



TUELECTRIC

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Ref. # 10CFR50.55a(a)(3)(ii)

January 5, 1996

C. Lance Terry
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 APPROVAL AND USE OF ASME CODE CASE N-524

- REF: 1) Unit 1: 1986 Edition of ASME Code, Section XI, No Addenda, Interval Start Date - August 13, 1990, First Interval;
Unit 2: 1986 Edition of ASME Code, Section XI, No Addenda, Interval Start Date - August 3, 1993, First Interval
- 2) ASME Code Case N-524, "Alternative Examination Requirements for Longitudinal Welds in Class 1 and Class 2 Piping Section XI, Division 1." dated August 9, 1993

Gentlemen:

TU Electric requests approval to use ASME Code Case N-524 (Enclosed) for the examination of longitudinal welds in Class 1 and Class 2 piping.

Pursuant to 10CFR50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The applicable ASME Code Editions for CPSES are noted in Reference 1.

Regulation 10CFR50.55a(a)(3)(ii) allows alternate requirements if compliance with the specified requirements of this section [10CFR50.55a(g)(4)] would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. TU Electric is requesting approval for the implementation of the alternative rules of ASME Section XI Code Case N-524 (Reference 2) for CPSES Unit 1 and 2.

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TU Electric's Inservice Inspection (ISI) program requires one pipe diameter in length, but no more than 12 inches, be examined for Class 1 longitudinal piping welds. Class 2 longitudinal piping welds are required to be examined for a length of $2.5t$, where 't' is the thickness of the weld. These lengths of the weld are measured from the intersection of the circumferential and longitudinal weld. TU Electric's proposed alternative, Code Case N-524, limits the volumetric and surface examination requirements of the longitudinal weld to the volume/area contained within the examination requirements of the intersecting circumferential weld.

Longitudinal welds are produced during the manufacturing process of the piping, not in the field as is the case for circumferential welds. The ASME Code contains requirements on characteristics and performance of materials and products, and specifies the examination requirements during the manufacturing of the subject longitudinal piping welds.

In addition, there are material, chemical, and tensile strength requirements in the ASME Code. The manufacturing process that is specified by the ASME Code provides assurance of the structural integrity of the longitudinal welds at the time the piping is manufactured.

The preservice examination and initial inservice examinations have provided assurance of the structural integrity of the longitudinal welds during the service life of the plant to date. The experience in the United States has been that ASME Code longitudinal welds have not experienced degradation that would warrant continued examination beyond the boundaries required to meet the circumferential weld examination requirements. No significant loading conditions or known material degradation mechanisms have become evident to date which specifically relate to longitudinal seam welds in nuclear plant piping. If any degradation associated with a longitudinal weld were to occur, it is expected that it would be located at the intersection with a circumferential weld. This intersection is inspected in accordance with the provisions of Code Case N-524. In addition, there is a significant accumulation of man-rem associated with the examination of longitudinal welds, especially in Class 1 piping.

It is requested that approval of this Code Case be granted by the January 31, 1996, so that it may be implemented during the second refueling outage for Unit 2 which is scheduled to start on February 22, 1996, and during all subsequent refueling outages for Unit 1 and Unit 2. Timely approval is requested in order to obtain, through implementation of the Code Case, the maximum achievable cost savings and reduction in radiation exposure. Based on the aforementioned, the use of Code Case N-524 would not influence the acceptable level of quality and safety at CPSES.

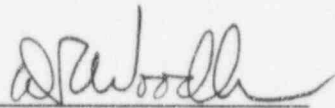
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If you have any question please call Obaid Bhatti at (817) 897-5839.

Sincerely,

C. L. Terry

By:



D. R. Woodlan
Docket Licensing Manager

OB/ob
Enclosure

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|-----|---------------------|-----------|
| cc: | Mr. L. J. Callan, | Region IV |
| | Mr. W. D. Johnson, | Region IV |
| | Mr. Tim Polich, | NRR |
| | Mr. G. Bynog, | TDLR |
| | Resident Inspectors | CPSES |

CASES OF ASME BOILER AND PRESSURE VESSEL CODE

Approval Date: August 9, 1993

See Numerical Index for expiration
and any reaffirmation dates.

Case N-524

Alternative Examination Requirements for
Longitudinal Welds in Class 1 and 2 Piping
Section XI, Division 1

Inquiry: What alternative requirements may be applied to the surface and volumetric examination of longitudinal piping welds specified in Table IWB-2500-1, Examination Category B-J, Table IWC-2500-1, Examination Categories C-F-1 and C-F-2 (Examination Category C-F prior to Winter 1983 Addenda), and Table IWC-2520, Examination Category C-G (1974 Edition, Summer 1975 Addenda)?

Reply: It is the opinion of the Committee that the following shall apply:

(a) When only a surface examination is required, examination of longitudinal piping welds is not required beyond those portions of the welds within the examination boundaries of intersecting circumferential welds.

(b) When both surface and volumetric examinations are required, examination of longitudinal piping welds is not required beyond those portions of the welds within the examination boundaries of intersecting circumferential welds provided the following requirements are met.

(1) Where longitudinal welds are specified and locations are known, examination requirements shall be met for both transverse and parallel flaws at the intersection of the welds and for that length of longitudinal weld within the circumferential weld examination volume;

(2) Where longitudinal welds are specified but locations are unknown, or the existence of longitudinal welds is uncertain, the examination requirements shall be met for both transverse and parallel flaws within the entire examination volume of intersecting circumferential welds.