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August 13, 1984
84056.020

Mr. J. B. George
Project General Manager
Texas Utilities Generating Company
Highway FM 201
Glen Rose, Texas 76043

Subject: Conduit Support Walkdown Questions
Comanche Peak Steam Electric Station
Independent Assessment Program - Phase 4
Texas Utilities Generating Company
Job No. 84056

Dear Mr. George:

Cygna conducted a walkdown of the various conduit supports to assure that the as-built condition properly reflects the designed support. Several discrepancies were discovered during the course of the walkdown. These discrepancies are listed in Attachment A. Please provide the information requested for each item.

If there are any questions, don't hesitate to call.

Very truly yours,

N. H. Williams

N. H. Williams
Project Manager

NHW:jm

cc: Mr. S. Burwell
Mr. S. Treby
Mr. D. Wade
Mr. G. Grace
Mrs. J. Ellis
Mr. R. Ballard

50-445/446

ADD. NSIC
Region IV

H001
1/1

ATTACHMENT A

CONDUIT WALKDOWN QUESTIONS

1. Support C12Ø02935-4, Type CSM-6b (Reference drawing 2323-S-0910, sht CSM-6b)

   Member P1001C3 is attached to a bridge beam which is specified as a Unistrut P1001 section in the above-referenced drawing. The installed section is a P5000 which is not indicated on any available documentation. Use of a P5000 section instead of a P1001 section will affect the support's load carrying capability since a P5000 has lower section properties.

   Please provide Cygna with justification for using a P1001.

2. Conduit C12G02851 contains an S_3 offset of 2'-10". The allowable S_3 offset for a 1" diameter conduit per drawing 2323-S-0910, p. 6, sht 2, revision 8 is 2'-3". (See Cygna isometric sheet, attached).

   Please provide Cygna with justification for allowing an offset dimension of S_3 = 2'-10" for conduit C12G02851 which exceeds the allowable of S_3 = 2'-3".

3. Conduct supports C12G02851-6 and C12Ø02935-3 are type CA-5a supports. Cygna's walkdown noted that the conduit clamps were severely deformed in their installed position. As indicated by the attached sketch, even with the clamp deformation, expansion anchor nuts and washers were in full bearing against the clamp, indicating that the anchors were installed at angles to the perpendicular to the concrete surface.

   Please provide Cygna with documentation which addresses the acceptability of deformed clamps as described above.

4. For support C11Ø04359-1, type IN-CSM-15a, Cygna's walkdown noted the installed configuration appears as shown in the attached sketch. Due to an irregular concrete surface, the leg of the right angle is not flush against the tube steel section but is rotated such that the tip of the other leg is in bearing against the concrete.

   The installed configuration impacts the functional capacity of the support in the following fashion:

   a. The bearing area required for proper load transfer at the support concrete interface may not exist which would result in concrete stresses greater than allowables.

ATTACHMENT A (Continued)

b. With the angle rotated as shown, only one side of the Hilti expansion anchor is in bearing against the angle. Such a configuration results in the introduction of bending stresses within the bolt which have not been considered in the design.

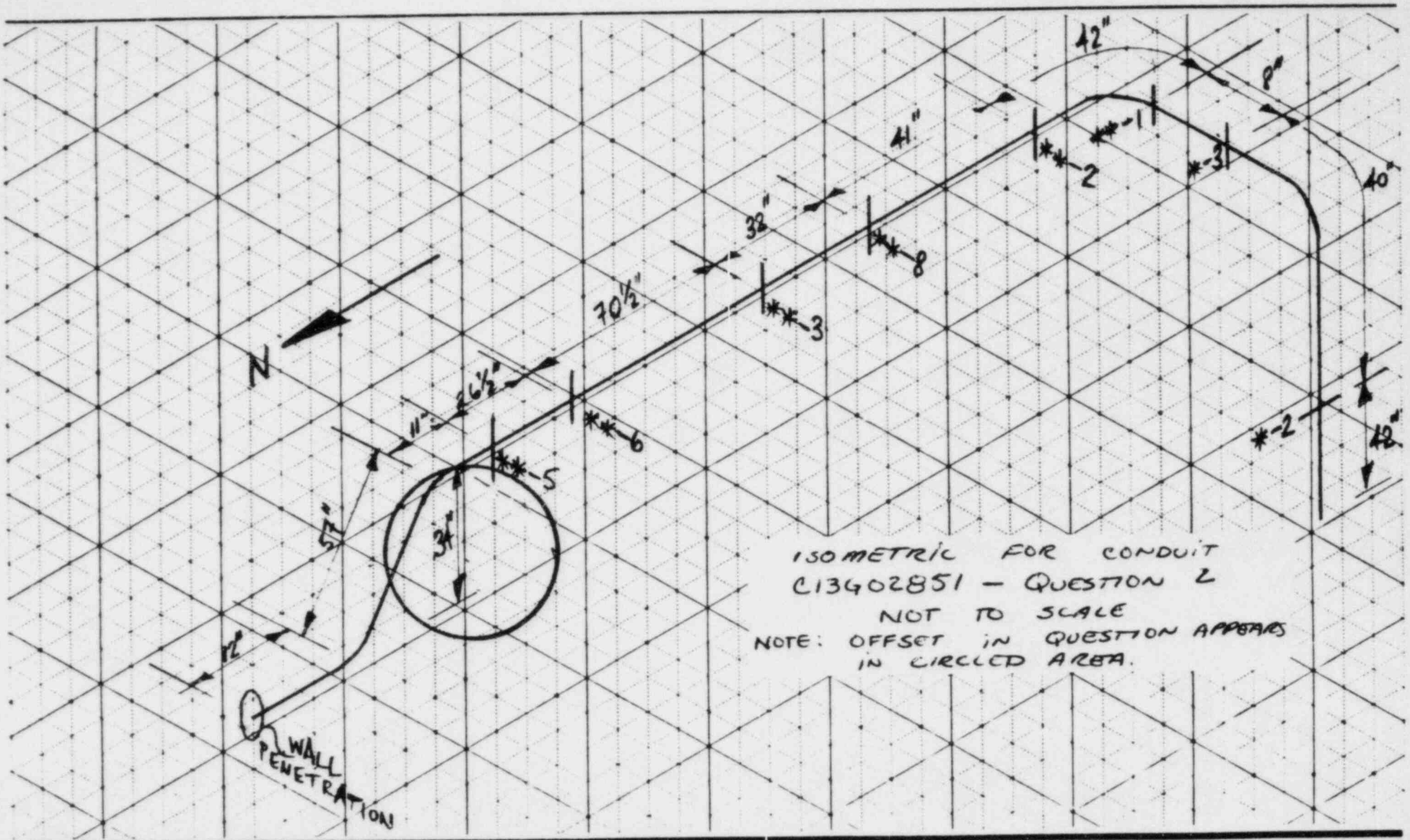
c. Due to the rotation of the angles, it would not be possible to place the groove welds between the tube and the angle as shown on the support drawing.

Please provide Cygna with justification for QC acceptance of the base angle installation for support C11Ø04359-1.

Line #s C13G 02851 (1"ϕ)
C13G 03528 (1½"ϕ)

Conduit Support Walkdown Checklist

7/12/24



ISOMETRIC FOR CONDUIT C13G02851 – QUESTION 2
NOT TO SCALE
NOTE: OFFSET IN QUESTION APPEARS IN CIRCLED AREA.

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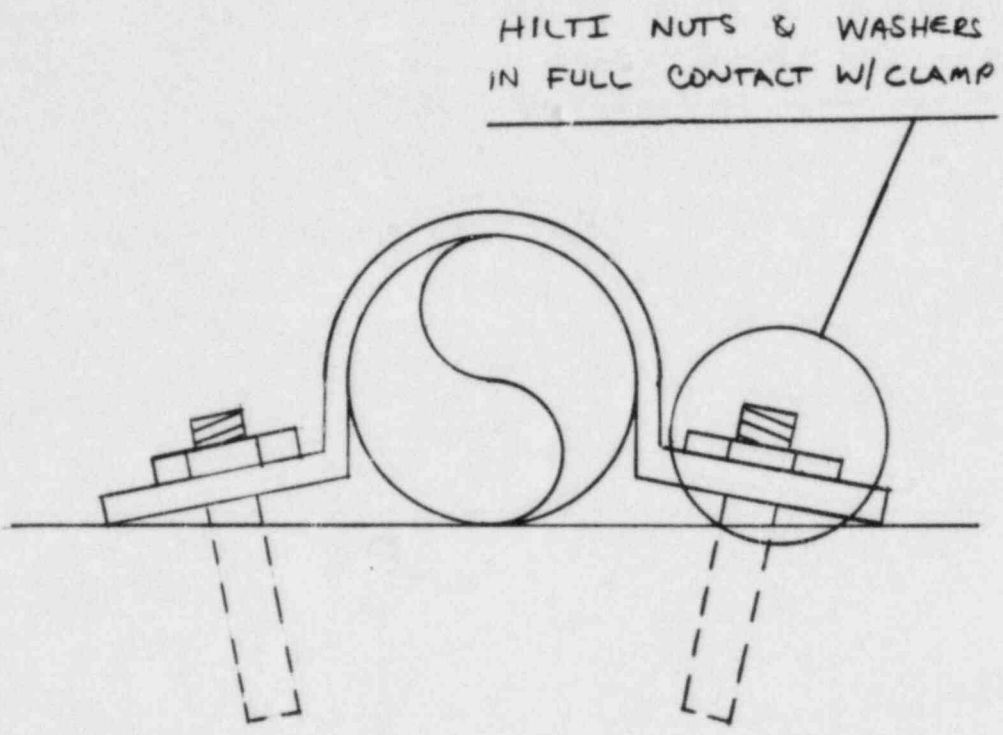
Calculation Sheet

Project: TEXAS UTILITIES - CPSES IAP		Prepared By: J. P. R.	Date: 13 AUG '84
Subject: CONDUIT WALKDOWN QUESTION 3		Checked By:	Date:
System: SUPPORTS C12402B51-6, C12Ø2935-3		Job No: 84056	File No:
Analysis No:	Rev. No: 0	Sheet No:	



DEFORMED CONDUIT CLAMP
FOR CSD-5a TYPE
CONDUIT SUPPORT

(NOT TO SCALE)

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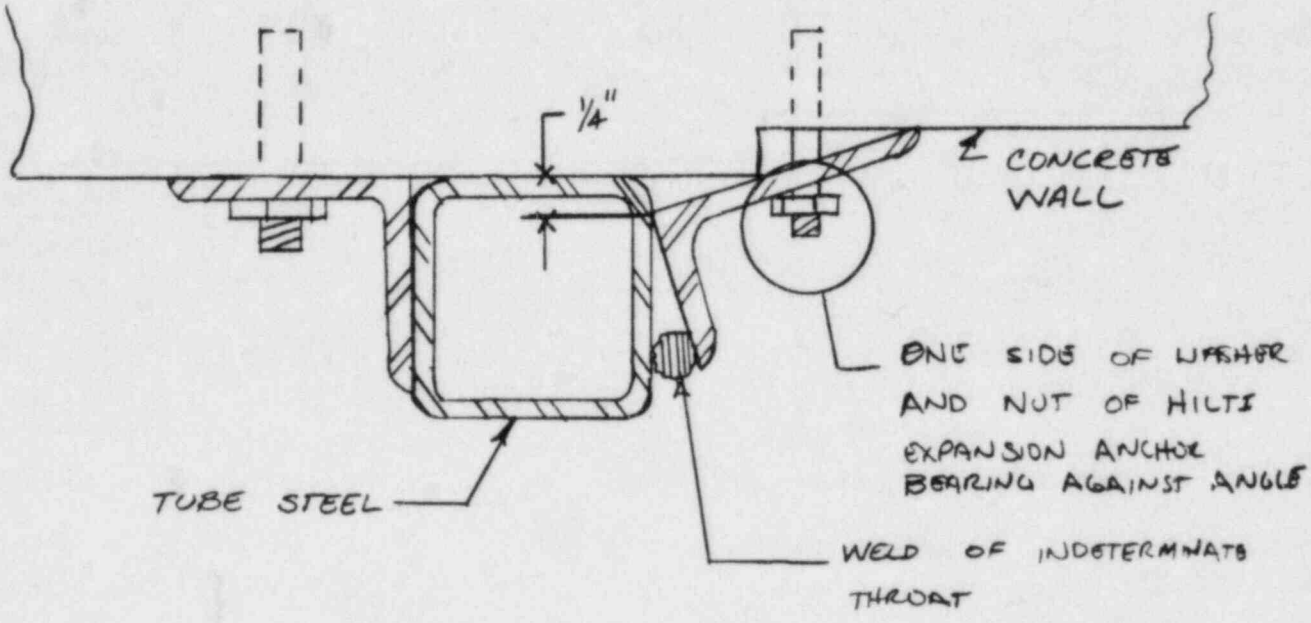
Calculation Sheet

Project: TEXAS UTILITIES - CASE IAP		Prepared By: J.P.R.	Date: 13 AUG 1984
Subject: CONDUIT WALKDOWN QUESTION 4		Checked By:	Date:
System: SUPPORT C11Ø04359-1		Job No: 84056	File No:
Analysis No:	Rev. No: 0	Sheet No:	



PLAN VIEW OF
SUPPORT C11Ø04359-1
TYPE IN-CSM-15a

(NOT TO SCALE)