TU ELECTRIC

Log # TXX-93107
File # 10010
Ref. # 10CFR50.55a

March 15, 1993

William J. Cahill, Jr.
Group Vice President

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NO. 50-445
INSERVICE INSPECTION PROGRAM RELIEF REQUESTS

Gentlemen:

The purpose of this transmittal is to submit relief requests B-4, B-5, B-6, C-5, C-6 and C-7 to certain inspection requirements of Section XI of the ASME Boiler and Pressure Vessel Code. These requests are included as Attachments 1 through 6, respectively, to this transmittal.

Please note that relief request B-6 was previously submitted to you as relief request B-1 via TXX-92138 dated March 12, 1992. Originally a relief request designated B-1 was submitted to you via TXX-91377 dated October 16, 1991. Based on discussions with the NRC Staff, TU Electric believed this first B-1 relief request was not needed and the B-1 designator was reused for a second (different) relief request transmitted to you via TXX-92138. Subsequently, the first B-1 designated relief request was approved by NRR letter dated October 1, 1992. In order to correct the resulting duplication, the second B-1 relief request has been redesignated B-6 in this transmittal.

TU Electric requests your approval of these relief requests by September 30, 1993.

Sincerely,

William J. Cahill, Jr.

By: _____
D. R. Woodlan
Docket Licensing Manager

180028

CBC/vld
Attachments

c - Mr. J. L. Milhoan, Region IV
Mr. T. A. Bergman, NRR
Mr. G. Bynog, TDLS
Resident Inspectors (2)

A047

Relief Request B-4

Item for which Relief is Requested:

Nozzle inner radii

Code Class: 1

Examination Requirement(s):

Table: IWB-2500-1
Category: B-D
Item No.: B3.120, B3.140

Table IWB-2500-1, Category B-D, Item Number 3.120 and B3.140 require volumetric examination of the nozzle inside radius section for nozzles associated with the pressurizer and steam generators (primary side).

Basis for Relief:

Specialized techniques and nozzle specific calibration blocks are required to ensure meaningful results for volumetric examination of the referenced inside radius sections. To determine which nozzles warranted the use of these enhanced techniques, an evaluation of each nozzle was performed. In this evaluation the nozzle stress and usage factor as well as the potential for thermal shock was considered. Of the referenced nozzles only the pressurizer surge and spray nozzles exhibit a potential for thermal shock and only the spray nozzle contains stresses and associated usage factor close to the allowable. It is therefore concluded that only the pressurizer spray be subjected to the required volumetric examination using enhanced techniques to maximize coverage. Limited access due to the close proximity of the pressurizer heater connections and the fact that the nozzle stresses do not approach the allowable limits, indicate that the additional cost and time associated with the enhanced examination methodology is not warranted for the surge line. For the remaining pressurizer nozzles, (relief and safeties) as well as the integrally cast primary side steam generator nozzles, the cost and additional exposure associated with volumetric examination do not produce a corresponding increase in reliability or safety.

Alternative Examination(s):

None

Safety Impact:

The referenced evaluation indicates that only the pressurizer spray line experiences conditions under which the integrity of the inner radius might be compromised. Not performing volumetric examination on the remaining nozzles will not introduce any anticipated impact on the overall plant quality and safety.

Radiological Concerns:

Performance of fewer inner radius examinations will result in less exposure. Also, a significant number of manhours in radiation areas will be saved by not installing scaffolding, removing and reinstalling insulation and then removing the scaffolding.

RELIEF REQUEST
B-5

A. Item for which relief is requested:

TBX-1-4103-1
TBX-1-4202-1
Circumferential Piping Welds

B. Item Code Class:

1

C. Examination requirement from which relief is requested:

ASME Section XI 1986 edition, no addenda.

The requirement for volumetric examination of 100% of the weld length as described in Table IWB-2500-1, Examination Category B-J, Item No. B9.11.

D. Basis for relief:

The specific examination area geometries of these two pipe to valve welds preclude the complete ultrasonic examination of the volume required by Fig. IWB-2500-8. Approximately 55% of the exam volume for weld TBX-1-4103-1 and 11% of the exam volume for weld TBX-1-4202-1 did not receive the full code required coverage.

Best effort examinations consisting of two separate base metal angle shear and longitudinal waves were performed. Full circumferential scan coverage was achieved for both welds. Axial scan coverage was achieved in 1 direction with at least 1 beam angle for 85% of the exam volume of weld TBX-1-4103-1 (see page 2). Axial scan coverage was obtained in 1 direction with 2 beam angles for the entire exam volume of weld TBX-1-4202-1 (see page 3).

There were no recordable indications identified by the best effort volumetric exams or by the required surface exams performed.

E. Substitute examinations:

None

F. Anticipated impact on the overall level of plant quality and safety:

None

WESTINGHOUSE NUCLEAR SERVICE DIVISION
INSPECTION SERVICES

LIMITATION TO EXAMINATION

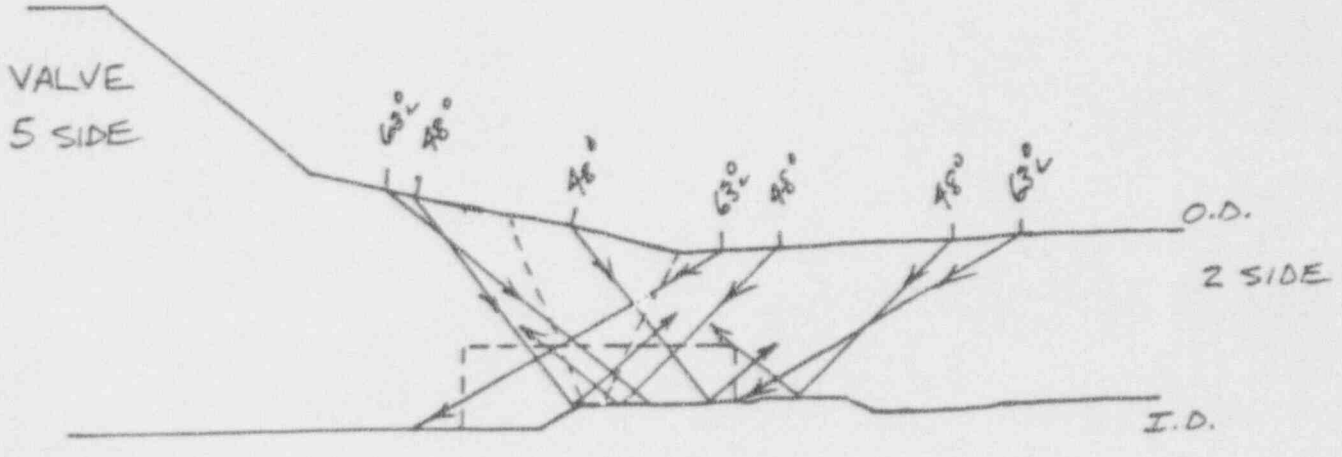
PLANT COMANCHE PEAK UNIT NO. 1 SKETCH TBX-1-4103 REV. 1

SYST/COMP SAFETY INJECTION PROCEDURE IX-ISI-207 REV. 1

EXAMINER Robert L Conant LEVEL II DATE 11-4-92

RELATED TO: U/T X P/T _____ M/T _____ V/T _____ ITEM(S) 1

PROVIDE GENERAL INFORMATION TO DESCRIBE APPROXIMATE SIZE, LOCATION AND TYPE OF LIMITATION.



63°L 15% NOT EXAMINED - 2 DIRECTION
63°L 55% NOT EXAMINED - 5 DIRECTION

48° 40% NOT EXAMINED - 5 DIRECTION
48° 50% NOT EXAMINED - 2 DIRECTION

48°&63°L 40% NOT EXAMINED BY TWO BEAM ANGLES

11-4-92

WESTINGHOUSE NUCLEAR SERVICE DIVISION
INSPECTION SERVICES

LIMITATION TO EXAMINATION

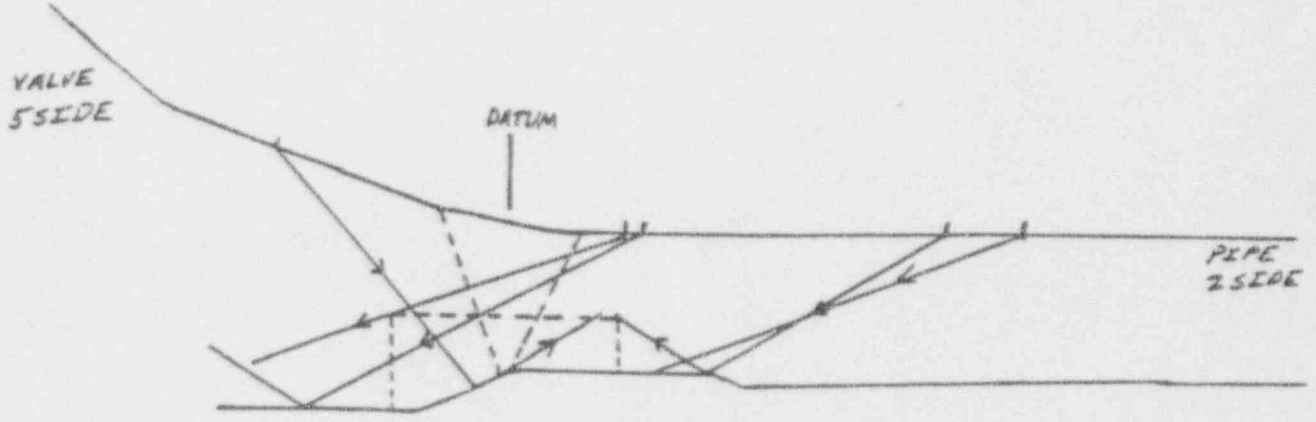
PLANT COMANCHE PEAK UNIT NO.1 SKETCH TBX-1-4202 REV.1

SYST/COMP SAFETY INJECTION PROCEDURE TX-ISI-20T REV.1

EXAMINER [signature] LEVEL II DATE 11-11-92

RELATED TO: U/T X P/T ____ M/T ____ V/T ____ ITEM(S): WELD # 1

PROVIDE GENERAL INFORMATION TO DESCRIBE APPROXIMATE SIZE, LOCATION AND TYPE OF LIMITATION.



≈ 11% OF REQUIRED VOLUME NOT COVERED (60°).
100% OF REQUIRED VOLUME COVERED IN ONE DIRECTION WITH TWO BEAM ANGLES.

[signature] 11/16/92

F49077

RELIEF REQUEST
B-6

A. Item for which relief is requested:

TBX-1-1300-1
RV closure head to flange weld
TBX-1-1300-2
RV closure head ring to disc weld

B. Item Code Class:

1

C. Examination requirement from which relief is requested:

Table: 1WB-2500-1
Examination Category: B-A
Item No.: B1.40 and B1.21

Table 1WB-2500-1, Category B-A, Item No. B1.40 requires volumetric and surface examination of the reactor vessel head to flange weld and Item No. B1.21 requires volumetric examination of the reactor vessel circumferential head welds. The Plan requires that 1/3 of each of these welds be examined each period.

D. Basis for relief:

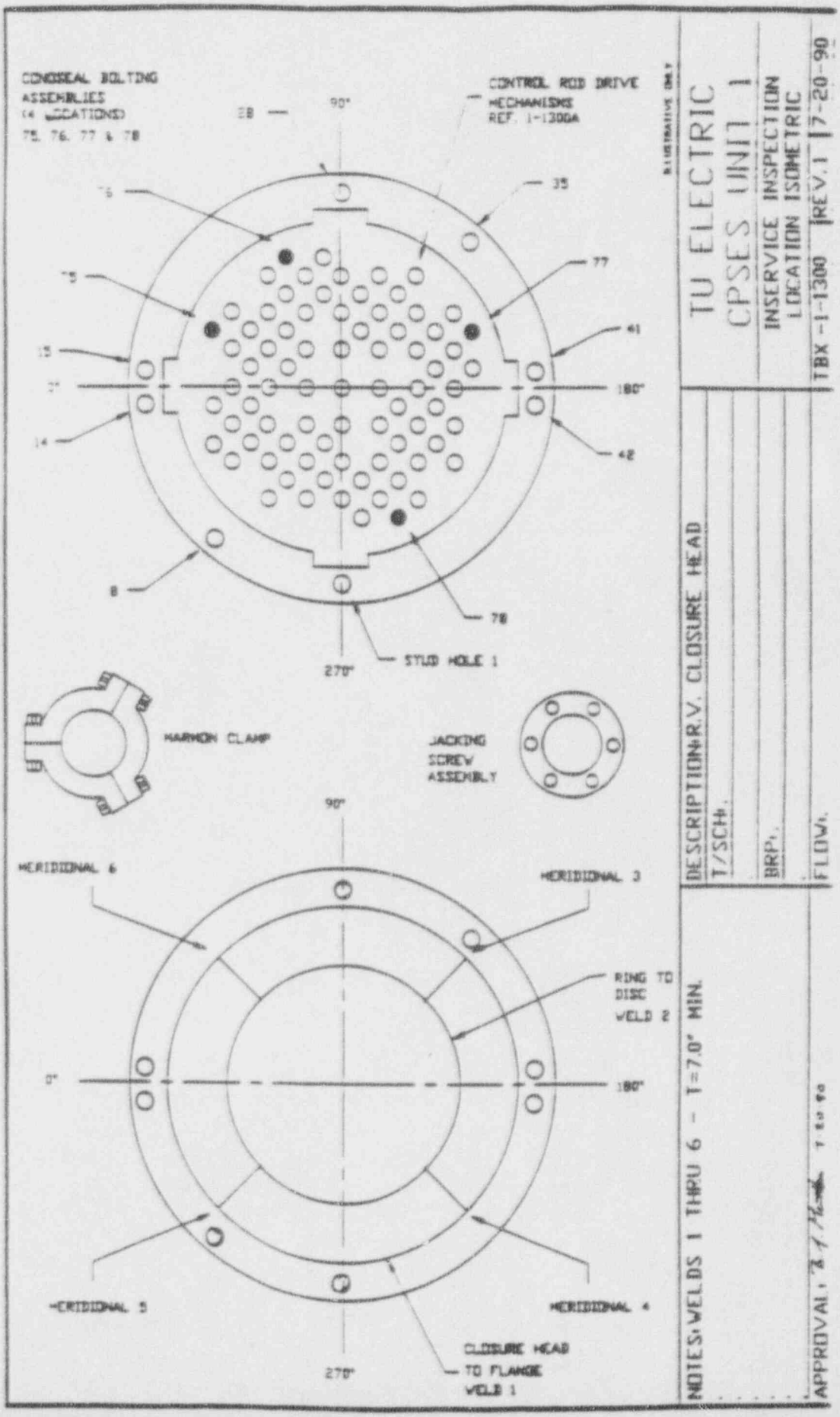
1/3 of welds TBX-1-1300-1 and TBX-1-1300-2 were ultrasonically examined to the maximum extent possible, however, a portion of each was unable to be examined due to limitations encountered from the flange, shroud and a lifting lug. Required surface exam was performed and resulted in no indications. See attached Limitation to Examination sheet.

E. Substitute examinations:

None

F. Anticipated impact on the overall level of plant quality and safety:

None


CONSEAL BOLTING
ASSEMBLIES
(4 LOCATIONS)
75, 76, 77 & 78
CONTROL ROD DRIVE
MECHANISMS
REF. 1-1300A
90°
180°
270°
0°
STUD HOLE 1
HARMON CLAMP
JACKING
SCREW
ASSEMBLY
MERIDIONAL 6
MERIDIONAL 3
MERIDIONAL 5
MERIDIONAL 4
RING TO
DISC
WELD 2
CLOSURE HEAD
TO FLANGE
WELD 1
NOTES: WELDS 1 THRU 6 - T=7.0" MIN.
APPROVAL:
DESCRIPTION: R.V. CLOSURE HEAD
T/SCH:
BRP:
FLOW:
TU ELECTRIC
CPSES UNIT 1
INSERVICE INSPECTION
LOCATION ISOMETRIC
TBX-1-1300 REV.1 7-20-90

WESTINGHOUSE NUCLEAR SERVICE DIVISION
INSPECTION SERVICES

RB 2

LIMITATION TO EXAMINATION

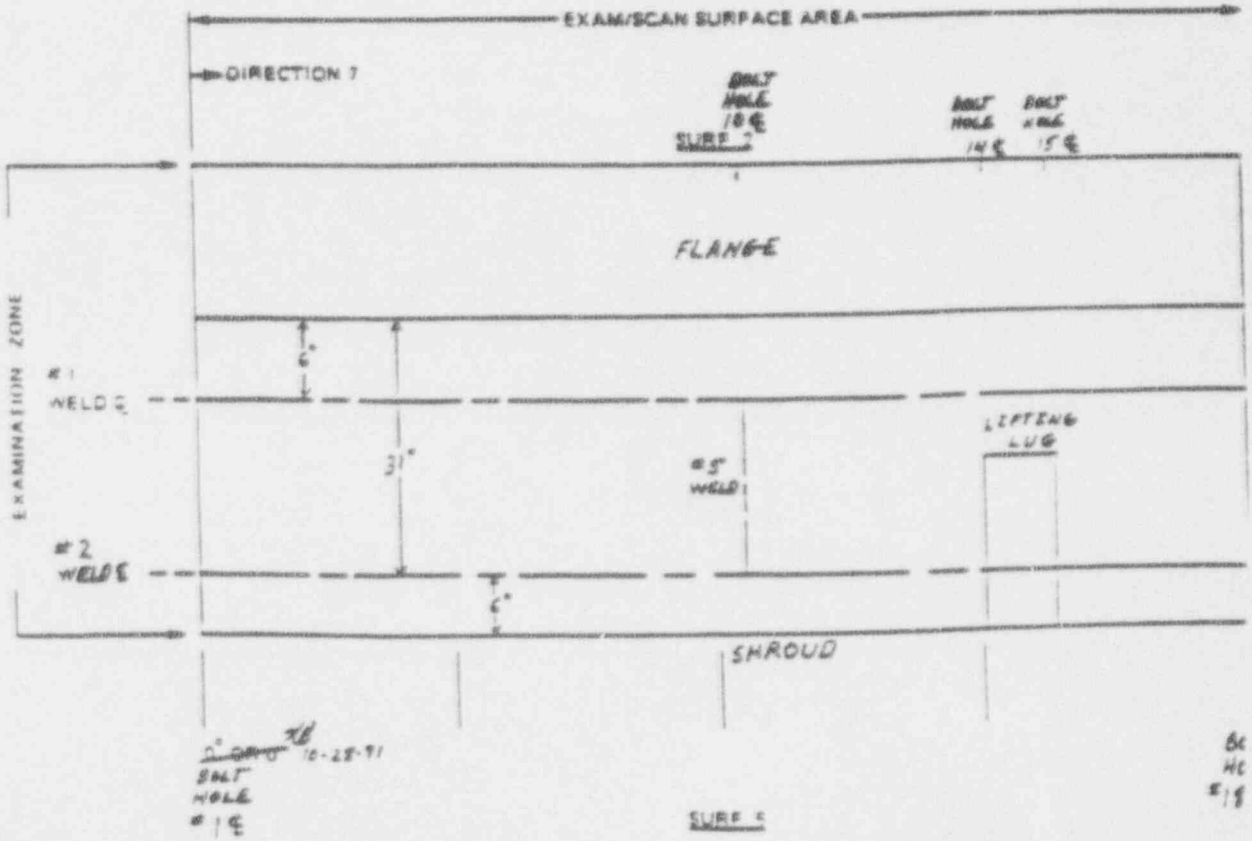
PLANT COMANCHE PEAK UNIT NO. 1 SKETCH TBX-1-1300 REV. 1

SYST/COMP C. CLOSURE HEAD PROCEDURE TX-EST-210 REV. 0 EC 1

EXAMINER [signature] LEVEL II DATE 10-28-91

RELATED TO: U/T X P/T ____ M/T ____ V/T ____ ITEM(S): 1 2 + 5

PROVIDE GENERAL INFORMATION TO DESCRIBE APPROXIMATE SIZE, LOCATION AND TYPE OF LIMITATION.



NOTE:

8% of weld #1 not examined using 45° angle beam
13% of weld #2 not examined using 45° angle beam
12% of weld #1 not examined using 60° angle beam
17% of weld #2 not examined using 60° angle beam

Relief Request C-5

Item for which Relief is Requested:

Nozzle inner radii

Code Class: 2

Examination Requirement(s):

Table: IWC-2500-1
Category: C-B
Item No.: C2.22

Table IWC-2500-1, category C-B, item number C2.22 requires volumetric examination of the nozzle inside radius section for nozzles associated with class 2 components. The nozzles of concern are Main Steam and Feedwater (steam generator secondary side), RHR Heat Exchanger and CT Heat Exchanger nozzles.

Basis for Relief:

Specialized techniques and nozzle specific calibration blocks are required to ensure meaningful results for volumetric examination of the referenced inside radius sections. To determine which nozzles warranted the use of these enhanced techniques, an evaluation of each nozzle was performed. In this evaluation the nozzle stress and usage factor as well as the potential for thermal shock was considered. Of the referenced nozzles, only the main feedwater nozzles exhibit a potential for thermal shock and contain stresses and associated usage factor close to the allowable. It is therefore concluded that only the main feedwater nozzles be subjected to the required volumetric examination using the enhanced techniques to maximize coverage. For the nozzles associated with main steam, RHR heat exchanger and CT heat exchanger, the cost and additional exposure associated with volumetric examination do not produce a corresponding increase in reliability or safety.

Alternative Examination(s):

None

Safety Impact:

The referenced evaluation indicates that only the main feedwater nozzles experience conditions under which the integrity of the inner radius might be compromised. Not performing volumetric examination on the remaining nozzles will not introduce any anticipated impact on the overall plant quality and safety.

Radiological Concerns:

Performance of fewer inner radius examinations will result in less exposure. Also, a significant number of manhours in radiation areas will be saved by not installing scaffolding, removing and reinstalling insulation and then removing the scaffolding.

RELIEF REQUEST
C-6

A. Item for which relief is requested:

TBX-2-2580-3
Circumferential Piping Weld

B. Item Code Class:

2

C. Examination requirement from which relief is requested:

ASME Section XI 1986 edition, no addenda.

The requirement for volumetric examination of 100% of the weld length as described in Table IWC-2500-1, Examination Category C-F-1, Item No. C5.11.

D. Basis for relief:

The specific examination area geometry of this pipe to valve weld precludes the complete ultrasonic examination of the volume required by Fig. IWC-2500-7. Approximately 50% of the exam volume did not receive the full code required coverage.

A best effort examination consisting of two separate base metal angle shear and longitudinal waves was performed. Full circumferential scan coverage was obtained. Axial scan coverage was achieved in at least 1 direction with at least 1 beam angle for the entire exam volume (see page 2).

There were no recordable indications identified by the best effort volumetric exam or by the required surface exam performed.

E. Substitute examinations:

None

F. Anticipated impact on the overall level of plant quality and safety:

None

WESTINGHOUSE NUCLEAR SERVICE DIVISION
INSPECTION SERVICES

LIMITATION TO EXAMINATION

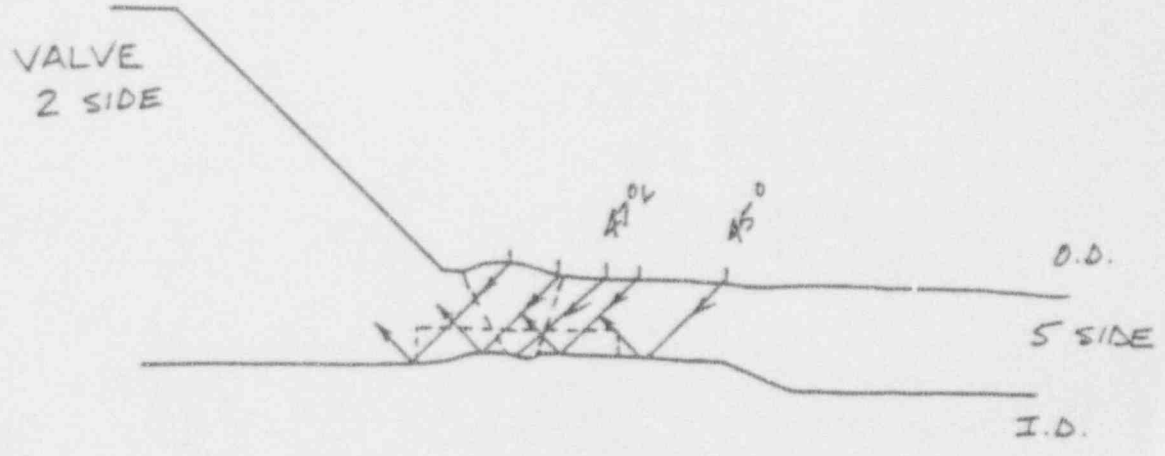
PLANT COMANCHE PEAK UNIT NO. 1 SKETCH TBX-2-2580 REV. 0

SYST/COMP SAFETY INJECTION PROCEDURE TX-ISI-207 REV. 1

EXAMINER Robert J Grant LEVEL II DATE 10-28-92

RELATED TO: U/T X P/T ____ M/T ____ V/T ____ ITEM(S): 3

PROVIDE GENERAL INFORMATION TO DESCRIBE APPROXIMATE SIZE, LOCATION AND TYPE OF LIMITATION.



60°L S DIRECTION 4% NOT EXAMINED

45° S DIRECTION 50% NOT EXAMINED

60°L & 45° 30% NOT EXAMINED BY TWO BEAM ANGLES

11/6/92

RELIEF REQUEST
C-7

A. Item for which relief is requested:

TBX-2-3110-1-3WS, 4WS
Integrally Welded Pump Attachments

B. Item Code Class:

2

C. Examination requirement from which relief is requested:

ASME Section XI 1986 edition, no addenda.

The requirement for surface examination of 100% of the weld length as described in Table IWC-2500-1, Examination Category C-C, Item No. C3.30.

D. Basis for relief:

The specific configuration of the pump base plate and housing does not provide access for liquid penetrant examination of 23% of the area required by Fig. IWC-2500-5 (see page 2). The accessible areas have been examined with no unacceptable indications identified.

E. Substitute examinations:

None

F. Anticipated impact on the overall level of plant quality and safety:

None

WESTINGHOUSE NUCLEAR SERVICE DIVISION
INSPECTION SERVICES

LIMITATION TO EXAMINATION

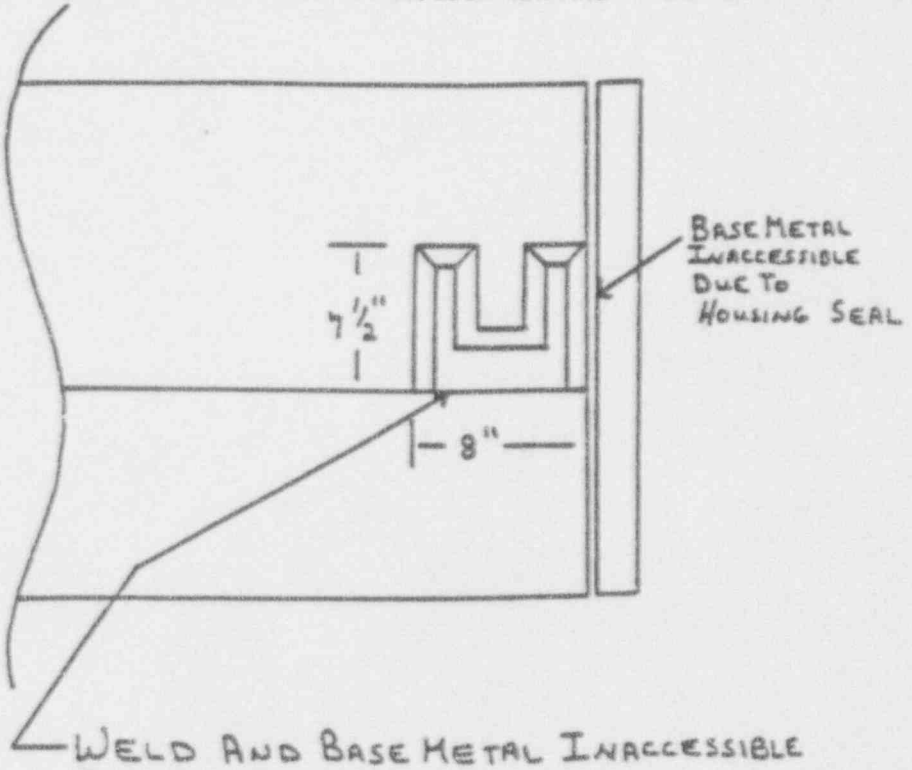
PLANT Comanche Peak UNIT No. 1 SKETCH TBX-2-3110, Rev. 1

SYST/COMP Centrifugal Charging Pump 1 PROCEDURE TX-ISI-11, Rev. 3, F.C. 1

EXAMINER [signature] LEVEL II DATE 10-31-92

RELATED TO: U/T ____ P/T X M/T ____ V/T ____ ITEM(S): 3 WS + 4 WS

PROVIDE GENERAL INFORMATION TO DESCRIBE APPROXIMATE SIZE, LOCATION AND TYPE OF LIMITATION.



TYPICAL 3WS + 4WS

23% OF REQUIRED VOLUME NOT EXAMINED OF 3WS+4WS

[signature] 11/9/92