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Ref. # 10CFR50.90
10CFR50.36a

C. Lance Terry
Group Vice President

December 7, 1994

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
SUBMITTAL OF LICENSE AMENDMENT REQUEST 94-020
MAIN STEAM ISOLATION VALVES (MSIVs)

REF: 1) NUREG 1431, "Standard Technical Specifications,
Westinghouse Plants," September 1992

Gentlemen:

Pursuant to 10CFR50.90, TU Electric hereby requests an amendment to the CPSES Unit 1 facility operating license (NPF-87) and Unit 2 facility operating licenses (NPF-89) by incorporating the attached change into the CPSES Units 1 and 2 Technical Specifications (TS). The purpose of this request is to (1) revise the CPSES Technical Specification Limiting Condition For Operation (LCO) for the MSIVs to increase the Allowed Outage Time (AOT) in Mode 1; (2) relocate the MSIVs full closure time requirement to a program administratively controlled by the TS; and (3) revise the associated Bases to adopt the expanded Bases format adding information specific to CPSES. These changes apply equally to CPSES Units 1 and 2.

TU Electric has prepared the proposed change to be consistent with 10CFR50.36a and requests that the proposed change be incorporated into the Technical Specifications as described in the attachments of this submittal. Attachment 1 is an affidavit; Attachment 2 provides a detailed description and assessment of the proposed changes; Attachment 3 provides the proposed changes to the Technical Specifications.

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

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Upon approval of the proposed changes; TU Electric requests a 30 day implementation period following the date of license amendment issuance.

Should you have any questions, please contact Mr. Richard S. Berk at (214) 812-8952 or 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

RSB/rsb

Attachments:

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

Enclosures:

1. NUREG 1431, "Standard Technical Specifications, Westinghouse Plants" - applicable portions
2. Applicable pages of NUREG-1024
3. Applicable pages of Crystal River Tech. Specs. (Amendment 149 to License No. DPR-72, December 20, 1993)

c - Mr. L. J. Callan, Region IV
Mr. T. J. Polich, NRR
Resident Inspectors, CPSES

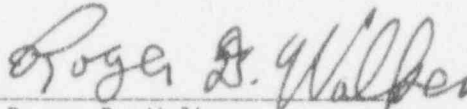
Mr. D. K. Lacker
Bureau of Radiation Control
Texas Department of Public Health
1100 West 49th Street
Austin, Texas 78704

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) License Nos. NPF-87
Station, Units 1 & 2) NPF-89

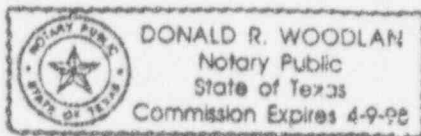
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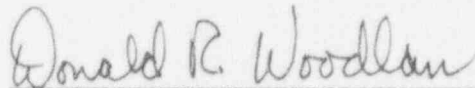
Roger D. Walker being duly sworn, hereby deposes and says that he is Regulatory Affairs Manager of TU Electric, the licensee herein; that he is duly authorized to sign and file with the Nuclear Regulatory Commission this License Amendment Request 94-020; that he is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge, information and belief.


Roger D. Walker
Regulatory Affairs Manager

STATE OF TEXAS)
)
COUNTY OF)

Subscribed and sworn to before me, on this 7th day of December,
1994.




Notary Public

DESCRIPTION AND ASSESSMENT

I. BACKGROUND

One Main Steam Isolation Valve (MSIV) is located in each main steam line outside, but close to, containment. The MSIVs are downstream from the main steam safety valves, the steam generator atmospheric relief valves, and the auxiliary feedwater (AFW) pump turbine steam supplies. Closing the MSIVs isolates each steam generator steam line from the others, and isolates the main turbine, steam dump system, and other auxiliary steam supplies from the steam generators.

Each MSIV is designed to stop flow from either direction after a steam line break to prevent the uncontrolled release of steam from more than one steam generator. The MSIVs are automatically closed on high-high containment pressure or steam line break protection logic (as indicated by high steam pressure rate or low steam line pressure). High steam pressure rate is only effective when the steam line safety injection (SI) signal is manually blocked during startup and cooldown, and low steam line pressure is only effective when the block is removed. The MSIVs can be manually operated from the control room.

The MSIVs are provided with manual bypass valves which are normally locked closed during power operation. During startup, hot standby and hot shutdown one MSIV bypass valve may be opened provided the other three bypass valves are locked closed and their associated MSIVs are closed. The MSIV bypass valves are used for warming the system and equalizing the pressure across the MSIV. The MSIV bypass valve is also designed to stop flow from either direction.

The improved Standard Technical Specifications (reference 1) provided line item improvements and an expanded Bases for the technical specification for the MSIVs. The line item improvements provide relaxed requirements which are consistent with the safety significance of the valves and allow plants to avoid unnecessary plant shutdowns and transients. The expanded bases provided a better explanation of safety significance of the various portions of the specification itself. To take advantage of these improvements, TU Electric chose to prepare and submit the license amendment request described herein.

II. DESCRIPTION OF TECHNICAL SPECIFICATION CHANGE REQUEST

This License Amendment Request (LAR) proposes to change Technical Specification (TS) 3/4.7.1.5, Main Steam Line Isolation Valves, as follows:

1. The Limiting Condition of Operation (LCO) was reworded from "Each main steam isolation valve" to "Four MSIVs."
2. The Mode 1 Action Statement is revised to increase the Allowed Outage Time (AOT) to restore OPERABILITY for an inoperable MSIV from 4 to 8 hours. If the MSIV is not Operable within 8 hours, the Action Statement is revised to proceed to STARTUP within the next 6 hours.
3. The scope of the Mode 2 and 3 Action Statement is revised to allow one or more MSIV's to be inoperable and to allow separate entry into the Action Statement for each MSIV.
4. The remedial measures in the Modes 2 and 3 Action Statement are revised to require closure of an inoperable MSIV within 8 hours and to add a requirement to verify at least once every 7 days that an inoperable and closed MSIV is maintained closed.
5. The full closure time requirement for each MSIV specified in the Surveillance Requirement is relocated to the CPSES Technical Requirements Manual (TRM) which is administratively controlled by the TSs.

The requested changes represent a line-item improvement to incorporate related requirements of the improved Westinghouse Standard Technical Specification (STS) 3.7.2 located in NUREG-1431 (Enclosure 1). In addition, the associated TS 3/4.7.1.5 Bases has been revised to adopt the expanded Bases format of the improved Westinghouse STS Bases 3.7.2 (Enclosure 1).

In summary, this proposed license amendment revises the technical specification for the MSIVs to increase the AOT while in Mode 1, to modify the Action Statement for Modes 2 and 3 to

reflect the safety significance of these valves in these modes, to relocate the valve closure time to the TRM, and to adopt the expanded Bases format of the improved Standard Technical Specifications (NUREG-1431) adding information specific to CPSES. This license amendment is consistent with NUREG-1431, except for the applicability requirements. TU Electric chose to retain applicability in MODES 2 and 3 in lieu of the reduced applicability requirements in the improved STS for MODES 2 and 3.

III. ANALYSIS

On July 22, 1993, the NRC issued the final policy statement titled "Policy Statement on Technical Specification Improvements for Nuclear Power Reactors" (58FR39132). This policy statement encourages licensees to implement a voluntary program to update their TS to be consistent with improved vendor-specific STS issued by the NRC in September 1992. The NRC stated that the implementation of the Policy Statement through the implementation of the improved STS is expected to produce an improvement in safety of nuclear power plants through the use of more operator-oriented TS, improved TS Bases, reduced action statement induced plant transients, and more efficient use of NRC and industry resources. TU Electric proposes to use this guidance to request a license amendment to implement changes to TS 3.7.1.5 and its associated Bases to be consistent with NUREG-1431. Specific justification for these changes is listed below.

The wording change in the LCO is editorial only to be consistent with NUREG-1431. The meaning is not changed.

The current Mode 1 action statement requires that with one MSIV inoperable but open, Power Operation may continue provided the inoperable valve is restored to an Operable status within 4 hours; otherwise be in Hot Standby within the next 6 hours and in Hot Shutdown within the following 6 hours. The Mode 1 action statement is being revised to state that with one MSIV inoperable but open, Power Operation may continue provided the inoperable valve is restored to Operable status within 8 hours or be in Startup within the next 6 hours. If the MSIV cannot be restored to Operable status within 8 hours, the unit must be placed in a Mode in which the LCO does not apply. To achieve this status, the unit must be placed in Mode 2 within 6 hours and the Modes 2 and 3 action statement would be entered. The 8 hour allowed outage time (AOT) is reasonable, considering the low probability of an accident occurring during this time period

that would require a closure of the MSIVs. The 8 hours AOT is greater than that normally allowed for containment isolation valves because the MSIVs are valves that isolate a closed system penetrating containment. These valves differ from other containment isolation valves in that the closed system provides an additional barrier for containment isolation. This will provide a more reasonable completion time to diagnose the problem, mobilize the corrective action, obtain administrative clearances, complete the maintenance, restore the valve to an operable condition, and perform post-maintenance verification, where appropriate. The additional time would reduce the probability of unnecessary plant transients and plant shutdowns, thus improving plant safety and increasing plant availability.

The current Modes 2 and 3 action statement requires that with one MSIV inoperable, subsequent operation in Mode 2 or 3 may proceed provided that the isolation valve is maintained closed. Currently, TS 3.7.1.5 does not specify the time allowed to close the valve, nor the frequency which the valve is verified to be "maintained closed." The Modes 2 and 3 action statement is being revised to state that with one or more MSIV inoperable, subsequent operation in Modes 2 and 3 may proceed provided the MSIV is closed within 8 hours and verified closed once per 7 days. The 8 hour AOT is consistent with that allowed in Mode 1. The inoperable MSIVs must be verified closed on a periodic basis to ensure the assumptions in the safety analysis remain valid. A 7 day completion time is reasonable, in view of the MSIV status indications available in the control room, and other administrative controls, to ensure that these valves are in a closed position. In addition, separate entry into the action statement will be allowed for each MSIV.

The current Modes 2 and 3 action statement appears to allow continued operation with no more than one MSIV inoperable and maintained closed. Once an MSIV is closed, it has completed its safety function; therefore, there is no safety reason to limit operation in Modes 2 and 3 if more than one MSIV is inoperable as long as the inoperable valves are closed and maintained closed. Each MSIV accomplishes its safety function individually and, thus, if one MSIV had become inoperable and was being maintained closed per the proposed Action Statement, the subsequent inoperability of another MSIV is properly controlled by re-entering the Action Statement to require closure of the second MSIV within 8 hours and verification of the closure every 7 days. Since the safety significance for the subsequent inoperability of MSIVs is the same as for the first, it is appropriate to allow separate entry into the Action Statement for each MSIV.

These proposed changes to increase the MSIV AOT are consistent with the recommendations from NUREG-1024, "Technical Specification - Enhancing the Safety Impact." NUREG-1024 states in part:

Allowable outage times that are too short will subject the plant to unnecessary trips, transients and fatigue cycling. Outage times that are too short also may result in less thorough repair and post-repair testing before equipment is returned to service.

The relocation of the MSIV stroke time requirement to the TRM is consistent with the relocation of all Reactor Trip System and ESFAS response times to the TRM. In fact, the MSIV stroke time requirement is already contained in TRM Table 1.2.1, as the 6.5 second requirement for main steam isolation includes an allowance for valve stroke time. The TRM is a controlled document, per TS 6.8, and changes to that document are made in accordance with 10CFR50.59. TU Electric has already relocated the stroke time requirement for numerous Containment Isolation Valves to TRM 2.1 (governed by TS 3.6.3). The relocation of the MSIV stroke time is nearly identical to these other relocations. CPSES remains in compliance with all NRC guidelines (Crystal River SER and TSIP Policy Statement) concerning the content of the TS, in that the required operability and associated surveillances required to demonstrate operability of the MSIVs remain in the TS.

Probabilistic Risk Assessment

A qualitative review of the CPSES Individual Plant Evaluation (IPE) study was performed to estimate the impact on Total Core Damage Frequency (CDF) of the change in AOT for MSIVs from 4 hours to 8 hours with the plant in Mode 1 of operation. Overall, this review led to the conclusion that these changes will have insignificant impact on the total CDF.

Since the IPE results apply only to plant risk during normal operation (i.e., Mode 1), the 8 hours allowed to close the inoperable MSIV during Modes 2 and 3 were not considered in this review.

The only risk-significant initiating events that require proper operation of the MSIVs for mitigating the consequences of an accident are the Main Steamline Break (MSLB) and Steam Generator Tube Rupture (SGTR). The major safety function of the MSIVs

modeled in the IPE study is the closure of the MSIV in the faulted Steam Generator line or closure of the remaining three MSIVs following MSLB or SGTR initiating events. The potential effect on the availability of the MSIVs to perform this required safety function due to the 8 hour AOT was studied. It was determined that the only impact would be the duration of the corrective maintenance following any random failure. The out of service duration due to corrective maintenance for a MSIV was assumed to be 4 hours in the IPE study. Based on the past operations experience and the available Generic Component Reliability Database, the out of service duration is usually dependent on the Technical Specification requirements. For an MSIV with the AOT of 24 hours or less, the expected out of service duration due to corrective maintenance duration is approximately 4 hours. Therefore, the net change in the unavailability of the MSIV, due to an increase in AOT is expected to be negligible as long as the AOT is less than 24 hours. This, in turn, would result in no change in total CDF.

On the positive side, the longer AOT results in less frequent forced plant shutdowns. Consequently, less challenges are imposed on the plant protection and mitigation systems and, as a result, the plant would be placed in a lower risk configuration. Furthermore, the probability of MSLB or SGTR occurring during the proposed increased AOT of 4 hours in a reactor year is estimated to be very small. Therefore, the change in total CDF in this case is also judged to be negligible.

IV. SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The following is an evaluation whether or not a significant hazards consideration is involved with the proposed change 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 proposed changes are to (1) revise the CPSES Technical Specification Limiting Condition For Operation (LCO) for the MSIVs to increase the Allowed Outage Time (AOT) from 4 hours to 8 hours in Mode 1; (2) modify the Mode 2 and 3 Action Statement to better reflect the safety significance of these valves by requiring that the valves be closed within 8 hours and verified at least every 7 days; (3) relocate the MSIVs full closure time

requirement to a program administratively controlled by the TS; and (4) revise the associated Bases to adopt the expanded Bases format adding information specific to CPSES.

The revision of the CPSES Technical Specification Limiting Condition For Operation (LCO) for the MSIVs to increase the Allowed Outage Time (AOT) from 4 hours to 8 hours in Mode 1 only affects the time that a condition can exist and as such does not affect any of the conditions that could initiate an accident; therefore the probability of an accident is not affected. Likewise, no new conditions are created that would affect the analyses of any accident; therefore the consequences of the accidents postulated for CPSES are not affected.

Modifying the Mode 2 and 3 Action Statement to better reflect the safety significance of these valves by requiring that the valves be closed within 8 hours and verified at least every 7 days provides clarity and adds a new verification requirement. Again no new plant conditions are established, time limits and verification requirements are merely being established; therefore, no accident initiators are affected and there is no impact on the probability of any accident. Likewise no conditions are being altered which affect the analyses of any accidents which are postulated at CPSES and thus the consequences of those accidents are unaffected.

Relocating the MSIVs full closure time requirement to a program administratively controlled by the TS is an administrative change only. It has no impact on actual plant operation and thus there is no impact on the probability of any accident or on the consequences of any accident.

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

None of the changes in this request affect plant design or create new operating configurations. The only things affected are the times that certain conditions are allowed, how soon actions need be performed, how often to verify conditions and the administrative location of certain requirements. These items do not create the possibility of a new type or different kind of accident.

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

The Technical Specifications LCOs ensure that the assumptions of the safety analyses are preserved. There are no substantive changes to the LCO; therefore, the safety analyses are unaffected and there is no affect on the margin of safety.

Revising the CPSES Technical Specification Limiting Condition For Operation (LCO) for the MSIVs to increase the Allowed Outage Time (AOT) from 4 hours to 8 hours in Mode 1 allows the unit to operate with an inoperable MSIV for a longer period of time. Although the unavailability of equipment required to mitigate or assess the consequence of an accident is increased, a more reasonable completion time is provided to diagnose the problem, mobilize the corrective action, obtain administrative clearances, complete the maintenance, restore the valve to an operable condition, and perform post-maintenance verification, where appropriate. The additional time would reduce the probability of unnecessary plant transients and plant shutdowns, thus improving plant safety and increasing plant availability, while a qualitative assessment has concluded that the impact on Core Damage Frequency is negligible. TU Electric has concluded based on the discussion above that there is no significant impact on the overall margin of safety due to this change.

Modifying the Mode 2 and 3 Action Statement to better reflect the safety significance of these valves by requiring that the valves be closed within 8 hours and verified at least every 7 days is primarily a clarification and a new verification requirement. Specifying that an inoperable valve be closed within 8 hours makes the requirement specific where no time limit was provided before. The 8 hours specified is the same as is allowed in Mode 1 which was qualitatively assessed as noted above and thus is a logical limitation. The new requirement to verify the valves closed on a periodic basis will increase assurance that the valves remain closed and will thus enhance the margin of safety. Overall, TU Electric concludes that these Mode 2 and 3 changes do not significantly affect the margin of safety.

Relocating the MSIVs full closure time requirement to a program administratively controlled by the TS is an administrative change only. There is no impact on the margin of safety.

Revising the associated Bases to adopt the expanded Bases format adding information specific to CPSES enhances the useability of the Technical Specification. Overall, this is considered an improvement which will benefit both the operators and support personnel. There is no significant impact on the margin of safety and if there is an impact, it improves the margin by providing easy access to support information.

On the basis of the above evaluations, TU Electric concludes that the activities associated with the requested change satisfy the no significant hazards consideration standards of 10CFR50.92(c) and according a no significant hazards consideration is justified.

V. ENVIRONMENTAL EVALUATION

An evaluation of the proposed changes 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 effluents that may be released off site, or (iii) a significant increasing individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10CFR51.22(c)(9). Therefore, pursuant to 10CFR50.22(b), an environmental assessment of the proposed change is not required.

VI. REFERENCES

1. NUREG 1431, "Standard Technical Specifications, Westinghouse Plants," September 1992
2. NUREG 1024, "Technical Specifications -- Enhancing the Safety Impact," Section 3.4
3. Safety Evaluation Report for Crystal River Unit 3 (Amendment 149 to License No. DPR-72 dated December 20, 1993)
4. Statement of Policy - Nuclear Regulatory Commission, July 22, 1993 (58 F.R. 39132)