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SUBJECT: Forwards June 1983 semimonthly open item rept.

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June 10, 1983
J.O. No. 14296
DCS-464

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Docket No. 50-275
Diablo Canyon Unit 1
License No. DPR-76

SWEC JUNE SEMIMONTHLY REPORT

Gentlemen:

Enclosed is Open Item Report 8065 issued by SWEC since our last semi-monthly report.

Very truly yours,

John E. Krechting

J. E. Krechting
Project Engineer, Diablo Canyon Nuclear Power Plant

cc: ~~H.~~ Schierling (2)
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D013
1/1

OPEN ITEM REPORT File No. 8065

File Revision No. 0

1. Date reported to PG&E and TES June 8, 1983
2. Scheduled for SWEC (Originator) Semimonthly Report No. _____
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
   a. ☐ QA Audit and Review Report of _____
   b. ☒ Field Inspection Deficiency
   c. ☐ Independent Calculation Deficiency
   d. ☐ Seismic Input Deficiency
   e. ☐ Design Methodology Deficiency
   f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

   Please see Attachment 1 through 4

6. Description of Concern:

   Please see Attachments 1 through 4

7. Significance of Concern:

   Please see Attachments 1 through 4

8. Recommendation:

   Please see Attachments 1 through 4

9 Signature: John E Jeckling (Originator/Organization)

Structure (s), system (s) or component(s) involved:

Feedwater line no. 555

Main Steam Line no. 227

Description of Concern:

The horizontal portion of Main Steam Line no. 227 at elevation 179'-10½ is impinged upon by forward jet impingement flow from postulated break nos. 3 and 4 on feedwater line no. 555.

The DCP Jet Impingement Review Sheets do not identify this portion of the Main Steam Line as a target for either of these break cases, though identifying the lower horizontal portion of the Main Steam Line as a target for reverse flow from break no. 3.

Significance of Concern:

The Main Steam Line is a safety-related target and should be considered in the safety evaluation regarding the effects of the two postulated FW break cases.

Recommendation:

The horizontal portion of the Main Steam Line should be identified as a target for forward flow from postulated break nos. 3 and 4 and a safety evaluation should be performed by the DCP for each break. The safety evaluation should consider the effects on the Main Steam Line coincident with the effects on all other targets for the same postulated jet zones.

Structure (s), system (s) or component(s) involved:

Line No. 12 - RCL PP Disc #4 - Break Location No. 2

Conduit KX-578 (Yellow)
Conduit KX-582 (Yellow)

Description of Concern:
Conduit KX-582 has been misidentified as conduit KX-578. Conduit KX-578 is identified as a target on the DCP Jet Impingement Review Sheets for postulated break No. 2 at the Reactor Coolant Pump (RCP) Outlet. The IDVP field inspection, has determined that KX-578 is outside the zone of influence (ZOI) for this break. Conduit KX-582 was determined to be within the ZOI but was not identified as a target on the DCP Jet Impingement Review Sheets.

(See Attached Sketch)

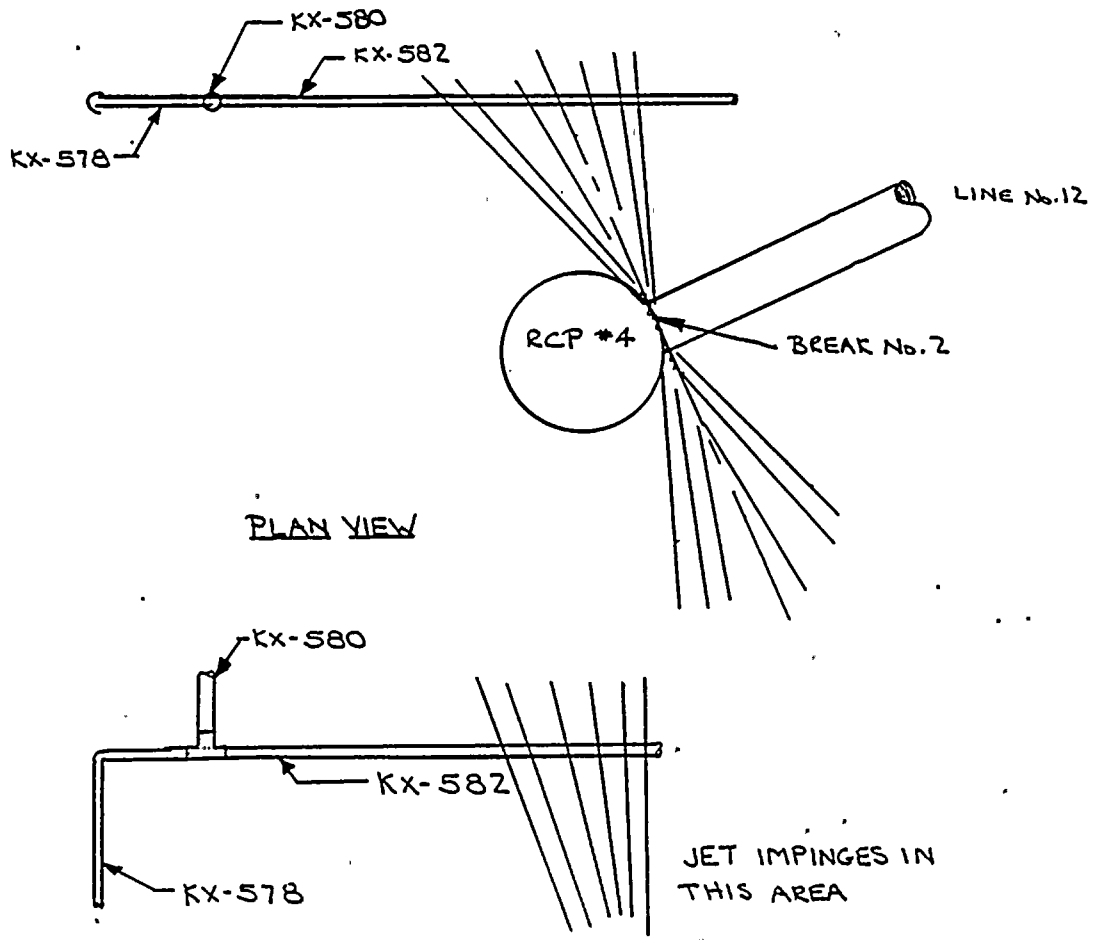
Significance of Concern:

The safety evaluation was performed for conduit KX-578 though conduit KX-582 is the affected target. Conduit KX-582 may contain different cables than conduit KX-578, which may be needed to safely shutdown the plant.

Recommendation:

The DCP should perform a safety evaluation to determine if conduit KX-582 is needed to safely shutdown the plant for a postulated break at the RCP outlet (Break No. 2 on Line No. 12).

▲5010.65


KX-580
KX-582
KX-578
LINE No.12
RCP #4
BREAK No.2
PLAN VIEW
KX-580
KX-582
KX-578
JET IMPINGES IN
THIS AREA

Structure (s), system (s) or component(s) involved:

Safety-related (grey) conduit KX-428 (3/4") leading to TE 1315. Letdown line No. 24.

Description of Concern:

A pipe rupture on letdown line 24 at break location No. 16 (see Figure 1) results in a blowdown jet vertically upward, which impinges upon safety-related (grey) conduit KX-428 (approximately 160" above the break location). (see Figure 2)

Significance of Concern:

As the conduit is color coded grey and therefore safety-related, it may contain cables which are essential for reactor shutdown under conditions resulting from postulated break 16 on line 24.

Recommendation:

A safety evaluation should be conducted to determine if conduit KX-428 is essential for reactor shutdown under the conditions associated with the postulated pipe break 16 on line 24.

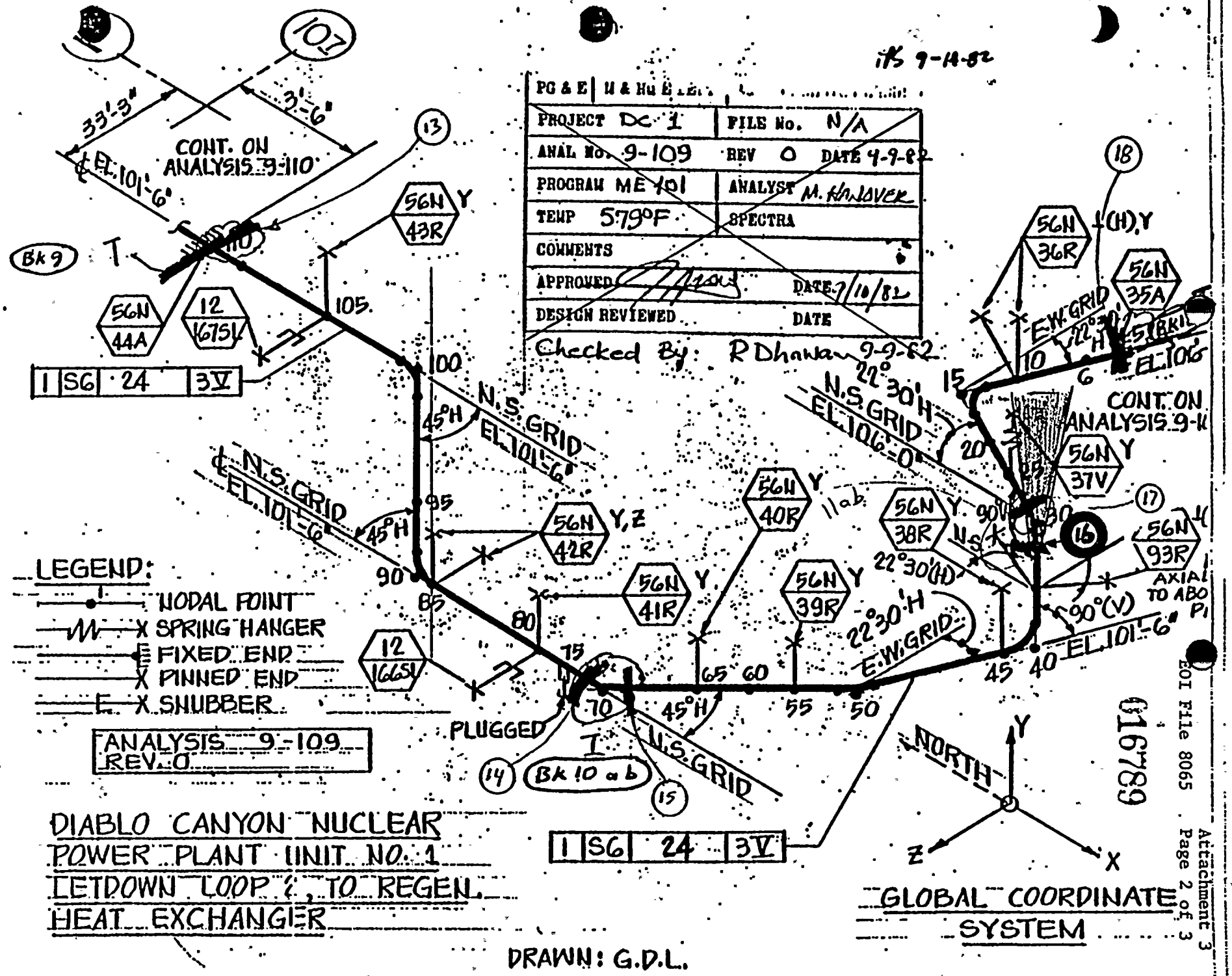


FIGURE 1. BREAK NO. 16 ON LINE 24. - ISOMETRIC SKETCH

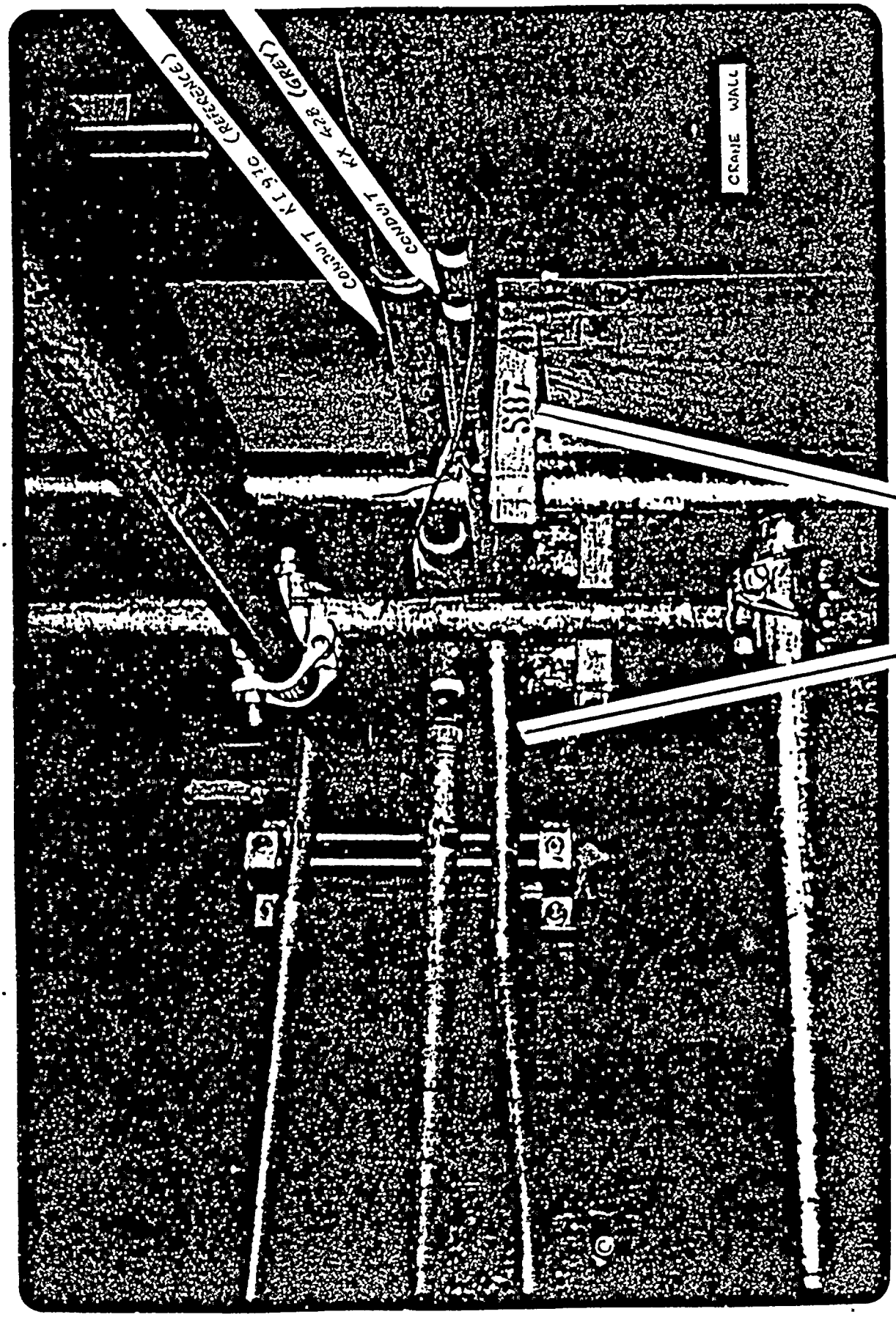

CRANE WALL
CONDUIT K1X 428 (GREY)
CONDUIT K1 910 (REFERENCE)
BREAK 16
LINE 24

FIGURE 2

Structure (s), system (s) or component(s) involved:

Vertical supports for line 63, excess letdown line, loop 2 cold leg. Letdown line no. 24.

Description of Concern:

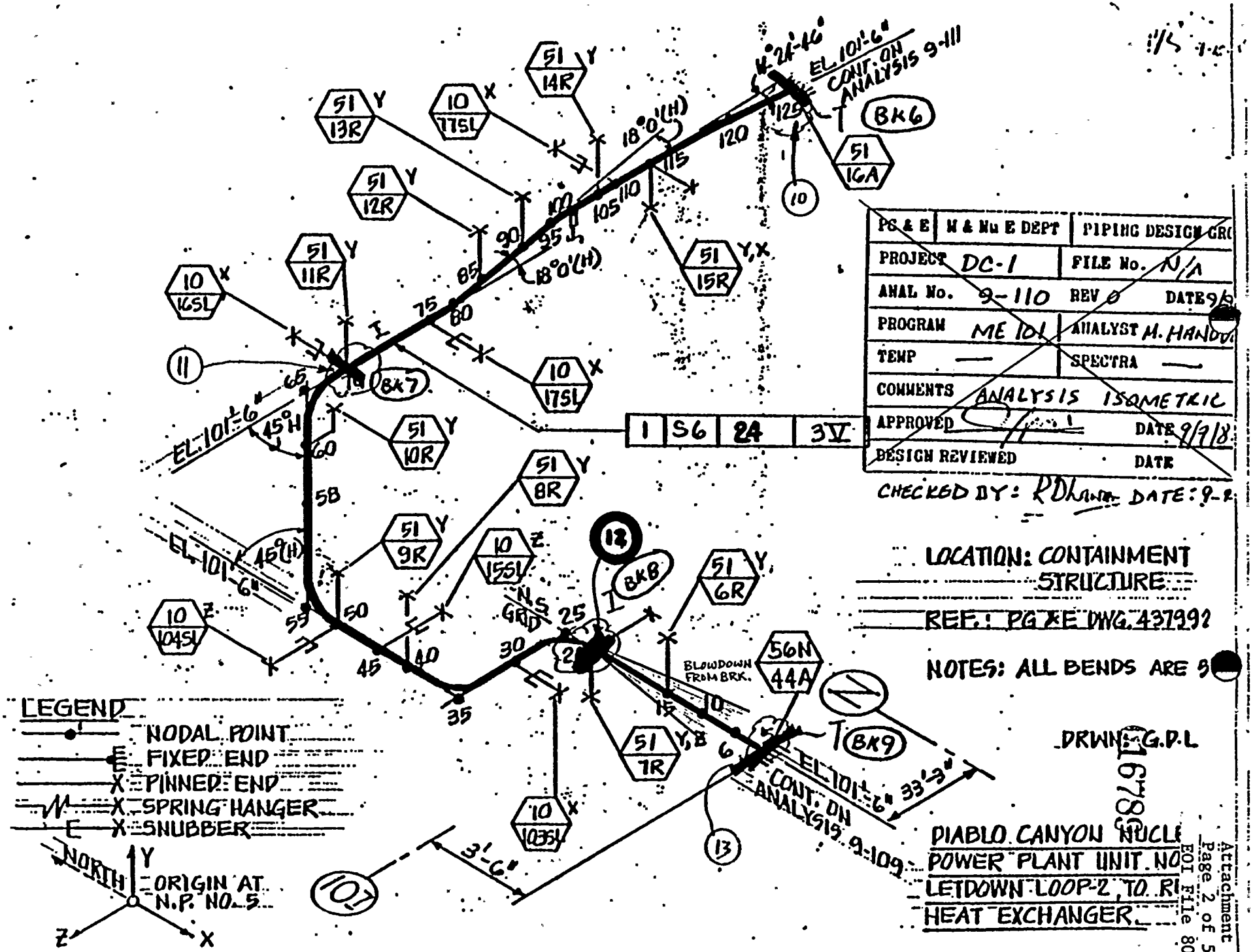
A pipe rupture on letdown line 24 at break location 12 (see Figure 1) results in a traveling jet. The traveling jet sweeps horizontally and impinges upon two of the vertical supports for the excess letdown line 63 (see Figures 2&3).

Significance of Concern:

As more than one support for the safety-related line 63 is being affected by jet impingement from break 12 on line 24, the interaction may affect the stresses in line 63, such that the piping integrity may be impaired.

Recommendation:

A safety evaluation should be conducted to determine if Excess Letdown line 63 is essential for reactor shutdown under the conditions associated with the postulated rupture of Letdown line 24, and to assure compliance with licensing commitments in FSAR Section 3.6.



PG & E	M & Nu E DEPT	PIPING DESIGN GR
PROJECT DC-1		FILE No. N/A
ANAL No. 9-110	REV 0	DATE 9/6
PROGRAM ME 101		ANALYST M. HANDV
TEMP —		SPECTRA —
COMMENTS ANALYSIS ISOMETRIC		
APPROVED		DATE 9/7/8
DESIGN REVIEWED		DATE

CHECKED BY: RDL DATE: 9-8

FIGURE 1. BREAK NO. 12 ON LINE 24. - ISOMETRIC SKETCH —

FIELD INSPECTION REPORT - JET IMPINGEMENT REVIEW INSIDE CONTAINMENT
DIABLO CANYON UNIT 1 - JOB ORDER No. 14296.40

TASK 11.6.3.3.1
DATE 5/25/83
PAGE _____

BREAK IDENTIFICATION					
SYSTEM	LOOP	LINE NO.	BREAK NO	BRK. TYP	BRK. CAT.
LETDN	2	24	12	TRAVEL C	(✓) LOCA ( ) NON-LOCA

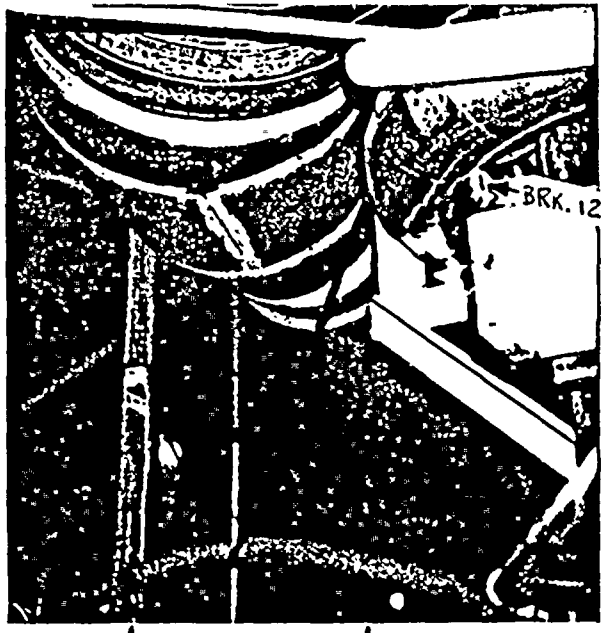
LOCATION OF BREAK		
AREA	LOCATION	ELEVATION
F	[illegible]	101 -6"

REFERENCES		
DCP JET IMP. REVIEW SHEETS	DRAWINGS	OTHER DOCUMENTS
[illegible]	[illegible]	

SKETCHES AND FIELD NOTES

ADDITIONAL REPORTS

7' SUPPORTS FOR LINE 63 EXCESS LETDOWN LOOP 2 C.L.



2 SUPPORTS ARE IMPINGED UPON BY TRAVELING JET FROM BREAK 12 ON LINE 24 AS THE LINE WHIPS

FIGURE 2.A

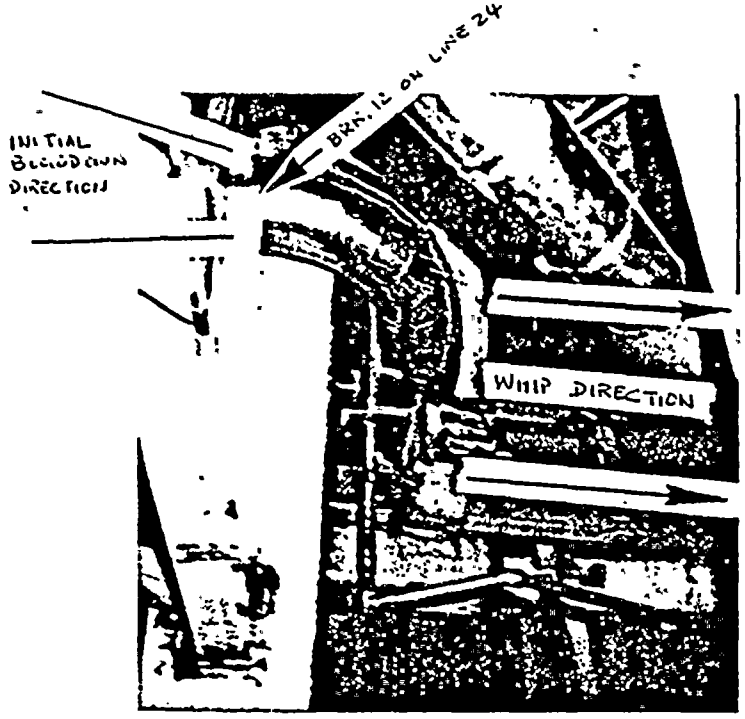


FIGURE 2.B

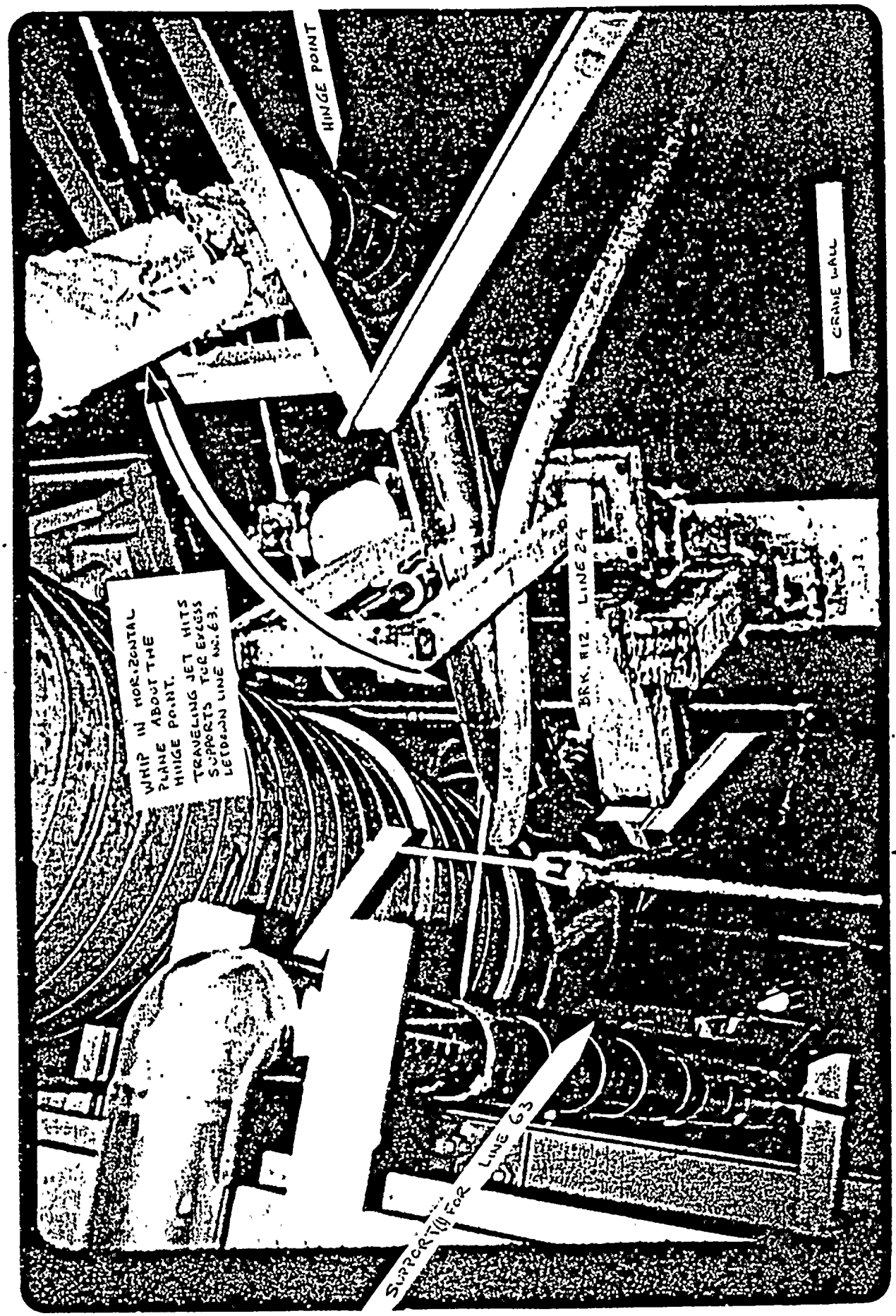

HINGE POINT
CRANE WALL
WHIP IN HORIZONTAL PLANE ABOUT THE HINGE POINT.
TRAVELING JET HITS SUPPORTS TOP EXCESS LETDOWN LINE NO. 63.
BRK. #12 LINE 24
SUPPORT (2) FOR LINE 63
(TOO DARK TO SEE ON PHOTO)
SUPPORT (1) FOR LINE 63

FIGURE 2.C

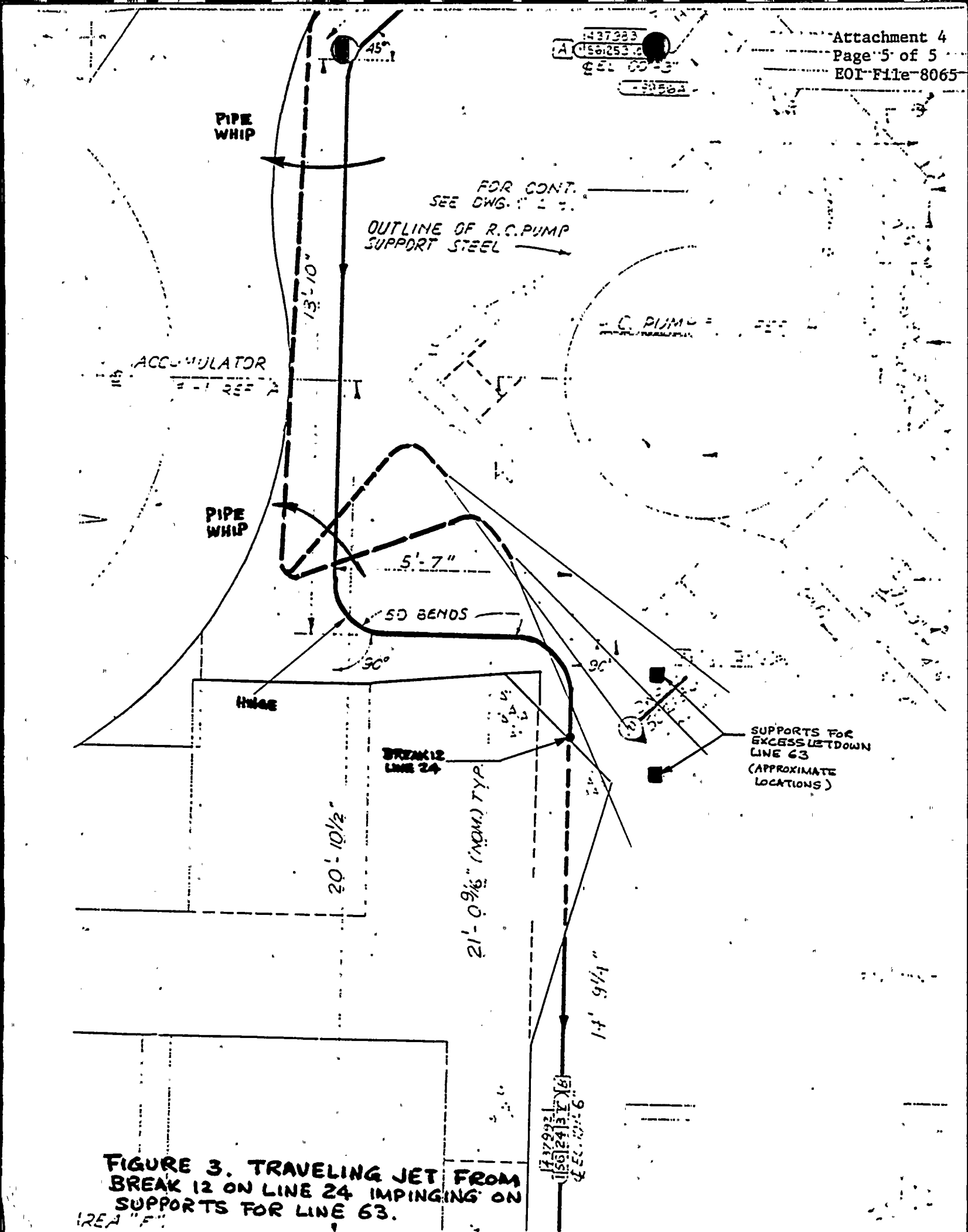


FIGURE 3. TRAVELING JET FROM BREAK 12 ON LINE 24 IMPINGING ON SUPPORTS FOR LINE 63.