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Ref. # 10CFR50.90
10CFR50.36

C. Lance Terry
Group Vice President

November 11, 1994

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
JACKET NOS. 50-445 AND 50-446
SUBMITTAL OF LICENSE AMENDMENT REQUEST 94-017
EXCLUSION OF FAILURES FROM TOTAL NUMBER OF FAILURES
USED TO DETERMINE DIESEL GENERATOR TEST FREQUENCY

Gentlemen:

Pursuant to 10CFR50.90, TU Electric hereby requests an amendment to the CPSES Unit 1 Operating License (NPF-87) and CPSES Unit 2 Operating License (NPF-89) by incorporating the attached changes into the CPSES Units 1 and 2 Technical Specifications. These changes exclude the recent failures of the tubing for a vent valve off the fuel oil header for the Unit 2 Train B Diesel Generator from consideration in determining the Unit 2 Train B Diesel Generator test frequency. These changes affect CPSES Unit 2 only.

Attachment 1 is a required affidavit. Attachment 2 provides a detailed description of the proposed changes, a safety analysis of the proposed changes and TU Electric's determination that the proposed changes do not involve a significant hazard consideration. Attachment 3 provides the affected technical specification pages (NUREG-1468) marked-up to reflect the proposed changes. Also enclosed is a copy of Generic Letter 94-01, "Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators," May 31, 1994.

TU Electric requests that the License Amendment be approved on an expedited basis so that, if approved, the license amendment can be made effective as soon as possible.

In accordance with 10CFR50.91(b), TU Electric is providing the State of Texas with a copy of this proposed amendment request.

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Should you have any questions, please contact Mr. Manu C. Patel at
(214) 812-8298.

Sincerely,

C. L. Terry
C. L. Terry

By: *Roger D. Walker*
Roger D. Walker
Regulatory Affairs Manager

MCP/grp

Attachments: 1. Affidavit
2. Description and Assessment
3. Affected Technical Specification pages (NUREG-1468) as revised by all approved license amendments

Enclosures: 1. Generic Letter 94-01, dated May 31, 1994
2. Applicable pages of Safety Evaluations, Inspection Requirements for TDI Diesel Generators (TAC No. M85325), March 17, 1994.

c - Mr. L. J. Callan, Region IV
Mr. T. J. Polich, NRR
Mr. D. D. Chamberlain, Region IV
Resident Inspectors, CPSES (2)

Mr. D. K. Lacker
Bureau of Radiation Control
Texas Department of Public Health
1100 West 49th Street
Austin, Texas 78704

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
Texas Utilities Electric Company) Docket Nos. 50-445
) 50-446
(Comanche Peak Steam Electric)
Station, Units 1 & 2))

AFFIDAVIT

Roger D. Walker being duly sworn, hereby deposes and says that he is Regulatory Affairs Manager of TU Electric, that he is duly authorized to sign and file with the Nuclear Regulatory Commission this License Amendment Request 94-017; that he is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge, information and belief.

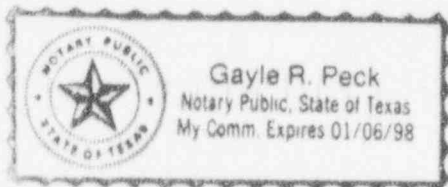
Roger D. Walker

Roger D. Walker
Regulatory Affairs Manager

STATE OF TEXAS)
)
COUNTY OF DALLAS)

Subscribed and sworn to before me, a Notary Public, on this 11th day of
November, 1994.

Gayle R. Peck
Notary Public



ATTACHMENT 2 TO TXX-94306
DESCRIPTION AND ASSESSMENT

DESCRIPTION AND ASSESSMENT

I. BACKGROUND

The Comanche Peak Steam Electric Station (CPSES) design employs Emergency Diesel Generators (EDGs) to provide on site AC power in the event that off site AC power is not available. The EDGs are required to be tested on a periodic basis (normally monthly) to provide an ongoing demonstration of performance and reliability. In accordance with Technical Specifications, EDG failures are reported to the Nuclear Regulatory Commission (NRC) in special reports, and when certain values for the number of failures per number of valid tests (as defined by Regulatory Position C.2.e of Regulatory Guide 1.108, Revision 1) are exceeded, the frequency of testing is accelerated to weekly.

The NRC Generic Safety Evaluation Report for TDI Diesel Generators, dated March 17, 1994, included as part of Generic Topical Report TDI-EDG-001-A (Reference 1), concluded that deletion of accelerated testing along with the addition of slow starting the EDGs decreases the wear and tear of the engines and increases the reliability and availability by reducing outage time. The data from engines in nuclear service which have implemented the slow-start option support these conclusions. The technical specification change covering the slow start of the EDGs was submitted to the NRC by LAR 94-010 (TXX-94118, dated April 25, 1994) and has been approved by NRC as License Amendment 29/15.

While the special reporting and accelerated testing program prescribed by Technical Specifications addresses EDG performance and reliability, implementation of the provisions of the maintenance rule for EDGs, including the applicable regulatory guidance, is an alternative program that provides desired flexibility, while maintaining necessary assurance of EDG reliability and availability. In Generic Letter 94-01 (Reference 2) the NRC concludes that such a program is an acceptable alternative to accelerated testing. Deletion of the special reporting and accelerated testing program was not included in the improved Standard Technical Specifications, NUREG-1431 (Reference 3), which was issued prior to Generic Letter 94-01.

On October 31, 1994, the Unit 2 Train B Diesel Generator was in operation for testing. It had successfully completed a start and loading above 50% for greater than one hour (one hour at 100% and two hours at 110%). During the run, a vent valve (1/4-inch) on the fuel header came free of the line it was attached to and fuel oil sprayed into the room. The diesel was shut down manually.

An event had occurred previously, at which time, the tubing which had failed was replaced with thicker tubing to make the line less susceptible to failure (see TXX-93430, dated January 14, 1994). The mode of failure is fatigue cracking which occurs due to the mass of a valve vibrating at the end of the tubing. This then stresses the rigid point of the tubing connection to the fuel piping causing failure. The tube that failed on the Unit 2 Train B Diesel Generator is the only location that uses this configuration in a vent connection. The other such vent location on Unit 2

has the vent valve connected directly to the tap off the fuel oil header and tubing is not used between the tap and the vent valve.

Surveillance Requirements (SRs) 4.8.1.1.2a and 4.8.1.2 require, in part, that each Diesel Generator be demonstrated OPERABLE (on a STAGGERED TEST BASIS) in accordance with the frequency specified in Table 4.8-1. Table 4.8-1 requires, in part, that the frequency be increased from once per 31 days to once per 7 days if the number of failures in the last 20 valid tests is greater than or equal to 2. The seven day test frequency must be maintained until seven consecutive failure free demands have occurred and the number of failures in the last 20 valid demands has been reduced to one. TU Electric requests that the technical specifications be changed such that both failures on the Unit 2 Train B Diesel Generator caused by vent tubing failure be excluded from the total number of failures used to determine the Diesel Generator test frequency.

II. DESCRIPTION OF TECHNICAL SPECIFICATION CHANGE REQUEST

On TS Table 4.8-1, the "*" footnote is being changed. The following phrase is to be added to the end of the first sentence in this footnote:

...,except that the valid test failures of the Unit 2 Train B diesel generator identified on December 16, 1993, and October 31, 1994, may be excluded from the total number of failures used to determine the diesel generator test frequency.

This change excludes this failure from the total number of failures when determining test frequency.

III. ANALYSIS

The functional requirement for the EDGs is to provide electric power for safe shutdown of the plant during loss of offsite power. To provide an ongoing demonstration of the reliability of the EDGs to fulfill this requirement, the EDGs are required to be tested on a periodic basis (normally monthly). In accordance with existing Technical Specifications, EDG failures are reported to the NRC in special reports, and when certain values for the number of failures per number of valid tests (as defined by Regulatory Position C.2.e of Regulatory Guide 1.108, Revision 1) are exceeded, the frequency of testing is accelerated to weekly.

Increased EDG testing does not equate to improved reliability. Each EDG start and operational cycle subjects the EDG components to stress and wear. This, in turn, requires additional maintenance with out-of-service time. Furthermore, each test start conducted when the EDG can be removed from service includes approximately two hours of unavailability while pre and post run checks are made to ensure that cylinder jacketwater has not entered an engine cylinder. Therefore, deletion of prescribed accelerated testing will increase reliability by reducing engine wear and increase availability by reducing the time required for maintenance and the unavailability time associated with most test starts.

On October 31, 1994, the Unit 2 Train B Diesel Generator was in operation for testing. It had successfully completed a start and loading above 50% for greater than one hour (one hour at 100% and two hours at 110%). During the run, a vent valve (1/4-inch) on the fuel header came free of the line it was attached to and fuel oil sprayed into the room. The diesel was shut down manually.

An event had occurred previously, at which time, the tubing which had failed was replaced with thicker tubing to make the line less susceptible to failure (see TXX-93430, dated January 14, 1994). The mode of failure is fatigue cracking which occurs due to the mass of a valve vibrating at the end of the tubing. This then stresses the rigid point of the tubing connection to the fuel piping causing failure. The tube that failed on the Unit 2 Train B Diesel Generator is the only location that uses this configuration in a vent connection. The other such vent location on Unit 2 has the vent valve connected directly to the tap off the fuel oil header and tubing is not used between the tap and the vent valve.

The intent of these Surveillance Requirements, in part, is to identify events that result in unsuccessful runs of the diesel generator to identify when additional actions are appropriate to assure the reliability of the diesel generators. The ultimate goal is to assure a reliable diesel generator - a diesel generator that can perform its safety function when called upon to do so.

The vent valve that caused the leak has been removed from the line and the line has been capped. This event will not recur on this machine. During the test of interest, the diesel generator performed properly in all other respects. Therefore, the failure mode is precluded from recurrence.

The accelerated testing schedule is inappropriate and would be counter to safety. Generic Letter 94-01, the NRC's SER for the Inspection Requirements for Transamerica Delaval Diesel Generators, and other documents have recognized the harmful impacts of excessive testing of these diesel generators. Excessive or unnecessary testing causes increased wear and degradation and contributes to reduced reliability. The accelerated Diesel Generator testing would provide no benefit as the failure mechanism which existed is no longer credible.

TU Electric has concluded that the granting of this license amendment has no negative safety impact and in accordance with Generic Letter 94-01, would avoid unnecessary testing which is detrimental to the Diesel Generator reliability.

VI. SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

TU Electric has evaluated whether or not a significant hazards consideration is involved with the proposed changes by focusing on the three standards set forth in 10CFR50.92(c) as discussed below:

Do the proposed changes:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated?

There are no initiating events in accidents previously evaluated that involve testing of EDGs. Therefore, deletion of accelerated testing of EDGs does not involve a significant increase in the probability of an accident previously evaluated.

A reduction in the number of test starts decreases EDG component stress and wear and decreases unavailability time for maintenance and pre and post run checks. The resulting change in EDG reliability and availability is an improvement toward ensuring the EDGs are capable of fulfilling their functional requirement to provide electric power for safe shutdown of the plant during loss of offsite power. The failure mode that caused the failures being excluded have been eliminated with the result that their impact on future reliability has likewise been eliminated. Therefore, deletion of accelerated testing of EDGs does not involve a significant increase in the consequences of an accident previously evaluated.

The end result of this technical specification change is to prevent unnecessary testing. As such, this action does not impact the probability of an accident. It only impacts the consequences of an accident positively by eliminating unnecessary testing which could reduce the reliability of the Diesel Generator; and therefore this Technical Specification change does not significantly increase the probability or consequences of an accident.

- 2) Create the possibility of a new or different kind of accident from any accident previously evaluated?

The frequency at which EDG testing occurs does not affect the potential failure modes of the EDGs, which have already been assessed in the CPSES design. Therefore, a reduction in accelerated testing of EDGs does not create the possibility of a new or different kind of accident from any accident previously evaluated.

- 3) Involve a significant reduction in a margin of safety?

The margin of safety impact associated with accelerated testing relates to EDG reliability and availability. A reduction in the number of test starts decreases EDG component stress and wear and decreases unavailability time for maintenance and pre and post run checks. The resulting change in EDG reliability and availability is an improvement

toward ensuring the EDGs are capable of fulfilling their functional requirement to provide electric power for safe shutdown of the plant during loss of offsite power. Therefore, a reduction in the accelerated testing of EDGs does not involve a significant reduction in a margin of safety.

Avoiding unnecessary testing has no impact on failure points and will reduce the likelihood of Diesel Generator failure when the engine is needed to perform a safety function. As a result, the requested technical specification change does not significantly reduce the margin of safety. This technical specification change does not constitute a significant hazards consideration.

Based on the above evaluations and the fact that these changes are consistent with Generic Letter 94-01 as issued by the NRC, TU Electric concludes that the activities associated with the proposed changes satisfy the no significant hazards consideration standards of 10CFR50.92(c) and accordingly, a no significant hazards consideration finding is justified.

V. ENVIRONMENTAL EVALUATION

TU Electric has evaluated the proposed changes and has determined that the changes do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released off site, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed changes meet the eligibility criterion for categorical exclusion set forth in 10CFR51.22(c)(9). Therefore, pursuant to 10CFR51.22(b), an environmental assessment of the proposed changes is not required.

VI. REFERENCES

1. Generic Topical Report TDI-EDG-001-A, "Basis for Modification to Inspection Requirements for Transamerica Delaval, Inc., Emergency Diesel Generators", April 28, 1994.
2. Generic Letter 94-01, "Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators", May 31, 1994.
3. NUREG-1431, "Standard Technical Specifications Westinghouse Plants", Rev. 0, September 28, 1992.
4. TU Electric letter logged TXX-93430 from William J. Cahill, Jr. to Mr. J. L. Milhoan, USNRC dated January 14, 1994.