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TU ELECTRIC April 6, 1992

William J. Cahill, Jr.
 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
 REQUEST FOR ADDITIONAL INFORMATION ON
 PRELIMINARY ISSUES AFFECTING THE DEVELOPMENT OF THE
 CPSES UNIT 2 INSERVICE TEST PLAN FOR PUMPS AND VALVES

REF: TU Electric Letter logged TXX-92040 from
 William J. Cahill, Jr. to NRC, dated February 3, 1992

Gentlemen:

The purpose of this letter is to provide additional information on Relief Request V-1 that was included in the referenced letter on the CPSES Unit 2 Inservice Test (IST) Plan for Pumps and Valves. The relief request was discussed with the NRC Staff in a telecon on March 20, 1992.

It was requested that Relief Request V-1 be clarified by explaining the differences between in-situ testing and shop testing and the specific advantages of one method over the other. We have revised the relief request to include this discussion in the attachment. The revisions are identified with a "bar" in the margin.

If there are any questions, please call Mr. Chris Jensen, at
 (714) 812-8826.

Sincerely,

William J. Cahill, Jr.

CEJ/gj

c - Mr. R. D. Martin, Region IV
 Resident Inspectors, CPSES (2)
 Mr. T. A. Bergman, NRR
 Mr. B. E. Holian, NRR

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 PDR ADOCK 05000445
 PDR

RELIEF REQUEST NO. V-1

SYSTEM (See VALVE NUMBER)

VALVE NUMBER Main Steam

2MS-0021 2MS-0022 2MS-0023 2MS-0024 2MS-0025
2MS-0058 2MS-0059 2MS-0060 2MS-0061 2MS-0062
2MS-0093 2MS-0094 2MS-0095 2MS-0096 2MS-0097
2MS-0129 2MS-0130 2MS-0131 2MS-0132 2MS-0133

Reactor Coolant

2-8010A 2-8010B 2-8010C

CATEGORY C

CLASS 2 (Main Steam), 1 (Reactor Coolant)

DESCRIPTION Main Steam Safety Valves; Pressurizer Safety Valves

TEST REQUIREMENT -OM Part 1 para. 7.2, "Testing After Installation Prior to Initial Electric Power Generation" (General requirement)

-OM Part 1, para. 7.2.1.1 (Class 1 Safety Valves); "Within 6 months prior to initial fuel loading, each valve shall have its set pressure verified. Set pressure verification shall be determined by pressurizing the system up to the valve set pressure and opening the valve, or the valve may be tested at or below normal system operating pressures with an assist device."

-OM Part 1, para. 7.2.2.1.a (Main Steam Safety Valves): "After system heatup, but prior to initial reactor criticality, each valve shall be subjected to the following tests.

(1) Set pressure verification shall be determined by pressurizing the system up to the valve set pressure and opening the valve, or the valve may be tested at or below normal system operating pressure with an assist device.

(2) Compliance with the Owner's seat tightness criteria shall be verified."

BASIS FOR RELIEF The primary intent of the subject Code paragraphs is to require testing of Class 1 (Pressurizer) and Main Steam Safety Valves shortly before a Pressurized Water Reactor plant is initially started up. This requirement is reasonable when one considers the safety significance of these valves and the fact that years may elapse between the manufacturer's shop test and the time the valves are first placed in service. However, the Code also seems to imply that the required testing, for this specific instance only, should be done with the valves in-place. While in-place testing may apparently offer a convenience in that valve removal and reinstallation is averted, removal of the valves from the system for testing (at a testing lab), can yield equally valid test results and offer some distinct advantages.

In particular, valve maintenance and adjustment can be accomplished more easily in the testing lab environment. For example, the Pressurizer and Main Steam Safety Valves are known to experience seat leakage after cycling. After set pressure verification the valves often must be disassembled (while retaining spring compression) so that the disc insert and nozzle seating surfaces can be lapped. If the set pressure verification was performed in-place, the subsequent seat leakage repairs would entail cooldown and depressurization of the Reactor Coolant and Main Steam Systems. Following valve repair and reassembly the systems would then have to be heated back up and repressurized to conduct a valve seat leakage retest. (Recall that OM Part 1 requires seat leakage testing to be done under the same temperature conditions and using the same fluid media as for the set pressure verification.)

Pressurizer and Main Steam Safety Valve testing and maintenance can be performed at a testing lab, on the other hand, and thereby eliminate the need to cycle the entire reactor plant. The test lab facilities allow the exact operating conditions (fluid media, temperature stability and ambient temperature) of the valves to be simulated for testing and provide easy access to the valves should any maintenance be required. Actual set pressure on steam can be verified at a testing lab without utilizing an assist device. The additional activities associated with testing the valves at a lab such as valve removal, shipping and reinstallation can be accomplished safely by applying the procedural and quality controls normally required for such work. The valves are rigged, boxed and shipped in the vertical position and are receipt inspected both at the testing lab and upon their return to the plant. Reinstallation involves the routine closure of gasketed joints which is verified subsequently through inservice leakage testing.

Based on the above, a valid OM Part 1 performance test of the Pressurizer and Main Steam Safety Valves can be had through either in-place testing or testing in a lab.

SUBSTITUTE TEST For the purpose of accomplishing Main Steam and Pressurizer Safety Valve testing prior to initial electric power generation, the following requirements will apply:

1. Within 6 months of initial fuel loading, each Pressurizer Safety Valve shall have its set pressure verified.
2. Either before or after installation and within 6 months prior to initial reactor criticality, each Main Steam Safety Valve shall be subjected to the following tests:
 - a) set pressure verification
 - b) compliance with the Owner's seat tightness criteria shall be verified.

APPROVAL STATUS (Later)