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TU ELECTRIC

June 5, 1992

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Group Vice President

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
PROPOSED CHANGES TO THE NRC FIRST DRAFT
ON COMANCHE PEAK UNITS 1 & 2 COMBINED
TECHNICAL SPECIFICATIONS FOR STATION
SERVICE WATER SYSTEM 3/4.7.7

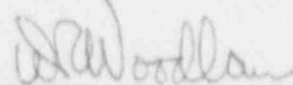
REF: 1) NRC letter from Mel B. Fields to W. J. Cahill, Jr.
dated March 24, 1992.

Gentlemen:

Reference 1 provided CPSES with a copy of the NRC's first draft Technical Specifications. TU Electric reviewed this document for proposed changes in the Station Service Water System (Technical Specification 3/4.7.4 and its BASES). Subsequent meetings were held with the NRC to discuss this change. As part of the ongoing Technical Specification development efforts, and as discussed in an April 23 and 24, 1992, meeting with the NRC, the attached changes to the NRC's first draft Technical Specifications are hereby provided. The attached pages are intended to supersede pages 3/4 7-14, 3/4 7-15 and B 3/4 7-4 of the NRC first draft (Reference 1).

Sincerely,

William J. Cahill, Jr.

By: 
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MCP/ds

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ATTACHMENT 1

JUSTIFICATION FOR PROPOSED
STATION SERVICE WATER SYSTEM
TECHNICAL SPECIFICATION

Description of Technical Specification Changes and Justification

1. BACKGROUND

The existing CPSES Technical Specification 3/4.7.4 (Ref. 1), is consistent with the Westinghouse Standard Technical Specifications provided by the NRC to TU Electric in 1987 (Ref. 2). Technical Specification 6.8 covers the implementation of the Technical Requirements Manual (Ref. 3), which includes Technical Requirement 3.2, Station Service Water System Operability Criteria (Ref. 4).

The TRM 3.2 requires a Unit 2 service water pump to be available to support Unit 1 operation whenever Unit 1 is in Modes 1, 2, 3 and 4. If this condition is not satisfied, a Unit 2 pump must be restored to available status within 7 days or Unit 1 must be shut down. If only one Unit 1 service water pump is OPERABLE and neither Unit 2 pump is available, immediate action to restore at least one additional pump is required. Verification of Unit 2 pump availability includes an energized bus (once per day), cross connect availability (once per day), cross-connect valve testing (quarterly) and monthly pump runs of at least 15 minutes. This technical requirement was implemented to improve service water reliability based on generic probabilistic assessment of plants with two full capacity service water pumps and Information Notice No. 86-11 (See Ref. 5 and 6).

Generic Letter 91-13 (Ref. 7) proposed technical specification changes to enhance the availability of the essential service water system. TU Electric's response (Ref. 8) committed to propose a revision to the CPSES Technical Specifications and their bases to address the concerns of Generic Letter 91-13. The proposed changes are expected to be incorporated into the CPSES Unit 1 and 2 combined Technical Specifications (Ref. 9).

The relevant system configuration is shown on the attached sketch (Figure 1).

CPSES has two 100 percent capacity Station Service Water pumps per Unit. These four pumps have crosstie capability such that any pump may supply any other pump's cooling loads. The unit crosstie piping is ASME Class 3 and contains five manual gear operated butterfly valves (XSW-0006, XSW-0007, XSW-0008, XSW-0028 and XSW-0029). Each train's crosstie isolation valve is maintained in the normally closed position. The Unit 1/Unit 2 crosstie valve (XSW-0006) is locked closed and will normally be maintained in the locked closed position during two unit operation in order to satisfy GDC-5 (Ref. 10, SSER 22: Section 9.2.1) except for flushing in accordance with GL 89-13 (Ref. 11). To establish a crosstie between the Units, three of these valves (including XSW-0006) must be opened (See Figure 1).

The cross-connect valves are manual, gear operated, butterfly valves with rubber seats and are not prone to binding due to differential pressure, galvanic corrosion or hydraulic blocking above the disc.

Although testing is not required by ASME Section XI, quarterly full stroke testing of these valves is consistent with Generic Letter 91-13 and the ASME Section XI IWV-3400 requirement for Category A and B valves and thus provides reasonable assurance that the valves will be functional.

The basis for this Technical Specification change is the loss of service water event. It is postulated to occur in a Unit operating in MODES 1, 2, 3 or 4. If the unit is operating in an LCO Action, an additional failure (i.e. single failure) is not assumed to occur. An analysis of this event will be performed and documented as appropriate in Licensing Basis and Design Basis Documents.

DESCRIPTION OF TECHNICAL SPECIFICATION CHANGE AND JUSTIFICATION

Proposed Technical Specification (TXX-92120 commitment) is consistent with the Generic Letter 91-13 draft specification except for:

The proposal splits the requirements into two specifications so that a shutdown unit can satisfy the LCO without entering the action statement.

Proposed T/S 3/4.7.4 is to be divided into 3/4.7.4.1 for both Units in MODES 1, 2, 3, or 4 and 3/4.7.4.2 for only one Unit in MODES 1, 2, 3, or 4 and the other unit in MODES 5, 6 or defueled. The proposed draft Technical Specifications contain all the requirements of NRC first draft Technical Specifications 3/4.7.4 (Reference 9) in a split Limiting Condition of Operation (LCO) without requiring either unit to enter an ACTION Statement.

- 2) The addition of the "defueled" Mode to cover standard refueling practices and the plant status prior to Unit 2 fuel load.

NRC first draft Technical Specifications 3/4.7.4 (Reference 9) and Generic Letter 91-13 (Reference 7) did not cover one Unit in MODES 1, 2, 3, or 4 and one Unit in MODE defueled, which is required upon receipt of the CPSES Unit 2 Operating License.

- 3) The seven day AOT for the pump in the shutdown unit to allow for maintenance of pumps and cross-ties during refueling/maintenance outages.

TU Electric considers 72 hours allowable outage time (AOT) as provided by NRC first draft (Reference 9) and Generic letter 91-13 (Reference 7) is unnecessarily restrictive and proposes a 7 day AOT.

A PRA calculation was performed to determine the change in total core damage frequency due to the AOT variation from 72 hours to 7 days. The results show that the impact of change in AOT from 72 hours to 7 days on the calculated core damage frequency is less than 0.1%. The equipment unavailability due to increase in AOT is insignificant and, therefore, it has relatively no impact on the total core damage frequency.

The seven day AOT for the cross-connect valves and the supporting pump from a shutdown unit is consistent with the CPSES TRM 3.3 and Byron Unit 1 and Unit 2 Technical Specifications (NUREG-1113, AM-24, Section 3/4.7.4).

The requirement is also consistent with the River Bend Technical Specifications (NUREG-1172, Nov. 1985, Section 3/4.7.1). River Bend has four, 100% pumps supplying two redundant essential service water loops. The AOT for one pump OPERABLE is 72 hours which is consistent with Standard Technical Specifications. The AOT for two pumps OPERABLE is seven (7) days.

The seven day AOT for the "third pump" is also more restrictive than that for plants with three pumps with standard technical specifications which allow unlimited AOT for the third pump. (e.g. Beaver Valley 2, St. Lucie Unit 2, Waterford 3) or plants with no third pump (e.g. Palo Verde).

4) Miscellaneous Changes

- a) Deleted 2nd sentence in LCO 3.7.4 (NRC first draft, Reference 9), "In addition, the cross-connect valves XSW-0006, XSW-0007, XSW-0008, XSW-0028 and XSW-0029 shall be capable of being opened [from the main control room] to provide a flow path between the two Units".

This portion of the LCO is not applicable to the CPSES design (See item 1 above for additional information).

- b) Cross-connect valve and pump OPERABLE (BASES 3/4 7.4):

The clarification below is provided in the BASES 3/4 7.4 for the cross-connect valve and SSW pump operability. A cross-connect valve is OPERABLE if it can be cycled or is locked open however, at least one cross-connect valve between units is required to be maintained closed in accordance with GDC-5 unless required due to total loss of SSW pumps for either unit. The OPERABLE pump is manually realigned and flow balanced to provide cooling to essential heat loads.

II. REFERENCES

1. NUREG-1399, Technical Specifications, Comanche Peak Steam Electric Station, Unit 1, Docket No. 50-445, April 1990.
2. Technical Specifications for Comanche Peak Steam Electric Station (CPSES) Unit 1, Docket No. 50-445, dated August 14, 1987 from Christopher I. Grimes (USNRC) to William G. Council (TU Electric).
3. TXX-89038, Technical Requirements Manual (TRM), Comanche Peak Steam Electric Station, Docket No. 50-445, from William J. Cahill, Jr. (TU Electric) to USNRC, dated January 24, 1989.
4. TXX-88848, Service Water System Reliability, CPSES, Docket Nos. 50-445 and 50-446, from William G. Council to USNRC, dated December 16, 1988.
5. Circular 78-13, "Inoperability of Service Water Pumps," July 10, 1978.
6. IE Information Notice No. 86-11, "Inadequate Service Water Protection Against Core Melt Frequency," February 25, 1986.
7. Generic Letter 91-13, "Request for Information Related to the Resolution of Generic Issue 130, Essential Service Water System Failures at Multi-Unit Sites, Pursuant to 10 CFR 50.54(f)," dated September 19, 1991.
8. TXX-92120, Request for Information - Essential (Station) Service Water System, NRC Generic Letter 91-13, Docket Nos. 50-445 and 50-446, from William J. Cahill, Jr. to USNRC dated March 16, 1992.
9. NRC Letter from Mel B. Fields to William J. Cahill, Jr. dated March 24, 1992 regarding, "Comanche Peak Steam Electric Station Units 1 and 2 Combined Technical Specifications (TAC No. M81963)".
10. NUREG-0797, Safety Evaluation Report Related to the Operation of Comanche Peak Steam Electric Station, Units 1 and 2, through Supplement No. 24, April, 1990.
11. Generic Letter 89-13, "Service Water Problems Affecting Safety Related Equipment", dated July 18, 1989, and Supplement 1, dated April 4, 1990.

CPSSES SERVICE WATER SYSTEMS

UNIT 1

UNIT 2

