Docket No. SA-534

Exhibit No. 2-EC

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

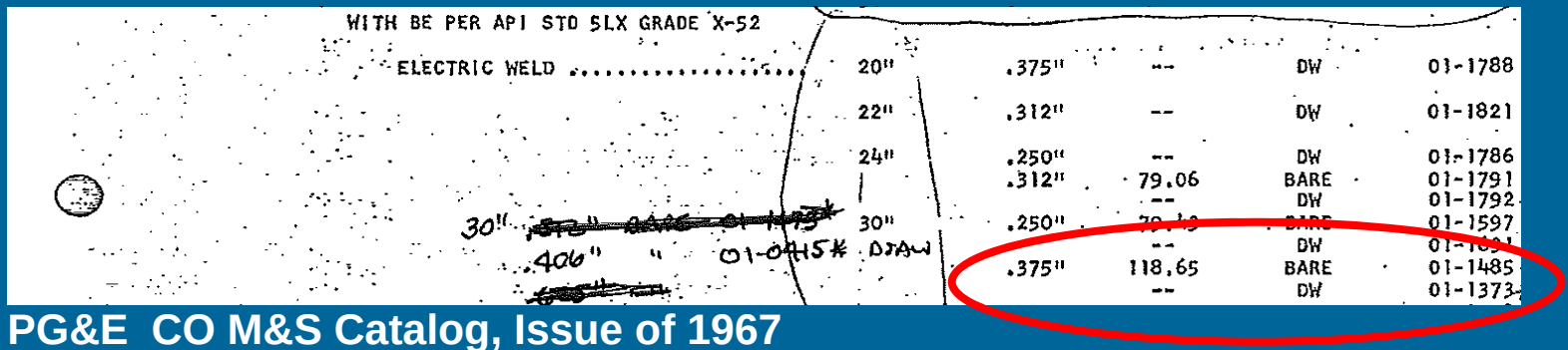
PG&E PRESENTATION HOW LINE 132 BECAME LISTED IN
GIS SYSTEM AS SEAMLESS PIPE

(7 Pages)

How Did L-132 Segment 180 Get listed as “Seamless”?

- Segment 180 on L-132 was shown to be 30” Seamless in PG&E’s Geographical Information System
- In 1977 Pipeline Survey Sheet was created
  - Project Folder documentation was used to create Pipeline Survey Sheets
- In 1998 PG&E’s Geographical Information System used the Pipeline Survey Sheets to populate the data set
- It is believed that “Journal Voucher” Documentation was used, which inaccurately reflected pipe as being “ 30” sml “ when populating Pipeline Survey Sheets

Documents specifying material type

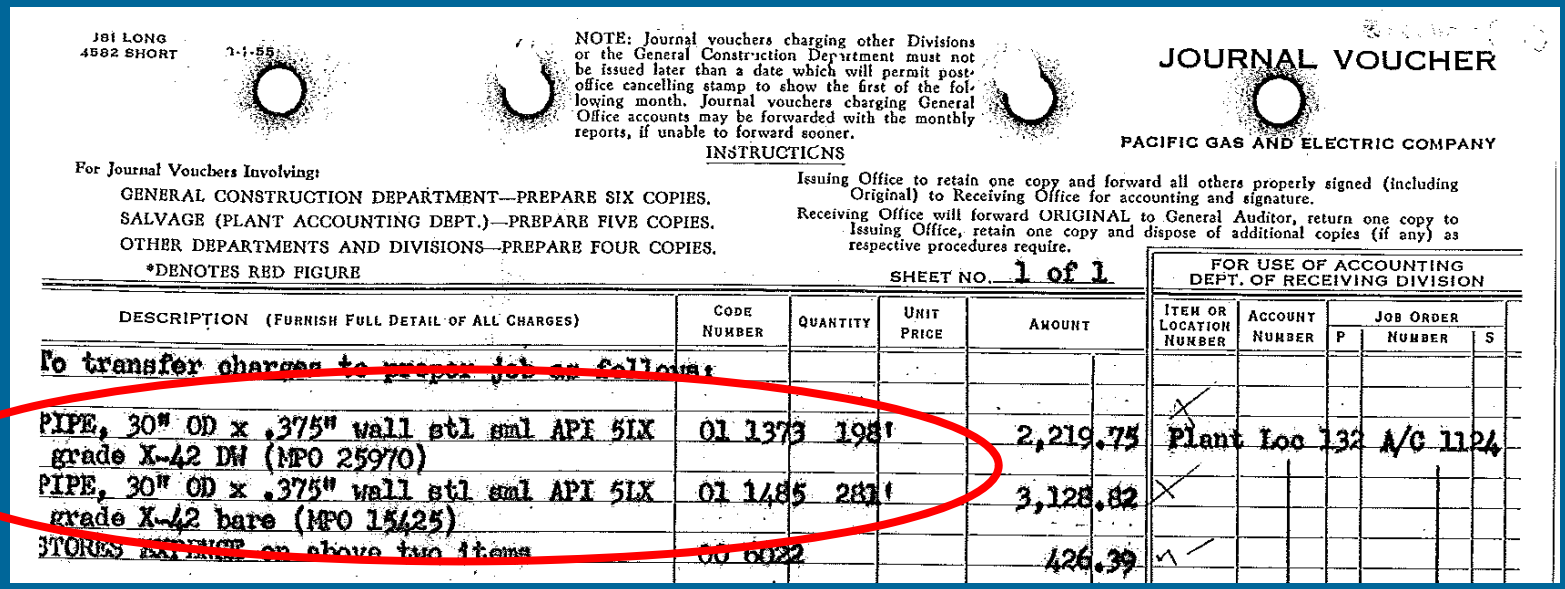


WITH BE PER API STD 5LX GRADE X-52

ELECTRIC WELD	20"	.375"	--	DW	01-1788
	22"	.312"	--	DW	01-1821
	24"	.250"	--	DW	01-1786
		.312"	79.06	BARE	01-1791
			--	DW	01-1792
	30"	.250"	[illegible]	BARE	01-1597
			--	DW	01-[illegible]
		.375"	118.65	BARE	01-1485
			--	DW	01-1373

30" .406" " 01-0415* DRAW

PG&E CO M&S Catalog, Issue of 1967



J81 LONG
4582 SHORT

NOTE: Journal vouchers charging other Divisions or the General Construction Department must not be issued later than a date which will permit post-office cancelling stamp to show the first of the following month. Journal vouchers charging General Office accounts may be forwarded with the monthly reports, if unable to forward sooner.

INSTRUCTIONS

For Journal Vouchers Involving:
GENERAL CONSTRUCTION DEPARTMENT—PREPARE SIX COPIES.
SALVAGE (PLANT ACCOUNTING DEPT.)—PREPARE FIVE COPIES.
OTHER DEPARTMENTS AND DIVISIONS—PREPARE FOUR COPIES.
*DENOTES RED FIGURE

Issuing Office to retain one copy and forward all others properly signed (including Original) to Receiving Office for accounting and signature.
Receiving Office will forward ORIGINAL to General Auditor, return one copy to Issuing Office, retain one copy and dispose of additional copies (if any) as respective procedures require.

JOURNAL VOUCHER

PACIFIC GAS AND ELECTRIC COMPANY

SHEET NO. 1 of 1

DESCRIPTION (FURNISH FULL DETAIL OF ALL CHARGES)	CODE NUMBER	QUANTITY	UNIT PRICE	AMOUNT	FOR USE OF ACCOUNTING DEPT. OF RECEIVING DIVISION: ITEM OR LOCATION NUMBER	ACCOUNT NUMBER	JOB ORDER P	JOB ORDER NUMBER	JOB ORDER S
To transfer charges to proper job as follows:									
PIPE, 30" OD x .375" wall stl sml API 5LX grade X-42 DW (MPO 25970)	01 1373	1981		2,219.75	Plant Loc 132	A/C 1124			
PIPE, 30" OD x .375" wall stl sml API 5LX grade X-42 bare (MPO 15425)	01 1485	281		3,128.82					
STORES [illegible] on above two items	00 6022			426.39					

Journal Voucher 174143 pg 1 of 1

2

Gas Transmission Data Validation

- ***Prior to San Bruno incident***
  - Work Procedures require an inspection form be completed each time the pipe is unearthed
    - Maintenance
    - In-Line Inspection Verification Digs
    - Direct Assessment Verification Digs
  - Inspection form is compared to data in GIS
  - Discrepancies are validated through Pipeline Engineer to ensure changes to GIS are warranted and/or do not present a safety issue

What has PG&E done to correct data since San Bruno?

1. Pre-1962 30” Pipe Validation
2. Peninsula Line Validation
3. Validation of all Lines in densely populated areas
4. PG&E is committed to validating entire pipeline network

What is GIS?

- *GIS stands for Geographical Information System*
  - *GIS allows for the capturing, analyzing, and displaying of data in geographical form*
  - *GIS allows us to view, understand, question, interpret, and visualize data in a way that reveals relationships, patterns, and trends*

  - *GIS allows for the visual representation of data*

What do Negative values in GIS mean?

- A negative value in GIS indicates the most conservative possible value
- Rather than placing an unknown value in GIS, PG&E populates using the most conservative value possible based upon pipe characteristics and vintage
- Increases the factor of safety of our pipelines
- 49 CFR 192 (192.3, 192.105, 192.109, 192.14, 192.113) and ASME B31.8 provide direction for dealing with unknown pipe specifications

What has been done to determine the Pipe Manufacturer?

- Extensive Records Research for L-132
- Reconciled pipe purchased on (3) Purchase Orders (over 100,000 feet of 30” pipe):
  - 100099 (Line 153)
  - 123902 (Line 131)
  - 98015 (Line 132)
- Determined possible vendors for that era
- Determined Manufacturing Sequence consistent with one manufacturer
- Identified Brand & Diameter Stamp consistent with Manufacturer