

TUELECTRIC

Log # TXX-95050
File # 916 (3/4.6)
10010
Ref. # 10CFR50.90
10CFR50.36

C. Lance Terry
Group Vice President

February 28, 1995

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
SUBMITTAL OF LICENSE AMENDMENT REQUEST 95-01
CONTAINMENT SPRAY PUMP DIFFERENTIAL PRESSURE

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 change into the CPSES Units 1 and 2 Technical Specifications. These changes apply equally to CPSES Units 1 and 2.

As part of the first refueling outage on CPSES Unit 2 (2RF01), TU Electric implemented a performance enhancement modification to the Containment Spray pumps. This enhancement replaced the Containment Spray pump impellers with impellers of a new design which significantly reduces pump vibration. This modification is now scheduled to be implemented on the Unit 1 Containment Spray pumps during the upcoming refueling outage in March 1995. One of the Unit 1 pumps has historically seen differential pressures very close to the Technical Specification Surveillance Requirement 4.6.2.1b. limit of 245 psid. The impeller change out could potentially result in a differential pressure for this pump below the surveillance requirement limit although it is expected that the pump will still be able to provide the head and flow necessary to perform its safety function and to satisfy the associated safety analyses.

TU Electric proposes to resolve this potential compliance problem by replacing the existing surveillance requirement with the corresponding surveillance requirement from NUREG-1431. The NUREG-1431 version stipulates that the pumps meet the "required developed head at the flow test point" but does not specify a minimum head or flow. The required developed head and flow test point will be relocated to the CPSES Technical Requirements Manual (TRM) and will be established and maintained to ensure that the appropriate safety analyses are satisfied. The surveillance frequency will not change.

Attachment 2 provides a detailed description of the proposed changes, a safety analysis of the 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

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(NUREG-1468), marked-up to reflect the proposed changes. Enclosed is an information only copy of the proposed change to the Technical Requirements Manual to incorporate the performance requirements for the Containment Spray pumps.

While the new pump differential pressures will not be known until after pump testing late in the outage, expeditious review and approval of the proposed change is requested to ensure that the Unit 1 restart will not be delayed. The current schedule for Unit 1, Fuel Cycle 5 startup, is mid April 1995. The date needed for the amendment to be effective is April 5, 1995 which is the scheduled date for entry into MODE 4.

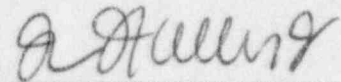
In accordance with 10CFR50.91(b), TU Electric is providing the State of Texas with a copy of this proposed amendment.

Should you have any questions, please contact Mr. Bob Dacko at (214) 812-8228.

Sincerely,

C. L. Terry

By:


J. J. Kelley, Jr.
Vice President of Nuclear
Engineering and Support

BSD/bd

Attachments:

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

Enclosures:

1. Proposed revision to TRM
2. NUREG-1431 pages associated with license amendment

cc - Mr. L. J. Callan, Region IV
Mr. T. J. Polich, NRR
Ms. D. D. Chamberlain, Region IV
Resident Inspectors, CPSES

Mr. Arthur C. Tate
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)	License Nos. NPF-87
Station, Units 1 & 2))	NPF-89

AFFIDAVIT

James J. Kelley, Jr. being duly sworn, hereby deposes and says that he is Vice President of Engineering and Support for TU Electric, the licensee herein; that he is duly authorized to sign and file with the Nuclear Regulatory Commission this License Amendment Request 95-01; 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.

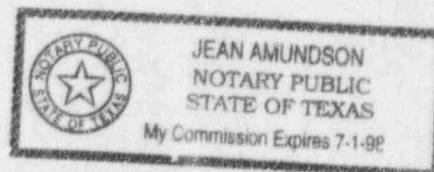
J. J. Kelley Jr.

J. J. Kelley, Jr.
Vice President of Nuclear
Engineering and Support

STATE OF TEXAS)
)
COUNTY OF *Lomervell*)

Subscribed and sworn to before me, on this 28 day of February.

Jean Amundson
Notary Public



DESCRIPTION AND ASSESSMENT

I. BACKGROUND

Vibration in the Unit 2 Containment Spray System piping resulted in the initiation of fatigue cracks at connections from various small bore piping to the discharge headers. This condition was reported to the NRC via LER 2-94-005 transmitted by TU Electric letter TXX-94166, dated June 22, 1994 [reference 1]. A number of approaches were employed as corrective actions, including reinforcement of the connecting piping, deletion of unnecessary piping connections, and a performance enhancement that replaces the containment spray pump impellers with impellers of a different design. Similar modifications to the Unit 1 Containment Spray pump impellers are planned during the March 1995 refueling outage.

The corrective actions and performance enhancements significantly reduced the Unit 2 Containment Spray System vibration; however, the impeller replacement resulted in a reduction of 2 to 6 psid in the discharge head of each containment spray pump. While all the Unit 2 pumps had sufficient margin to meet the Surveillance Requirement 4.6.2.1b, minimum of 245 psid, it was recognized that this might not be the case for Unit 1. The discharge head of one of the Unit 1 Containment Spray pumps historically has been only a few psid above the surveillance limit. The impeller replacement in this pump could potentially reduce its head below the surveillance limit. In addition, the pump head value provided in the surveillance requirement is greater than the actual developed head necessary to satisfy the safety analyses.

In order to address this potential compliance problem, TU Electric proposes to replace the existing surveillance requirement with the corresponding surveillance requirement from NUREG-1431 [reference 2]. The NUREG-1431 version stipulates that the pumps meet the "required developed head at the flow test point" but does not specify a minimum head or flow. The required developed head and flow test point will be relocated to the CPSES Technical Requirements Manual (TRM) and will be established and maintained to ensure that the appropriate safety analyses are satisfied. Changes to the CPSES TRM are controlled under 10CFR50.59, Technical Specification 6.5.1.6 (review by SORC), and Technical Specification 6.8.1 (procedures and programs). The surveillance frequency will not change.

II. DESCRIPTION OF TECHNICAL SPECIFICATIONS CHANGE REQUEST

Technical Specification 3/4.6.2 "DEPRESSURIZATION AND COOLING SYSTEMS - CONTAINMENT SPRAY SYSTEM" Surveillance Requirement 4.6.2.1b, is replaced with NUREG-1431 Surveillance Requirement 3.6.6A.4. This change replaces the specific pump flow and head values now contained in the Surveillance Requirement with the general requirement that the pump develop the required head at the flow test point.

Bases 3/4.6.2.1 "CONTAINMENT SPRAY SYSTEM" is revised to expand the detail consistent with the NUREG-1431 BASES SR 3.6.6A.4. The BASES from NUREG-1431 has minor modifications to reflect (1) that the CPSES containment spray pumps are tested via a special test line which allows testing at flows higher than that allowed by the miniflow recirculation line; (2) the "pump design curve" is termed the "analytical pump curve"; and (3) the reference to the TRM where the pump head requirements are defined is provided for the user's information.

In summary, the surveillance requirement, and its associated bases, for confirming the performance of the Containment Spray pumps is changed by replacing the specific pump head and flow values with the general requirement that the pumps provide the required head at the flow test point while the specific required values are moved to the Technical Requirements Manual.

III. ANALYSIS

The containment spray pump surveillance was originally provided to ensure that the pump is capable of performing as necessary to satisfy the related safety analyses. The design basis accidents which define the performance requirements for these pumps are the Loss of Coolant Accident (LOCA) and the Main Steam Line Break (MSLB) inside containment. The spray provided by the pumps limits the temperature and pressure peak inside containment and reduces the radioactivity of the containment atmosphere. In order to perform their safety function and support these safety analyses, the pumps must meet or exceed the analytical pump curve used in the safety analyses.

The present surveillance requirement confirms this performance criterion by verifying that the pumps provide a flow greater than or equal to a specified value (6600 gpm) at a specific head (245 psid) using a specific flow path. While this test does ensure that the pump will perform as required, it is restrictive in that it can only be revised via a license amendment. By revising the surveillance requirement to provide the general requirement and relocating the specific requirements to a TU Electric controlled document, the Technical Requirements Manual (TRM), the specific requirements can be revised to ensure compliance and to ensure that the accident analyses are met without requiring a license amendment. The basis for this surveillance is not changed by the proposed change to relocate the quantitative flow and head requirements to the TRM. The frequency of the surveillance will continue to be in accordance with the Inservice Testing Program. The surveillance will continue to test each pump separately as described in Reference 3. The surveillance will also continue to ensure the pumps satisfy the "analytical pump curve" used in the containment analyses. Based on the discussions above, this change will have no impact on plant safety in that the accident analyses will continue to be satisfied.

IV. SIGNIFICANT HAZARDS CONSIDERATIONS ANALYSIS

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:

1. Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?

The relocation of the specific values for flow and developed head at the flow test point to the Technical Requirements Manual (TRM) is essentially an administrative change. The change does not change the plant hardware or operating procedures. As such, the change has no impact on the probability of an accident.

The consequences of an accident previously evaluated, as it relates to the performance characteristics of the containment spray pumps, depends on the pumps meeting the performance characteristics in the analytical pump curve used by the containment analyses. Since the limitations established in the TRM will continue to ensure that this analytical pump curve is met, there is no impact on the accident analyses. The initial TRM will duplicate the existing surveillance values. In the future, the TRM values may be slightly more or slightly less restrictive based on changes to the containment analyses or their design inputs. The result of this variation could be a minor variation in the consequences of an actual event were one to occur; however, the consequences would be bounded by the existing safety analyses and therefore, the change does not involve a significant increase in the consequences of an accident previously evaluated.

2. Do the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed change does not add new hardware to the units or change plant operations. Relocation of the surveillance acceptance criteria to the TRM cannot initiate an event nor cause an analyzed event to progress differently. Thus, the possibility of a new or different kind of accident is not created.

3. Do the proposed changes involve a significant reduction in a margin of safety?

The margin of safety is not affected since the surveillance will continue to be required by Technical Specifications at the same frequency and that surveillance will continue to ensure the containment spray pump performance is bounded by the analytical pump curve used in the containment analyses.

Based on the above evaluations, 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 offsite, 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 change is not required.

VI. PRECEDENCE

Crystal River 3 Technical Specification Amendment 149

VII. REFERENCES

1. TU Electric letter logged TXX-94166 from William J. Cahill Jr., to the Nuclear Regulatory Commission, dated June 22, 1994
2. NUREG-1431, Standard Technical Specifications, Westinghouse Plants, September 1992.
3. TU Electric letter logged TXX-89035 from W.J. Cahill to the Nuclear Regulatory Commission, dated January 24, 1989, "Proposed Changes to the NRC Proof & Review Technical Specifications, Docket No. 50-445, Attachment 9, pages 1 and 12.

ENCLOSURE 1 TO TXX-95050

PROPOSED CHANGE TO THE TECHNICAL REQUIREMENTS MANUAL

TO

ADDRESS PERFORMANCE REQUIREMENTS OF CONTAINMENT SPRAY PUMPS