

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

Blair



[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

1. Failed material or equipment LONGITUDINAL WELD ON 30" T.L. 132
2. Location (address) where failure occurred [redacted] City, Co. [redacted]
3. Material or equipment details and description of problem or failure
A PINHOLE LEAK WAS FOUND ON THE LONGITUDINAL WELD ON 30" T.L. 132.
4. Service information: Date installed 1948 Other information GM 98015
5. Disposition of failed material Delivered to [redacted] G.B.R. Gas Manager on 11-4-88.
6. Person to contact for information [redacted] Telephone [redacted]
7. Reported by: [redacted] Location Peninsula Region G.6 Date 10-27-88
8. Noted by Regional office: By [redacted] Date 8/8/116

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

FOR USE BY GAS SYSTEM DESIGN DEPARTMENT DATE RECEIVED

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

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

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) MO DAY YR

JOB ESTIMATE

JOB COORDINATOR'S RC NUMBER **0269**

DATE OF ESTIMATE **103188**

DEPARTMENT **SAS** DISTRICT **PENINSULA** DIVISION **GOLDENGATE REGION 02**

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

LOCATION [REDACTED] COUNTY [REDACTED] PROJECT IDENTIFICATION NUMBER (PIN) **G.D. 102188121 1P**

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

NAME OF PROJECT/PHASE COORDINATOR **GALESIU** 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.

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 & 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	RECT	REVENUE	LABOR	DECAUTION	DECAUTION	DECAUTION	DECAUTION	DECAUTION
				15365		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				
DIRECT COSTS	15365								
GROSS COSTS	22195								

FOR ACCOUNTING USE ONLY									
PLA CODE	PERIOD	FUNCTIONAL GROUP	SELF REPORT NO.	COMMENTS	CLASSIFICATION	JOB AUTHORIZATIONS			
						022195			
CHECKLIST	NOV	DEC	JAN	FEB	FOR ACCOUNTING USE ONLY				
J.P. INTENTION					PROGRESS REPORT	VALUATION	ENTRY	LISTING	
R&E REPT. No.					Exp.	Exp.	BILLED	CLASS	
TREE TRIMMING									
CITY OR CO PERMIT	None								
HIGHWAY PERMIT									
R.R. RING PERMIT									
OTHER PERMITS									

Work Started

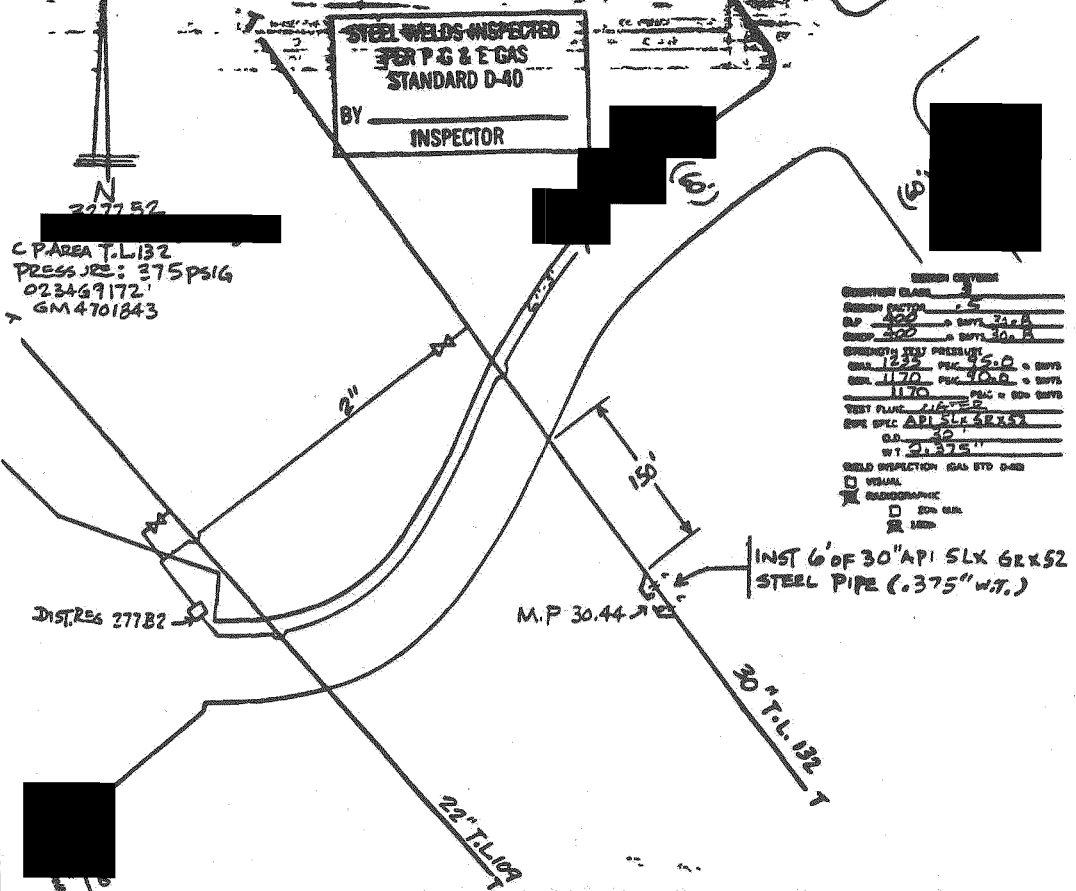
Date Completed

Foreman Signature

MATERIAL USED IN THIS AUTHORIZATION				LOCAL PURCHASE ORDERS	MAPPING RECORD
DESCRIPTION AND CREDIT CHECK NUMBERS				REFERENCE Nos	POSTED TO DATE
CREDIT	CREDIT NO.	CREDIT DSG.	CREDIT CHECK		H Sheet
					Fran Sheet
					Prop Tax Rec
					Plat Sheet
					Switch & Wall 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 submit 3 copies of this sketch to the District Engineer's Office by the following date:



ADD ALL DETAILS NOT CLEARLY SHOWN BY SKETCH ON MEMO FORM											
ods Area		Pub RW		COUNTY		RA-UNINC		RA-INC		NON RA	
Poles - Trns.		Part RW								UG	
Cond		No Trls								Cables	Conduit
		KVA								Line No	Computer

LEAK SURVEY, INSPECTION AND REPAIR REPORT (S.P. 460-2)
 FOR UNSCHEDULED REPAIR OR RESPONSE
 Revised 09/02/00 107/071

USA FORM 107
 Valid on: _____

INITIAL LEAK REPORT

LEAK NUMBER: 18 E - 203 - C - 1 RC NUMBER: 12050 TODAY'S DATE: 10/27/99 TIME: 4:00 PM
 ADDRESS: [REDACTED] DATE FOUND: 11/7/00 GRADE: 1
 READING: _____ LOC: _____ 150 OPERATOR: _____ REPAIRTEE DISTRICT: _____
 # 13222 PLAT: 182 BLOCK: 122 SURFACE OVER LEAK: _____ CITY: San Jose DISTRICT NO: 159
 FED'L LAND? (Y/N) ENCL. PROT.? (Y/N) YEAR INST: 1998 SYSTEM PRESS: 325 GPM: 020-2-1

REPAIR REPORT
 LOCATION: San Jose
 MISC. INFO/REMARKS: 11-4-RH G&S Replaced 30" Pipe
 REPAIR DATE: 10/28/99
 JOB CODE: M Capital, R Maintenance
 LINE SIZE: 30" x 1.913 inches
 LINE MATERIAL: Cast Iron or Ductile Iron, Copper, Steel or Wrought Iron, Alloy A, TE 416, Plastic other than "A" or "T", Other
 LINE USE: Distribution Main, Service, Transmission Main, Gathering Main, Distribution Feeder Main
 FOR SERVICE ON: Aboveground? Yes No
 Material of Main Connected to Service: Cast Iron, Steel, Plastic
 LEAK CAUSE: Corrosion, Damage by Outside Forces, Signs, Damage by Electrical Failure, Construction Defects, Material Failure, Cast Iron Fractures, Other
 LEAK SOURCE: Birth Hole, Longitudinal Hole, Other Holes, Body of Pipe, Valve, Scraper Trap, Tap Connection, Drop, Compressor Components, Gas Cooler, Physical (Mechanical) Joint, Fitting, Bell Joint, Regulator, Other
 TYPE REPAIR: Temporary, Permanent
 REPAIR CODE: Weld Over Sleeve or Cap, Patch Welded, Clamp, Replace Pipe, Tighten Cap or Bolt, Bell Joint Clamp, Bell Joint Seal, Other
 FOR CAST IRON ONLY - NO. OF S.S. CLAMPS/SEALS/FRACTURES: _____

INSPECTION REPORT
 FOR: MAIN or SERVICE
 DATE: 11/7/00 REPORTED BY: [REDACTED]
 SIZE: 30" IN O.D. THICK.: _____ IN MATERIAL: STL
 COVER ON PIPE: 24" FT OF PIPE EXPOSED: 16 SPEC.: _____
 TEST DATE: 10/28/99 TIME: 5:00 PM PRESSURE: N/A GPM
 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 (IN): _____
 GRAPHITIZED (C.I.): Yes, No
 INTERNAL - INSPECTION: Clean, Dirty, Rusty
 RUST: None, Light, Heavy
 PITTING: None, Light, Heavy
 PIT DEPTH (IN): _____
 SOIL TYPE: Hard Rock, Soft Rock, Sand, Clay, Hard Clay, Mud, Other: _____
 CAST IRON MAIN FRACTURE REPORT: (Cause or probable cause)

AMENIAL PROBLEMS REPORT? Yes No
 PREPARED BY: _____ DATE: 11-4-83
 Post Repair Backcheck Req'd Yes No
 Date: _____ Reading: _____ By: _____
 ONLY BY: Field Survey, Call-in, Hoisting Contractor or Outside Force, Public Service, Serviceman or Company Emp., Public Survey, Other
 SURFACE OVER LEAK: Concrete, Tar Compound, Waterproofed, Other

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

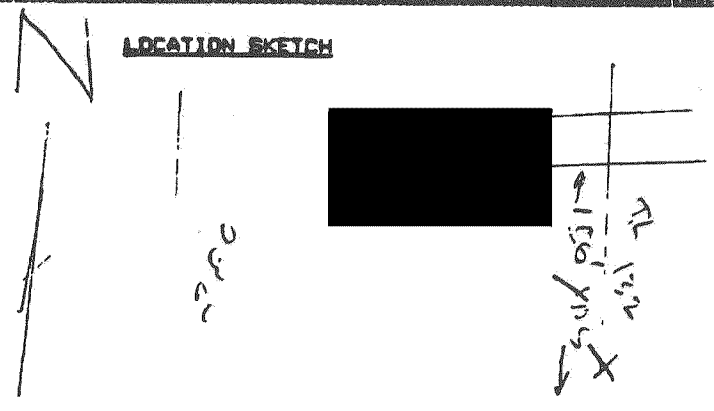
REPORT NO: 1 OPERATOR: BAW
 DATE: 11/17/08 TIME: 4:00 PM @: 10
 LEAK TYPE: Broken Valve ACTION/REMARKS: over man
 INITIALS: 10/20 TIME: 4:00 PM

Report By: 11 Perform Special Action on: 11 Authorized By: _____ Date: 11

LEAK ID	DATE	TIME	OPERATOR	ACTION/FOLLOW-UP

Legend: 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)

[Redacted]

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 *DK*

033102 [REDACTED]

XC [REDACTED]

Attachment