisory oversight weaknesses, and inadequate self-verification." Additionally, the inspection report states that the errors may reflect operator training weaknesses with respect to newly qualified operators.

TU Electric management also had concerns with the events cited as examples in the NRC inspection report. TU Electric therefore performed an extensive evaluation for the examples cited in section 05 of the subject inspection report and as discussed with Mr. James Dyer of your office, is providing the following perspective on these issues for your consideration. The NRC inspection report item number and a summary of TU Electric's conclusions are being provided for your information.

**NRC Concerns:**

Item 05.1. An operator error during initial main turbine loading resulted in a significant reactor coolant system temperature transient and a loss of reactor coolant system letdown.

TU Electric Evaluation. As stated in the inspection report An Operations Notification and Evaluation (ONE) Form 96-1455 was initiated to determine the causes of the event and recommend appropriate corrective actions to prevent recurrence. TU Electric's Nuclear Overview Department (NOD) performed a root cause analysis and recommended appropriate corrective actions with respect to this event.

TU Electric's evaluation concluded that less-than-effective **supervisory oversight** was the major contributor to the event. The NRC Inspection Report concludes the same. Corrective Actions for this event are extensive, and include reinforcement of supervisory responsibilities, changes to the pre-evolution brief, and improved simulator training.

Item 05.2. An operator inadvertently deenergized a safety bus when the wrong component was operated during an emergency diesel generator surveillance.

TU Electric Evaluation. An Operations Notification and Evaluation (ONE) Form 96-1526 was initiated. The evaluation of the event concluded that while performing the surveillance test, the operator was distracted by an unrelated event which caused him to remove his hand from the hand switch used to lower the load and when he returned to the task he inadvertently operated the hand switch adjacent to the correct hand switch. This action caused the Train B 480v switchgear to deenergize.

The event was caused by less-than-adequate **self verification**, which resulted in failure to follow procedure as indicated via NCV 50-446/9616-03. TU Electric determined this event to be a self-verification error in that it was an error of commission, as opposed to inattentiveness which would relate to an error of omission. Corrective action includes reemphasis on self verification techniques.

Item 05.3. Auxiliary operators were inconsistent in fuse replacement processes, and the inconsistency may contribute to premature fuse holder degradation.

TU Electric Evaluation. An Operations Notification and Evaluation (ONE) Form 96-1490 was initiated to document the event. The recommended corrective actions included replacement or adequate tightening of the fuse clips. Additional evaluation by engineering and NOD (NDE-EVAL-97-000028) concluded that the apparent loosening of the fuse clips was due to the **ductile properties** of the clip, i.e., failure appears to be plastic deformation of the copper clip and distortion of the copper due to frequent exercising of the fuse clips during the fuse removal and installation process, during initial unit startup testing. Interviews with numerous operators revealed reasonably consistent methods used in the field for installing the fuses in this clip type. Initial communication by TU Electric to the NRC concerning the loose fuse clips was not effective in providing the NRC a clear understanding of the loose fuse clip problem prior to the issuance of the subject inspection report. The NRC inspector was not made aware that the loose fuse clip concern was focused on the fuse clips located in the termination cabinets which use only one style of fuse block. Nonetheless, TU Electric concluded that this is primarily a material issue, and not an operator performance issue. Various hardware fixes are under consideration to address the hardware anomaly.

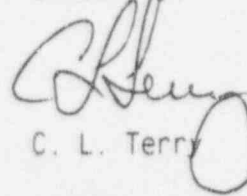
**Conclusion**

The extensive evaluations performed by TU Electric indicate that these were random, isolated events. TU Electric will continue to monitor such events very closely, and will take actions to correct any potential trends.

TU Electric's review of these events identified only one concern related to the license training program. The recently qualified Reactor Operator was not aware of the time response of the turbine load control, and action will be taken to improve simulator modeling for changes in turbine load. TU Electric will continue to monitor this area to assure ourselves that our review conclusions remain valid.

Should you have any questions please feel free to contact Roger Walker at (817) 897-8233.

Sincerely,



C. L. Terry

OB:ob

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