

Memorandum

Date: March 20, 1989
To: GOLDEN GATE REGION
From: GAS SYSTEM DESIGN
Subject: Failure of Longitudinal Weld on
30-Inch Steel Pipe

File # 460.21

Buss



[Redacted]

Thank you for bringing to our attention the problem with the longitudinal weld on the 30-inch steel pipe. The Gas System Design Department has finished processing the Material and/or Equipment - Problem or Failure Report you submitted (GSD received date 11/28/88). A copy of the completed report is attached.

If you have any questions concerning this report, please contact me on Ext. [Redacted]

[Redacted]

[Redacted] (223-1888):cm

cc: [Redacted]

Attachment

Will find its way to you sooner or later - BUT HERE'S ADVANCE COPY

[Redacted]

MATERIAL AND/OR EQUIPMENT - PROBLEM OR FAILURE REPORT

NOTE: Do not use this form for reporting failures or accidents which result in death, injury, and/or property damage. Also, this form should not be used for reporting corrosion leaks in pipe, or replacement due to normal wear.

TO BE COMPLETED BY FOREMAN AND/OR LOCAL ENGINEERING STAFF
See Attachment 2 of S.P.460.21-7 for Instructions

- Failed material or equipment LONGITUDINAL WELD ON 30" T.L. 132
- Location (address) where failure occurred [redacted] City, Co. [redacted]
- Material or equipment details and description of problem or failure
A PINHOLE LEAK WAS FOUND ON THE LONGITUDINAL WELD ON 30" T.L. 132.
- Service information: Date installed 1948 Other information GM 98015
- Disposition of failed material Delivered to [redacted] G.B.R. Gas Manager on 11-4-88.
- Person to contact for information [redacted] Telephone [redacted]
- Reported by: [redacted] Location Peninsula Region G.6 Date 10-27-88
- Noted by Regional office: By [redacted] Date 881116

SEND ORIGINAL TO MANAGER GAS SYSTEM DESIGN DEPARTMENT - ROOM 2857, 77 BEALE STREET

FOR USE BY GAS SYSTEM DESIGN DEPARTMENT DATE RECEIVED

- Review assigned to: [redacted] - GS) 11/29/88
- Copies distributed to: (Gas Dist.) _____
- Evaluation, comments and action by Gas System Design:
FAILED SECTION OF PIPE WAS INSPECTED. SEE THE ATTACHED T&S LETTER DATED 3/1/89.
- Evaluation completed by: [redacted] Telephone [redacted] Date 3/15/89
- Approved by: [redacted] Date 3-20-89

GAS SYSTEM DESIGN		
PCH	F/U Date	NCR
JRG	NOV 28 1988	KMB
RCB		ED
JAC		GM
SYG	CIRCULATE	HANDLE
RFD	COMMENT	FILE
REB		

FEEDBACK*
14. By: OEA Date 3/20/89 Method letter
To: _____

* IMPORTANT: Feedback must be provided on all Material Problem or Failure Reports, either by letter or copy of completed report. Distribution should be made as outlined in the Guidelines (Supplement to S.P. 460.21-7).

62 0291 (REV 9/82) NO DAY YR

JOB ESTIMATE

JOB COORDINATOR S RC NUMBER 0269

DATE OF ESTIMATE 10/31/88

DEPARTMENT GAS DISTRICT PENINSULA DIVISION GOLDENGATE REGION 02

APPLICANT PACIFIC GAS & ELECTRIC CO. SOURCE DOCUMENT OF ESTIMATE No 0234691727

LOCATION [REDACTED] COUNTY [REDACTED] PROJECT IDENTIFICATION NUMBER (PIN) G.D. 102188127

JOB TITLE VO TRANSMISSION MAINT GENERAL NEW BUSINESS/APPLICANT BILLING DATA

NAME OF PROJECT/PHASE COORDINATOR GALE SIU PG&E Est 626-7214 TOTAL SPECIFIC PROJECT/PHASE BUDGET AMOUNT \$

NECESSITY FOR PROPOSED WORK AND DESCRIPTION THEREOF

IT IS NECESSARY TO REPLACE A 6' SECTION OF 30" T.L. 132 DUE TO A LONGITUDINAL WELD DEFECT.

ESTIMATED BASE ANNUAL REVENUE \$

RESIDENTIAL ELECTRIC, NON P T GAS US ELEC OR GAS TRENCH FT No UNITS

CONTRIBUTIONS EXCESS SERVICE CHARGE \$

OTHER \$

REFUNDABLE ADVANCE \$

OTHER RELATED JOB AUTHORIZATIONS (INCLUDING D & C)

D & C No

OTHER JOB No

PERC PROJ No

DSE LOCATION

ESTIMATOR

DATE REQUIRED 11-11-88

RECOMMENDATION RULE No and RATE SCHEDULE COMPANY EXPENSE

ACCOUNT	SUB ACCOUNT	SPECIAL CODE	DESCRIPTION OF DIRECT COST ITEMS	WEEKDAYS OF EST BUDGET	LABOR	AMOUNT (Dollars Only)			
						MATERIAL	EMPLOYEE RELATED COST	CONTRACT AND OUTSIDE SERVICES	OTHER
02 132	3475 6034		SHUTDOWN AND RESTORE MAIN	40	5800		75	1000	
02 132	3664 2040		REPAIR LONGITUDINAL WELD DEFECT	22	3190	300		5000	

TOTAL AMOUNT (Dollars Only)				TOTAL CAPITAL DIRECT COSTS		TOTAL M&O DIRECT COSTS		TOTAL DIRECT COSTS	
ALLA	CH	C	RECT	REGIONAL DIRECT	TRAVEL LABOR	DECAUTION	D & C DIRECT (See TRAIL)	DECAUTION	
				15365				15365	
PLAN TO BE REMOVED OR ABANDONED (Enter on Form 62-043B "Detail Sheet for Plans to be Retired")									
JOB EXPENDITURE BY YEAR									
COSTS	FIRST YEAR	YEAR	YEAR	YEAR	TOTAL ESTIMATED				
DIRECT COSTS	15365					GROSS PAYMENTS 22195			
GROSS COSTS	22195								

FOR ACCOUNTING USE ONLY									
PLA CODE	PERIOD	FUNCTIONAL GROUP	SELF REPORT No	COMMUNICATIONS	CLASSIFICATION	JOB AUTHORIZATIONS			
						JOB ORDER NUMBER GM 4701843			

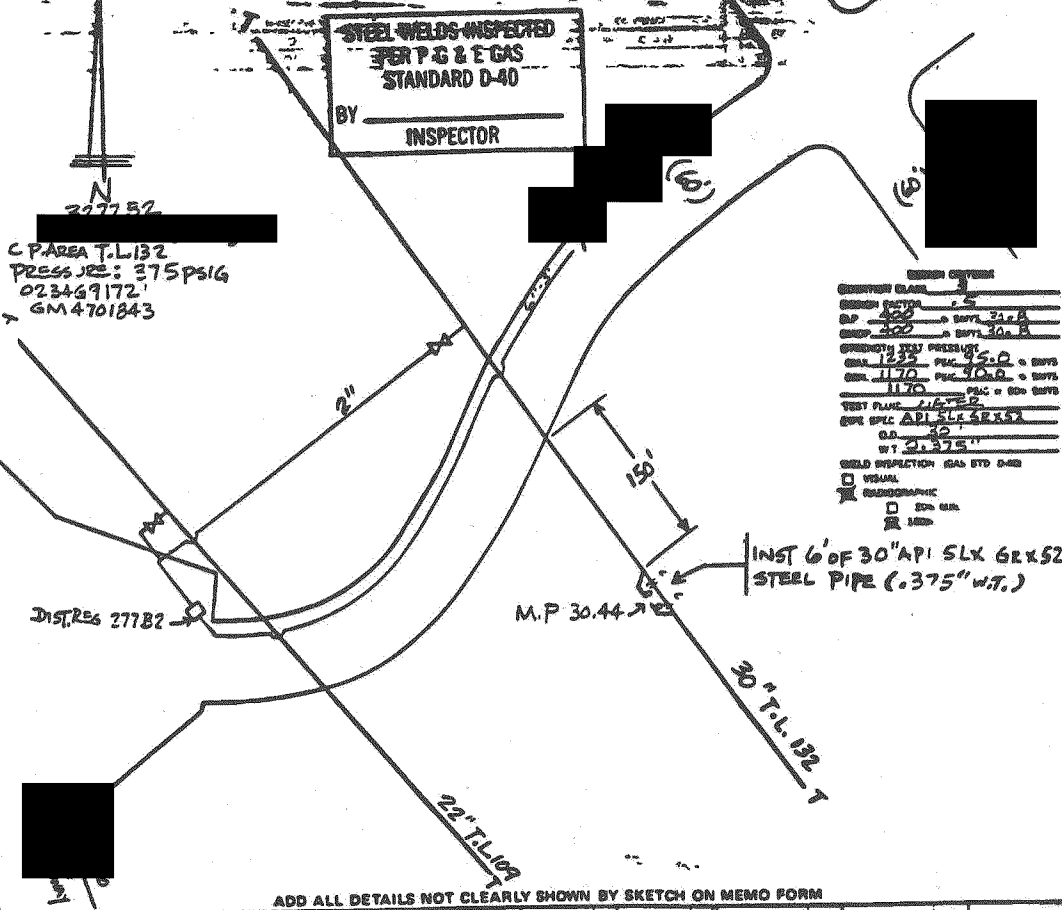
FOR ACCOUNTING USE ONLY									
CHECKLIST	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
A.P. INTENTION									
R&E REPT. No.									
TREE TRIMMING									
CITY OR CO PERMIT									
HIGHWAY PERMIT									
R. R. RING PERMIT									
OTHER PERMITS									

Date Work Started _____ Date Completed _____ Foreman Signature _____

MATERIAL USED ON THIS AUTHORIZATION				LOCAL PURCHASE ORDERS	MAPPING RECORD
DEBIT				REFERENCE Nos	POSTED TO DATE
					H Sheet
					Plan Sheet
					Prop. Tax Rec.
					Plot Sheet
					Switch & Well Map

For transformer installation - Job Foreman shall show following data on sketch at transformer location: Type, Mfg. Serial No., KVA, Voltage, New or Old (If space is insufficient, add separate sheet with same data and transformer location grid coordinates or pole reference number.)

SKETCH OF WORK - Foreman to correct & change as needed - showing O.K. by initials & date



ADD ALL DETAILS NOT CLEARLY SHOWN BY SKETCH ON MEMO FORM

Code Area	Pub RW	COUNTY	RA-UNINC	RA-INC	NOR RA	UG	CL	SL	UG
Poles - Twp.	Pvt RW							OH	
Cond	No Trls					Cables	Conduit	Line No	Computer
	KVA								

LEAK SURVEY, INSPECTION AND REPAIR REPORT (S.P. 460-2)
FOR UNSCHEDULED REPAIR OR RESPONSE
Revised 03-08-80 (07/87)

USA TICKET NO. _____
Valid on: _____

INITIAL LEAK REPORT

LEAK NUMBER: 18 E - 03 - 0 - 1 RC NUMBER: 10250-2 TODAY'S DATE: 10/27/88 TIME: 4:00 PM
ADDRESS: [REDACTED] DATE FOUND: 10/27/88 GRADE: (L)
READING: _____ LOC: _____ 150 OPERATOR: _____ REPORTED BY: _____
13227 PLAT: 1 B2 BLOCK: 1 2 SURFACE OVER LEAK #0: _____ CITY: S. W. MO. DISTRICT NO: 139
FED'L LAND? (N) (Y/N) ENTL. PROT.? (Y) (Y/N) YEAR INST: 1 48 SYSTEM PRESS: 325 GPM: 020-32

REPAIR REPORT
LOCATION: 5400 Main
GAS BONE/HEADS: DO NOT
11-4-88 REPLACEMENT 30" PIPE
REPAIRED BY: SW DATE: 10 28 88
JOB CODE: (M) Capital, Maintenance
LINE SIZE: 13 13 inches
LINE MATERIAL: (S) Cast Iron or Ductile Iron, Copper,
 Steel or Wrought Iron, Alloy A, I-TE 416,
 Plastic other than "A" or "T", Other
LINE USE: (T) Distribution Main, Service,
 Transmission Main, Gathering Main,
 Distribution Feed Main
POF SERVICE OR: Aboveground? Yes No
Material of Main Connected to Service: (M) Cast Iron, Steel,
 or Plastic
LEAK CAUSE: (B) Corrosion, Damage by Outside Forces,
 Dig, Damage by Electrical Failure,
 Construction Defects, Material Failure,
(LW) Lost Iron Fractures, Other
LEAK SOURCE: (W) Birth Girth, Longitudinal Girth,
 Other Girth, Body of Pipe, Valve,
 Scraper Trap, Tap Connection, Drop,
 Compressor Components, Gas Cooler,
 Physical (Mechanical) Joint, Fitting,
 Bell Joint, Regulator, Water, Other
TYPE REPAIR: (P) Permanent
REPAIR CODE: (P) Weld Over Sleeve or Cap, Patch Method,
 Clamp, Replace Pipe, Tighten Cap or Bolt,
 Bell Joint Clamp, Bell Joint Seal, Other
FOR CAST IRON ONLY - NO. OF D.J. CLAMPS/HEADS/FRACTURES: _____
ADDITIONAL PIPELINE REPORT? Yes No
REP'D BY: Field Survey, Call-in, Hoisting Contractor or Outside Force, Public Service, Serviceman or Company Emp., Mobile Survey, Other
CONTACT DIED LEAK: Concrete, Jar Compound, Hoar-frozed, Other

INSPECTION REPORT
FOR: MAIN or SERVICE
DATE: 10 28 88 REPORTED BY: [REDACTED]
SIZE: 30" IN O.D. THICK.: _____ IN MATERIAL: STC
COVER ON PIPE: 24" FT OF PIPE EXPOSED: 16 SPEC.: _____
TEST DATE: 10 28 88 TIME: 5:00 PM PRESSURE: N/A PSI
COATING: None (Bare) Double Wrap
 Single Wrap Other: _____
WRAP CONDITION: Excellent Fair Poor
PIPE CONDITION:
EXTERNAL - RUST: None Light Heavy
PITTING: None Light Heavy
PIT DEPTH (MAX): _____
GRAPHITIZED (C.I.): Yes No
INTERNAL - INSPECTION: Clean Dirty Dirty
RUST: None Light Heavy
PITTING: None Light Heavy
PIT DEPTH (MAX): _____
SOIL TYPE: Hard Rock Soft Rock Sandy Clay
 Hard Clay Sand Other: _____
CAST IRON MAIN FRACTURE REPORT: (Cause or probable cause)

PIPPOINT AND REVIEW INFORMATION
PIPPOINT - BY: _____ DATE: _____
LOCATION: _____
REVIEWED BY: [REDACTED] DATE: 11-4-88
Post Repair Check Req'd Yes No
Date: _____ Reading: _____ By: _____

Form 100-1000 (01/07)

GRADE 1 LEAK RESPONSE
(For Downgraded or Deleted Grade 1 Leaks)

OWNER: BRISTOL

DATE: 11/18/08 TIME: 4:00 PM

OPERATOR: J.D.

STATUS: Downgrade Leak to Grade 2 Delete Leak

REASON FOR LEAK: OVERFLOW

LOCATION/REMARKS: 1020-C

TIME: 4:00 PM

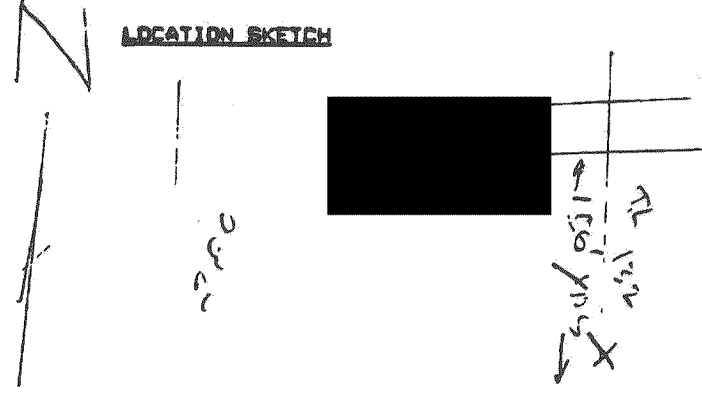
INSPECTOR'S SIGNATURE: _____

Special Inspection: 11 Authorized By: _____ Date: 11

LEAK TYPE	LOCATION/REMARKS	TIME	DATE	OPERATOR	ACTION/FOLLOW-UP
Grade 1					
Grade 2					
Grade 3					
Grade 4					

Leak Type: H - Hydrogen flame ionization or C - combustible gas indicator

LOCATION SKETCH



Date: December 1, 1988

File #: 460.21

To: GOLDEN GATE

From: GAS SYSTEM DESIGN

Subject: Failure of Longitudinal Welding on
30-Inch Steel Pipe



[Redacted]

I have received the Material and/or Equipment - Problem or Failure Report that you prepared describing the failure of the longitudinal welding on 30-inch steel pipe. This report has been assigned to [Redacted] of the Pipe Line System Engineering of Gas System Design Department. The evaluation for this report is expected to be completed by April 1989.

If you have any questions concerning this report, please contact me on Ext. [Redacted]

[Redacted]

[Redacted] :cm

cc: [Redacted] (attachment)

02-0210 (rev 3-88)

Memorandum

Date March 1, 1989 File # 4152
To GAS SYSTEM DESIGN
From TECHNICAL AND ECOLOGICAL SERVICES
Subject [REDACTED] 30" Transmission Line Failure



[REDACTED]
A section of the 30" [REDACTED] transmission line (132) was removed for failure analysis because of a pinhole leak in the longitudinal seam weld (see attached materials failure report). X-ray, dye penetrant, and magnetic particle inspections were performed on the submitted section, but these did not locate the leak. The X-ray and subsequent metallographic examination identified several weld shrinkage cracks, but they did not extend through wall. The cracks are pre-service defects, i.e., they are from the original manufacturing of the pipe joint.

Overall, the X-ray inspection showed the weld to be of low quality, containing shrinkage cracks and voids, lack of fusion, and inclusions. Although the actual leak could not be found, it is likely that it was related to one of the weld defects. With the leak removed, the remaining pipe should be fully operational again.

If you have any further questions, please contact myself or [REDACTED] respectively.

[REDACTED]

[REDACTED] kar *kar*

033102

xc [REDACTED]

Attachment