

TEXAS UTILITIES GENERATING COMPANY
SKYWAY TOWER • 403 NORTH OLIVE STREET, L.B. 81 • DALLAS, TEXAS 75201

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August 10, 1984

Director of Nuclear Reactor Regulation
Attention: Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION
DOCKET NOS. 50-445 AND 50-446
CABLE SPLICE IN RACEWAYS

Dear Sir:

U. S. NRC Regulatory Guide 1.75, Revision 1, has been used as part of the licensing basis for the Comanche Peak Steam Electric Station (CPSES). Position C9 states that, "Cable splices in raceways should be prohibited," but does allow that splices can be justified by analysis.

At CPSES, two single conductor cables designated NK102341 will be spliced in cable tray T12KCBH22. The use of this splice is justified by the items noted below:

- 1) The cable and the cable tray involved are non-Class 1E.
- 2) The nearest Class 1E cable tray in the horizontal direction is 17 feet 6 inches.
- 3) There are no Class 1E cable trays in the vertical direction.
- 4) The closest Class 1E conduit in the horizontal direction is 4 feet.
- 5) There are no Class 1E conduit in the vertical direction.
- 6) The two single conductor cables are 750 MCM and, even though they are non-Class 1E, they are IEEE 383 qualified.
- 7) An AMP Long Barrel Butt Splice (Part No. 53091) will be used. This butt splice requires two crimps on each end.

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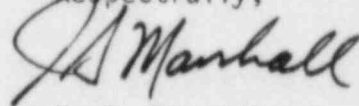
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- 8) RAYCHEM heat shrink (WCSF-650N) will be used. There will be a 2 inch minimum overlap on each side of the splice. This same material is qualified for and is used on Class 1E cable at CPSES.
- 9) The work will be performed to a CPSES site procedure and using calibrated tools.
- 10) The cable tray (T12KCBH22) will be thermolagged per the Transient Fire Hazard Analysis to provide a one hour rated fire barrier.
- 11) The cables run from switchboard 1D2 to Distribution Panel 1D2-1. They are 125 VDC power cables and the cables are 250 foot long. (The cable and both panels are shown on CPSES FSAR Figure 8.3-14A).
- 12) The cable tray is a maintain space tray (e.g., the cables are spaced and tied down to maintain the proper spacing.)

The use of a splice in a cable tray became necessary when a kink was found in the subject cables. Repulling the cable was impractical for fire stops have been installed and portions of the tray have already been thermolagged. Leaving the cable as is would be poor engineering practice and would only lead to problems in the future. The use of a properly installed splice is the best solution.

In summary, the use of a splice on cables NK102341 in tray T12KCBH22 is justified by the list of items above. The use of qualified materials, proper procedures and calibrated tools will provide a splice that is as good as and probably better than the original cable. The fact that these cables are non-Class 1E, are wrapped in a one hour rated fire barrier and are not close to any Class 1E trays or conduit provides additional margin to insure that the safety of the plant will not be jeopardized.

Respectfully,



H. C. Schmidt

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