RESPONDENTS' APPENDIX

Volume II

Exhibit Book With Explanatory Statements

In the United States Circuit Court of Appeals for the Fourth Circuit

OCTOBER TERM, 1942

No. 4979

HOPE NATURAL GAS COMPANY, PETITIONER

v.

FEDERAL POWER COMMISSION, CITY OF CLEVELAND, CITY OF AKRON, AND PENNSYLVANIA PUBLIC UTILITY COMMISSION, RESPONDENTS

ON PETITION TO REVIEW ORDER OF FEDERAL POWER COMMISSION

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WRITTEN STATEMENT

On June 14, 1938 the directors approved an amendment to the Employees' Thrift Plan.

On December 28, 1938 the directors approved the purchase from Standard Oil Company (New Jersey) of 19,999 shares of stock of Reserve Gas Company at a price of $1,810,000.

On February 21, 1939 H. C. Cooper resigned as President and Director and L. L. Tonkin was elected to fill these vacancies. H. R. Livingston was elected to fill a vacancy in the Board of Directors. The resignation of H. B. Schum as Assistant Treasurer was accepted and J. C. Cross was appointed to that office.

On July 10, 1939 the directors approved a further amendment to the Employees' Thrift Plan.

On July 11, 1939 the directors authorized an exchange of property between Hope Natural Gas Company, Hope Construction and Refining Company, Pittsburgh and West Virginia Gas Company, and Philadelphia Oil Company.

On September 5, 1939 the directors authorized and approved the cancellation of a large number of gas leaseholds, the list spread in the minutes occupying approximately 37 typed pages. An adjustment to rates of depreciation applied to certain classes of property was approved, effective January 1, 1938.

On December 8, 1939 the directors approved and adopted an Agreement of Consolidation or Merger dated December 8, 1939,
24 between Hope National Gas Company and Reserve Gas Company and a special meeting of stockholders was called on December 8, 1939 to act on the agreement. After several adjournments the approval of the Public Service Commission of West Virginia was received on December 29, 1939, and the merger was consummated.

At a meeting of the directors on March 6, 1940 it was stated that the principal place of business of the company should be changed from Pittsburgh, Pa., to Clarksburg, W. Va., and a special meeting of stockholders was called for March 18, 1940, at which

meeting the stockholders passed a resolution authorizing the necessary amendments to the certificate of incorporation and by-laws.

On March 15, 1940 the treasurer of the company was authorized to sell $4,000,000 principal amount of United States Treasury Bills and purchase a like face amount of other government securities upon the best terms obtainable with the funds realized from the sale.

On May 21, 1940 the treasurer was authorized to purchase $2,500,000 face amount of 2½% United States Treasury Bonds due December 15, 1945, at the best price obtainable.

On September 30, 1940 resolutions were adopted pertaining to employees who are called in the future for compulsory military training.

On November 7, 1940 additional company contributions to the Employee's Thrift Plan were authorized, each participating employee's account to be credited with $25.00 plus 15¢ for each dollar of such employee and company regular contributions made on his behalf.

On the same date, the directors authorized the cancellation of 235 leases, owing to the fact that it was no longer considered profitable to hold them.

On December 23, 1940 a dividend of $10 per share was declared out of earnings on the outstanding capital stock, payable forthwith.

On December 26, 1940 participation in the group life plans of Standard Oil Company (New Jersey) adopted by the Hope Company in 1931, 1934, and 1938, were terminated as of December 31, 1940, and a new plan was adopted effective January 1, 1941 in accordance with a contract negotiated by Standard Oil Company (New Jersey) with Equitable Life Assurance Society.

On the same date the effective benefit plan was terminated as of December 31, 1940 and a new disability and death benefit plan was made effective as of January 1, 1941.

The latest stockholders meeting of which the minutes were examined was held on June 11, 1940. The directors elected at that meeting were: L. L. Tonkin, J. C. Chisler, S. E. W. Burnside, C. C. Reed, H. R. Livingston.

On the same date the following officers were elected by the above board of directors:

26 Officers:

President and Manager, L. L. Tonkin.
Vice President, J. C. Chisler.
Secretary, S. E. W. Burnside.
Treasurer, J. C. Chisler.
Assistant Secretary, Denton Borger.
Assistant Secretary, John W. Schott.
Assistant Treasurer, H. R. Livingston.
Assistant Treasurer, J. C. Cross.
General Superintendent, C. C. Reed.
Assistant Superintendent, John A. Clark.

The minutes of the directors' meetings to and including February 18, 1941, have been examined and no changes in the above directors and officers have been recorded.

As of December 31, 1940, the authorized capital stock of the company was $35,000,000, divided into 350,000 shares of common stock having a par value of $100 per share.

The outstanding capital stock as of the above date was 279,693 shares, having an aggregate par value of $27,969,300, of which $11,000,000 was issued in the form of stock dividends.

A summary of the various changes in the authorized and issued capital stock is as follows:

Date	Capital stock authorized	Issued		Total outstanding
		For cash or other assets	Stock dividends	
Sept. 14, 1898	$500,000	$200,000		$200,000
Dec. 16, 1898	500,000	300,000		500,000
March 21, 1908	15,000,000	4,500,000	$5,000,000	10,000,000
Dec. 31, 1908	15,000,000	25,000		10,025,000
April 10, 1909	15,000,000	75,000		10,100,000
April 22, 1910	15,000,000	600,000		10,700,000
Sept. 6, 1910	15,000,000	1,800,000		12,500,000
March 2, 1911	15,000,000	500,000		13,000,000
Aug. 25, 1911	15,000,000	1,250,000		14,250,000
Dec. 9, 1912	20,000,000			14,250,000
Dec. 30, 1912	20,000,000	2,750,000		17,000,000
27 Jan. 24, 1913	20,000,000	2,000,000		19,000,000
Feb. 28, 1914	20,000,000		$1,000,000	20,000,000
Aug. 25, 1916	50,000,000			20,000,000
June 26, 1922	35,000,000			20,000,000
Dec. 21, 1922	35,000,000		5,000,000	25,000,000
Mar. 19, 1926	35,000,000	1,600,000		26,600,000
June 11, 1929	35,000,000	[1] 1,369,300		27,969,300

[1] Issued in exchange for property and assets of Clarksburg Light & Heat Company.

27

The first dividend declared by the company was 50,000 shares of capital stock of a par value of $100 per share, or an aggregate sum of $5,000,000. This was declared at a meeting of the Board of Directors on May 15, 1908, and represented 10 shares of stock for each share presently held. At the same time, Standard Oil Company (New Jersey) purchased 45,000 shares of capital stock for $4,500,000 in cash, at par.

As a result of this sale of stock and the declaration of the stock dividend, the outstanding capital stock was increased from $500,000 to $10,000,000.

Later in the year 1908 (October 21) the first cash dividend of the company was declared in the amount of $1,000,000 or 10% of the outstanding capital stock.

During each of the calendar years from 1908 to 1940, inclusive, (except the year 1919) cash dividends in substantial amounts were paid. These ranged from $600,000 paid during the year 1918, which was 3% of the outstanding capital stock as of that date, to $10,520,000 paid in the year 1920, which was 52.6%
28 of the outstanding capital stock as of December 31 of that year; but was over 75% of the capital stock that had been issued up to that time directly for cash or other assets.

Cash dividends paid during the latest three years of operations, namely 1938, 1939, and 1940 were 10% of the outstanding stock, and during the 33-year period above-mentioned, there were but eight years that the cash dividend rate was less than 10%. These were as follows:

	Percent		Percent
1911	9	1919	0
1913	7	1932	5
1914	6	1933	3
1918	3	1937	7

The annual average cash dividends from 1908 to 1940, inclusive, was $2,947,686 which is 12.8% of the annual average outstanding capital stock during that period.

Stock dividends in the aggregate amount of $11,000,000 have been paid as follows:

1908	$5,000,000
1914	1,000,000
1922	5,000,000

As of December 31, 1940, Standard Oil Company (New Jersey) owned all of the outstanding capital stock of the company (except qualifying shares).

Schedule No. 1 is a summary by years, from the inception of the company to December 31, 1940, of the invested capital,
29 the net surplus credits and the ratio of the annual net surplus credits to the average annual invested capital.[1]

The amounts shown in column (e) "Average Investment During Year" is the simple average of the sum of the outstanding capital stock and the earned surplus at the beginning and end of each year. The ratio or percent of net surplus credit to the average investment as shown in column (m) is the result of dividing the annual net surplus credits as shown in column (i) by the average invested capital as shown in column (e).

The average annual amount of invested capital over the entire period from 1899 (the first year of operations of the company) to 1940, inclusive, was $23,198,278. The average annual net earnings plus or minus surplus adjustments amounted to $2,772,739.77, or 11.95% of the average annual invested capital.

The above stated amounts and percentages are based on unadjusted book figures. The result of the examiners' study of depreciation and depletion expenses, etc., shows a net credit to surplus of $16,264,918 as of December 31, 1938, as presented in the various reports in connection with the examination of the records. Application of the aggregate amount of these adjustments to the invested capital and to the total earnings of the company results in the following:

30 Average annual capital and surplus	[1] $23,585,537
Average annual net earnings (including surplus adjustments)	[1] 3,159,470
Average rate of earnings to average invested capital—percent	13.4

[1] Subject to slight adjustment for depreciation, depletion, etc., for 1939 and 1940.

Certain exceptional items appear in Schedule No. 1, particularly in columns (g) and (h), which are surplus credits and debits, respectively. A summary of some of the larger of these items is as follows:

Surplus credits:

Year

1908—Includes adjustment of depreciation charges in prior years to restore $1,651,600.82.

1916—Includes enhanced value of leases sold to United Fuel Gas Company in 1910, $462,332.35.

1921—Includes depreciation restored on property retired in 1920, $524,880.79 and adjustment of 1920 Federal income tax in the amount of $106,637.34.

[1] Invested capital as herein used, means the total outstanding capital stock, plus the unappropriated earned surplus.

Surplus credits:

Year

1925—Includes adjustment of overaccrued and overpaid Federal income tax and interest in the following amounts: 1924, $223,884.67; 1909 to 1918, $168,446.39.

1927—Includes adjustment of Federal income tax for years 1917, 1918, and 1919 (consolidated with Standard Oil Company (New Jersey)), set up in 1923 in the amount of $1,400,000, reduced to $400,000.

1929—Adjustment of amortization of leaseholds from January 1, 1921, to October 31, 1929, in the amount of $545,681.41.

1934—Includes the restoration of depreciation and depletion accruals, years 1927 to 1933, inclusive, in the amount of $5,901,317.53, and transfer of losses on property retired from surplus to reserves, for the years 1927 to 1933, inclusive, in the amount of $491,579.45.

31 Surplus debits:

Year

1916—Includes $210,509.82 closing depreciation and adjustment account, gas investment.

1919—Losses on property abandoned and dismantled, Hastings coal mine, $127,680.79; Intangibles in Wright Producer construction, $314,635.93.

1923—Additional taxes accrued, years 1917, 1918, and 1919, $1,400,000 ($1,000,000 of this amount was reversed in 1927, see surplus credits).

1926—Includes:

Judgment and interest in favor of Ideal Gasoline Company re gasoline extraction plant, $227,336.49.

Disposition of Parkersburg warehouse and shop equipment, $161,393.99.

Amount transferred to reserve for annuities, $100,000.00.

1930—Setting up supplemental reserve for annuities, $530,080.00.

1931—Amount transferred to reserve for annuities, $2,242,234.38.

Dividends:

Year

1920—Includes the payment of $4,520,000 to stockholders, being amount realized from sale of gasoline extraction plants.

1935—Includes distribution of $88,194.59 in stock of other companies.

Schedule No. 2 is a statement of capital stock outstanding by years from the inception of the company (1898) to 1940, the amount of dividends paid during the same period and the various dividend rates as related to the par value of the outstanding stock.

The annual outstanding stock is separated into two categories, namely, the amount issued in the form of stock dividends and the amount issued for cash or other assets. At December 31, 1940, the former amounted to $11,000,000 and the latter $16,969.300, making a total of $27,969,300.

32 The annual dividends shown in the schedule are also separated into two categories, segregating the stock dividends from those paid in cash.

It will be noted that the total amount of dividends paid during the entire existence of the company was $108,273,640, of which $11,000,000 was in the nature of capital stock of Hope Natural Gas Company. The balance of $97,273,640 was paid in cash (excepting $88,194.59, which was represented by stocks of other companies).

For purposes of comparison, the dividend rates are shown in the schedule calculated on two bases. Column (h) shows the annual rates of all dividends to the total outstanding stock and column (i) shows the annual rates of cash dividends to the par value of the capital stock that was issued for cash or other assets.

At the foot of Schedule No. 2, annual averages from the inception of the company are shown for: (a) par value of capital stock issued for cash or other assets; (b) annual cash dividends; and (c) annual yield on the average annual outstanding capital stock that was issued for cash or other assets. The average annual yield on this basis is 20.4%.

Further data, not shown in Schedule No. 2, but derived therefrom, are as follows:

33

Average annual total capital stock outstanding	$18, 161, 467.
Average annual dividends (all classes)	2, 577, 944.
Average rate of dividends to total capital stock	14. 19%.

All averages shown in Schedule No. 2 and in the above table are based on the 42-year period from January 1, 1899 (the first year of operations) to December 31, 1940.

Schedule No. 3 is a summary of the Balance Sheet accounts per books, unadjusted as of December 31 of each year from the inception of the company (1898) to 1940.

A separate report has been prepared by the accounting staff on the balance sheet accounts as of December 31, 1938. Further details concerning the balance sheet accounts are shown in that report which is identified as another exhibit in the present proceeding.

Schedule No. 4 is a summary of the income accounts and surplus adjustments per books, unadjusted, from the inception of the company to December 31, 1940. This schedule shows by years the gross revenues, the revenue deductions, the surplus adjustments, dividends paid, and the surplus balance at the end of each year.

Further details relating to the income accounts for the
34 years ended December 31, 1937, 1938, and 1939, and the examiners' adjustments as applied thereto are presented in a separate exhibit in this proceeding.

SAMUEL I. NICHOLS,
Samuel I. Nichols,
Senior Examiner of Accounts.
EDWARD L. DUNN,
Edward L. Dunn,
Examiner in Charge of Field Assignment.

Washington, D. C., April 25, 1941.

Approved:

W. E. BAKER,
W. E. Baker,
Chief Accountant.
CHAS. W. SMITH,
Chas. W. Smith,
Chief, Bureau of Accounts, Finance and Rates.

Schedule No. 1

HOPE NATURAL GAS COMPANY

Summary of capital accounts, earnings, dividends paid, and ratio of net surplus credits to average invested capital, years 1898 to 1940, inclusive

Year	Capital accounts (per books) Dec. 31			Average investment during year	Per books				Dividends paid (per books)			Percent net surplus credit to average investment
					Net earnings	Surplus adjustments		Net surplus credit				
	Capital stock	Earned surplus	Total			Credit	Debit		Cash	Stock	Total	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1898	$500,000.00		$500,000.00	$250,000								
1899	500,000.00	$15,772.26	515,772.26	507,886	$15,772.26			$15,772.26				3.11
1900	500,000.00	*48,546.84*	451,453.16	483,453	*64,774.32*	$455.22		*64,319.10*				*13.30*
1901	500,000.00	176,321.63	676,321.63	563,887	225,000.15	50.89	$182.57	224,868.47				39.88
1902	500,000.00	106,877.36	606,877.36	641,599	*63,586.08*	308,851.89	314,710.08	*69,444.27*				*10.82*
1903	500,000.00	261,364.17	761,364.17	684,121	119,455.62	120,718.17	85,686.98	154,486.81				22.58
1904	500,000.00	89,760.93	589,760.93	675,563	78,704.13	6,301.28	256,608.65	*171,603.24*				*25.40*
1905	500,000.00	683,879.93	1,183,879.93	886,820	595,856.85	33,136.15	34,874.00	594,119.00				66.99
1906	500,000.00	2,111,574.38	2,611,574.38	1,897,727	1,429,967.98	48,514.94	50,788.47	1,427,694.45				75.23
1907	500,000.00	3,348,399.18	3,848,399.18	3,229,987	1,326,357.90	12,675.48	102,208.58	1,236,824.80				38.29
1908	10,000,000.00	423,784.51	10,423,784.51	7,136,092	1,524,126.64	1,679,043.17	127,784.48	3,075,385.33	$1,000,000	$5,000,000	$6,000,000	43.10
1909	10,100,000.00	1,279,282.40	11,379,282.40	10,901,533	2,094,472.52	66,453.79	97,928.42	2,062,997.89	1,207,500		1,207,500	18.92
1910	12,500,000.00	1,601,533.84	14,101,533.84	12,740,408	2,001,102.86	378,965.75	105,817.17	2,274,251.44	1,952,000		1,952,000	17.85
1911	14,250,000.00	2,302,602.00	16,552,602.00	15,327,068	2,111,693.15	53,213.02	216,338.01	1,948,568.16	1,247,500		1,247,500	12.71
1912	17,000,000.00	386,725.05	17,386,725.05	16,969,664	2,623,372.40	3,186.92	68,686.27	2,557,873.05	4,473,750		4,473,750	15.07
1913	19,000,000.00	1,733,535.24	20,733,535.24	19,060,130	2,664,816.62	136,046.71	124,053.14	2,676,810.19	1,330,000		1,330,000	14.04
1914	20,000,000.00	2,255,185.98	22,255,185.98	21,494,361	2,746,149.32	44,778.33	69,276.91	2,721,650.74	1,200,000	1,000,000	2,200,000	12.66
1915	20,000,000.00	3,668,528.19	23,668,528.19	22,961,857	4,229,207.92	24,901.52	140,767.23	4,113,342.21	2,700,000		2,700,000	17.91
1916	20,000,000.00	7,214,459.35	27,214,459.35	25,441,494	6,074,270.52	582,586.15	410,925.51	6,245,931.16	2,700,000		2,700,000	24.55
1917	20,000,000.00	10,749,084.57	30,749,084.57	28,981,772	5,825,738.77	77,376.11	68,489.66	5,834,625.22	2,300,000		2,300,000	20.13
1918	20,000,000.00	13,222,149.32	33,222,149.32	31,985,617	3,163,906.67	5,308.88	96,150.80	3,073,064.75	600,000		600,000	9.61
1919	20,000,000.00	15,209,121.71	35,209,121.71	34,215,636	2,328,167.99	141,564.75	482,760.35	1,986,972.39				5.81

HOPE NATURAL GAS COMPANY—Continued

Summary of capital accounts, earnings, dividends paid, and ratio of net surplus credits to average invested capital, years 1898 to 1940, inclusive—Continued

Year	Capital accounts (per books) Dec. 31			Average investment during year	Per books				Dividends paid (per books)			Percent net surplus credit to average investment
					Net earnings	Surplus adjustments		Net surplus credit				
	Capital stock	Earned surplus	Total			Credit	Debit		Cash	Stock	Total	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1920	20,000,000.00	9,816,427.53	29,816,427.53	32,512,775	5,387,032.02	138,116.31	397,842.51	5,127,305.82	10,520,000		10,520,000	15.77
1921	20,000,000.00	9,748,128.33	29,748,128.33	29,782,278	1,449,175.64	778,644.52	296,119.36	1,931,700.80	2,000,000		2,000,000	6.49
1922	25,000,000.00	6,257,146.98	31,257,146.98	30,502,638	5,779,190.42	327,212.90	97,384.67	6,009,018.65	4,500,000	5,000,000	9,500,000	19.70
1923	25,000,000.00	6,778,497.90	31,778,497.90	31,517,822	6,621,973.39	362,169.56	1,462,792.03	5,521,350.92	5,000,000		5,000,000	17.52
1924	25,000,000.00	10,351,122.05	35,351,122.05	33,564,810	6,007,891.37	231,802.99	167,070.21	6,072,624.15	2,500,000		2,500,000	18.09
1925	25,000,000.00	12,360,434.70	37,360,434.70	36,355,778	4,234,451.36	438,590.26	163,728.97	4,509,312.65	2,500,000		2,500,000	12.40
1926	26,600,000.00	10,330,302.85	36,930,302.85	37,145,369	5,158,443.78	82,052.20	620,627.83	4,619,868.15	6,650,000		6,650,000	12.44
1927	26,600,000.00	10,001,216.31	36,601,216.31	36,765,760	2,614,964.68	1,238,434.26	192,485.48	3,660,913.46	3,990,000		3,990,000	9.96
1928	26,600,000.00	9,042,882.79	35,642,882.79	36,122,050	3,436,317.21	88,557.61	493,208.34	3,031,666.48	3,990,000		3,990,000	8.39
1929	27,969,300.00	9,417,250.18	37,386,550.18	36,514,716	4,220,532.01	668,124.87	455,824.49	4,432,832.39	4,058,465		4,058,465	12.14
1930	27,969,300.00	6,752,230.98	34,721,530.98	36,054,041	2,266,735.47	28,214.49	764,574.16	1,530,375.80	4,195,395		4,195,395	4.24
1931	27,969,300.00	1,820,633.25	29,789,933.25	32,255,732	1,646,681.98	69,496.42	2,452,381.13	*736,202.73*	4,195,395		4,195,395	*2.28*
1932	27,969,300.00	196,288.56	28,165,588.56	28,977,761	40,513.22	143,210.26	409,603.17	*225,879.69*	1,398,465		1,398,465	.78
1933	27,969,300.00	552,027.55	28,521,327.55	28,343,458	1,191,070.15	30,545.89	26,798.05	1,194,817.99	839,079		839,079	4.22
1934	27,969,300.00	6,060,916.88	34,030,216.88	31,275,772	1,945,641.38	6,553,939.47	193,761.52	8,305,819.33	2,796,930		2,796,930	26.56
1935	27,969,300.00	4,419,169.30	32,388,469.30	33,209,343	2,737,324.48	36,638.03	132,120.50	2,641,842.01	4,283,590		4,283,590	7.96
1936	27,969,300.00	5,688,519.21	33,657,819.21	33,023,144	4,063,950.07	2,329.84		4,066,279.91	2,796,930		2,796,930	12.31
1937	27,969,300.00	6,554,696.81	34,523,996.81	34,090,908	2,803,431.94	23,038.10	2,441.44	2,824,028.60	1,957,851		1,957,851	8.28
1938	27,969,300.00	5,194,107.77	33,163,407.77	33,843,702	1,398,655.49	37,685.47		1,436,340.96	2,796,930		2,796,930	4.24
1939	27,969,300.00	5,253,489.76	33,222,789.76	33,193,099	2,528,983.64	357,441.21	30,112.86	2,856,311.99	2,796,930		2,796,930	8.61
1940	27,969,300.00	8,159,170.86	36,128,470.86	34,675,630	5,656,998.99	45,612.11		5,702,611.10	2,796,930		2,796,930	16.45
Annual average			23,198,278					2,772,210				11.95

Italic figures denote deficit.

NOTE.—See text of report for special comment on certain items in columns (g), (h), and (j).

HOPE NATURAL GAS COMPANY

Capital stock outstanding, dividends paid, and annual dividend rates, by years, from 1898 to 1940, inclusive

Year	Capital stock outstanding (per books)			Dividends (per books)			Dividend rates	
	Total Dec. 31	Issued as stock dividends	Issued for cash or other assets	Total	Stock	Cash	Total dividends to total stock	Cash dividends to stock issued for cash or other assets
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1898	$500,000		$500,000				%	%
1899	500,000		500,000					
1900	500,000		500,000					
1901	500,000		500,000					
1902	500,000		500,000					
1903	500,000		500,000					
1904	500,000		500,000					
1905	500,000		500,000					
1906	500,000		500,000					
1907	500,000		500,000					
1908	10,000,000	$5,000,000	5,000,000	$6,000,000	5,000,000	$1,000,000	60	20
1909	10,100,000	5,000,000	5,100,000	1,207,500		1,207,500	12	23.7
1910	12,500,000	5,000,000	7,500,000	1,952,000		1,952,000	15.5	26
1911	14,250,000	5,000,000	9,250,000	1,247,500		1,247,500	8.8	13.5
1912	17,000,000	5,000,000	12,000,000	4,473,750		4,473,750	26	37.3
1913	19,000,000	5,000,000	14,000,000	1,330,000		1,330,000	7	9.5
1914	20,000,000	6,000,000	14,000,000	2,200,000	1,000,000	1,200,000	11	8.6
1915	20,000,000	6,000,000	14,000,000	2,700,000		2,700,000	13.5	19.3
1916	20,000,000	6,000,000	14,000,000	2,700,000		2,700,000	13.5	19.3
1917	20,000,000	6,000,000	14,000,000	2,300,000		2,300,000	11.5	16.4
1918	20,000,000	6,000,000	14,000,000	600,000		600,000	3	4.3
1919	20,000,000	6,000,000	14,000,000					
1920	20,000,000	6,000,000	14,000,000	10,520,000		[1]10,520,000	52.6	75.1
1921	20,000,000	6,000,000	14,000,000	2,000,000		2,000,000	10	14.3
1922	25,000,000	11,000,000	14,000,000	9,500,000	5,000,000	4,500,000	38	32.1
1923	25,000,000	11,000,000	14,000,000	5,000,000		5,000,000	20	35.7
1924	25,000,000	11,000,000	14,000,000	2,500,000		2,500,000	10	17.9
1925	25,000,000	11,000,000	14,000,000	2,500,000		2,500,000	10	17.9
1926	26,600,000	11,000,000	15,600,000	6,650,000		6,650,000	25	42.6
1927	26,600,000	11,000,000	15,600,000	3,990,000		3,990,000	15	25.6
1928	26,600,000	11,000,000	15,600,000	3,990,000		3,990,000	15	25.6
1929	27,969,300	11,000,000	16,969,300	4,058,465		4,058,465	15	23.9
1930	27,969,300	11,000,000	16,969,300	4,195,395		4,195,395	15	24.7
1931	27,969,300	11,000,000	16,969,300	4,195,395		4,195,395	15	24.7
1932	27,969,300	11,000,000	16,969,300	1,398,465		1,398,465	5	8.2
1933	27,969,300	11,000,000	16,969,300	839,079		839,079	3	4.9
1934	27,969,300	11,000,000	16,969,300	2,796,930		2,796,930	10	16.5
1935	27,969,300	11,000,000	16,969,300	4,283,590		[2]4,283,590	15	25.2
1936	27,969,300	11,000,000	16,969,300	2,796,930		2,796,930	10	16.5
1937	27,969,300	11,000,000	16,969,300	1,957,851		1,957,851	7	11.5
1938	27,969,300	11,000,000	16,969,300	2,796,930		2,796,930	10	16.5
1939	27,969,300	11,000,000	16,969,300	2,796,930		2,796,930	10	16.5
1940	27,969,300	11,000,000	16,969,300	2,796,930		2,796,930	10	16.5
Total				108,273,640	11,000,000	97,273,640		

[1] Includes $4,520,000 cash dividend paid from proceeds of sale of gasoline and butane properties.

[2] Includes $88,194.59 dividend in stock of other companies.

Average annual stock outstanding, issued for cash or other assets (from inception of company), $11,328,133.

Average annual cash dividends (from inception of company), $2,316,039.

Average annual yield on average annual amount of capital stock issued for cash or other assets, 20.4%.

Schedule No. 3

HOPE NATURAL GAS COMPANY

Comparative condensed balance sheets, per books Dec. 31, 1898, to Dec. 31, 1940, inclusive

Dec. 31	Assets and other debits					Liabilities and other credits						
	Fixed assets	Investments and fund accounts	Current and accrued assets [1]	Deferred debits	Total	Capital stock	Long term advances, etc.[2]	Current and accrued liabilities	Depreciation and depletion reserves	Deferred credits and other reserves [3]	Surplus	Total
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1898	$186,263.67		$316,537.82	$283.24	$503,084.73	$500,000.00		$3,014.66		$70.07		$503,084.73
1899	516,112.36		27,903.73		544,016.09	500,000.00		28,243.83			$15,772.26	544,016.09
1900	584,083.63		37,442.92		621,526.54	500,000.00		98,759.55	$71,313.83		*48,646.84*	621,526.54
1901	598,718.60		160,979.52		759,698.12	500,000.00		12,062.66	71,313.83		176,321.63	759,698.12
1902	3,342,168.75		216,090.27		3,558,259.02	500,000.00	$2,710,721.31	109,936.67	130,723.68		106,877.36	3,558,259.02
1903	5,436,363.68		620,088.53		6,056,452.21	500,000.00	5,064,318.68	75,436.44	155,332.92		261,364.17	6,056,452.21
1904	7,266,295.47		392,884.78		7,659,180.25	500,000.00	6,265,018.31	119,847.71	684,553.30		89,760.93	7,659,180.25
1905	7,596,658.23		529,369.99		8,126,028.22	500,000.00	5,753,202.60	105,424.22	1,083,521.47		683,879.93	8,126,028.22
1906	8,060,300.11		690,902.77		8,751,202.88	500,000.00	3,953,408.65	180,116.33	2,006,103.52		2,111,574.38	8,751,202.88
1907	10,049,066.99		558,767.02		10,607,834.01	500,000.00	3,564,174.84	402,826.44	2,792,433.55		3,348,399.18	10,607,834.01
1908	10,333,232.51		952,530.01		11,785,762.52	10,000,000.00		221,145.28	1,140,832.73		423,784.51	11,785,762.52
1909	12,508,951.99		1,034,630.09		13,543,582.08	10,100,000.00		1,023,466.95	1,140,832.73		1,279,282.40	13,543,582.08
1910	16,644,381.03		1,707,982.61		18,352,363.64	12,500,000.00		1,850,817.02	2,400,012.78		1,601,533.84	18,352,363.64
1911	18,129,652.37		1,352,511.99		19,482,164.36	14,250,000.00		529,549.58	2,400,012.78		2,302,602.00	19,482,164.36
1912	19,928,871.29		1,399,722.26		21,328,593.55	17,000,000.00		701,407.63	3,240,460.87		386,725.05	21,328,593.55
1913	21,919,941.16	2,016,010.00	2,438,128.80		26,374,079.96	19,000,000.00		1,473,539.63	4,167,005.09		1,733,535.24	26,374,079.96
1914	23,118,720.54	3,141,010.00	2,570,100.87		28,829,831.41	20,000,000.00		1,398,125.54	5,176,519.89		2,255,185.98	28,829,831.41
1915	24,476,242.37	3,141,010.00	3,198,407.29		30,815,659.66	20,000,000.00		883,681.85	6,263,449.62		3,668,528.19	30,815,659.66
1916	29,355,051.09	3,141,010.00	3,754,278.40		36,250,339.49	20,000,000.00		1,577,649.82	7,458,230.32		7,214,459.35	36,250,339.49
1917	34,753,834.20	3,141,010.00	3,531,125.25		41,425,969.45	20,000,000.00		1,882,787.38	8,794,097.50		10,749,084.57	41,425,969.45
1918	37,810,541.09	3,141,010.00	5,628,232.11		46,579,783.20	20,000,000.00		2,998,977.07	10,358,656.81		13,222,149.32	46,579,783.20
1919	37,849,597.85	3,141,010.00	7,848,811.82		48,839,419.67	20,000,000.00		1,649,421.57	11,980,876.39		15,209,121.71	48,839,419.67
1920	32,410,554.34	3,141,010.00	9,004,931.30		44,556,495.64	20,000,000.00		2,162,109.02	12,577,959.09		9,816,427.53	44,556,495.64
1921	33,308,323.09	3,141,010.00	9,028,249.30		45,477,582.39	20,000,000.00		2,005,422.84	13,689,104.15	34,927.07	9,748,128.33	45,477,582.39

Hope Natural Gas Company

Comparative income account and surplus per company's statements (see note), years 1898 to 1939, inclusive

Year	Operating revenues			Operating expenses					Net operating income	Other income	Income deductions	Net income (to surplus)	Surplus			Balance Dec. 31
	Gas sales	Other operating revenues (net)	Total	Operation and maintenance	Gas purchased	Taxes	Depreciation	Total					Other additions	Dividends paid	Other deductions	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
1898																
1899	$19,048.20		$19,048.20	$2,514.83		$1,158.72		$3,673.55	$15,374.65	$397.61		$15,772.26				$15,772.26
1900	129,446.17		129,446.17	42,704.65		1,047.85	$151,036.75	194,789.25	*65,343.08*	568.76		*64,774.32*	$455.22			*48,546.84*
1901	296,480.29		296,480.29	59,423.48		1,345.36	11,898.06	72,666.90	223,813.39	1,186.76		225,000.15	50.89		$182.57	176,321.63
1902	696,697.87		696,697.87	274,261.84		4,956.25	476,466.17	755,684.26	*58,986.39*	1,880.30	$6,479.99	*63,586.08*	308,851.89		314,710.08	106,877.36
1903	1,222,962.67	$648.81	1,223,611.48	451,363.99		8,235.09	579,132.44	1,038,731.52	184,879.96	1,473.11	66,897.45	119,455.62	120,718.17		85,686.98	261,364.17
1904	2,000,530.98	1,585.28	2,002,116.26	597,061.52		15,189.33	1,228,914.53	1,841,165.38	160,950.88	2,213.54	84,460.29	78,704.13	6,301.28		256,608.65	89,760.93
1905	2,294,016.24	12,982.08	2,306,998.32	769,832.24		44,408.39	974,247.71	1,788,488.84	518,509.48	182,179.72	104,832.35	595,856.85	33,136.15		34,874.00	683,879.93
1906	3,465,611.33	5,012.52	3,470,623.85	716,778.78	$10,800.39	40,902.88	1,327,819.93	2,096,301.98	1,374,321.87	173,851.91	118,205.80	1,429,967.98	48,514.94		50,788.47	2,111,574.38
1907	3,948,867.20	*509.48*	3,948,357.72	1,235,313.85	95,477.88	82,878.00	1,316,859.42	2,730,529.15	1,217,828.57	188,284.62	79,755.29	1,326,357.90	12,675.48		102,208.58	3,348,399.18
1908	3,521,172.72	13,572.49	3,534,745.21	1,603,124.81	40,553.34	93,029.79	429,093.54	2,165,801.48	1,368,943.73	225,270.37	70,087.46	1,524,126.64	1,679,043.17	$6,000,000.00	127,784.48	423,784.51
1909	5,075,140.12	39,856.14	5,114,996.26	1,979,165.49	292,510.84	88,939.09	898,036.91	3,258,652.33	1,856,343.93	246,880.87	8,752.28	2,094,472.52	66,453.79	1,207,500.00	97,928.42	1,279,282.40
1910	7,007,988.61	27,312.18	7,035,300.79	2,360,766.74	960,914.21	154,404.72	1,808,257.68	5,284,343.35	1,750,957.44	303,382.15	53,236.73	2,001,102.86	378,965.75	1,952,000.00	105,817.17	1,601,533.84
1911	7,540,482.90	23,852.80	7,564,335.70	2,838,035.26	1,291,514.71	162,818.39	1,406,274.85	5,698,643.21	1,865,692.49	287,221.36	41,220.70	2,111,693.15	53,213.02	1,247,500.00	216,338.01	2,302,602.00
1912	8,599,058.29	70,428.79	8,669,487.08	2,771,857.99	1,213,487.32	159,599.46	2,213,383.59	6,358,328.36	2,311,158.72	319,351.12	7,137.44	2,623,372.40	3,186.92	4,473,750.00	68,686.27	386,725.05
1913	8,803,935.24	284,659.91	9,088,595.15	2,852,842.65	1,173,712.35	211,600.58	2,512,560.95	6,760,716.53	2,327,878.62	349,094.80	12,156.80	2,664,816.62	136,046.71	1,330,000.00	124,053.14	1,733,535.24
1914	8,986,733.54	278,508.76	9,265,242.30	3,202,281.26	1,074,805.68	238,946.03	2,707,214.21	7,223,247.18	2,041,995.12	733,447.13	29,292.93	2,746,149.32	44,778.33	2,200,000.00	69,276.91	2,255,185.98
1915	9,334,799.61	430,616.56	9,765,416.17	2,898,736.31	973,528.58	271,427.25	2,085,763.61	6,229,455.75	3,535,960.42	694,415.73	1,168.23	4,229,207.92	24,901.52	2,700,000.00	140,767.23	3,668,528.19
1916	12,785,685.84	972,384.13	13,758,069.97	3,958,674.16	1,351,040.57	358,337.86	2,868,405.89	8,536,458.48	5,221,611.49	853,746.88	1,087.85	6,074,270.52	582,586.15	2,700,000.00	410,925.51	7,214,459.35
1917	14,240,375.31	1,528,297.33	15,768,672.64	4,856,611.71	2,179,748.54	578,787.20	3,248,887.74	10,864,035.19	4,904,637.45	927,340.19	6,238.87	5,825,738.77	77,376.11	2,300,000.00	68,489.66	10,749,084.57
1918	13,991,309.36	1,637,915.19	15,629,224.55	6,329,307.25	2,305,929.70	1,632,851.71	3,269,948.16	13,538,036.82	2,091,187.73	1,088,710.97	15,992.03	3,163,906.67	5,308.88	600,000.00	96,150.80	13,222,149.32
1919	12,670,007.38	2,408,463.22	15,078,470.60	7,654,748.82	1,939,975.43	788,440.23	3,471,087.10	13,854,251.58	1,224,219.02	1,121,844.47	17,895.50	2,328,167.99	141,564.75		482,760.35	15,209,121.71
1920	17,034,889.50	697,290.54	17,732,180.04	8,096,458.74	1,996,080.51	821,338.99	2,831,977.29	13,735,855.53	3,996,324.51	1,400,079.01	9,371.50	5,387,032.02	138,116.31	10,520,000.00	397,842.51	9,816,427.53
1921	12,772,401.07	469,850.28	13,242,251.35	6,381,991.33	2,370,100.76	719,831.10	2,925,958.11	12,397,881.30	844,370.05	953,408.92	348,603.33	1,449,175.64	778,644.52	2,000,000.00	296,119.36	9,748,128.33
1922	15,795,956.11	395,436.35	16,191,392.46	4,914,549.48	2,851,246.18	1,215,097.12	2,429,628.46	11,410,521.24	4,780,871.22	1,226,382.24	228,063.04	5,779,190.42	327,212.90	9,500,000.00	97,384.67	6,257,146.98
1923	17,778,070.32	350,375.44	18,128,445.76	4,504,106.95	4,232,061.87	1,286,893.06	2,741,238.58	12,764,300.46	5,364,145.30	1,437,127.13	179,299.04	6,621,973.39	362,169.56	5,000,000.00	1,462,792.03	6,778,497.90
1924	18,006,316.00	186,834.13	18,193,150.13	4,813,726.04	4,925,066.42	1,389,327.53	2,766,340.45	13,894,460.44	4,298,689.69	1,921,223.60	212,021.92	6,007,891.37	231,802.99	2,500,000.00	167,070.21	10,351,122.05
1925	17,918,723.42	225,026.69	18,143,750.11	5,027,623.09	5,885,012.76	1,176,754.22	2,966,454.01	15,055,844.08	3,087,906.03	1,411,729.99	265,184.66	4,234,451.36	438,590.26	2,500,000.00	163,728.97	12,360,434.70
1926	20,661,752.15	223,044.53	20,884,796.68	5,512,959.82	7,545,636.19	1,475,341.89	2,872,050.71	17,405,988.61	3,478,808.07	1,870,316.02	190,680.31	5,158,443.78	82,052.20	6,650,000.00	620,627.83	10,330,302.85
1927	19,363,078.52	163,344.80	19,526,423.32	5,735,411.03	8,322,860.41	1,124,259.58	2,808,947.09	17,991,478.11	1,534,945.21	1,234,074.09	154,054.62	2,614,964.68	1,238,434.26	3,990,000.00	192,485.48	10,001,216.31
1928	20,634,648.98	187,994.77	20,822,643.75	5,388,293.15	9,005,892.08	1,389,133.88	2,651,035.67	18,429,354.78	2,393,288.97	1,313,225.67	270,197.43	3,436,317.21	88,557.61	3,990,000.00	493,208.34	9,042,882.79
1929	22,047,733.47	213,502.19	22,261,235.66	5,337,145.57	9,500,697.72	1,529,822.43	2,659,836.50	19,027,502.22	3,233,733.44	1,155,726.25	168,927.68	4,220,532.01	668,124.87	4,058,465.00	455,824.49	9,417,250.18
1930	19,930,672.16	196,435.01	20,127,107.17	5,371,925.17	9,530,549.16	1,359,427.97	2,677,473.73	18,939,376.03	1,187,731.14	1,295,633.73	216,629.40	2,266,735.47	28,214.49	4,195,395.00	764,574.16	6,752,230.98
1931	17,993,136.79	134,353.97	18,127,490.76	4,546,909.27	9,016,616.53	1,304,322.03	2,560,452.74	17,428,300.57	699,190.19	1,161,925.16	214,433.37	1,646,681.98	69,496.42	4,195,395.00	2,452,381.13	1,826,633.25
1932	14,205,835.17	96,484.66	14,302,319.83	4,053,351.39	7,671,490.06	1,053,994.07	2,328,628.15	15,107,463.67	*805,143.84*	989,683.56	144,026.50	40,513.22	143,210.26	1,398,465.00	409,603.17	196,288.56
1933	14,120,615.78	99,229.82	14,219,845.60	3,721,119.07	7,034,827.25	1,100,327.67	1,997,514.46	13,853,788.45	366,057.15	910,588.51	85,575.51	1,191,070.15	30,545.89	839,079.90	26,798.05	552,627.55
1934	15,986,395.42	157,863.20	16,144,258.62	3,784,982.84	8,449,290.98	1,176,455.81	1,692,887.55	15,103,617.18	1,040,641.44	1,055,084.36	150,084.42	1,945,641.38	6,553,939.47	2,796,930.00	193,761.52	6,060,916.88
1935	16,976,038.37	182,082.97	17,158,121.34	4,150,656.24	7,549,315.86	1,332,699.46	1,845,975.57	14,878,647.13	2,279,474.21	656,034.27	198,184.00	2,737,324.48	36,638.03	4,283,589.59	132,120.50	4,419,169.30
1936	20,138,712.17	184,395.28	20,323,107.45	5,064,156.90	8,053,140.64	1,638,428.97	2,012,676.75	16,768,403.26	3,554,704.19	591,792.42	82,546.54	4,063,950.07	2,329.84	2,796,930.00		5,688,519.21
1937	20,366,473.19	452,070.37	20,818,543.56	5,594,329.46	9,291,272.53	1,583,124.94	1,982,009.69	18,450,736.62	2,367,806.94	455,358.30	19,733.30	2,803,431.94	23,038.10	1,957,851.00	2,441.44	6,554,696.81
1938	16,941,830.32	363,888.86	17,305,719.18	5,455,422.16	8,169,545.74	1,145,422.31	1,663,115.04	16,433,505.25	872,213.93	548,071.82	21,630.26	1,398,655.49	37,685.47	2,796,930.00		5,194,107.77
1939	18,118,709.89	337,079.18	18,455,789.07	5,770,435.49	7,746,853.78	1,436,731.75	1,218,400.00	16,172,421.02	2,283,368.05	258,455.74	12,840.15	2,528,983.64	[1] 357,441.21	2,796,930.00	30,112.86	5,253,489.76
1940	24,362,454.07	326,122.23	24,688,576.30	6,793,507.64	8,629,481.02	2,464,514.26	1,463,585.94	19,351,088.86	5,337,487.44	317,427.66	*2,083.89*	5,656,998.99	56,673.25	2,796,930.00	11,061.14	8,159,170.86
Total	507,784,792.74	13,378,291.98	521,163,084.72	157,459,468.46	162,681,037.99	32,672,553.72	82,081,475.73	434,894,535.90	86,268,548.82	29,866,090.82	3,894,901.08	112,239,738.56	15,417,047.03	108,273,639.59	11,223,975.14	8,159,170.86

NOTE.—This schedule was prepared from the company's financial statements with minor reclassifications necessary for uniformity.

[1] Includes $327,428.71 surplus of Reserve Gas Company taken over in merger as of December 30, 1939.

Italic figures denote deficit.

1922	32, 934, 915. 66	3, 128, 775. 50	12, 587, 065. 75		48, 650, 756. 91	25, 000, 000. 00		2, 367, 627. 93	14, 973, 054. 93	52, 927. 07	6, 257, 146. 98	48, 650, 756. 91
1923	35, 091, 286. 37	3, 189, 593. 48	14, 810, 031. 16		53, 090, 911. 01	25, 000, 000. 00		4, 028, 884. 61	17, 232, 601. 43	50, 927. 07	6, 778, 497. 90	53, 090, 911. 01
1924	37, 856, 788. 34	3, 168, 419. 75	18, 210, 673. 83		59, 235, 881. 92	25, 000, 000. 00		4, 462, 895. 71	19, 361, 937. 09	59, 927. 07	10, 351, 122. 05	59, 235, 881. 92
1925	43, 971, 823. 88	3, 166, 447. 52	16, 446, 173. 04		63, 584, 444. 44	25, 000, 000. 00		4, 489, 811. 06	21, 659, 198. 68	75, 000. 00	12, 360, 434. 70	63, 584, 444. 44
1926	47, 163, 989. 87	3, 152, 311. 67	16, 024, 123. 31		66, 340, 424. 85	26, 600, 000. 00		4, 583, 279. 81	24, 651, 842. 19	175, 000. 00	10, 330, 302. 85	66, 340, 424. 85
1927	48, 762, 083. 87	3, 061, 381. 59	15, 427, 852. 56		67, 251, 318. 02	26, 600, 000. 00		3, 368, 550. 73	27, 035, 550. 98	246, 000. 00	10, 001, 216. 31	67, 251, 318. 02
1928	48, 547, 517. 85	3, 029, 559. 55	17, 129, 598. 08		68, 706, 675. 48	26, 600, 000. 00		3, 497, 474. 00	29, 247, 857. 89	318, 460. 80	9, 042, 882. 79	68, 706, 675. 48
1929	52, 192, 633. 05	2, 530, 583. 30	18, 754, 365. 08		73, 477, 581. 43	27, 969, 300. 00		3, 644, 290. 84	31, 868, 879. 61	577, 860. 80	9, 417, 250. 18	73, 477, 581. 43
1930	53, 009, 419. 06	2, 529, 534. 39	18, 164, 965. 11		73, 703, 918. 56	27, 969, 300. 00		3, 628, 426. 09	34, 181, 820. 85	1, 172, 140. 64	6, 752, 230. 98	73, 703, 918. 56
1931	52, 779, 248. 43	2, 529, 534. 31	17, 243, 441. 78		72, 552, 224. 52	27, 969, 300. 00		2, 967, 286. 11	36, 351, 575. 12	3, 443, 430. 04	1, 820, 633. 25	72, 552, 224. 52
1932	52, 412, 243. 97	2, 529, 534. 23	13, 361, 704. 66		68, 303, 482. 86	27, 969, 300. 00		1, 752, 439. 09	38, 368, 467. 63	16, 987. 58	196, 288. 56	68, 303, 482. 86
1933	52, 190, 644. 72	2, 671, 456. 36	15, 899, 213. 52	10, 177. 50	70, 771, 492. 10	27, 969, 300. 00		2, 074, 598. 47	40, 153, 837. 78	21, 728. 30	552, 027. 55	70, 771, 492. 10
1934	54, 453, 548. 35	2, 638, 844. 36	15, 995, 207. 84	13, 826. 43	73, 101, 426. 98	27, 969, 300. 00	1, 046, 000. 00	2, 835, 353. 08	35, 142, 262. 89	47, 594. 13	6, 060, 916. 88	73, 101, 426. 98
1935	54, 312, 172. 68	2, 370, 390. 38	15, 536, 720. 65	12, 016. 85	72, 231, 300. 56	27, 969, 300. 00	284, 000. 00	2, 802, 112. 20	36, 703, 400. 64	53, 318. 42	4, 419, 109. 30	72, 231, 306. 56
1936	56, 106, 042. 67	1, 974, 694. 66	16, 961, 931. 43	6, 547. 23	75, 049, 215. 99	27, 969, 300. 00	22, 000. 00	3, 052, 318. 48	38, 252, 028. 30	65, 050. 00	5, 688, 519. 21	75, 049, 215. 99
1937	56, 536, 085. 25	1, 985, 629. 54	18, 215, 284. 15	2, 046. 63	76, 739, 045. 57	27, 969, 300. 00	10, 000. 00	2, 454, 490. 18	39, 693, 097. 14	57, 461. 44	6, 554, 696. 81	76, 739, 045. 57
1938	56, 649, 798. 58	3, 796, 362. 25	15, 460, 687. 85	5, 002. 28	75, 911, 850. 96	27, 969, 300. 00		1, 971, 351. 32	40, 714, 018. 58	63, 073. 29	5, 194, 107. 77	75, 911, 850. 96
1939	64, 250, 654. 67	247, 608. 60	17, 379, 109. 92	160, 371. 45	82, 037, 744. 64	27, 969, 300. 00		2, 700, 722. 62	46, 041, 154. 81	73, 077. 45	5, 253, 489. 76	82, 037, 744. 64
1940	65, 193, 286. 63	244, 648. 98	21, 117, 079. 86	58, 233. 77	86, 613, 249. 24	27, 969, 300. 00		3, 739, 671. 51	46, 654, 690. 71	90, 416. 16	8, 159, 170. 86	86, 613, 249. 24

[1] Prior to 1934, certain reserves, such as uncollectible accounts, etc., are netted against the corresponding asset account.

[2] Long term advances, etc., 1902 to 1907, inclusive, represent advances from associated company, liquidated by issuance of capital stock; 1934 to 1936, inclusive, represent notes issued for purchase of property, etc.

Italic figures denote deficit.

1 EXHIBIT NO. 40.—STIPULATION THAT HOPE NATURAL GAS COMPANY IS A NATURAL GAS COMPANY UNDER THE NATURAL GAS ACT

STIPULATION

It is stipulated by counsel for the Hope Natural Gas Company and counsel for the Federal Power Commission that the Hope Natural Gas Company is a natural-gas company within the meaning of section 2 (6) of the Natural Gas Act, which provides: " 'Natural-gas company' means a person engaged in the transportation of natural gas in interstate commerce, or the sale in interstate commerce of such gas for resale."

/s/ WILLIAM B. COCKLEY,
Counsel for Hope Natural Gas Company.
/s/ RICHARD J. CONNOR,
/s/ MILFORD SPRINGER,
Counsel for Federal Power Commission.

Date: March 3, 1941.
Approved:

/s/ SPENCER W. REEDER,
Counsel for Cleveland.
/s/ SAMUEL G. MILLER,
Counsel for Pennsylvania Public Utility Commission.

10 **EXHIBIT NO. 11.—BALANCE SHEET, INCOME ACCOUNT, ANALYSIS OF PROFIT AND LOSS—SURPLUS, YEAR ENDED DEC. 31, 1938, COMPARATIVE FOR YEARS 1929 TO 1938, INCLUSIVE, HOPE WITNESS CHISLER**

[Pages 1 to 9 omitted]

HOPE NATURAL GAS COMPANY

Balance sheet per company's books as of Dec. 31, 1938

W. Va. P. S. C. Account No.	ASSETS AND OTHER DEBITS	
101	Fixed capital:	
	Production system property	$26,072,494.77
	Transmission system property	25,253,484.00
	Distribution system property	2,795,083.04
	General property	1,980,813.68
	Unfinished construction	81,392.75
	Undistributed intangible fixed capital:	
	Franchises	5,811.64
	Patent rights and licenses	458.66
	Contracts for gas	23,915.61
	Total fixed capital	56,213,454.15
102	Investments in other physical property:	
	Coal property	341,529.68
	Property appreciation account (C. L. & H. Co.)	94,814.75
	Surplus property available for sale	132,624.97
	Total investments in other physical property	568,969.40
111	Cash:	
	Cash in banks and on hand	534,588.16
	Disbursing agents and returned checks	9,226.52
	Total cash	543,814.68
112	Notes receivable:	
	Customers and others	5,711.68
	Officers and employees	788.37
	Total notes receivable	6,500.05

Balance sheet per company's books as of Dec. 31, 1938—Continued

W. Va. P. S. C. Account No.	ASSETS AND OTHER DEBITS—continued	
113	Accounts receivable:	
	Gas, shop, and store ledgers	$259,977.64
	Special gas sales contract accounts	129,298.31
	Loans to affiliated companies	521,983.45
	Current affiliated company accounts	1,355,084.66
	Other	64,304.26
	Total accounts receivable	2,330,648.32
114	Interest and dividends receivable:	
	Government securities	40,883.05
	Notes	28.35
	Total interest and dividends receivable	40,911.40
115	Marketable securities:	
	Government bonds	11,033,593.76
116	Materials and supplies:	
	Warehouse accounts	1,400,452.32
	Store and shop merchandise	16,911.13
	Material loaned and repairing account	13.00
	Total materials and supplies	1,417,376.45
117	Prepayments:	
	Taxes	12,700.00
	Licenses	1,905.59
	Insurances	12,880.59
	Rentals and royalties (other than oil or gas)	1,380.69
	Total prepayments	28,866.87
121	Investments in affiliated companies:	
	Reserve Gas Company	3,547,442.50
	Gas Companies, Inc	5,000.00
	Total investments in affiliated companies	3,552,442.50
122	Miscellaneous investments:	
	Citizens Telephone Company	10.00
	The Union National Bank, Clarksburg, W. Va	2,400.00
	Total miscellaneous investments	2,410.00
125	Miscellaneous special funds:	
	Government securities accepted as security by Workmen's Compensation Commission of West Virginia	75,960.94
	Advance premiums paid to Workmen's Compensation Commission of West Virginia	276.51
	Total miscellaneous special funds	76,237.45

Balance sheet per company's books as of Dec. 31, 1938—Continued

W. Va. P. S. C. Account No.	ASSETS AND OTHER DEBITS—continued	
135	Work in progress:	
	Incomplete jobs	$871.48
	Public road suspense account	257.59
	Store suspense account	583.94
	Well suspense account	143.20
	Mannington district office suspense account	38.55
	Total work in progress	1,894.76
136	Miscellaneous suspense:	
	State unemployment compensation tax	2,248.01
	Other prepaid and deferred charges	1,041.26
	Total miscellaneous suspense	3,289.27
	Total assets and other debits	75,820,409.06
	LIABILITIES AND OTHER CREDITS	
201	Capital stock:	
	Authorized—$35,000,000 divided into 350,000 shares, $100 par value.	
	Issued and outstanding—279,693 shares	$27,969,300.00
222	Accounts payable:	
	Vouchers	100,426.99
	Rentals	71,693.65
	Pay rolls	176,448.26
	Gas purchased	791,385.99
	Accident benefits	80,170.35
	Intercompany accounts payable	26,654.54
	Other	36,449.48
	Total accounts payable	1,283,229.26
223	Customer's deposits:	
	Security deposits	89,005.00
	Drillers and pumpers	1,646.03
	Unclaimed	228.73
	Total customer's deposits	90,879.76
227	Miscellaneous current liabilities:	
	Unpaid gas royalty account	14.72
231	Taxes accrued:	
	Federal income	10,000.00
	Other	479,286.38
	Total taxes accrued	489,286.38
232	Interest accrued:	
	Security deposits	4,691.53
233	Miscellaneous accrued liabilities:	
	Accrued rentals payable	330.79
	Accrued royalties payable	11,476.98
	Total miscellaneous accrued liabilities	11,807.77

Balance sheet per company's books as of Dec. 31, 1938—Continued

W. Va. P. S. C. Account No.	LIABILITIES AND OTHER CREDITS—continued	
251	Retirement and depletion reserve:	
	Production system property	$19,451,498.20
	Transmission system property	18,517,649.71
	Distribution system property	1,306,166.86
	General property	1,354,432.54
	Contracts for gas	813.44
	Cost of abandoning property	3,001.58
	Total retirement and depletion reserve	40,633,562.33
255	Contributions for extensions:	
	Contributions in aid of construction	540.87
257	Miscellaneous reserves:	
	Property appreciation (C. L. & H. Co.)	45,431.90
	Surplus property available for sale	80,456.25
	Doubtful accounts receivable	10,600.00
	Doubtful notes receivable	100.00
	Accounts in closed banks	3,232.63
	Total miscellaneous reserves	139,820.78
261	Miscellaneous unadjusted credits:	
	Store earning suspense account	3,117.89
	Deposit by consumer for line extension	50.00
	Total miscellaneous unadjusted credits	3,167.89
270	Profit and loss—surplus	5,194,107.77
	Total liabilities and other credits	75,820,409.06

[Pages 11 to 21 omitted.]

1 **EXHIBIT NO. 57.—ORIGINAL COST OF GAS PLANT AS AT DEC. 31, 1938, VOLUME I, F. P. C. WITNESSES SMITH, BAKER, DUNN, AND PACE**

WRITTEN STATEMENT

The Federal Power Commission, under date of October 14, 1938, issued an order of investigation into and concerning all rates, charges, classifications, rules, regulations, practices, or contracts of Hope Natural Gas Company. In accordance therewith, an examination of the accounts and records of Hope Natural Gas Company has been made, and, as a result, this report on the original cost of the Gas Plant of the Company is submitted.

This report is in two parts. Volume I sets forth the investment of Hope Natural Gas Company in Gas Plant per Company books and as adjusted, as of December 31, 1938. The adjusted figures show the original cost as defined in the Federal Power Commission's Uniform System of Accounts for Natural Gas Companies of the gas plant. Volume II contains a detailed explanation of the staff adjustments.

On January 1, 1939, there became effective and applicable to the Company a new Uniform System of Accounts for Gas Utilities prescribed by the Public Service Commission of West Virginia. In July 1938 the Company began an investigation and study of its records for the purpose of stating in its Gas Plant Accounts the cost of its properties and to reflect the amount of such cost in each primary account as prescribed by said Commission.

2 The results of this investigation and study made by the Company, were made available to the accountants of the Federal Power Commission during May 1940. An inventory of the existing property at December 31, 1938, was made by the Company and priced at what the Company claims was original cost. The results of this inventory, among other things, necessitated numerous reclassifications of costs, adjustment of prior distribution of certain costs and correction of certain accounting errors, all of which have been examined by the Commission's staff of accountants.

There is presented immediately hereinafter a condensed balance sheet of the Company as reflected by the books of account at December 31, 1938, before any adjustments, in order to set forth the capitalized cost of Gas Plant per books on that date:

3 ASSETS

	Amount
Gas plant:	
Gas plant in service	$56,101,875.49
Construction work in progress	81,392.75
Gas plant adjustment	94,814.75
Coal property	341,529.68
Franchises, patent rights, and other intangibles	30,185.91
Total gas plant	$56,649,798.58
Investment and fund accounts	3,796,362.25
Current and accrued assets	15,460,687.85
Deferred debits	5,002.28
Total assets and other debits	$75,911,850.96

LIABILITIES

Capital stock	$27,969,300.00
Current and accrued liabilities	1,971,351.32
Deferred credits	3,167.89
Contributions in aid of construction	540.87
Reserves:	
Depreciation and depletion—Utility plant	40,759,450.48
Other	13,982.63
Surplus—Earned	5,194,107.77
Total liabilities and other credits	$75,911,850.96

4 As shown on the preceding balance sheet, the Capitalized Cost of Gas Plant as of December 31, 1938, was $56,649,798.58, of which $56,101,875.49 represented Gas Plant in Service, summarized by functions as follows:

Production plant	$26,460,050.10
Transmission plant	25,253,484.00
Distribution plant	2,795,083.04
General plant	1,593,258.35
Total	56,101,875.49

This report deals with the cost of the production plant, transmission plant, and general plant although a cursory examination was made of the distribution plant. The following summary sets forth the cost per Company books, reclassified by the Company as

shown by Schedule I, Page 10, of this report, and as adjusted by the examiners:

Particulars	Cost per books	Examiners' adjustments	As adjusted
Production plant	$26,718,065.06	*$384,673.83*	$26,333,391.23
Transmission plant	25,279,965.69	*1,414,567.34*	23,865,398.35
General plant	1,308,761.70	*299,930.64*	1,008,831.06
Total	53,306,792.45	*2,099,171.81*	51,207,620.64

Italic figures denote decrease.

Schedule I of this report sets forth the total cost of Gas Plant in Service per Company books, Company's reclassification adjustments, Examiners' (F. P. C. staff) adjustments and the resulting adjusted balances, representing original cost as defined in the Commission's System of Accounts.

This schedule has been constructed to show separately the total cost of the production plant, transmission plant, and general plant, representing the cost dealt with in this report. The total cost per books, in this respect, of $53,306,792.45, corresponds with that shown by Exhibit 20, page 32, column 4.

Attention is called to the total examiners' adjustments of $2,099,171.81, representing a credit to the total capitalized cost of Gas Plant in Service, exclusive of distribution plant. This amount represents the net adjustment made by the examiners and is arrived at by the difference between credit adjustments, amounting to $5,883,085.12 and debit adjustments of $3,783,913.31, and is summarized by classes as follows:

Description	*Amount*
Company adjustments per Exhibit 20	*$1,804,383.48*
Company adjustments—Prior utility acquisitions	*232,930.69*
Correction of accounting errors	1,480,227.70
Transfers to accounts other than gas plant in service	*1,542,085.34*
Examiners' adjustment—Net credit	*2,099,171.81*

Schedule 1–A sets forth all adjustments by sources, showing contra accounts involved. It also identifies the adjusting journal entries which are given in Volume II.

The total original cost of Gas Plant in Service, exclusive of distribution plant, at December 31, 1938, is summarized in the following tabulation which shows separately acquisitions of properties classed as operating units or systems.

Company constructed and purchased from nonutilities:			
Cost per books		$50,088,393.17	
Adjustments		*1,866,241.12*	
As adjusted			$48,222,152.05
6 Acquisitions of prior utilities:			
Cost per books		$3,218,399.28	
Adjustments		*232,930.69*	
As adjusted			$2,985,468.59
Total as adjusted—Dec. 31, 1938			51,207,620.64

The above tabulation has been made to focus attention on properties acquired from prior utilities. As shown above and also by Exhibit 20, page 32, column 12, the cost capitalized per Company books for this class of acquisitions is $3,218,399.28. By repricing these same properties, the Company arrives at a cost of $4,639,-010.78, as shown by Exhibit 20, page 32, column 13. This repricing would result in an increase in cost recorded in plant accounts of $1,420,611.50. The Company adjustments or repricing are not concurred in. The only adjustment to this class of property approved by the examiners are shown in the above tabulation ($232,-930.69). They represent Company adjustments to reclassify capitalized cost and correct accounting errors.

An analysis of approximately ninety percent of such acquisitions and a careful examination of all vouchers, books and data available, together with consideration of each individual acquisition, lead to the conclusion there is no justification for any adjustments whereby the amounts now recorded in plant accounts would be increased. It is the opinion of the examiners that the amount recorded at the time of acquisition represent the original cost as near as can be determined.

7 The total proposed adjustment to this class of property, developed by the original cost study made by the Company, included a credit of $967,151.87, classified as follows:

Credit plant accounts—Accrued depreciation	*$746,851.51*
Estimated costs of obtaining	10,917.50
Estimated costs of construction	1,712.83
Correction of accounting errors	*232,930.69*
Total	*967,151.87*

Of the above proposed adjustments, the examiners have approved only the correction of accounting errors representing a credit to Capitalized Cost of $232,930.69.

Schedules 2 to 33, inclusive, set forth the investment in gas plant, exclusive of distribution plant, by accounts, showing the cost per books, staff adjustments, and the adjusted or original cost balances. These schedules are the result of a detailed examination made by the Commission's staff of accounts of the books, records, and documents of the Company, including the Company's Original Cost study. The adjustments include the reclassification of items shown in Schedule 1.

Schedule No. 34 is a summary of amounts transferred to Account 100.4, Gas Plant Held for Future Use, of the Commission's Uniform System of Accounts.

Schedule No. 35 is a statement of Account 107, Gas Plant Adjustments, showing the source of data and manner of determining amounts by the Company.

Schedule No. 36 is a statement of Investment in Coal Property. This investment was included in Gas Plant as of December 31, 1938, by the Company, although not included as a part of the
8 original cost claimed per Exhibit 20. No adjusting entry has been proposed by the Company to transfer this cost to other accounts. This item has been eliminated from Gas Plant by the examiners and transferred to Account 110, Other Physical Property, by Balance Sheet Journal Entry No. 100.

Schedule No. 37 is a summary of an account designated by the Company as "Franchises, Patent Rights, and Other Intangibles" and was included in Gas Plant as of December 31, 1938. An analysis of this account discloses that it consists of three items as follows:

Patent rights:	
Thermo-syphon system for gasoline absorption plant	$458.66
Contracts and franchises:	
Acquired in acquisition of Clarksburg Light and Heat Co.	5,811.64
Contract for gas:	
Hamilton Gas Corporation	23,915.61
Total	30,185.91

The first two items shown above have been eliminated from Gas Plant by the Examiners and charged to Surplus by Balance Sheet Journal Entry No. 101.

The third item has also been eliminated from Gas Plant and transferred to Account 146, Other Deferred Debits, by Balance Sheet Journal Entry No. 101.

9 Volume II of this report, as stated hereinbefore, deals with adjustments made by the examiners and includes a summary of all adjustments, together with adjusting journal entries and a detailed explanation of each.

JOHN W. PACE,
John W. Pace,
Senior Examiner of Accounts.
EDWARD L. DUNN,
Edward L. Dunn,
Examiner in Charge of Field Assignment.

CLARKSBURG, WEST VIRGINIA, *February 20, 1941.*

Approved:

W. E. BAKER,
W. E. Baker,
Chief Accountant.
CHAS. W. SMITH,
Chas. W. Smith,
Chief, Bureau of Accounts, Finance and Rates.

HOPE NATURAL GAS COMPANY—Continued

Investment in gas plant per books and as adjusted as at Dec. 31, 1938

Schedule No.	Account No.	Description	Cost per books	Reclassification by company		Cost per books reclassified	Examiners' adjustments		As adjusted
				Dr.	Cr.		Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		Natural gas production plant							
2	330.1	Natural gas producing lands		$3,319.84		$3,319.84			$3,319.84
	330.2	Natural gas producing leaseholds:							
3		Operated	$1,331,100.55			1,331,100.55	$267,904.31		1,599,004.86
4		Unoperated	479,570.75			479,570.75	104,811.48	$584,382.23	
5	330.4	Rights of way	530,476.17	9,412.94	$8,978.33	530,910.78	181,930.98	67,450.29	645,391.47
6	330.5	Other land and land rights	23,729.28	8,866.78	7,993.90	24,602.16		3,593.64	21,008.52
7	331.2	Field measuring and regulating station structures	30,244.11	3,894.08	5,520.62	28,617.57	651.94	8,130.59	21,138.92
8	331.3	Other production system structures	177,682.39	65,418.75	29,937.20	213,163.94	5,691.31	27,666.44	191,188.81
9	332.1	Producing gas wells—Well construction	4,370,612.79		3,679.04	4,366,933.75	391,689.83	669,145.87	4,089,477.71
10	332.2	Producing gas wells—Well equipment	7,893,605.30		8,023.71	7,885,581.59	8,078.12	283,149.96	7,610,509.75
		Field lines:							
11	333.11	Construction	3,040,755.47	35,999.16	38,233.64	3,038,520.99	921,753.13	337,784.54	3,622,489.58
12	333.12	Equipment	7,950,541.90	29,637.87	13,137.24	7,967,042.53	317,703.03	610,493.74	7,674,251.82
13	333.2	Field measuring and regulating station equipment	244,176.06	15,753.87		259,929.93	6,734.51	82,279.41	184,385.03
14	334	Drilling and cleaning equipment	387,555.33	156,184.60		543,739.93	52,752.85	800.07	595,692.71
15	337	Other production equipment		45,030.75		45,030.75	31,758.09	1,256.63	75,532.21
		Total gas production plant	26,460,050.10	373,518.64	115,503.68	26,718,065.06	2,291,459.58	2,676,133.41	26,333,391.23

Investment in gas plant per books and as adjusted as at Dec. 31, 1938—Continued

Schedule No.	Account No.	Description	Cost per books	Reclassification by company		Cost per books reclassified	Examiners' adjustments		As adjusted
				Dr.	Cr.		Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		Transmission plant							
16	351.12	Land	$152,660.05	$13,624.99	$5,163.97	$161,121.07	$7,116.64	$5,325.50	$162,912.21
20	351.23	Rights of way	551,354.41	697.91	56,331.85	495,720.47	52,298.61	156,776.39	391,242.69
17	352.2	Compressor station structures	1,760,317.25	489,844.60	539,885.67	1,710,276.18	102,623.88	371,017.68	1,441,882.38
18	352.3	Measuring and regulating station structures	6,305.15	5,873.14	779.79	11,398.50	151.55	3,342.84	8,207.21
19	352.4	Other transmission system structures	6,709.29	997.85	359.03	7,348.11		5 72.42	6,775.69
20	353	Mains	14,614,229.98	296,750.65	292,513.14	14,618,467.49	556,162.13	1,042,554.90	14,132,074.72
21	354.2	Compressor station equipment	8,135,673.87	273,378.24	178,069.38	8,230,982.73	684,614.14	1,231,924.88	7,683,671.99
22	354.3	Measuring and regulating station equipment	26,234.00	5,190.65	1,961.90	29,462.75	3,044.23	14,891.07	17,615.91
23	354.4	Other transmission system equipment		15,188.39		15,188.39	5,827.16		21,015.55
		Total transmission plant	25,253,484.00	1,101,546.42	1,075,064.73	25,279,965.69	1,411,838.34	2,826,405.68	23,865,398.35
		General plant							
24	370	Land and land rights	154,590.82	43.13	27,956.22	126,677.73	7,202.00	36,898.52	96,981.21
25	371	Structures and improvements	262,605.30	26,385.90	51,667.86	237,323.34	2,176.81	13,612.37	225,887.78
26	372	Office furniture and equipment	239,989.32			239,989.32	13,516.77	74,822.75	178,683.34
27	373	Transportation equipment	211,115.41	3,951.90	53,636.30	161,431.01	2,779.07	21,895.59	142,314.49
28	374	Stores equipment		3,321.00		3,321.00	1,989.50	203.74	5,106.76
29	375	Shop equipment		63,168.92		63,168.92	43,106.82	2,090.57	104,185.17
30	376	Laboratory equipment		1,003.40		1,003.40			1,003.40
31	377	Tools and work equipment	449,871.11		249,110.52	200,760.59	9,319.42	205,534.68	4,545.33
32	378	Communication equipment	254,602.17			254,602.17		5,626.43	248,975.74
33	379	Miscellaneous equipment	20,484.22			20,484.22	525.00	19,861.38	1,147.84
		Total general plant	1,593,258.35	97,874.25	382,370.90	1,308,761.70	80,615.39	380,546.03	1,008,831.06
		Total, gas plant (exclusive of distribution	53,306,792.45	1,572,939.31	1,572,939.31	53,306,792.45	3,783,913.31	5,883,085.12	51,207,620.64

HOPE NATURAL GAS COMPANY

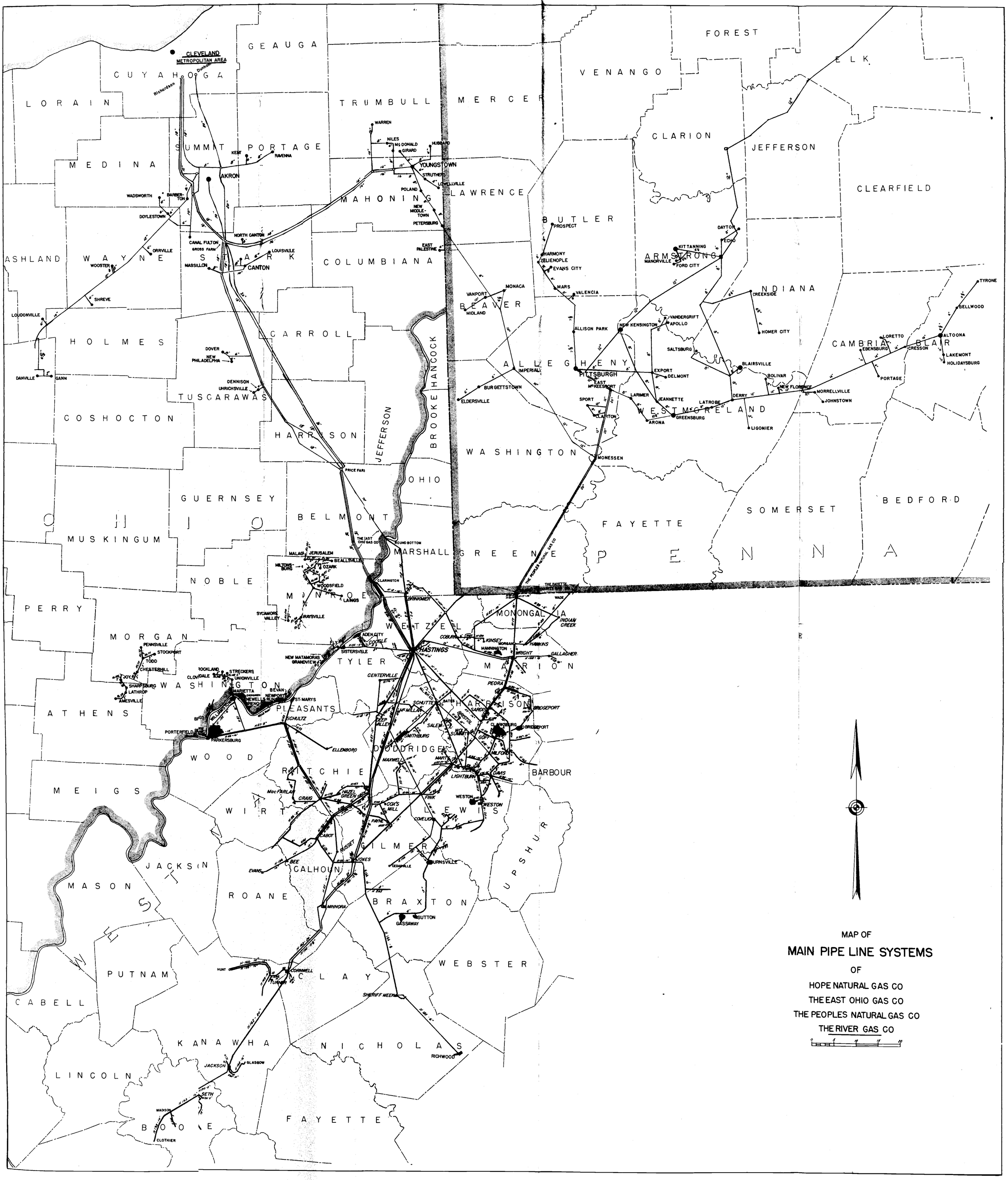
Summary of examiners' journal entries adjusting plant accounts showing types of adjustments and contra accounts affected

A. J. E. No.	Description	Company's adjustments per original cost study (exhibit 20)	Total examiners' adjustments				100-4	110	100-3	144	250-1	250-2	250-3	271	Distribution plant
			Company's adjustments to prior utility purchases		Examiners' other adjustments	Total examiners' adjustments	Utility plant held for future use	Other physical property	Construction work in progress	Retirement work in progress	Reserve for depreciation of utility plant	Reserve for amortization and depletion of producing natural gas lands and land rights	Reserve for abandoned leases	Earned surplus	
			A. J. E. No.	Amount											
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
	Company adjustments accepted by examiners														
300	Transfers to and from utility plant in service accounts:														
	Debits $466,187.96														
	Credits *466,187.96*														
301	Adjustments to agree with adopted inventory	*$179,769.12*	326	*$8,227.19*		*$187,996.31*					$187,996.31				
302	Capitalized structures or materials removed	*269,273.27*	327	*5,831.43*		*275,104.70*					275,104.70				
303	Depreciation on purchased property	*412,186.80*				*412,186.80*					412,186.80				
304	Abandoned—Still on books	*78,905.51*	329	*20,336.25*		*99,241.76*				$99,241.76					
305	Items on books found in storage	*37,464.60*				*37,464.60*		$25.75		37,438.85					
306	Transfers to and from other than utility plant in service accounts	*211,080.04*				*211,080.04*	$13,967.21	55,505.81		141,607.02					
307	Adjustments of vouchers M-699 and A-155 estimates	*158,767.75*	331	*67,101.74*		*225,869.49*					225,869.49				
308	Voucher charges to investment not in ledger	69,559.52				69,559.52								*$69,559.52*	
309	Correction of voucher amounts and records	53,805.31	332	*48,145.03*		5,660.28								*5,660.28*	
310	Estimated cost of obtaining	11,814.46				11,814.46								*11,814.46*	
311	Recording costs—From original papers	5,719.50				5,719.50								*5,719.50*	
312	Damages due to maintenance	*8,402.43*				*8,402.43*								*8,402.43*	
313	Removal of amounts shown on books—No equipment added at corresponding time, repairs, or could not identify charges on vouchers	*11,284.41*				*11,284.41*								11,284.41	
314	Improper charges and credits	51,003.29	333	*1.00*		51,002.29					*51,003.29*			1.00	
315	To restore original cost	38,992.16				38,992.16					*38,992.16*				
316	Repairs and replacements	*79,832.19*				*79,832.19*								79,832.19	
317	Fleet owners and quantity discounts	*2,227.40*				*2,227.40*								2,227.40	
318	Unproductive drilling deeper	*72,473.08*				*72,473.08*								72,473.08	
319	Removal of rig charges	*429,707.12*				*429,707.12*					429,707.12				
319	Arbitrary rig charges added	391,230.00				391,230.00					391,230.00				
320	Retirement of well construction—Change of well equipment	*12,576.26*				*12,576.26*					12,576.26				
321	Adjustment for lines taken up	*344,550.43*	334	*24,257.94*		*368,808.37*					368,808.37				
322	Unretired labor	*263,977.16*				*263,977.16*					263,977.16				
323	Transfer to distribution system	*19,678.07*				*19,678.07*									$19,678.07
324	To balance with books	167,236.40	335	*57,953.77*		109,282.63					248,281.03	*$252,752.18*	*$104,811.48*		
325	Miscellaneous small adjustments	*1,588.48*				*1,588.48*					1,588.48				
	Transfers to and from utility plant in service accounts:														
	Debits $8,797.21														
	Credits *9,797.21*		328												
	Abandoned lines not removed		330	*1,076.34*		*1,076.34*				1,076.34					
	Examiners' adjustments														
336	To reinstate construction costs expensed				$1,480,227.70	1,480,227.70								*1,480,227.70*	
337	To transfer adjusted cost of property used to transport coke oven gas				*762,592.06*	*762,592.06*		762,592.06							
338	To transfer to "Utility Plant Held For Future Use," the adjusted cost of field lines connected to nonproducing wells				*21,126.61*	*21,126.61*	21,126.61								
339	To realize depreciation on retirements of prior utility property				*3,106.27*	*3,106.27*					3,106.27				
340	To transfer to "Other Physical Property," cost of sites formerly used for compressing stations				*901.50*	*901.50*		901.50							
341	To transfer to "Utility Plant Held For Future Use," the adjusted cost of unoperated leaseholds				*584,382.23*	*584,382.23*	584,382.23								
342	To transfer to "Utility Plant Held For Future Use," the cost of wells not connected to utility plant				*169,642.68*	*169,642.68*	169,642.68								
343	Transfer to construction work in progress—Account 100-3				*16.65*	*16.65*			$16.65						
344	Transfer from production plant to transmission plant (Dr. and Cr. $6.965.64).														
345	Transfer within general plant (Dr. and Cr. $7,200.00).														
346	To transfer additional cost of prior units to distribution system				*317.34*	*317.34*									317.34
	Total Examiners' Adjustments	*1,804,383.48*		*232,950.69*	*61,857.64*	*2,099,171.81*	789,118.73	819,025.12	16.65	279,363.97	1,947,976.54	*252,752.18*	*104,811.48*	*1,398,760.95*	19,995.41

Italic figures denote decrease.

[Pages 13 to 22 omitted.]

EXHIBIT NO. 1-A.—MAP OF MAIN PIPE LINE SYSTEMS OF HOPE NATURAL GAS CO., THE EAST OHIO GAS CO., THE PEOPLES NATURAL GAS CO., THE RIVER GAS CO., HOPE WITNESS TONKIN.



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11		*Distribution Plant*								
	357.1	Land	19,151.18							
	357.22	Rights of way	17,818.40							
	358.1	Measuring and district regulating station structures	34,352.87							
	358.2	Other distribution system structures	84,840.06							
	359.1	Mains—Construction	625,556.29							
	359.21	Mains—Pipe	1,155,526.53							
	359.22	Mains—Fittings	152,376.28							
	360	Pumping and regulating equipment	51,388.06							
	361	Services	184,496.15							
	362	Meters	469,198.31							
	363	Meter installations	378.91							
		Total distribution plant	2,795,083.04			2,795,083.04	19,995.41		2,815,078.45	
	100.1	Total utility plant, in service	56,101,875.49			56,101,875.49	3,803,908.72	5,883,085.12	54,022,699.09	
	100.3	Construction work in progress	81,392.75			81,392.75			81,392.75	
34	100.4	Gas plant held for future use					789,118.73		789,118.73	
35	107	Gas plant adjustments	94,814.75			94,814.75			94,814.75	
36		Other physical property—coal property (100)	341,529.68			341,529.68		341,529.68		
37		Franchises, patent rights and other intangibles (101)	30,185.91			30,185.91		30,185.91		
		Total, gas plant	56,649,798.58			56,649,798.58	4,593,027.45	6,254,800.71	54,988,025.32	

NOTE.—Distribution Plant Accounts have not been examined in detail.

23 Docket G–113 Schedule No. 9

HOPE NATURAL GAS COMPANY

Natural gas production plant, account 332–1, producing gas wells, well construction, capitalized cost per books and as adjusted as at Dec. 31, 1938

[Segregated by production areas]

Production area number	Construction cost		Examiners' adjustments		As adjusted
	Number of wells	Cost per books	Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)
1–1					
1–2	4	$39,518.96	$4,536.00	$7,620.05	$36,434.91
1 Ind	1	6,502.58	1,134.00	1,802.14	5,834.44
2–1	14	65,112.63	5,670.00	10,297.92	60,484.71
2–2					
2–3	1	6,281.93			6,281.93
3–1	20	101,157.82	4,536.00	12,063.15	93,630.67
3–2	9	76,576.64	6,804.00	11,905.87	71,474.77
3–3	1	9,815.91	1,134.00	1,997.37	8,952.54
3–4					
3–5					
3–6					
3 Ind					
4–1	12	58,373.52	2,268.00	9,457.31	51,184.21
4–2	1	11,234.15	1,134.00	2,033.93	10,334.22
4 Ind	1	1,080.00		293.63	786.37
5–1	24	118,821.15	7,938.00	24,144.92	102,614.23
5 Ind					
6–1	2	9,637.77	1,134.00	3,764.08	7,007.69
6–2	10	34,207.16	4,536.00	4,982.95	33,760.21
6 Ind	1	9,792.45	1,134.00	2,304.79	8,621.66
7–1	87	233,708.50	5,670.00	11,356.35	228,022.15
7–2	3	14,206.01	1,278.00	3,140.22	12,343.79
8–1	36	166,306.25	13,608.00	17,489.61	162,424.64
8 Ben. 1	5	62,650.43	5,670.00	8,532.27	59,788.16
8 Ind	2	27,839.31	2,268.00	3,798.68	26,308.63
9–1	20	41,570.07		7,975.03	33,595.04
9–2	2	11,898.34	2,268.00	3,134.95	11,031.39
9 Ind					
10–1	21	82,093.21	6,804.00	13,226.60	75,670.61
11–1	14	56,272.29	3,477.00	8,472.14	51,277.15
11–2					
11–3	3	22,762.22	3,402.00	4,940.07	21,224.15
11 Ind					
12–1	10	38,811.77	2,268.00	3,127.65	37,952.12
12 Ind	1	963.16		81.97	881.19
13–1	48	220,137.53	41,958.00	43,088.93	219,006.60
13–2	24	114,486.28	14,742.00	19,813.15	109,415.13
13–3	24	128,251.70	20,416.76	25,691.35	122,977.11
24 13–4	3	15,511.03	3,402.00	2,691.12	16,221.91
13 Ind					
14–1	6	19,185.23	1,134.00	6,257.03	14,062.20
14–2					
14–3					
14 Ind	1	5,332.47	1,134.00	1,459.56	5,006.91
15–1	1	4,362.30			4,362.30
15–2	4	21,475.87	1,134.00	2,799.57	19,810.30

Natural gas production plant, account 332–1, producing gas wells, well construction, capitalized cost per books and as adjusted as at Dec. 31, 1938—Continued

[Segregated by production areas]

Production area number	Construction cost		Examiners' adjustments		As adjusted
	Number of wells	Cost per books	Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)
15–3	1	$10,166.63	$1,134.00	$1,192.63	$10,108.00
15 Ind	1	6,610.24		360.17	6,250.07
16–1	1	1,872.33			1,872.33
16 Ind					
17–1	1	4,742.99	1,134.00	1,102.31	4,774.18
17–2	1	883.61			883.61
17–3					
17–4					
17–5	1	971.25		153.10	818.15
17 Ind	1	4,897.34	1,134.00	1,431.72	4,599.62
18–1	10	50,191.22	5,670.00	7,352.48	48,508.74
18–2	6	28,779.39	3,402.00	4,527.72	27,653.67
18–3	14	66,962.17	6,804.00	9,858.15	63,908.02
18–4	4	17,764.54	2,268.00	2,989.96	17,042.58
18–5	1	450.97		22.60	428.37
18 Ind	1	1,823.64			1,823.64
19–1	71	379,649.82	57,870.07	65,850.59	371,669.30
19–2	6	34,619.54	6,804.00	7,324.01	34,099.53
19 Ind		5,234.70	1,134.00	6,368.70	
20–1	57	268,944.12	40,824.00	47,131.99	262,636.13
20–2	14	87,314.66	14,742.00	21,754.92	80,301.74
20 Ind	7	60,564.83	7,938.00	22,699.18	45,803.65
21–1	9	45,557.78	5,670.00	6,107.53	45,120.25
21–2	22	118,519.03	19,278.00	28,014.95	109,782.08
21–3	3	17,139.92	2,268.00	2,697.91	16,710.01
21 Ind	2	35,414.85	2,268.00	18,838.90	18,843.95
22–1					
22–2	2	13,606.36	2,268.00	3,646.44	12,227.92
22–3					
22–4					
23–1		16,588.98		16,588.98	
25 23 Ind		28,224.67	2,268.00	30,492.67	
24–1	25	259,658.67			259,658.67
24–2	14	154,773.76		164.83	154,608.93
24–3	6	73,914.14			73,914.140
24–4	24	261,508.63			261,508.63
24–5	3	33,883.55		9.06	33,874.49
24–6	2	17,731.79			17,731.79
24–7	3	32,066.53			32,066.53
24 Ind	1	11,515.74			11,515.74
25–1	9	68,460.42	10,206.00	10,638.08	68,028.34
25–2	2	15,251.78	2,268.00	3,010.40	14,509.38
25–3	7	46,775.51	7,938.00	7,706.97	47,006.54
25–4	2	12,404.43	2,268.00	2,043.95	12,628.48
25–5	8	82,376.98			82,37.698
25–6	4	45,384.38		18,041.08	27,343.30
25 Ind	4	31,866.93	4,536.00	5,757.28	30,645.65
26–1	3	26,817.54	3,402.00	3,788.75	26,430.79
26–2	1	7,016.18	1,134.00	957.39	7,192.79
26–3	2	14,605.17	2,268.00	3,086.21	13,786.96
26 Ind					
27 Ind					

Natural gas production plant, account 332–1, producing gas wells, well construction, capitalized cost per books and as adjusted as at Dec. 31, 1938—Continued

[Segregated by production areas]

Production area number	Construction cost		Examiners' adjustments		As adjusted
	Number of wells	Cost per books	Dr.	Cr.	
Sundry		$31,168.44	$200.00	$31,368.44	
Total	772	4,370,612.79	391,689.83	672,824.91	$4,089,477.71
Transfers to and from utility plant in service accounts				3,679.04	
Other adjustments			391,689.83	669,145.87	
			391,689.83	672,824.91	

HOPE NATURAL GAS COMPANY

Natural gas production plant, account 332–2, producing gas wells, well equipment, capitalize cost per books and as adjusted as at Dec. 31, 1938

[Segregated by production areas]

Production area number	Number of wells	Gas produced year 1938 M. C. F.	Cost per books	Examiners' adjustments		As adjusted
				Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)	(g)
1–1	40	113,145	$99,410.34	$82.62	$2,845.96	$96,647.00
1–2	6	18,675	25,426.71		14.58	25,412.13
1 Ind	2	163,756	7,957.73		132.18	7,825.55
2–1	138	171,772	403,180.82	101.90	3,635.50	399,647.22
2–2	5	31,146	5,534.91		7.63	5,527.28
2–3	3	6,809	3,586.93			3,586.93
3–1	95	426,847	337,011.98	107.78	5,709.53	331,410.23
3–2	9	33,770	36,811.66		555.90	36,255.76
3–3	5	31,704	15,160.24	5.75	338.26	14,827.73
3–4	1	43,114	3,360.87			3,360.87
3–5	1	64	5,689.99			5,689.99
3–6	3	12,760	7,238.00			7,238.00
3 Ind	2	1,898	6,303.75			6,303.75
4–1	37	158,911	142,373.78	104.17	3,899.71	138,578.24
4–2	9	49,743	33,550.08		79.90	33,470.18
4 Ind	3	12,478	5,642.33		18.40	5,623.93
5–1	201	996,818	561,160.85	676.10	4,330.36	557,506.59
5 Ind	2	8,216	5,075.46			5,075.46
6–1	63	303,689	135,592.34	5.79	6,720.16	128,877.97
6–2	134	268,066	241,030.46	129.10	3,982.90	237,176.66
6 Ind	2	10,804	5,415.38			5,415.38
7–1	568	2,587,884	1,348,223.09	721.61	11,477.73	1,337,466.97
7–2	18	112,545	55,374.07	359.29	175.78	55,557.58
8–1	288	1,386,766	616,946.91	1,351.21	2,433.33	615,864.79
8 Ben. 1	19	509,817	83,598.65	141.88	1,218.98	82,521.55
8 Ind	2	30,927	11,802.07		54.64	11,747.43
9–1	138	259,844	346,430.61	579.02	20,254.63	326,755.00
9–2	3	779	7,057.94		1,149.14	5,908.80

Natural gas production plant, account 332–2, producing gas wells, well equipment, capitalized cost per books and as adjusted as at Dec. 31, 1938—Continued

[Segregated by production areas]

Production area number	Number of wells	Gas produced year 1938 M. C. F.	Cost per books	Examiners' adjustments		As adjusted
				Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)	(g)
9 Ind	1	13,470	$2,153.78			$2,153.78
10–1	272	1,149,506	667,359.36	$489.33	$25,927.70	641,920.99
11–1	93	118,809	197,097.43	34.08	9,363.85	187,767.66
11–2	1	52	1,960.44		227.30	1,733.14
11–3	3	8,432	8,182.07		30.04	8,152.03
11 Ind	2	986	4,083.51		13.92	4,069.59
12–1	60	503,643	130,280.51	31.60	22,388.67	107,923.44
12 Ind	5	27,628	12,008.40		3,370.45	8,637.95
13–1	108	310,114	206,043.87	13.92	5,350.75	200,707.04
13–2	76	120,464	160,976.83	178.05	5,140.58	156,014.30
13–3	76	326,735	131,844.72	4.11	6,196.12	125,652.71
13–4	7	39,178	16,825.61	19.64	536.37	16,308.88
13 Ind	5	100,512	15,246.57		2,716.09	12,530.48
27 14–1	121	428,540	260,828.11	12.78	1,366.84	259,474.05
14–2	4	3,037	4,922.42		553.59	4,368.83
14–3	1	12,272	1,925.43			1,925.43
14 Ind	2	11,492	4,231.56		24.38	4,207.18
15–1	15	89,657	27,868.98		88.64	27,780.34
15–2	6	32,564	15,105.52		6.47	15,099.05
15–3	2	10,616	5,439.22			5,439.22
15 Ind	2	11,069	7,647.60		142.20	7,505.40
16–1	15	33,282	17,151.07	16.38	2,451.29	14,716.16
16 Ind	1	451	1,405.25			1,405.25
17–1	2	18,280	4,619.10			4,619.10
17–2	8	46,071	20,719.42		420.81	20,298.61
17–3	2	30,615	2,913.17		188.13	2,725.04
17–4	1	2,624	2,227.85		1,177.81	1,050.04
17–5	3	13	6,055.41		3,158.69	2,896.72
17 Ind	6	40,239	9,586.67	8.56	1,118.83	8,476.40
18–1	32	115,815	59,676.94	21.33	1,296.27	58,402.00
18–2	14	130,686	33,946.74	3.84	570.70	33,379.88
18–3	24	114,312	47,196.95	10.22	336.70	46,870.47
18–4	9	20,184	25,404.35		285.18	25,119.17
18–5	6	19,786	10,481.59		3,518.95	6,962.64
18 Ind	5	24,082	9,745.86	12.14	7.60	9,750.40
19–1	104	722,343	249,939.55	298.79	3,565.44	246,672.90
19–2	6	57,826	14,347.67	11.95	12.45	14,347.17
19 Ind	2		6,781.35		2,883.34	3,898.01
20–1	121	468,743	209,732.29	1,728.13	3,319.77	208,140.65
20–2	16	78,779	26,826.81		1,367.64	25,459.17
20 Ind	11	214,109	29,343.38		4,824.75	24,518.63
21–1	11	33,133	28,795.84		1,919.30	26,876.54
21–2	41	137,200	73,993.53		980.12	73,013.41
21–3	4	15,068	10,600.21	27.42	377.53	10,250.10
21 Ind	3	30,792	12,312.92		7,253.79	5,059.13
22–1	8	39,906	14,421.02		7,964.25	6,456.77
22–2	5	31,415	11,813.79		2,301.97	9,511.82
22–3	10	110,930	24,561.76		11,631.62	12,930.14
22–4	2	12,567	4,451.04		1,885.98	2,565.06
23–1			8,126.02		8,126.02	
23 Ind			11,700.09		11,700.09	
28 24–1	25	196,992	69,358.27	299.88		69,658.15
24–2	14	52,999	49,353.44		6.20	49,347.24

Natural gas production plant, account 332–1, producing gas wells, well equipment, capitalized cost per books and as adjusted as at Dec. 31, 1938—Continued.

[Segregated by production areas]

Production area number	Number of wells	Gas produced year 1938 M. C. F.	Cost per books	Examiners' adjustments		As adjusted
				Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)	(g)
24–3	6	30,608	$30,139.72			$30,139.72
24–4	24	112,179	111,647.66			111,647.66
24–5	3	31,574	16,081.33		$50.61	16,030.72
24–6	2	16,473	4,319.03			4,319.03
24–7	3	249,591	14,030.54			14,030.54
24 Ind	1	6,530	6,590.19			6,590.19
25–1	9	6,503	17,903.70		35.17	17,868.53
25–2	2	15,387	4,418.57		14.38	4,404.19
25–3	8	32,202	19,391.71		824.46	18,567.25
25–4	2	5,535	4,379.97			4,379.97
25–5	8	24,623	21,258.96			21,258.96
25–6	4	40,988	26,329.70		8,408.94	17,920.76
25 Ind	4	4,903	7,616.76		7.60	7,609.16
26–1	8	70,139	14,350.71		4,838.96	9,511.75
26–2	2	16,501	3,621.99		1,205.14	2,416.85
26–3	2	1,148	4,993.74		6.09	4,987.65
26 Ind			2,808.57		2,808.57	
27 Ind	3	10,134	2,806.80		7.21	2,799.59
Sundry			35,346.41	$489.75	35,836.16	
Total	3,261	14,545,783	7,893,605.30	8,078.12	291,173.67	7,610,509.75
Transfers to and from utility plant in service accounts					8,023.71	
Other adjustments				8,078.12	283,149.96	
				8,078.12	291,173.67	

[Pages 29 to 60 omitted.]

61 Docket G–113 Schedule No. 35

HOPE NATURAL GAS COMPANY

Account 107—Gas plant adjustments

Details of account as at Dec. 31, 1938

Description	Amount
(a)	(b)
Clarksburg Light & Heat Co. Property Appreciation	$94,814.75

Details of this amount shown as per letter below:

MAY 17, 1940.

MR. J. A. HENNIG,
Examiner-In-Charge,
Federal Power Commission,
Clarksburg, W. Va.

DEAR MR. HENNIG: Referring to your letter to me of April 25, 1940, requesting an explanation of the Property Appreciation Account (Clarksburg Light and Heat Company) and how the amount of $94,814.75 was determined, please be advised as follows:

In 1929 the company purchased the Physical Properties of the Clarksburg Light and Heat Company for 13,693 shares of Hope Natural Gas Company stock and $10.67 in cash. This was treated as receipt by the Clarksburg Company of $1,464,114.75, which amount was $94,814.75 above the net book cost of these properties as shown on the Clarksburg Company's books. The Hope Company reflected these properties and the book depreciation thereon on its books at the same amounts as they appeared on the Clarksburg Company's books and charged $94,814.75 to "Property Appreciation Account (Clarksburg Light and Heat Company)" by the voucher to which you referred.

Very truly yours,

(s) GEO. N. REED.

[Pages 62 to 64 omitted.]

3 **EXHIBIT NO. 58.—FEDERAL POWER COMMISSION UNIFORM SYSTEM OF ACCOUNTS PRESCRIBED FOR NATURAL GAS COMPANIES (1940)**

DEFINITIONS

[Pages 1 to 2 omitted]

When used in this system of accounts:

1. "Accounts" means the accounts prescribed in this system of accounts.

2. "Actually issued," as applied to securities issued or assumed by the utility, means those which have been sold to bona-fide purchasers for a valuable consideration (including those issued in exchange for other securities or other property); also securities issued as dividends on stock, and those which have been issued in accordance with contractual requirements direct to trustees of sinking funds.

3. "Actually outstanding", as applied to securities issued or assumed by the utility, means those which have been actually issued and are neither retired nor held by or for the utility; provided, however, that securities held by trustees shall be considered as actually outstanding.

4. "Amortization" means the gradual extinguishment of an amount in an account by prorating such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized.

5. A. "Associated companies" means companies or persons that, directly or indirectly, through one or more intermediaries, control, or are controlled by, or are under common control with, the accounting company.

B. "Control" (including the terms "controlling", "controlled by", and "under common control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a company, whether such power is exercised through one or more intermediary companies, or alone, or in conjunction with, or pursuant to an agreement, and whether

such power is established through a majority or minority ownership or voting of securities, common directors, officers, or stockholders, voting trusts, holding trusts, associated companies, contract, or any other direct or indirect means.

6. "Book cost" means the amount at which property is recorded in these accounts without deduction of related reserves or other accounts. As applied to gas plant, "book cost" means the amount at which property is included in account 100.6 or in accounts 100.1 to 100.4.

7. "Buildings." (See Gas plant instruction 10.)

8. "Commission" means the Federal Power Commission.

9. "Construction cost, components of." (See Gas plant instruction 5.)

10. "Cost" means the amount of money actually paid for property or services or the cash value at the time of the transaction of any consideration other than money. (See, however, Gas plant instruction 3.)

11. "Cost of removal" means the cost of demolishing, dismantling, tearing down, or otherwise removing gas plant, including the cost of transportation and handling incidental thereto.

4 12. "Debt expense" means all expenses in connection with the issuance and initial sale of evidences of debt, such as fees for drafting mortgages and trust deeds; fees and taxes for issuing or recording evidences of debt; cost of engraving and printing bonds and certificates of indebtedness; fees paid trustees; specific costs of obtaining governmental authority; fees for legal services; fees and commissions paid underwriters, brokers, and salesmen for marketing such evidences of debt; fees and expenses of listing on exchanges; and other like costs.

13. "Depletion," as applied to natural gas producing land and land rights, means the loss in service value incurred in connection with the exhaustion of the natural resource in the course of service.

14. "Depreciation," as applied to depreciable gas plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of gas plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and

requirements of public authorities, and, in the case of natural gas companies, the exhaustion of natural resources.

15. "Discount," as applied to the securities issued or assumed by the utility, means the excess of the par (stated value of no par stocks) or face value of the securities plus interest or dividends accrued at the date of the sale over the cash value of the consideration received from their sale.

16. "Distribution system." (See Gas plant instruction 16.)

17. "Equipment." (See Gas plant instruction 11.)

18. "Improvements." (See Gas plant instruction 10.)

19. "Investment advances" means advances, represented by notes or by book accounts only, with respect to which it is mutually agreed or intended between the creditor and debtor that they shall be settled by the issuance of capital stock or long-term obligations, or shall not be subject to current settlement.

20. "Land and land rights." (See Gas plant instruction 9.)

21. "Minor items of property" means the associated parts or items of which units of property are composed.

22. "Natural gas" means either natural gas unmixed, or any mixture of natural and artificial gas.

23. "Natural gas company" means a person engaged in the transportation of natural gas in interstate commerce, or the sale in interstate commerce of such gas for resale.

24. "Net book cost," when applied to gas plant means the book cost less related depreciation, amortization, and depletion reserves. When applied to other property, it means book cost less related reserves for loss in value.

25. "Net original cost," as applied to gas plant, means the original cost less related depreciation, amortization, and depletion reserves.

26. "Net salvage value" means the salvage value of property retired less the cost of removal.

27. "Nominally issued," as applied to securities issued or assumed by the utility, means those which have been signed, certified, or otherwise executed, and placed with the proper officer for sale and delivery, or pledged, or otherwise placed in some special fund of the utility, but which have not been sold or issued direct to trustees of sinking funds in accordance with contractual requirements.

28. "Nominally outstanding," as applied to securities issued or assumed by the utility, means those which, after being actually issued have been reacquired by or for the utility under circum-

stances which require them to be considered as held alive and not retired; provided, however, that securities held by trustees shall be considered as actually outstanding.

29. "Original cost," as applied to gas plant, means the cost of such property to the person first devoting it to public service.

30. "Person" means an individual, a corporation, a partnership, an association, a joint-stock company, a business trust, or any organized group of persons, whether incorporated or not, or any receiver or trustee.

31. "Premium," as applied to the securities issued or assumed by the utility, means the excess of the cash value of the consideration received from their sale over the sum of their par (stated value of no par stocks) or face value and interest or dividends accrued at the date of sale.

32. "Property retired," as applied to gas plant, means property which has been removed, sold, abandoned, destroyed, or which for any cause has been withdrawn from gas service.

33. "Replacing" or "replacement," when not otherwise indicated in the context, means the construction or installation of gas plant in place of property retired, together with the removal of the property retired.

34. "Salvage value" means the amount received for property retired, less any expenses incurred in connection with the sale or in preparing the property for sale, or, if retained, the amount at which the material recoverable is chargeable to Account 131, Materials and Supplies, or other appropriate account.

35. "Service value" means the difference between original cost and the net salvage value of gas plant.

36. "Structures." (See Gas plant instruction 10.)

37. "Transmission system." (See Gas plant instruction 16.)

38. "Retirement units" means those items of gas plant which, when retired, with or without replacements, are accounted for by crediting the book cost thereof to the gas plant account in which included.

39. "Utility," as used herein and when not otherwise indicated in the context, means any natural gas company to which this system of accounts is applicable.

[Pages 6 to 30 omitted.]

XI. Reserves

250.1 Reserve for Depreciation of Gas Plant

A. This account shall be credited with the following:

Amounts charged to Account 503.1, Depreciation, to Account 508, Income from Gas Plant Leased to Others, to clearing accounts, or to income or other accounts for currently accruing depreciation.

Amounts charged to Account 414, Miscellaneous Debits to Surplus, for past accrued depreciation.

Amounts of depreciation applicable to gas properties acquired as operating units or systems. (See Gas plant instruction 4.)

Amounts chargeable upon approval of the Commission to Account 141, Extraordinary Property Losses.

Amounts of depreciation applicable to gas plant donated to the utility.

B. At the time of retirement of depreciable gas plant in service, this account shall be charged with the book cost of the property retired and the cost of removal, and shall be credited with the salvage value and any other amounts recovered, such as insurance.

C. For balance sheet purposes, this account shall be regarded and treated as a single composite reserve. For purposes of analysis, however, each utility shall maintain records in which the depreciation reserve shall be segregated according to the following functional classification of gas plant: (1) Production—manufactured gas, (2) production—natural gas, (3) storage, (4) transmission, (5) distribution, and (6) general. The credits and debits to the reserve shall be so made as to show separately (1) the amount of the accrual for depreciation, (2) the book cost of property retired, (3) cost of removal, (4) salvage, and (5) other items, including recoveries from insurance.

D. When transfers of property are made from one utility plant account to another or from or to nonutility property, the accounting shall be as provided in Gas plant instruction 14.

E. This account shall be subdivided as follows:

250.11 Reserve for Depreciation of Gas Plant in Service.
250.12 Reserve for Depreciation of Gas Plant Leased to Others.
250.13 Reserve for Depreciation of Gas Plant Held for Future Use.

Note.—The utility is restricted in its use of the reserve to the purposes set forth above. It shall not divert any portion of the reserve to surplus or make any other use thereof without the approval of the Commission.

32 250.2 RESERVE FOR AMORTIZATION AND DEPLETION OF PRODUCING NATURAL GAS LAND AND LAND RIGHTS

A. This account shall be credited with amounts charged to Account 503.2, Amortization and Depletion of Producing Natural Gas Land and Land Rights, or Account 508, Income from Gas Plant Leased to Others, to provide for the current amortization and depletion of land and land rights from which natural gas is obtained. (See Gas plant instruction 9–I.)

B. This account shall also be credited with such amounts as are necessary to reflect, as of the effective date of this system of accounts, the portion of the cost of land and land rights which have been exhausted through the extraction of natural gas. To the extent that provision has not previously been made for amortization and depletion of such land and land rights, amounts credited to this reserve shall be concurrently debited to Account 414, Miscellaneous Debits to Surplus.

C. When natural gas-producing land or land rights are sold, relinquished, or otherwise retired from service, the book cost of the land or land rights so retired, less any proceeds realized at retirement, shall be charged to this account; provided, however, that any excess of the book cost (less proceeds realized from sale) over the amount accumulated therefor in this reserve shall be debited to the appropriate surplus account, unless otherwise authorized or directed by the Commission.

D. Records shall be maintained so as to show separately the balance applicable to each item of land and land rights which is being amortized or depleted, except that natural gas land and land rights which constitute an interest in one pool of gas may be grouped to form one unit for amortization and depletion and the reserve applicable thereto need not be segregated to show the amount related to each gas right included therein.

E. This account shall be subdivided as follows:

250.21 Reserve for Amortization and Depletion of Producing Natural Gas Land and Land Rights—Gas Plant in Service.

250.22 Reserve for Amortization and Depletion of Producing Natural Gas Land and Land Rights—Gas Plant Leased to Others.

NOTE.—The utility is restricted in its use of the reserve to the purposes set forth above. It shall not divert any portion of the reserve to surplus or make any other use thereof without approval of the Commission.

[Pages 33 and 35 omitted.]

36 INSTRUCTIONS—GAS PLANT ACCOUNTS

1. Purpose of Gas Plant Accounts

A. The summary gas plant accounts are as follows:

100. Gas Plant.

- 100.1 Gas Plant in Service.
- 100.2 Gas Plant Leased to Others.
- 100.3 Construction Work in Progress.
- 100.4 Gas Plant Held for Future Use.
- 100.5 Gas Plant Acquisition Adjustments.
- 100.6 Gas Plant in Process of Reclassification.

107. Gas Plant Adjustments.

B. Account 100 is a caption by which shall be reported the amounts in accounts 100.1 to 100.6, inclusive.

C. Accounts 100.1 to 100.4, inclusive, are designed to show the original cost of gas plant acquired as operating units or systems by purchase, merger, consolidation, liquidation, or otherwise, and the cost to the utility of all other gas plant recorded in these accounts.

D. Account 100.5 is designed to show the difference between the cost to the utility of gas plant acquired as operating units or systems by purchase, merger, consolidation, liquidation, or otherwise, and the original cost of the plant, due consideration being given to any depreciation, depletion, or amortization recorded by the accounting utility at the date of acquisition.

E. Account 100.6 is designed to be used as a control account for gas plant at the effective date of this system of accounts pending the distribution thereof in accordance with the accounts prescribed herein.

F. Account 107 is designed to show the amount by which the book cost of gas plant at the effective date of this system of accounts differs from the cost of the plant to the utility when the difference is not properly includible in other accounts. It shall include all write-ups in the books as of the effective date of this system of accounts.

Note.—See balance sheet accounts 100 and 107.

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2. Classification of Gas Plant at Effective Date of System of Accounts

A. Each utility shall classify its gas plant as of the effective date of this system of accounts in accordance with the gas plant accounts prescribed herein. The classification shall be so made as to show both the original cost and the cost to the utility of its gas plant.

B. The cost to the utility of its gas plant shall be ascertained by analysis of the utility's records. In ascertaining the cost it is not intended that any correction need be made for depreciation,
37 depletion, or amortization applicable to operating units or systems previously acquired, whether or not such depreciation, depletion, or amortization was recorded in the books of the accounting utility. It is likewise not intended that adjustments shall be made to record in gas plant accounts amounts previously charged to operating expenses in accordance with the uniform system of accounts in effect at the time or in accordance with the discretion of management as exercised under such uniform system of accounts.

C. The detailed gas plant accounts (301 to 390, inclusive) shall be stated on the basis of cost to the utility of plant constructed by it and the original cost, estimated if not known, of plant acquired as an operating unit or system. The difference between the original cost, as above, and the cost to the utility of plant includible in accounts 100.1 to 100.4, inclusive, after giving effect to any depreciation, depletion, or amortization recorded by the accounting utility at the time of acquisition, shall be recorded in Account 100.5, Gas Plant Acquisition Adjustments. The original cost of gas plant may be determined by analysis of the utility's records or those of predecessor or vendor companies with respect to gas plant previously acquired as operating units or systems and the difference between the original cost so determined and the cost to the utility, with adjustments for retirements from date of acquisition to the effective date of this system of accounts, shall be entered in Account 100.5, Gas Plant Acquisition Adjustments. When practicable, amounts recorded in account 100.5 shall be classified according to the nature of the items of which composed. Any difference between the cost of gas plant and its book cost, when not properly includible in other accounts, shall be recorded in Account 107, Gas Plant Adjustments.

D. Not later than 2 years after the effective date of this system of accounts, each utility shall have completed the studies necessary for classifying its gas plant as of the effective date of this system of accounts in accordance with the accounts prescribed herein and it shall submit to the Commission the entries it proposes to make to carry out the provisions of this instruction. It shall submit, also, a comparative balance sheet showing the accounts and amounts appearing in its books as of the effective date of this system of accounts and the accounts and respective amounts as of the same date after the proposed entries shall have been made.

E. Pending the classification of gas plant at the effective date of this system of accounts in accordance with the accounts prescribed herein, each utility shall maintain its present accounts with respect to such property as subaccounts of Account 100.6, Gas Plant in Process of Reclassification.

3. Gas Plant To Be Recorded at Cost

A. All amounts included in the accounts for tangible gas plant consisting of plant acquired as an operating unit or system shall be stated at the original cost incurred by the person who first devoted the property to gas service. All other tangible gas plant shall be included in the accounts at the cost incurred by the utility.

B. All amounts included in the accounts for intangible gas plant shall likewise be stated on the basis provided in paragraph A above except as otherwise provided in the texts of the intangible accounts.

38 C. Where the term "cost" is used in the detailed gas plant accounts, it shall have the meaning stated in paragraphs A and B above and shall include not only the materials, supplies, labor, services, and other items consumed or employed in the construction and installation of gas plant, but also the cost of preliminary studies, plans, surveys, engineering, supervision, and general expenses, which contribute directly and immediately to gas plant without duplication of such costs.

D. When the consideration given for property is other than cash, the value of such consideration shall be determined on a cash basis. In the entry recording such transaction, the actual consideration shall be described with sufficient particularity to identify it. The utility shall be prepared to furnish the Commission the particulars of its determination of the cash value of the consideration, if other than cash.

E. When property is purchased under a plan involving deferred payments, no charge shall be made to the gas plant accounts for interest, insurance, or other expenditures occasioned solely by such form of payment.

F. Gas plant contributed to the utility or constructed by it from contributions to it of cash or its equivalent shall be charged to the gas plant accounts at original cost. There shall be credited to the depreciation, depletion, and amortization reserve accounts the estimated amount of depreciation, depletion, and amortization applicable to the property at the time of its contribution to the utility. The difference between the amounts included in the gas plant accounts and the reserve accounts shall be credited to Account 265, Contributions in Aid of Construction.

NOTE.—Amounts received for construction which are ultimately to be refunded, wholly or in part, shall be credited to Account 241, Customers' Advances for Construction. When the amount to be refunded has been finally determined, any credit balance remaining in account 241 shall be credited to Account 265, Contributions in Aid of Construction.

4. GAS PLANT PURCHASED

A. When gas plant constituting an operating unit or system is acquired by purchase, merger, consolidation, liquidation, or otherwise, after the effective date of this system of accounts, the cost of acquisition, including expenses incidental thereto and properly includible in gas plant, shall be charged to Account 100.1, Gas Plant in Service, Subaccount 391, Gas Plant Purchased.

B. The accounting for the acquisition shall then be completed as following:

(1) The original cost, estimated if not known, shall be credited to Account 100.1, Gas Plant in Service, Subaccount 391, Gas Plant Purchased, and concurrently charged to Account 100.1, Gas Plant in Service, Account 100.2, Gas Plant Leased to Others, Account 100.3, Construction Work in Progress, Account 100.4, Gas Plant Held for Future Use, as appropriate, and distributed to the detailed accounts which they control.

(2) The depreciation, or amortization and depletion reserve requirements applicable to the original costs of the properties purchased, if required by the Commission to be recorded by the accounting utility, shall be charged to Account 100.1, Gas Plant in Service, Subaccount 391, Gas Plant Purchased, and concurrently credited to Account 250.1, Reserve for Depreciation of Gas Plant, Account 250.2, Reserve for Amortization and

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Depletion of Producing Natural Gas Land and Land Rights, and Account 251, Reserve for Amortization of Other Limited-Term Gas Investments, as appropriate.

(3) The amount remaining in Account 391, Gas Plant Purchased, shall then be closed to Account 100.5, Gas Plant Acquisition Adjustments.

C. A memorandum record shall be kept of the amount of contributions in aid of construction applicable to the property acquired as shown by the accounts of the previous owner.

D. When any property acquired as an operating unit or system includes duplicate or other gas plant which will be retired by the accounting utility in the reconstruction of the acquired property or its consolidation with the previously owned property, the accounting for such property shall be presented to the Commission for consideration and approval.

E. If property acquired in the purchase of an operating unit or system is in such physical condition when acquired that it is necessary substantially to rehabilitate it in order to bring the property up to the standards of the utility, the cost of such work, except replacements, shall be accounted for as a part of the purchase price of the property.

F. In connection with the acquisition of gas plant constituting an operating unit or system, the utility shall procure, if possible, all existing records relating to the property acquired, or certified copies thereof, and shall preserve such records until specifically authorized by the Commission to destroy or otherwise dispose of them.

NOTE.—In cases of mergers or consolidations occurring prior to the determination of original cost of the plant of the merging or consolidating utilities, the accounts of the constituent utilities, with the approval of the Commission, may be combined. In the event original cost has not been determined, the resulting utility shall proceed to determine such cost as outlined herein.

5. COMPONENTS OF CONSTRUCTION COST

The cost of construction properly includible in the gas plant accounts shall include, where applicable, the direct and overhead costs as listed and defined hereunder:

(1) "Contract work" includes amounts paid for work performed under contract by other companies, firms, or individuals, costs incident to the award of such contracts, and the inspection of such work. It does not include the cost of work performed by the utility

on the project, a part of which is performed by others under contract.

(2) "Labor" includes the pay and expenses of employees of the utility engaged on construction work, and also workmen's compensation insurance, pay roll taxes, and similar items of expense. It does not include the pay and expenses of employees which are distributed to construction through clearing accounts nor the pay and expenses included in other items hereunder.

(3) "Materials and supplies" includes the purchase price at the point of free delivery plus customs duties, excise taxes, the cost of inspection, loading and transportation, the related stores expenses, and the cost of fabricated materials from the utility's shop. In determining the cost of materials and supplies used for construction, proper allowance shall be made for unused materials and supplies, for materials recovered from temporary structures used in performing the work involved, and for discounts allowed and realized in the purchase of materials and supplies.

NOTE A.—The cost of individual items of equipment of small value (for example, $10 or less) or of short life, including small portable tools and implements, shall not be charged to gas plant accounts unless the correctness of the accounting therefor is verified by current inventories. The cost may be charged to the appropriate operating expense or clearing accounts, according to the use of such items, or, if such items are consumed directly in construction work, the cost shall be included as part of the cost of the constructed unit.

NOTE B.—Gas owned by the utility used in well construction shall be charged thereto at the cost with an offsetting credit to Account 749, Duplicate Charges—Cr.

(4) "Transportation" includes the cost of transporting employees, materials and supplies, tools, purchased equipment, and other work equipment (when not under own power) to and from points of construction. It includes amounts paid to others as well as the cost of operating the utility's own transportation equipment. (See item 5 following.)

(5) "Special machine service" includes the cost of labor (optional), materials and supplies, depreciation, and other expenses incurred in the maintenance, operation, and use of special machines, such as steam shovels, pile drivers, derricks, ditchers, scrapers, material unloaders, and other labor-saving machines; also expenditures for rental, maintenance, and operation of machines of others. It does not include the cost of small tools and other individual items of small value or short life which are in-

cluded in the cost of materials and supplies. (See item 3, above.) When a particular construction job requires the use for an extended period of time of special machines, transportation or other equipment, the net book cost thereof, less the appraised or salvage value at time of release from the job, shall be included in the cost of construction.

(6) "Shop service" includes the proportion of the expense of the utility's shop department assignable to construction work, except that the cost of fabricated materials from the utility's shop shall be included in "materials and supplies."

(7) "Protection" includes the cost of protecting the utility's property from fire or other casualties and the cost of preventing damages to others, or to the property of others, including payments for discovery or extinguishment of fires, cost of apprehending and prosecuting incendiaries, witness fees in relation thereto, amounts paid to municipalities and others for fire protection, and other analogous items of expenditures in connection with construction work.

(8) "Injuries and damages" includes expenditures or losses in connection with construction work on account of injuries to persons and damages to the property of others; also the cost of investigation of and defense against actions for such injuries and damages. Insurance recovered or recoverable on account of compensation paid for injuries to persons incident to construction shall be credited to the account or accounts to which such compensation is charged. Insurance recovered or recoverable on account of property damages incident to construction shall be credited to the account or accounts charged with the cost of the damages.

41 (9) "Privileges and permits" includes payments for and expenses incurred in securing temporary privileges, permits, or rights in connection with construction work, such as for the use of private or public property, streets, or highways, but it does not include rents, or amounts chargeable as franchises and consents, for which see Account 302, Franchises and Consents.

(10) "Rents" includes amounts paid for the use of construction quarters and office space occupied by construction forces and amounts properly includible in construction costs for such facilities jointly used.

(11) "Engineering and supervision" includes the portion of the pay and expenses of engineers, surveyors, draftsmen, inspectors, superintendents, and their assistants applicable to construction work.

(12) "General administration capitalized" includes the portion of the pay and expenses of the general officers and administrative and general expenses applicable to construction work.

(13) "Engineering services" includes amounts paid to other companies, firms, or individuals engaged by the utility to plan, design, prepare estimates, supervise, inspect, or give general advice and assistance in connection with construction work. A copy of the agreement or arrangement under which such services are rendered shall be preserved.

(14) "Insurance" includes premiums paid or amounts provided or reserved as self-insurance for the protection against loss and damages in connection with construction, by fire or other casualty, injury to or death of persons other than employees, damages to property of others, defalcation of employees and agents, and the nonperformance of contractual obligations of others. It does not include workmen's compensation or similar insurance on employees included as "labor" in item 2, above.

(15) "Law expenditures" includes the general law expenditures incurred in connection with construction and the court and legal costs directly related thereto, other than law expenses included in protection, item 7, and in injuries and damages, item 8.

(16) "Taxes" includes taxes on physical property (including land) during the period of construction and other taxes properly includible in construction costs before the facilities become available for service.

(17) "Interest during construction" includes the net cost of borrowed funds used for construction purposes and a reasonable rate upon the utility's own funds when so used. Interest during construction shall be charged to the individual job upon which the funds are expended and shall be credited to Account 536, Interest Charged to Construction—Cr. The period for which interest may be capitalized shall be limited to the period of construction. No interest charges shall be included in these accounts upon expenditures for construction projects which have been abandoned.

NOTE.—When a part only of a plant or project is placed in operation or is completed and ready for service but the construction work as a whole is incomplete, that part of the cost of the property placed in operation, or ready for service, shall be treated as "Gas Plant in Service" and interest thereon as a charge to construction shall cease. Interest on that part of the cost of the plant which is incomplete may be continued as a charge to construction until such time as it is placed in operation or is ready for service, except as limited in items 17, above.

42 (18) "Earnings and expenses during construction" include (*a*) all revenues derived during the construction period from property which is included in the cost of the project under construction and (*b*) all expenses (except taxes) which are attributable to the revenues received.

6. Overhead Construction Costs

A. All overhead construction costs, such as engineering, supervision, general office salaries and expenses, construction engineering and supervision by others than the accounting utility, law expenses, insurance, injuries and damages, relief and pensions, taxes, and interest, shall be charged to particular jobs or units on the basis of the amounts of such overheads reasonably applicable thereto, to the end that each job or unit shall bear its equitable proportion of such costs and that the entire cost of the unit, both direct and overhead, shall be deducted from the gas plant accounts at the time the unit of property is retired.

B. The instructions contained herein shall not be interpreted as permitting the addition to gas plant accounts of arbitrary percentages or amounts to cover assumed overhead costs, but as requiring the assignment to particular jobs and accounts of actual and reasonable overhead costs.

C. The records supporting the entries for overhead construction costs shall be so kept as to show the total amount of each overhead for each year, the nature and amount of each overhead expenditure charged to each construction work order and to each gas plant account, and the bases of distribution of such costs.

7. Leased Property, Expenditures On

A. Except as provided in paragraph B, following, the cost of initial improvements (including repairs, rearrangements, additions, and betterments) to property leased from others made in the course of preparing the property for service and the cost of any subsequent additions or betterments to such leased property shall be charged to the gas plant or other property account appropriate for the class of property leased. (See Account 100.1 and Operating expense instruction 5.)

B. When the initial improvements to leased property which are otherwise chargeable to gas plant or other property accounts are of relatively minor cost or short life or the lease is for a period of not more than 1 year, the cost shall be charged to the account in which the rent expense is included.

C. Provision for the retirement of improvements to leased property shall be made either through Account 251, Reserve for Amortization of Other Limited-Term Gas Investments, by concurrent charges to Account 504, Amortization of Other Limited-Term Gas Investments, or through Account 250.1, Reserve for Depreciation of Gas Plant, by concurrent charges to Account 503.1, Depreciation. The annual amortization or depreciation provision shall be determined in the following manner:

(1) If the service life of the improvements is terminated by action of the lease and not by depreciation (see definition 14), then the service value of the improvements should be
43 spread over the life of the lease by charges to Account 504, Amortization of Other Limited-Term Gas Investments, and credits to Account 251, Reserve for Amortization of Other Limited-Term Gas Investments.

(2) If the service life is terminated not by action of the lease but by depreciation, then the service value of the improvements should be accounted for as depreciable plant (see Accounts 503.1 and 250.1).

8. Temporary Facilities

When property ordinarily having a service life of more than 1 year is installed for temporary use in gas service, it shall be accounted for in the manner prescribed for gas plant in service.

9. Land and Land Rights

A. "Land and land rights" means land owned in fee by the utility and rights, interests, and privileges held by the utility in land owned by others, such as leaseholds, easements, natural gas rights, rights-of-way, and other like interests in land.

B. The accounts for land and land rights shall include the first cost, including the amounts of mortgages or other liens assumed, but not rents payable periodically with respect to such rights.

C. Where special assessments for public improvements provide for deferred payments, the full amount of the assessments shall be charged to the appropriate land account and the unpaid balance shall be carried in an appropriate liability account. Interest on unpaid balances shall be charged to the appropriate interest account. If any part of the cost of public improvements is included in the general tax levy, the amount thereof shall be charged to the appropriate tax account; otherwise the cost of public improvements, including cost of sidewalks and curbs constructed by the

utility on public streets, should be charged to the accounts for land and land rights.

D. The net profit from the sale of timber, cordwood, or other property acquired with rights-of-way or other lands shall be credited to the appropriate land and land rights account. Where land is held for a considerable period of time and timber on the land at the time of purchase increases in value, the net profit (after giving effect to the cost of the timber) from the sales of timber or its products shall be credited to Account 526, Miscellaneous Nonoperating Revenues.

E. Separate entries shall be made for the acquisition, transfer, or retirement of each parcel of land, and each land right, or gas right (except rights-of-way for distribution lines) having a life of more than 1 year. A record shall be maintained showing the nature of ownership, full legal description, area, map reference, purpose for which used, city, county, and tax district in which situated, from whom purchased or to whom sold, payment given or received, other costs, contract date and number, date of recording of deed, and book and page of record. Entries transferring or retiring land or land rights shall refer to the original entry recording its acquisition. A parcel of land acquired and carried on the books as a unit is not required to be subdivided with transfers to other land accounts merely because of the erection thereon of an incidental structure to be used in gas operations but for a purpose differing from that for which the land is chiefly employed; for example, a small general storehouse on production plant land.

44 F. Any difference between the amount received from the sale of land or land rights, less agents' commissions and other costs incident to the sale, and the book cost of such land or rights, shall be charged to Account 414, Miscellaneous Debits to Surplus, or credited to Account 401, Miscellaneous Credits to Surplus, as appropriate, unless a reserve therefor has been authorized and provided. Appropriate adjustments of the accounts shall be made with respect to any structures or improvements located on land sold.

G. Entries to the gas plant accounts for limited-term interests in land (except rights-of-way for distribution lines) shall make specific reference to the lease, contract, or arrangement under which each interest is held or used, together with a concise statement of the terms of the lease, contract, or arrangement.

H. The cost of buildings and other improvements (other than public improvements) shall not be included in the land accounts. If at the time of acquisition of an interest in land such interest extends to buildings or other improvements (other than public improvements), which are then devoted to gas operations, the land and improvements shall be separately appraised and the cost allocated to land and buildings or improvements on the basis of the appraisals. If the improvements are removed or wrecked without being used in operations, the cost thereof and the cost of removing or wrecking shall be charged and the salvage credited to the account in which the cost of the land is recorded.

I. The cost of land and land rights acquired in excess of that used in gas operations shall be included in Account 110, Other Physical Property, or Account 100.4 Gas Plant Held for Future Use, as appropriate. Regarding land and land rights held for the production of natural gas, Account 100.1, Gas Plant in Service, shall include (1) the cost of lands owned in fee upon which producing natural gas wells are located or lands owned in fee which are being drained through the operation by the utility of wells on other land, and (2) the first cost of lands held under lease upon which the utility pays royalties for the natural gas obtained therefrom. The cost of all other land and land rights held for the production of natural gas under a definite plan for such use shall be included in Account 100.4, Gas Plant Held for Future Use.

NOTE.—In addition to the accounting records prescribed herein, supplemental records of land and land rights held for future use shall be kept in such manner as to permit the segregation within a reasonable time of the land and land rights constituting (1) productive but nonproducing fields, and (2) unproven or undeveloped fields, and to show the following data with respect to each natural gas lease, regardless of the accounting treatment accorded the lease costs: (*a*) name of lessor, (*b*) location of leasehold and number or other identification assigned thereto, (*c*) date and period of lease agreement, (*d*) first cost of lease including details of the elements of such cost, (*e*) annual rental provisions, (*f*) date and cost of drilling, (*g*) date gas determined to exist, (*h*) date of completion of first well drilled by the utility in each pool of gas, (*i*) royalty provisions, (*j*) amortization and depletion provisions, and (*k*) date of abandonment of lease.

J. When the purchase of land for gas operations requires the purchase of land not used for such purposes, the charge to the specific land account shall be based upon the estimated cost of only that portion which is used for gas operations. The cost of the remaining land shall be included in Account 100.4, Gas Plant

Held for Future Use, or Account 110, Other Physical Property, as appropriate.

K. Provision shall be made for amortizing amounts carried in the accounts for limited-term interests in land. The amortization of limited-term interests in land shall be accomplished in such manner as to apportion equitably the cost of each interest over the life thereof and to produce a charge to operating expenses, for each accounting period, of the amount properly chargeable thereto for such period. For the purposes of amortization of natural gas rights, separate interests in land which constitute an interest in one pool of gas may be grouped to form a depletion unit. (See Account 250.2, Reserve for Amortization and Depletion of Producing Natural Gas Land and Land Rights, Account 250.3, Reserve for Abandoned Leases, and Account 251, Reserve for Amortization of Other Limited-Term Gas Investments; also Account 503.2, Amortization and Depletion of Producing Natural Gas Land and Land Rights, Account 504, Amortization of Other Limited-Term Gas Investments, and Account 512, Abandoned Leases.)

L. The items of cost to be included in the accounts for land and land rights are as follows:

Bulkheads, buried, not requiring maintenance or replacement.

Cost, first, of acquisition including mortgages and other liens assumed (but not subsequent interest thereon).

Clearing (first cost) the land of brush, trees, and debris.

Condemnation proceedings, including court and counsel costs.

Consents and abutting damages, payment for.

Conveyancers' and notaries' fees.

Fees, commissions, and salaries to brokers, agents, and others in connection with the acquisition of the land or land rights.

Grading the land, except when directly occasioned by the building of a structure.

Leases, cost of voiding upon purchase to secure possession of land.

Removing, relocating, or reconstructing property of others, such as buildings, highways, railroads, bridges, cemeteries, churches, telephone and power lines, etc., in order to acquire quiet possession.

Retaining walls unless identified with structures.

Special assessments levied by public authorities for public improvements on the basis of benefits for new roads, new bridges, new sewers, new curbing, new pavements, and other public improvements, but not taxes levied to provide for the maintenance of such improvements.

Surveys in connection with the acquisition.

Taxes, assumed, accrued to date of transfer of title.

Title, examining, clearing, insuring, and registering in connection with the acquisition and defending against claims relating to the period prior to the acquisition.

10. Structures and Improvements

A. "Structures and improvements" means all permanent buildings and structures to house, support, or safeguard property or persons, and improvements of a permanent character other than public improvements on or to land.

B. "Buildings" means permanent structures to house, support, or safeguard property or persons, including all fixtures permanently attached to and made a part of buildings and which cannot be removed therefrom without cutting into the walls, ceilings, or floors, or without in some way impairing the buildings.

C. "Improvements" means permanent improvements (other than buildings) to land.

46 D. Items of cost:

Architects' plans.
Ash pits (when located within the building proper).
Athletic field structures and improvements.
Boilers, furnaces, piping, wiring, fixtures, and machinery for heating, lighting, signaling, ventilating, and plumbing.
Bulkheads, including dredging, riprap fill, piling, decking, concrete, fenders, etc., when exposed and subject to maintenance and replacement.
Chimneys.
Coal bins and bunkers.
Commissions and fees to brokers, agents, architects, and others.
Conduit (not to be removed) with its contents.
Damages to abutting property during construction.
Docks.
Door checks and door stops.
Drainage and sewerage systems.
Elevators, cranes, hoists, etc., and the machinery for operating them.
Excavation, including shoring, bracing, bridging, refill, and disposal of excess excavated material.
Fences and fence curbs (not including protective fences isolating individual items of equipment, which should be charged to the appropriate equipment account).
Fire protection systems when forming a part of a structure.
Floor covering (permanently attached).
Foundations and piers for machinery, constructed as a permanent part of a building or other item listed herein.
Grading when directly occasioned by the building of a structure.
Holders—relief.
Holders—waterless, including steel structure, piston elevators, cost of first tar seal, tar apparatus and storage tanks, stairways, etc.
Holders—waterseal, including tank construction, water, holder lifts, framework, stairways, and heating equipment.
Inlet and outlet lines to holders and storage tanks, including inlet and outlet valve pits and drip pumps.

Intrasite communication system, poles, pole fixtures, wires, and cables.
Landscaping, lawns, shrubbery, etc.
Leases, voiding upon purchase, to secure possession of structures.
Leased property, expenditures on.
Lighting fixtures and outside lighting systems.
Natural gas wells used solely for storage of gas.
Painting, first.
Partitions, including movable.
Permits and privileges.
Platforms, railings, and gratings, when constructed as a part of a structure.
Power boards for services to a building.
Refrigerating systems for general use.
Retaining walls, except when identified with land.
Roadways, railroads, bridges, and trestles intrasite, except railroads provided for in equipment accounts.
Scales, connected to and forming a part of a structure.
Screens.
Sewer systems, for general use.
Sidewalks, curbs, and streets constructed by the utility, except sidewalks and curbs on public streets.
Sprinkling systems.
Stacks—brick, steel, or concrete, when set on foundation forming part of general foundation and steelwork of a building.
Storage facilities constituting a part of a building.
Storm doors and windows.
Subways, areaways, and tunnels, directly connected to and forming part of a structure.
Tanks, constructed as part of a building or as a distinct structural unit.
Tunnels, intake and discharge, when constructed as part of a structure, and those constructed to house mains.
Vaults constructed as part of a building.
47 Water-front improvements.
Water-supply piping, hydrants, and wells.
Water-supply system for a building or general company purposes.
Wharves.
Window shades and ventilators.
Yard-drainage system.
Yard-lighting system.
Yard surfacing, gravel, concrete, or oil.

NOTE.—The cost of disposing of material excavated in connection with construction shall be considered as a part of the cost of such work, except as follows: (*a*) When such material is used for filling, the cost of loading, hauling, and dumping shall be equitably apportioned between the work in connection with which the removal occurs and the work in connection with which the material is used; (*b*) when such material is sold, the net amount realized from such sales shall be credited to the work in connection with which the removal occurs. If the amount realized from the sale of excavated materials exceeds the removal costs and the costs in connection with the sale, the excess shall be credited to the land account in which the site is carried.

E. Items not included in buildings:

(1) Do not include in the cost of buildings, lighting, heating, or other fixtures temporarily attached for purposes of display or demonstration.

(2) The cost of specially provided foundations not intended to outlast the machinery or apparatus for which provided, and the cost of angle irons, castings, etc., installed at the base of an item of equipment, shall be charged to the same account as the cost of the machinery, apparatus, or equipment.

(3) When furnaces and boilers are used primarily for furnishing steam for some particular department and only incidentally for furnishing steam for heating a building and operating the equipment therein, the entire cost of such furnaces and boilers shall be charged to the appropriate plant account, and no part to the building account.

(4) Minor buildings and structures may be considered a part of the facility in connection with which constructed or operated and the cost thereof accounted for accordingly when the nature of the structure and facility indicates the correctness of such accounting.

11. Equipment

A. "Equipment," as used in this system of accounts, means all tangible utility plant, other than land and structures as herein defined.

B. The cost of equipment, unless otherwise indicated in the text of an equipment account, includes, in addition to the actual price thereof, sales taxes, investigation and inspection expenses necessary to such purchase, expenses of transportation when borne by the utility, labor employed, materials and supplies consumed, and expenses incurred by the utility in unloading and placing the equipment in readiness to operate.

C. Exclude from equipment accounts hand and other portable tools which are likely to be lost or stolen or which have relatively small value ($10 or less) or short life, unless the correctness of the accounting therefor is verified by current inventories. Special tools acquired and included in the purchase price of equipment shall be included in the appropriate plant account. Portable drills and similar tool equipment when used in connection with the operation and maintenance of a particular plant or department, such

as production, transmission, distribution, etc., or in "stores," shall be charged to the plant account appropriate for their use.

48 D. The equipment accounts shall include angle irons and similar items which are installed at the base of an item of equipment, but piers and foundations which are designed to be as permanent as the buildings which house the equipment, or which are constructed as a part of the building, and which cannot be removed without cutting into the floors or the walls of the building, shall be included in the building accounts.

E. The equipment accounts shall include all the necessary costs of testing or running a plant or part thereof during an experimental or test period prior to becoming available for service. The accounting utility shall furnish the Commission with full particulars of and justification for any test or experimental run extending beyond a period of 30 days.

F. The cost of efficiency or other tests made subsequent to the date equipment becomes available for service shall be charged to the appropriate expense accounts, except that tests to determine whether equipment meets the specifications and requirements as to efficiency, performance, etc., guaranteed by manufacturers, made after operations have commenced and within the period specified in the agreement or contract of purchase, may be charged to the appropriate gas plant account.

12. Additions and Retirements of Gas Plant

A. For the purpose of avoiding undue refinement in accounting for additions to and retirements and replacements of gas plant, all property shall be considered as consisting of (1) retirement units and (2) minor items of property.

B. *Retirement units.*—Each utility shall adopt the List of Retirement Units contained in Appendix I of this system of accounts for use in accounting for additions to and retirements and replacements of gas plant.

(1) When a retirement unit is added to gas plant, the cost thereof shall be added to the appropriate gas plant account, except that when retirement units are acquired in the acquisition of any gas plant constituting an operating system, they shall be accounted for as provided in Gas plant instruction 4.

(2) When a retirement unit is retired from gas plant, with or without replacement, the book cost thereof shall be credited to

the gas plant account in which it is included, determined in the determined in the manner set forth in paragraph D, below. If the retirement unit is of a depreciable class, the book cost of the unit retired and credited to gas plant shall be charged to the depreciation reserve provided for such property. (See par. G, below, and Gas plant instruction 13.)

C. *Minor items of property.*—(1) When a minor item of property which did not previously exist is added to plant, the cost thereof shall be accounted for in the same manner as for the addition of a retirement unit, as set forth in paragraph B(1), above, if a substantial addition results, otherwise the charge shall be to the appropriate operating expense account.

(2) When a minor item of property is retired and not replaced, the book cost thereof shall be credited to the gas plant account in which it is included; and, in the event the minor item is a part of depreciable plant, the depreciation reserve shall be charged with the book cost and cost of removal and credited with
49 the salvage. If, however, the book cost of the minor item retired and not replaced has been or will be accounted for by its inclusion in the retirement unit of which it is a part when such unit is retired, no separate credit to the property account is required, when such minor item is retired.

(3) When a minor item of depreciable property is replaced independently of the retirement unit of which it is a part, the cost of replacement shall be charged to the maintenance account appropriate for the item, except that if the replacement effects a substantial betterment (the primary aim of which is to make the property affected more useful, more efficient, of greater durability, or of greater capacity), the excess cost of the replacement over the estimated cost at current prices of replacing without betterment shall be charged to the appropriate gas plant account.

D. *Determination of book cost.*—The book cost of gas plant retired shall be the amount at which such property is included in the gas plant accounts, including all components of construction costs. The book cost shall be determined from the utility's records and if this cannot be done, it shall be estimated. When it is impracticable to determine the book cost of each item, due to the relatively large number or small cost thereof, the average book cost of the items, with due allowance for any differences in size and character, shall be used as the book cost of the items retired.

E. *Land retired.*—The book cost of land retired shall be credited to the appropriate land account. If the land is sold, the difference

between the book cost (less any reserve therefor which has been authorized and provided) and the sale price of the land (less commissions and other expenses of making the sale) shall be credited to Account 401, Miscellaneous Credits to Surplus, or debited to Account 414, Miscellaneous Debits to Surplus, as appropriate. If the land is not used in gas service but is retained by the utility, the book cost shall be charged to Account 100.4, Gas Plant Held for Future Use, or Account 110, Other Physical Property, as appropriate.

F. *Gas plant sold.*—When gas plant constituting an operating unit or system is sold, conveyed, or transferred to another by sale, merger, consolidation, or otherwise, the book cost of the property sold or transferred to another shall be credited to the appropriate gas plant accounts, including amounts carried in Account 100.5, Gas Plant Acquisition Adjustments, and the amounts (estimated if not known) carried with respect thereto in the depreciation and amortization reserve accounts and in Account 241, Customers' Advances for Construction, and Account 265, Contributions in Aid of Construction, shall be charged to such reserves and accounts. Unless otherwise ordered by the Commission, the difference, if any, between (a) the net amount of debits and credits and (b) the consideration received for the property (less commissions and other expenses of making the sale) shall be included in Account 414, Miscellaneous Debits to Surplus, or Account 401, Miscellaneous Credits to Surplus, as appropriate. (See Account 392, Gas Plant Sold.)

G. The service value of gas plant retired, which is subject to charges for depreciation, shall be charged in its entirety to Account 250.1, Reserve for Depreciation of Gas Plant. Any amounts which by approval or order of the Commission are charged to Account 141, Extraordinary Property Losses, shall be credited to Account 250.1, Reserve for Depreciation of Gas Plant.

50 H. The accounting for the retirement of amounts included in Account 302, Franchises and Consents, and Accounts 303, Miscellaneous Intangible Plant, and the items of limited-term interests in land included in the accounts for land and land rights, shall be as provided in the text of Account 250.2, Reserve for Amortization and Depletion of Producing Natural Gas Land and Land Rights, and Account 503.2, Amortization and Depletion of Producing Natural Gas Land and Land Rights, or Account 251, Reserve for Amortization of Other Limited-Term

Gas Investments, and Account 504, Amortization of Other Limited-Term Gas Investments, as appropriate.

I. Additions and retirement of gas plant shall not be netted in the entries or in the posting of the entries.

13. Work Order System Required

A. All changes in gas plant (except the purchase or sale of gas plant constituting an operating unit or system) shall be recorded by means of work orders or job orders. Separate work orders may be opened for additions to and retirements of gas plant or the retirements may be included with the construction work order, provided, however, that all items relating to retirements shall be kept distinctly separate from those relating to construction, and provided further, that any maintenance costs involved in the work shall likewise be kept distinctly separate.

B. Each utility shall keep its work order system in such manner as to show the nature of each addition to or retirement of gas plant, the total cost thereof, the source or sources of costs, and the gas plant account or accounts to which charged or credited. Work orders covering jobs of short duration may be cleared monthly.

14. Transfers of Property

When property consisting of one or more retirement units is transferred from one account for gas plant to another or to Account 110, Other Physical Property, from one utility department to another, such as from gas to electric, from one operating division or area to another, to or from Account 100.1, Gas Plant in Service, Account 100.2, Gas Plant Leased to Others, and Account 100.4, Gas Plant Held for Future Use, the transfer shall be recorded by transferring the book cost thereof from the one account, department, or location to the other, and likewise any related amounts carried in Account 100.5, Gas Plant Acquisition Adjustments, in the depreciation reserve, and other accounts shall be transferred in accordance with the segregation of such reserves and other accounts.

Note.—Amounts included in Account 250.3, Reserve for Abandoned Leases, shall not be related to a particular lease and, therefore, shall not be transferred under the provisions of this instruction.

15. Common Utility Plant

A. If the utility is engaged in more than one utility service, such as electric, gas, and street railway, and any of its utility plant is used in common for several utility services or for other purposes to such an extent and in such manner that it is impracticable to segregate it by utility services currently in the accounts, such property may, but only with the approval of the Commission, be designated and classified as "Common Utility Plant."

51 B. Utility plant designated as common utility plant shall be classified according to the detailed utility plant accounts appropriate for the property.

C. The utility shall be prepared to show at any time and to report to the Commission annually, or more frequently if required, and by utility plant accounts (301 to 392), the following: (1) The book cost of common utility plant, (2) the allocation of such cost the respective departments using the common utility plant, and (3) the basis of the allocation.

D. The depreciation, amortization, and depletion reserves of the utility shall be so segregation as to show the amount of each reserve applicable to the property classified as common utility plant.

E. The expenses of operation, maintenance, depreciation, amortization, and depletion of common utility plant shall be recorded in the accounts prescribed herein, but designated as common expenses, and the allocation of such expenses to the departments using the common utility plant shall be supported in the same manner as the allocation of the cost of such property.

16. Transmission and Distribution Plant

For the purpose of this system of accounts:

A. "Transmission system" means the land, structures, mains, valves, meters, boosters, regulators, tanks, compressors, and their driving units and appurtenances and other equipment used primarily for transmitting gas to a particular municipality or distribution system. The transmission system begins at the outlet side of the valve at the connection between the gathering lines or other source of supply and inlet to the transmission compressor station or other gathering terminals, and includes the equipment at such connection that is used to bring the gas to transmission pressure,

and ends at the inlet side of the equipment with meters or regulates the entry of gas into the distribution system. It does not include storage land or structures.

B. "Distribution system" means the mains which are provided primarily for distributing gas within a distribution area or for connecting two or more districts within a distribution area, together with land, structures (other than storage land and structures), valves, regulators, services, and measuring devices. The distribution system begins at the inlet side of the equipment which meters or regulates the entry of gas into the distribution system, and ends with, and includes, property on the customers' premises.

[Pages 52 to 171 omitted.]

1 **EXHIBIT NO. 76.—GAS PLANT, ADDITIONS AND RETIREMENTS, DEPRECIATION AND DEPLETION FOR THE YEAR ENDED DECEMBER 31, 1939, F. P. C. WITNESS DUNN**

WRITTEN STATEMENT

The Federal Power Commission, under date of October 14, 1938, issued an order of investigation into and concerning all rates, charges, classifications, rules, regulations, practices, or contracts of Hope Natural Gas Company. In accordance therewith, an examination of the accounts and records of Hope Natural Gas Company has been made and, as a result, this report on the 1939 plant additions and retirements and depreciation and depletion is submitted.

This report is a supplement to the original cost report and the depreciation and depletion report. It is submitted in order to show the effect of 1939 changes. The examiners did not make a detailed examination of the cost of additions and retirements, but did make such analysis as was necessary to group the property changes according to the depreciable and depletable classifications which are set forth in the exhibits as of December 31, 1938, and continued in this exhibit as set forth in Schedule No. 1.

SUMMARY OF PLANT CHANGES (EXCLUSIVE OF DISTRIBUTION PLANT)

Gas plant in service Dec. 31, 1938	$51,207,620.64
1939 plant additions	699,548.75
1939 plant retirements	(808,145.67)
Gas plant in service, Dec. 31, 1939	51,099,023.72
Balance in depreciation and depletion reserves as at Dec. 31, 1938	23,501,355.80
1939 provision—add	1,290,825.07
1939 net charge—deduct	(720,013.70)
Balance in depreciation and depletion reserves as at Dec. 31, 1939	24,072,167.17
Net original cost at Dec. 31, 1939	27,026,856.55

2 PLANT ADDITIONS—YEAR 1939

The gross increase in Fixed Capital assets during the year ended December 31, 1939, amounted to $1,179,896.75 which amount is shown by accounts, by Schedule No. 6. For purposes of applying the depreciation and depletion rates the amount of $694,469.97, representing the additions to Production, Transmission, and General Plant, excluding nondepreciable items, was used. This latter amount is shown, by accounts, in Column (b) of Schedule 1.

Beginning January 1, 1939, Hope Natural Gas Company changed an accounting policy it had followed consistently from the beginning of operations, a period of forty years, which practice concerns the capitalization of general administrative expenses. The company did not capitalize such costs prior to January 1, 1939.

During the year, 1939, an amount of $79,438.56 was transferred from general and administrative expenses and included in plant accounts. This amount was determined by applying the percentages shown below, as described in Statement F of Exhibit 20:

Payroll	1.2%
Purchasing	3.2%
General	5.9%
Land	3.1%
Property Purchased	¼ of 5.9%

The average rate for overheads on general construction expenditures, excluding leaseholds, is about 7.6% for the year 1939.

The examiners of accounts have not adjusted the general and administrative expenses capitalized in 1939.

An amount representing interest during construction has been capitalized by the company during the year 1939 and cred-
3 ited to an income account, Interest during Construction—Cr., in the amount of $7,355.85. (See Schedule No. 1 of Income Statement.)

PLANT RETIREMENTS—YEAR 1939

The retirements recorded during the year 1939 amounted to $1,001,162.11 which amount is shown, by accounts, in Column (e) of Schedule No. 6. Certain adjustments, set forth in Column (f), have been made by the examiners to the recorded retirements for the following reasons:

1. As a result of the physical inventory and original cost studies, certain unrecorded retirements were noted as of December 31, 1938. Such retirements were given effect to in the original cost exhibits

although not entered on the books until 1939. To avoid duplication such retirements are eliminated from the 1939 figures.

2. The original cost studies corrected the book cost of many items of property. The 1939 retirements were recorded at book cost and the examiners have made the necessary corrections to retire property at the adjusted original cost.

The above-mentioned examiners' adjustments are shown in Column (f) of Schedule No. 6. For purpose of computing 1939 depreciation expense, the amount of $807,938.44, representing retirements of Production, Transmission and General Plant, is used. This amount, by accounts, is shown in Column (c) of Schedule No. 1.

Depreciation and Depletion Provisions—1939

The annual expense for depreciation and depletion, for the year 1939, has been computed in the same manner as the expense for preceding years. Data on gas produced and remaining gas reserves are taken from the Geologists' report and service lives
4 are the same as those used in the report on Depreciation and Depletion as at December 31, 1938.

Details of depletion by production areas are shown in Schedules Nos. 2, 3, 4, and 5. Depreciation details are shown in Schedule No. 1.

Net Charges to Reserves—Year 1939

The reserve charges as shown in Column (g) of Schedule No. 1 and developed in Columns (b) and (c) of Schedule No. 1–A, are determined from two different sources, but are tied in with the net charges to the reserve as reflected by Company Statement, Schedule No. 7–A.

The Company statement sets forth the net charges to the reserve in the amounts and classifications as shown in Column (a) of Schedule No. 1–A.

Certain analyses were made, by the Federal Power Commission accountants, of the plant accounts and retirements for the property grouped under the classifications of Right-of-Way and Field Line Labor, Operated Acreage, Gas Well Construction, and Cost of Abandoning Gas Wells. The reserve charges as developed by these analyses were applied to those property classifications. The charges for Drilling and Cleaning Equipment were shown segregated in the Company statement and were so applied. The re-

maining charges to Production System Property have been allocated to the two classifications—Production System Structures, and Field Line Material and Station Equipment.

Schedule No. 7–A shows charges applicable to Gas Well Equipment in the amount of $233,958.91 which includes the cost of abandoning gas wells. Since the cost of abandoning gas wells has been separately provided for, the cost thereof in the amount of $75,324.15 is deducted from $233,958.91 to arrive at the charge for Gas Well Equipment, exclusive of the cost of abandoning gas wells, namely, $158,634.76.

The loss on property retired, as developed by the analysis of the plant accounts and retirement work orders, for the Gas Well Construction and Operated Acreage classifications is not exactly the same as shown by Schedule No. 7–A. This difference, shown in Column (d), Schedule No. 1–A, is due to the fact that certain retirement work orders, as far as the Company statement was concerned, remained in Account 144, Retirement Work in Progress.

Other charges shown by Company statement were grouped according to Transmission Plant, General Plant, and Other Property.

WASHINGTON, D. C. *April 16, 1941.*

EDWARD L. DUNN,
Edward L. Dunn,
Examiner in Charge of Field Assignment.

Approved:

W. E. BAKER,
W. E. Baker,
Chief Accountant.
CHAS. W. SMITH,
Chas. W. Smith,
Chief, Bureau of Accounts, Finance and Rates.

HOPE NATURAL GAS CO.

Summary of plant and depreciation and depletion reserves balances for the year ended Dec. 31, 1939

Particulars	Plant			Depreciation and depletion reserves					Net plant balances Dec. 31, 1939
	Balance Dec. 31, 1938	Year 1939		Balance Dec. 31, 1939	Balance Dec. 31, 1938	Year 1939		Balance Dec. 31, 1939	
		Additions	Retirements			Provision	Charges		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Natural gas production plant:									
R-of-W and field line labor	$4,267,881.05	$84,712.89	$40,273.36	$4,312,320.58	$2,434,126.44	$103,157.93	$40,096.30	$2,497,188.07	
Structures	212,327.73	4,333.00	6,267.13	210,393.60	93,311.05	8,813.75			
Field line material and station equipment	7,934,169.06	82,994.07	129,311.41	7,887,851.72	3,845,567.26	175,624.42	132,095.96	3,991,220.52	
Operated acreage	1,599,004.86		28,813.03	1,570,191.83	970,838.83	36,772.47	28,813.03	978,798.27	
Gas well equipment	7,610,509.75	76,995.59	219,386.61	7,468,118.73	4,382,702.79	188,482.85	158,634.76	4,412,550.88	
Gas well construction	4,089,477.71	104,109.66	105,098.05	4,088,489.32	1,100,153.63	182,755.43	105,098.05	1,177,811.01	
Cost of abandoning gas wells					2,107,261.03	69,813.58	75,324.15	2,101,750.46	
Drilling and cleaning equipment	595,692.71	83,223.81	53,902.56	625,013.96	351,654.75	18,374.78	35,005.81	335,023.72	
Total natural gas production plant	26,309,062.87	436,369.02	583,052.15	26,162,379.74	15,285,615.78	783,795.21	575,068.06	15,494,342.93	10,668,036.81
Transmission plant:									
Mains material, labor, and equipment	14,561,948.87	122,767.32	52,886.65	14,631,829.54	4,179,639.93	227,711.47			
Structures	1,456,865.28	4,215.70	2,159.89	1,458,921.09	495,831.25	36,447.33			
Compressor station equipment	7,683,671.99	46,909.83	93,283.52	7,637,298.30	3,103,818.57	196,108.42			
Total transmission plant	23,702,486.14	173,892.85	148,330.06	23,728,048.93	7,779,289.75	460,267.22	96,538.03	8,143,018.94	15,585,029.99

HOPE NATURAL GAS CO.—Continued

Summary of plant and depreciation and depletion reserves balances for the year ended Dec. 31, 1939—Continued

Particulars	Plant			Depreciation and depletion reserves					Net plant balances Dec. 31, 1939
	Balance Dec. 31, 1938	Year 1939		Balance Dec. 31, 1939	Balance Dec. 31, 1938	Year 1939		Balance Dec. 31, 1939	
		Additions	Retirements			Provision	Charges		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
General plant:									
Structures and improvements	225,887.78	4,476.78	11,762.16	218,602.40	66,712.87	4,822.72			
Office furniture and equipment	178,683.34	11,925.95	4,091.00	186,518.29	63,483.27	7,304.04			
Other equipment	115,988.50	9,276.59	14,208.61	111,056.48	22,371.23	4,052.74			
Communication equipment	248,975.74	8,872.60	10,914.72	246,933.62	178,731.69	9,546.27			
Transportation equipment	142,314.49	49,656.18	35,579.74	156,390.93	105,151.21	21,036.87			
Total general plant	911,849.85	84,208.10	76,556.23	919,501.72	436,450.27	46,762.64	48,407.61	434,805.30	484,696.42
Subtotal	50,923,398.86	694,469.97	807,938.44	50,809,930.39	23,501,355.80	1,290,825.07	720,013.70	24,072,167.17	26,737,764.42
Nondepreciable plant:									
Natural gas producing lands	3,319.84			3,319.84					
Other land and land rights	21,008.52		207.23	20,801.29					
Transmission land	162,912.21	900.00		163,812.21					
General plant land and land rights	96,981.21	4,178.78		101,159.99					
Total nondepreciable plant	284,221.78	5,078.78	207.23	289,093.33					289,093.33
Total gas plant in service (exclusive of distribution plant)	51,207,620.64	699,548.75	808,145.67	51,099,023.72	23,501,355.80	1,290,825.07	720,013.70	24,072,167.17	27,026,856.55

[Pages 7 to 17 omitted.]

HOPE NATURAL GAS COMPANY

Summary of depreciation and depletion reserves for the year 1939—per books

	Reserve accounts	Reserve balance Jan. 1, 1939	Additions			Deductions			Balance before merger Dec. 31, 1939	Acquired from Reserve Gas Co.	Balance Dec. 31, 1939
			Charged to expense	Other credits	Total	For property retired	Other debits	Total			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
250.1	Depreciation of utility plant	$39,912,414.89	[1] $1,200,000.00	[2] $43,677.45	$1,243,677.45	$721,300.58	$489,000.00	$1,210,300.58	$39,945,791.76	$3,971,346.43	$43,917,138.19
250.2	Amortization and depletion of producing natural gas lands and land rights	489,034.48	18,400.00	[3] 489,000.00	507,400.00	23,214.26		23,214.26	973,220.22	816,382.44	1,789,602.66
250.3	Abandoned leases	231,299.52				23,067.31		23,067.31	208,232.21	31,911.39	240,143.60
251	Amortization of other limited term utility investment	813.44	6,369.47		6,369.47				7,182.91		7,182.91
253	Amortization and depreciation of other property	80,456.25	6,631.20		6,631.20				87,087.45		87,087.45
258.6	Other reserves—Clarksburg Light & Heat Company	45,431.90	4,740.72		4,740.72				50,172.62		50,172.62
	Total	40,759,450.48	1,236,141.39	532,677.45	1,768,818.84	767,582.15	489,000.00	1,256,582.15	41,271,687.17	4,819,640.26	46,091,327.43

[1] Estimated on basis of Rhodes depreciation rates.

[2] Charged to clearing accounts.

[3] No depletion was set up for operated acreage prior to 1921, therefore the reserve is understated. The reserve for depreciation of utility plant (account 250.1) is thought to be overstated. To adjust the reserve account 250.2, a transfer of $489,000 was made to that account from account 250.1.

[Page 19 omitted.]

18 **EXHIBIT NO. 117.—UNIFORM CLASSIFICATION OF ACCOUNTS FOR NATURAL GAS COMPANIES PRESCRIBED BY THE PUBLIC SERVICE COMMISSION OF WEST VIRGINIA (1923)**

[Pages 1–17 omitted]

I. FIXED CAPITAL ACCOUNTS

100. Fixed Capital Installed Prior to January 1, 1923.

Charge to this account the book value, at the close of December 31, 1922, of all fixed capital owned and used by the utility in the conduct of its natural gas operations. No charge shall be made to this account for any fixed capital acquired after December 31, 1922.

When any item of fixed capital carried in this account is retired from service, credit to this account the amount at which it is carried herein, charge to the appropriate sub-account of "121. Materials and Supplies" account any salvage recovered from it; charge to "183. Depreciation Of Structures And Equipment Reserve" account the amount reserved from January 1, 1923, to provide for the loss suffered by it since that date from wear, tear, obsolescence, etc.; charge to the reserve account provided prior to January 1, 1923, the accumulated amount reserved at the close of December 31, 1922, to provide for like loss suffered by it; and charge either to "709. Amortization Unprovided For Elsewhere" or to "131. Property Abandoned" account, as the Public Service Commission may direct, the net loss sustained on it.

The charge to "131. Property Abandoned" account shall be made on the basis of the money cost of such fixed capital less the amount of salvage recovered therefrom and the amount reserved for depreciation thereof.

Any excess of the amount at which such retired fixed capital is carried in this account over its money cost shall be charged to "709. Amortization Unprovided For Elsewhere" account.

This account is a controlling account of the various accounts that were combined on January 1, 1923, to make it.

[Pages 19 to 144 omitted.]

EXHIBIT NO. 98.—PRINCIPAL PROPERTY PURCHASES, 1898–1938, AND HOW THESE PURCHASES WERE RECORDED IN THE COMPANY'S PLANT ACCOUNTS AT THE TIME OF PURCHASE, HOPE WITNESS ANTONELLI

PURCHASES FROM OTHER UTILITIES

Year	Vendor	Voucher No.	Purchase price	Property recorded in Hope's plant account as fol ws
(1)	(2)	(3)	(4)	(5)
1902	Flaggy Meadow Gas Company	M–44	$1,124,010.60	At purchase price.
1908	Lawrence Natural Gas Company	M–72	26,501.93	At purchase price (less $9,716.41 charged to expense).
1909	Columbia Gas Company	C–232	50,000.00	At purchase price (less $199.83 charged to expense).
	Greenwood Gas Company	G–33	7,500.00	At purchase price (less $855.67 charged to expense).
1910	Mountain State Gas Company	D–302	663,663.98	At vendor's book cost of $1,298,611.31. The difference between such cost and the purchase price (less $4,181.37 charged to expense) was added to Hope's depreciation reserve.
	Home Gas Company	J–371	75,000.00	At purchase price (less $1,886.79 charged to expense).
	Flint Natural Gas Company	M–561	8,100.00	At purchase price (less $6,124.65 principally for well drilling charged to expense).
	Fayette County Gas Company	G–353	600,000.00	At purchase price (less $130,586.75 principally for well drilling charged to expense).
1911	Burt Oil Company	G–429	7,500.00	At purchase price.
	Light Fuel & Power Company	M–413	16,038.88	At purchase price.
	Manufacturers Light & Heat Company	H–411	1,050,000.00	At purchase price (less $1,493.16 charged to expense).
1912	The Mt. Clare Gas Company	L–109	17,500.00	At purchase price.
1917	Rural Gas Company	M–368	45,000.00	At purchase price (less $8,386.61 charged to expense).
1921	Pittsburgh & West Virginia Gas Company	C–83 F–160 J–8	9,200.00	At purchase price (less $44.98 charged to expense).
1925	Keeners Oil, Natural Gas & Fuel Company	K–30	112,000.00	At purchase price.
1928	Light, Fuel & Power Company (Welwood)	C–226	90,000.00	At purchase price.
1929	Glenville Natural Gas Company	E–173	17,304.13	At purchase price.
	Godfrey L. Cabot, Inc	M–351	700,000.00	At purchase price.

EXHIBIT NO. 98.—PRINCIPAL PROPERTY PURCHASES, 1898–1938, AND HOW THESE PURCHASES WERE RECORDED IN THE COMPANY'S PLANT ACCOUNTS AT THE TIME OF PURCHASE, HOPE WITNESS ANTONELLI—Continued

PURCHASES FROM OTHER UTILITIES—Continued

Year	Vendor	Voucher No.	Purchase price	Property recorded in Hope's plant account as follows
(1)	(2)	(3)	(4)	(5)
1929	Clarksburg Light & Heat Company	F–280	$1,369,310.67	At vendor's book cost of $2,232,252.76. The difference between such cost and the purchase price was added to Hope's depreciation reserve.
1932	Pittsburgh & West Virginia Gas Company	B–12	17,000.00	At purchase price.
1934	Wak Company	M–250	35,000.00	At purchase price.
1936	Pittsburgh & West Virginia Gas Company	G–239	23,048.54	At purchase price.
2 1937	Cumberland & Allegheny Gas Company	K–32	8,217.78	At purchase price.
1938	Pittsburgh & West Virginia Gas Company	F–42	41,280.77	At purchase price.

PURCHASES FROM NONUTILITIES

1899	South Penn Oil Company	M–12	95,678.90	At purchase price.
1902	South Penn Oil Company	M–48	505,500.58	At purchase price (less $136,984.57 for well drilling charged to expense).
	The Carter Oil Company	M–262	330,399.03	At purchase price (less $170,346.63 for well drilling charged to expense).
1906	South Penn Oil Company	J–150	16,722.66	At purchase price (less $7,655.30 charged to expense).
1911	Freehold Oil & Gas Company	C–327	500,000.00	At purchase price (less $114.04 charged to expense).
	R. G. Gillispie	C–268	8,250.00	At purchase price (less $5,998.28 charged to expense).
	West Virginia—Ohio Gas Fuel Company	M–265	11,842.57	At purchase price.
1912	H. B. Hogg	F–230	7,500.00	At purchase price.
1914	Ernest Hutton	G–200	15,000.00	At purchase price.
1916	Morgansville Oil & Gas Company	A–330	10,000.00	At purchase price (less $51.56 charged to expense).
	Ross, Davisson & Chidester	K–180	40,000.00	At purchase price (less $5.24 charged to expense).
1917	Hill Oil & Gas Company	H–354	10,000.00	At purchase price (less $0.83 charged to expense).
	Crude Oil Company	J–112	93,848.46	At purchase price (less $2,752.16 charged to expense).
	Hill Oil & Gas Company	L–115	20,000.00	At purchase price (less $500.08 charged to expense).
	Mrs. Louise Hunt Reel, Admx	M–21	32,500.00	At purchase price.

	Matych & Wilkins	M–152	9,201.61	At purchase price (less $250.00 charged to expense).
	G. H. & J. E. Trainer	L–181	17,500.00	At purchase price (less $504.48 charged to expense).
1918	M. G. Sperry	L–147	16,000.00	At purchase price (less $2.73 charged to expense).
	E. A. Park	H–131	10,000.00	At purchase price.
	J. H. Edwards	J–339	14,500.00	At purchase price (less $2.92 charged to expense).
	Elk Fuel Company	D–128	9,000.00	At purchase price (less $3.88 charged to expense).
	Hiner Oil & Gas Company	D–143	10,000.00	At purchase price (less $5.46 charged to expense).
	Clarksburg Manufacturing Gas Company	A–122	16,000.00	At purchase price (less $530.32 charged to expense'
	Granville Kester	A–151	9,000.00	At purchase price.
	C. F. Moran	B–46	7,800.00	At purchase price.
1919	Marion Oil Company	M–217	7,297.13	At purchase price (less $13.28 charged to expense).
	Kanawha Oil Company	D–117	10,000.00	At purchase price (less $96.42 charged to expense).
1920	Crude Oil Company	F–130	42,410.44	At purchase price (less $4,433.26 for well drilling and $5,543.63 for P. &. L. Suspense charged to Expense).
1925	City of Parkersburg	M–277	10,000.00	At purchase price.
	Eastern Carbon Black Company	M–326	50,000.00	At purchase price.
	United Carbon Company	M–326	12,000.00	At purchase price.
	Shelton Gasoline Company	M–240	76,600.00	At purchase price.
1926	M. G. Sperry	J–65	9,000.00	At purchase price.
	Carter Oil Company	C–294 A–257	1,626,805.16	At vendor's book cost of $2,253,214.19. The difference between such cost and the purchase price was added to Hope's depreciation reserve.
1927	Grasseli Chemical Company	K–54	800,000.00	At purchase price.
1929	Oakland Oil & Gas Company	L–175	32,500.00	At purchase price.
	Norwood Glass Company	J–158	7,500.00	At purchase price.
1930	Anderson & Company—Worthy Marsh and J. W. Woodell	H–243	10,000.00	At purchase price.
	Thomas A. Whelan	L–194	30,000.00	At purchase price.
	Carnegie Natural Gas Company	G–226	13,627.19	At purchase price (less $6,470.41 for well drilling charged to expense).
1931	Midland Natural Gas Company	M–253	200,000.00	At purchase price.
1932	Midland Natural Gas Company	D–10	8,500.00	At purchase price.
1934	Godfrey L. Cabot, Inc	M–250	2,465,000.00	At purchase price.
	Hazel-Atlas Glass Company	K–171	52,000.00	At purchase price.
1936	H. F. McCue	M–288	12,750.00	At purchase price.
1938	Jacobs Property	G–185	25,987.00	At purchase price.
	Hamilton Gas Corporation	M–229	75,000.00	At purchase price.

4 **EXHIBIT NO. 73.—COMPARISON OF REPRODUCTION COST NEW OF LINE PIPE, AS OF DECEMBER 31, 1938, INCLUDED IN HOPE NATURAL GAS COMPANY'S EXHIBIT 16D, WITH ACTUAL LINE PIPE COSTS PREVAILING DURING THE YEAR 1939, F. P. C. WITNESS BODNER**

[Pages 1 to 3 omitted]

WRITTEN STATEMENT

Hope Natural Gas Company's Exhibit 16–D, pages 259–268, presents an estimate of the reproduction cost new of Account 353, Mains of Hope Natural Gas Company, as of December 31, 1938.

Pipe Costs

Exhibit 16–A, page 22, and the underlying working papers relating to the development of the unit costs for pipe lines, show that the prices for line pipe (and casing used as line pipe) contained in Exhibit 16–D, page 261, are based on manufacturers' quoted prices as of December 31, 1938, less ten percent large users' discount less two percent cash discount, with an additional deduction of ten percent of the net discounted price as an allowance obtainable on large tonnage purchases. (See also T. p. 738.)

The records of Hope Natural Gas Company (which are substantially in agreement with pipe quantities given in Exhibit 16–D, page 261) indicate that there are approximately 98,500 tons of plain-end steel lapweld line pipe and casing in transmission pipe lines of the company as of December 31, 1938 (exclusive of line pipe and casing used as protective casing).

5 Pricing of a large tonnage of steel pipe such as in the Hope Natural Gas Company system on a reproduction cost new basis involves the determination of prevailing prices for large quantity purchases of pipe. In view of this, the pipe costs experienced by natural gas companies that had large pipeline construction activity were used as the basis for this exhibit.

During the year 1939 major gas pipeline projects were constructed by a number of natural gas companies. Several of these companies have submitted to the Commission, upon request, com-

plete data concerning the quantity and type of pipe purchased and the prices paid therefor. Copies of purchase orders and copies of typical invoices for steel line pipe purchased for major gas pipeline construction during the year 1939 were furnished by Northern Natural Gas Company, United Gas Pipe Line Company, El Paso Natural Gas Company, Michigan Gas Transportation Corporation; and a sworn statement of transmission line costs was filed by Louisiana-Nevada Transit Company. These data are available in the working papers underlying this exhibit.

The information furnished by these five natural gas companies for pipe sizes 8⅝" O. D. to 24" O. D. was analyzed and summarized. The purchases so summarized covered more than 625 miles of line pipe, with a total weight of approximately 64,000 tons, and a cost of approximately $2,750,000. Practically
6 all this pipe was double random lengths varying between 30 to 49 feet per joint. All of this pipe was either seamless or electric-weld line pipe and the prices were higher than the price of new lapweld pipe. Lapweld pipe has been used in practically all of the transmission pipelines of the Hope Natural Gas Company system.

The pipe information compiled on the 1939 purchases made by the five companies was grouped on a weighted average basis into the following classifications:

1. Pipe with a diameter of 10¾" O. D. to 24" O. D.
2. Pipe with a diameter of 8⅝" O. D.

The first classification is based on the fact that United Gas Pipe Line Company purchased approximately 21,500 tons of seamless steel pipe, in sizes varying from 10¾" O. D. to 22" O. D. at a single price of $43.00 per ton at Lorain, Ohio, at the time it built its Monroe-Jackson line.

The weighted average price of the approximately 57,200 tons of seamless and electric weld line pipe of the first classification (10¾" O. D. to 24" O. D.), purchased by the companies studied is $42.63 per ton net f. o. b. Lorain, Ohio. The weighted average price of approximately 7,200 tons of seamless and electric weld line pipe of the second classification (8⅝" O. D.) purchased
7 by these companies is $48.98 per ton net f. o. b. Lorain and Youngstown, Ohio. The prices paid for the different sizes of pipe vary from a minimum of $39.20 per ton net f. o. b. Lorain, paid by Michigan Gas Transmission Corporation for approximately 1,750 tons of 24" O. D. pipe, to a maximum of $64.30 per ton net f. o. b. Lorain, paid by Northern Natural Gas Company

for about 95 tons of 20″ O. D. pipe. The weighted average prices developed, therefore, reflect purchases in both small and large amounts, but are influenced primarily by the large tonnage purchases.

The publication, "The Iron Age" shows that the published prices for lapweld steel pipe f. o. b. Pittsburgh District and Lorain, Ohio, mills, remained the same during the period from July 1, 1938, through December 31, 1939, and into part of 1940. According to the written statement of Mr. G. I. Rhodes (page 14 of Exhibit 16–A) the level of material prices during the winter of 1938–1939, which he used, remained substantially the same through the early part of 1940. In view of this it is considered that the prevailing actual prices for steel line pipe during the year 1939 may properly be compared with the quoted prices used in the Hope Natural Gas Company's estimate of reproduction cost new as of December 31, 1938.

This exhibit compares the net quoted prices of line pipe f. o. b. (Pittsburgh District, Youngstown or Lorain) mill as included in Hope Natural Gas Company's Exhibit 16–D, page
8 261, with the weighted average actual purchase price of seamless and electric-weld steel line pipe developed from the purchase records of the five natural gas companies previously mentioned.

The weighted average actual purchase prices of seamless and electric-weld steel line pipe used in compiling the data in this exhibit have not been reduced for the purposes of this exhibit to a price for lapweld steel line pipe, even though it is known that lapweld steel line pipe costs less per ton than comparable seamless and electric-weld steel line pipe. Had such price differential been considered in this exhibit, the comparison would show a greater difference between quoted and actual prices than has been reflected.

9 CONCLUSION

The Hope Company's net quoted price f. o. b. McKeesport, Youngstown, or Lorain (or other parts of Pittsburgh District), for plain end steel line pipe as of December 31, 1938, included in Exhibit 16–D, page 261, is substantially higher than the prices paid for similar steel line pipe by the five natural gas companies previously mentioned. This price difference is shown in detail on Table 1 and can be summarized as follows:

Description	*Line pipe*
1. Hope Company's net total quoted price f. o. b. mill McKeesport, Youngstown, or Lorain (or other parts of Pittsburgh District)	$5,667,158
2. F. P. C. net total cost f. o. b. Youngstown and Lorain	4,207,705
3. Difference	1,459,453
4. Percent difference	34.69

Signed MICHAEL J. BODNER,
Michael J. Bodner.

Date, March 24, 1941, Washington, D. C.

[Pages 10 to 11 omitted.]

1 **EXHIBIT NO. 73-A.—COMPARISON OF UNIT REPRODUCTION COST NEW PER FOOT FOR THE INSTALLATION (INCLUDING ALL OVERHEADS) OF LINE PIPE USED IN "REPRODUCTION COST NEW OF COMPANY PROPERTIES AS OF DECEMBER 31, 1938" WITH ACTUAL AVERAGE UNIT COSTS AS EXPERIENCED BY HOPE NATURAL GAS COMPANY AND ANOTHER COMPANY DURING YEARS 1937, 1938, 1939, AND 1940, F. P. C. WITNESS BODNER**

WRITTEN STATEMENT

INTRODUCTION

This exhibit presents a comparison of the Reproduction Cost New Unit Cost per Foot as of December 31, 1938, for the Installation of new steel line pipe (and casing used as line pipe), sizes $1\frac{5}{16}''$ O. D., $1\frac{29}{32}''$ O. D. to 16" O. D. included in Company's Exhibit 16–C, pages 107 and 108, Exhibit 16–D, pages 260 and 261, together with Exhibit 16–A, page 35 (showing the undistributed construction costs) with Actual Costs experienced by the Hope Natural Gas Company and the Manufacturers Light & Heat Company, during years 1937, 1938, 1939, and 1940.

Actual pipe line installation costs for the years 1937, 1938, 1939, and 1940 were used in this exhibit for the reason that cost of the pipeline installations just preceding and subsequent to the date of the Company's claimed valuation would be expected to compare most closely with the costs that would be expected to be incurred on date of the estimated reproduction cost valuation submitted by the Company in these proceedings.

2 The cost of installation of pipelines as referred to in this exhibit includes the total cost for all of the Components of Construction Cost for pipelines exclusive of the direct material cost of pipe, couplings, fittings, valves and such materials which remain as a part of the completed construction. Being the cost of construction, it does not contain any costs applicable to the lands or land rights utilized by the pipeline.

Company Exhibit 16A, at pages 22, 23, 24, 25, 29, 30, and 31, the transcript of the oral testimony of Mr. George I. Rhodes at

pages 635, 636, 637, 638, and 730, and the underlying working papers supporting the computation of the average unit installation cost for pipelines, indicate that such units in Exhibit 16C, at pages 107 and 108 for Account 333–1, Field Lines, Exhibit 16D, at pages 260 and 261 for Account 353, Mains, and Exhibit 16A, at page 35 showing additional expenditures related to undistributed construction costs, are not derived from actual pipeline installation costs experienced by the Hope Natural Gas Company translated to reflect costs prevailing during the period of the claimed valuation. An inspection of the working papers
3 underlying these unit costs does not disclose that such costs are derived from or may be related to the installation of any gas pipelines anywhere. Also the Company has not made available for examination any analyses reflecting actual costs of construction of any gas pipelines upon which those costs may have been based or predicated. In addition, no studies showing the derivation of the labor performances, the supervision or the overhead percentages adopted by the Company for any of the components of the installation cost of steel line pipe have been made available.

METHOD

The installation costs for $1\frac{5}{16}$" O. D., $1^{29}\frac{}{32}$" O. D. to 16" O. D. steel line pipe as contained in the 1938 "Reproduction Cost New" estimate of Mr. Rhodes for the Company have been analyzed and are presented in this exhibit in such manner that a direct comparison may be made between the unit cost included in his estimate and the actual costs experienced by the Hope Natural Gas Company and another company. For the purpose of this exhibit it has been unnecessary to consider the composition of the unit costs or relative proportions of the several com-
4 ponents entering into the total cost determined for each size and kind of pipe, but only to segregate the material cost from the installation cost in accordance with the definition given above. Tables 3 and 4 in this exhibit explain the details of the method used in developing the total unit installation costs of steel line pipe included in Mr. Rhodes' Reproduction Cost New estimate in order to make a direct comparison of such units with actual costs.

Actual installation costs and line pipe lengths for the laying of new field and transmission pipelines has been obtained from three sources and are included in this exhibit as follows:

(a) Installation cost data for all new pipelines ($1\frac{5}{16}$" O. D. to 16" O. D.) installed in 1937 and 1938 (completed in 1937 and 1938) by the Hope Natural Gas Company were transcribed from the construction cost analyses of the Commission accounting examiners as determined in their study of the "Original Cost of Gas Plant as of December 31, 1938." The pipe footages for the pipelines were transcribed from the equipment cost analyses of the Commission accounting examiners as determined in the above-mentioned exhibit.

5 (b) Installation cost data for all new lines installed in 1939 and 1940 by Hope Natural Gas Company were taken from the closed construction work orders made available by the Company. All costs shown in those work orders, exclusive of direct cost of pipe, valves, fittings, and other materials remaining a part of the completed construction and classified by the Company as equipment cost, were included as installation costs. The pipe footage data were transcribed from the same closed work orders and included the pipe lengths shown for the corresponding direct material costs of pipe.

(c) Installation cost data for all new lines installed between March 1938 and December 1940 by Manufacturers Light & Heat Company in the State of West Virginia were copied from the closed construction work orders of that company made available upon request. The installation costs included all of the costs of construction, exclusive of the direct cost of the pipe, fit-

6 tings, valves and other materials remaining as a part of the completed construction, and of course, exclusive of the cost of lands and rights-of-way acquired for the construction of the lines. The pipe footages were transcribed from the same closed work orders and included the pipe lengths shown for the corresponding direct material costs of pipe.

Some of the materials used in the construction of the pipelines analyzed for this exhibit were secondhand or reused materials recovered from previously constructed lines. Although the cost of installation of pipelines using such secondhand materials would be expected to be greater than that which would be incurred using new materials, this fact has not been reflected in this exhibit.

Replacement and line extension jobs have been omitted in this comparison study to avoid the possibility that costs relating to such construction might be distorted by reason of the character of the work.

In determining the actual costs applicable to the installation of minor footages of line pipe of diameter other than the principal diameter involved in the particular job, an amount was
7 segregated for such footage on the basis of the weighted average installation cost experienced in the period by each company for all of the jobs installed of that single diameter. These costs segregated for the minor footages of pipe were then grouped with those lines of the same diameter.

In determining the footage of pipeline installed, certain quantities of pipe of diameters less than $1\frac{5}{16}$" O. D. (used possibly as gauge lines) and minor footages of $8\frac{1}{4}$" and 10" pipe (probably used as protective casing) charged to the job and included in the cost of the pipeline were omitted. Consequently the actual installation costs per foot developed in this exhibit and used for purposes of comparison are higher than would have been reflected, had these additional footages been considered in arriving at the average actual unit costs. Also a considerable portion of the installation cost data obtained from the Manufacturers Light & Heat Company was for the installation of plain-end line pipe in welded pipelines, the installation costs of which are generally higher than the Dresser coupled pipelines of the Hope Company with which they are compared in columns 9 and 11 of Table 1 in this exhibit.

8 The actual average unit installation costs per foot shown in this exhibit are derived from a consideration and combination of costs for both screw-end and plain-end pipeline construction. Separate actual unit installation costs were not determined for these two classes of construction for the records did not indicate the complete information necessary for such a determination. The records of both the Hope Natural Gas Company and the Manufacturers Light & Heat Company did not segregate the exact footage of plain-end pipe laid as Dresser coupled pipeline from that laid as welded pipeline nor did they specify in all instances whether the pipe used was plain-end or screw-end pipe.

The installation costs for all drip assemblies installed by Hope Natural Gas Company during the years 1937 and 1938 in the pipelines included in this exhibit have been included with the construction cost of the pipeline. The installation costs applicable to drip assemblies are included separately as an additional cost in the Company's Reproduction Cost New estimate. (See transcript of testimony of Mr. Rhodes at pages 732 and 733.)

Had the actual installation costs pertaining to the drip assemblies been determined separately in this exhibit and the amounts applicable thereto deducted from the total installation cost of the pipeline, there would have resulted a lower installation cost per foot for the steel line pipe.

The compilation of actual cost data for new pipeline construction has included all jobs (for $1\frac{5}{16}''$ O. D., $1^{29}\frac{}{32}''$ O. D. to 16" O. D. pipe) whether large or small, but even in the aggregate the footage does not accumulate to a project the size of that which would be encountered were the properties of Hope Natural Gas Company actually being reconstructed. There are savings incident to a large construction project which are not reflected in this exhibit, because the Company experience in pipeline construction cost is piece-meal.

The inclusion of the additional amounts, claimed by the Company above the "Original Cost of Gas Plant as of December 31, 1938" determined by the Commission accounting examiners for new lines constructed in 1937 and 1938 by Hope Natural Gas Company, would reduce the percentage difference shown in this exhibit on an average of approximately 10%. These Company claims are not considered in this exhibit, but are mentioned to show that if such amounts had been included, still there would be a large remaining difference between the installation costs per foot in Reproduction Cost New estimate and actual experienced costs plus such claimed amounts.

The actual installation cost data compiled from the construction costs analyses (for period 1937 and 1938) as determined by the Commission accounting examiners in their study of the "Original Cost of Gas Plant as of December 31, 1938" of the Company and the closed construction work orders of Hope Natural Gas Company and of Manufacturers Light & Heat Company was analyzed and summarized. The installation costs so summarized covered more than 135 miles of pipeline construction at an installation cost of approximately $304,000.00. The data transcribed from the several records of Hope Natural Gas Company and the Manufacturers Light & Heat Company, together with the development of the data presented in this investigation, are all available from the working papers underlying this exhibit.

CONCLUSIONS

As a result of this investigation, Table 1 shows the comparison of estimated reproduction cost new unit cost per foot for the installation of steel line pipe (and casing used as line pipe)
11 of $1\frac{5}{16}''$, $1\frac{29}{32}''$ to 16″ outside diameters, as included in the Reproduction Cost New of Company Properties as of December 31, 1938, with actual costs as experienced by the Hope Company and another company during the years 1937, 1938, 1939 and 1940. The figures in columns (8) and (10) are differences determined by comparing the unit installation costs per foot for screw-end pipe, or the highest unit installation costs for pipe sizes over $4\frac{1}{2}''$ O. D. as included by the Company in their reproduction cost new estimate, with the actual installation costs as experienced by the two companies. The figures in columns (9) and (11) are likewise differences determined by comparing the unit installation costs per foot for plain-end Dresser-coupled pipe, or the lowest unit installation costs for pipe sizes over $4\frac{1}{2}''$ O. D. as included by Mr. Rhodes in his estimate, with the actual installation costs as experienced by Hope Natural Gas Company and Manufacturers Light & Heat Company.

Table 2 shows the actual weighted average installation cost per foot of steel line pipe (and casing used as line pipe) derived from actual construction costs experienced by Hope Natural Gas Company and Manufacturers Light & Heat Company.

Table 3 shows the development of installation costs per
12 foot for lapweld screw-end steel pipe (and casting used as line pipe) as reflected in Mr. Rhodes' reproduction cost new estimate.

Table 4 shows the development of installation costs per foot for lapweld plain-end Dresser-coupled steel line pipe as included in Mr. Rhodes' estimate of reproduction cost new.

It is manifest from this comparison study that the Company's estimate of pipeline unit installation cost, contained in its Reproduction Cost New exhibit, is strikingly higher than such cost actually experienced by the Hope Natural Gas Company and the Manufacturers Light & Heat Company for recent pipeline construction.

(Signed) MICHAEL J. BODNER.
Michael J. Bodner.

Date: April 16, 1941, Washington, D. C.

TABLE 1.—HOPE NATURAL GAS COMPANY, G–113

Comparison of reproduction cost new unit cost per foot for installation of line pipe (including all overheads on material and labor) as included in reproduction cost new of company properties as of December 31, 1938, with actual costs as experienced by the company and others during years 1937, 1938, 1939, and 1940

Diameter (inches)		Weight per foot (pounds)		R. C. N. labor cost per foot (including all overheads on material and labor)		Weighted average actual labor cost per foot (including all overheads on material and labor)	Difference		Percent difference	
							Screw-end pipe	Plain-end pipe	Screw-end pipe	Plain-end pipe
Outside	Nominal	Screw end	Plain end	Screw-end pipe	Plain-end pipe		(5)−(7)	(6)−(7)	(8)÷(7)×100	(9)÷(7)×100
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1 5/16	1	1.70	1.67	$0.140		$0.173	*0.033*		*19.1*	
1 29/32	1½	2.75	2.71	.171		.318	*.147*		*46.2*	
2⅜	2	3.75	3.65	.299	$0.356	.140	.159	$0.216	113.6	154.3
3½	3	7.70	7.57	.466	.509	.234	.232	.275	99.1	117.5
4½	4	11.00	10.79	.568	.560	.361	.207	.199	57.3	55.1
5¼	4⅞ "A"	10.00		.726			.365		101.1	
5 9/16	5	15.00	14.61	.760	.701	.355	.405	.346	114.1	97.5
5½	5 3/16 "A"	13.00	13.00	.746	.691		.391	.336	110.1	94.6
6	5⅝ "A"	20.00		.793			.438		123.4	
6⅝	6	19.45	18.97	.919	.821	.454	.465	.367	102.4	80.8
6⅝	6¼ "A"	17.00	17.00	.902	.809		.448	.355	98.7	78.2
7	6⅝ "A"	17.00	17.00	.902	.809		.448	.355	98.7	78.2
7	6⅝ "A"	20.00	20.00	.922	.827		.468	.373	103.1	82.2
8⅝	8		22.36		1.014	.835		.179		21.4
8⅝	8	25.55	24.69	1.219	1.023		.384	.188	46.0	22.5
8⅝	8		27.74		1.041			.206		24.7
8⅝	8	29.35	28.55	1.243	1.045		.408	.210	48.9	25.1
8⅝	8¼ "A"	24.00	24.00	1.209	1.020		.374	.185	44.8	22.2

TABLE 1.—HOPE NATURAL GAS COMPANY, G–113

Comparison of reproduction cost new unit cost per foot for installation of line pipe (including all overheads on material and labor) as included in reproduction cost new of company properties as of December 31, 1938, with actual costs as experienced by the company and others during years 1937, 1938, 1939, and 1940—Continued

Diameter (inches)		Weight per foot (pounds)		R. C. N. labor cost per foot (including all overheads on material and labor)		Weighted average actual labor cost per foot (including all overheads on material and labor)	Difference		Percent difference	
Outside	Nominal	Screw end	Plain end	Screw-end pipe	Plain-end pipe		Screw-end pipe	Plain-end pipe	Screw-end pipe	Plain-end pipe
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
10¾	10		22.86		$1.285			$0.759		144.3
10¾	10		28.03		1.317			.791		150.4
10¾	10	32.75	31.20	$1.619	1.324	$0.526	1.093	.798	207.8	151.7
10¾	10	35.75	34.24	1.638	1.341		1.112	.815	211.4	154.9
10¾	10	41.85	40.48	1.677	1.376		1.151	.850	218.8	161.6
12¾	12		29.27		1.541			.506		48.9
12¾	12		41.51		1.600			.565		54.6
12¾	12	45.45	43.77	2.015	1.617	1.035	.980	.582	94.7	56.2
12¾	12	51.15	49.56	2.052	1.650		1.017	.615	98.3	59.4
13	12 ½"A"	50.00		2.044			1.009		97.5	
16			42.05		2.042			.867		73.8
16			52.35		2.098	1.175		.923		78.6
16		65.30	62.57	2.854	2.162		1.679	.987	142.9	84.0

NOTES.—Data in italic figures denote deficit.
"A" denotes casing.
Data in columns (1) to (4) taken from exhibit 16 C, pp. 107 and 108, and exhibit 16 D, pp. 260 and 261.
Data in column (5) taken from column (3) of p. 15.
Data in column (6) taken from column (3) of p. 16.
Data in column (7) taken from column (13) of p. 14.

TABLE 2.—HOPE NATURAL GAS COMPANY, G–113

Tabulation showing the weighted average labor cost per foot for installation of steel line pipe including all overheads on material and labor

[Actual costs for laying new lines experienced by Hope Natural Gas Company for years 1937 to 1940 and by Manufacturers Light and Heat Company from March 1938 to December 1940]

Pipe size	Hope Natural Gas Co., 1937 and 1938 [1]			Hope Natural Gas Co., 1939 and 1940 [2]			Manufacturers Light & Heat Co., March 1938 to December 1940 [2]			Total		
	Feet installed	Total labor cost (including all overheads on material and labor)	Weighted average labor cost per foot (3)÷(2)	Feet installed	Total labor cost (including all overheads on material and labor)	Weighted average labor cost per foot (6)÷(5)	Feet installed	Total labor cost (including all overheads on material and labor)	Weighted average labor cost per foot (9)÷(8)	Feet installed (2)+(5)+(8)	Total labor cost (including all overheads on material and labor) (3)+(6)+(9)	Weighted average labor cost per foot (12)÷(11)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1"	324	$18.35	$0.057	3,028	$561.13	$0.185				3,352	$579.48	$0.173
1½"	1,724	637.30	.370	6,830	2,081.78	.305				8,554	2,719.08	.318
2"	93,095	10,264.57	.110	77,197	13,550.79	.176	18,168	$2,560.68	$0.141	188,460	26,376.04	.140
3"	59,503	11,342.39	.191	28,176	9,091.91	.323	230	96.71	.420	87,909	20,531.01	.234
4" & 4⅝"	22,547	5,611.36	.249	30,259	13,487.65	.446	13,920	4,996.38	.359	66,726	24,095.39	.361
5", 5¾6" & 5⅝"	42,309	12,837.82	.303	37,643	15,403.20	.409	1,610	702.92	.437	81,562	28,943.94	.355
6", 6¼" & 6⅝"	75,508	28,050.50	.371	50,512	29,077.21	.576	1,233	672.30	.545	127,253	57,800.01	.454
8" & 8¼"	4,065	3,512.27	.864	2,431	1,883.82	.775	75	91.21	1.216	6,571	5,487.30	.835
10"	39,013	20,329.68	.521				276	328.21	1.189	39,289	20,657.89	.526
12"				51,997	53,808.70	1.035				51,997	53,808.70	1.035
16"	53,858	63,272.27	1.175							53,858	63,272.27	1.175
Total	391,946	155,876.51		288,073	138,946.19		35,512	9,448.41		715,531	304,271.11	
Miles	74.2			54.6			6.7			135.5		

[1] Obtained from adjusted book costs for Hope Natural Gas Company, for years 1937 and 1938 (as determined by F. P. C. accounting examiners).

[2] Obtained from closed construction work orders.

[Pages 15 to 16 omitted.]

1 **EXHIBIT NO. 74.—REPORT ON THE "ORIGINAL COST" TRENDED TO 1938 PRICES OF THE PLANT OF HOPE NATURAL GAS COMPANY EXISTING AT DECEMBER 31, 1938, F. P. C. WITNESS GOUGH**

[Pages I to V omitted]

The subject of this report is the trending of the Original Cost of the plant of Hope Natural Gas Company existing at December 31, 1938, presented as evidence in this proceeding by Mr. Peter Antonelli of the firm of Ford, Bacon & Davis, Inc., on behalf of the company, in Exhibit No. 20. The trending, which is made to 1938 prices, involves thirty-two plant accounts of the company with an original cost per books of $52,730,665, that was revised to $69,735,637, and then trended to $105,101,912. The purpost in examining the trending was to learn exactly by what means it was effected and to ascertain whether the results obtained were in any sense an indication of the fair value of the company's property.

The problem of investigating the trending was attacked by means of a close study of several of the larger accounts. This approach proved preferable to an examination of all plant accounts for it made feasible an extensive study of the important few. Pursuant to this plan, basic data underlying Exhibit No. 20, chiefly as they relate to the three largest accounts, were analyzed. This procedure provided material with which
2 the results of the trending process could be tested and interpreted and, it provided that material from the very source from which the trended results themselves were obtained.

The results of the examination led to the positive conclusion that the methods and processes used in the trending are without merit and that the amount of $105,101,912 developed and set forth in Exhibit No. 20 as the product of that trending should in nowise serve as a criterion for the purpose of determining the fair value of the plant of Hope Natural Gas Company.

To aid in the presentation of the subject matter of this report, the analyses and interpretations of the plant accounts are preceded by a section entitled "Exhibit No. 20," which is a general exposition of the method of trending used in that Exhibit.

EXHIBIT No. 20

Exhibit No. 20 presents a revision of the Original Cost of the plant of Hope Natural Gas Company as at December 31, 1938, and a trending of that revised cost to 1938 prices. By the revision, the Original Cost of plant per the company's books amounting to $52,730,665 was raised to $69,735,637 and by the trending that $69,735,637 was raised to $105,101,912. This report deals only with the trending, by means of which the revised Original Cost was increased $35,366,275; it does not take
3 up the matter of the revision of Original Cost. That question and the question of whether the dollars of Original Cost as revised have been properly assigned to the years when the property they represent was installed are separate and apart from the subject of this report.

Reference in this report to Original Cost unless otherwise clearly indicated by the context is to Original Cost as revised in Exhibit No. 20.

The Method of Trending.

The purpose of trending the Original Cost of the company's plant as revised was to determine how much it would cost to build the company's properties existing at December 31, 1938, on the assumption that that property would be built just as it actually was built, at present price levels (1938 prices) (T. 1537). This supposition, implying the slower, more laborious construction methods of the past priced on a time basis, at the higher wage-rates of 1938, and the lower material costs of yester-year priced at 1938 levels, was bound to produce a trended cost much greater in amount than the Original Cost, and it did. The Original Cost of all but one of the company's thirty-two plant accounts was trended higher, and the trending of the exception reduced its Original Cost only $3,583, or less than one percent. The over-all effect of the trending as indicated above produced an amount 50 percent greater than the amount of Total Original Cost as revised.

4 The method by which the trending was accomplished may be said to consist of three steps. They are the division of the Original Cost of each account into the documents thereof representative of the plant installed in each year; the development of a series of trend factors for each account, one for each year; and the translation of Original Cost into what is purported to be its 1938 equivalent, by means of the trend factors. The

first step, as indicated on page 3 above, is not treated in this report and the third step, since it is merely a mathematical calculation accomplished by dividing Original Cost by the trend factors, requires as such, no comment. The second step, the development of the trend factors, is the point of scrutiny and only upon the development of these factors and the implications in their use does this report focus attention. The effect of the application of the trend factors upon all of the company's accounts is most readily perceived from a review of Statement B of Exhibit No. 20 which contains a summary of the trending of all these accounts.

The Trending by Accounts.

Statement B (pp. 31–32, Exhibit No. 20) reveals that $35,098,442, or more than 99 percent of the total excess of Original Cost Trended over Original Cost amounting to $35,366,275, is to be found in eight of the thirty-two plant accounts trended and, moreover, that these eight accounts include more than 90 percent of the Original Cost that was trended. The amounts for these accounts, taken from Statement B, are enumerated in Table 1 which follows.

5 TABLE 1.—*Original cost trended, original cost and excess of original cost trended over original cost of the eight largest plant accounts and of all plant accounts as at Dec. 31, 1938.*

Name of account	Original cost trended (Exhibit No. 20)	Original cost (Exhibit No. 20)	Excess of original cost trended over original cost
Producing gas wells:			
Construction	$34, 384, 320	$17, 783, 637	$16, 600, 683
Equipment	10, 663, 983	8, 168, 191	2, 495, 792
Field lines:			
Construction	7, 038, 970	4, 076, 871	2, 962, 099
Equipment	10, 505, 272	8, 279, 885	2, 225, 387
Mains:			
Construction	9, 684, 569	5, 266, 108	4, 418, 461
Equipment	13, 360, 169	10, 225, 450	3, 134, 719
Compressor station structures	2, 498, 445	1, 811, 605	686, 840
Compressor station equipment	11, 536, 567	8, 644, 011	2, 892, 556
	99, 672, 298	64, 255, 760	35, 416, 538
Less: Property in the 8 accounts listed above that is used to transport coke-oven gas	1, 100, 075	781, 979	318, 096
Portion of total plant (exclusive of property used to transport coke-oven gas) included in the 8 accounts listed above	98, 572, 223	63, 473, 781	35, 098, 442
Total plant (exclusive of property used to transport coke-oven gas)	105, 101, 912	69, 735, 637	35, 366, 275

Source: Statement B, Exhibit No. 20.

6 Of the eight accounts listed in Table 1, three, namely, the Gas Well, Field Lines, and Mains Construction accounts consist almost entirely of labor costs; three, namely, the Gas Wells, Field Lines, and Mains Equipment accounts consist almost entirely of material costs; and two, Compressor Station Structures and Compressor Station Equipment consist of both labor and material costs. The amounts in the tabulation clearly indicate that the three Construction accounts were trended relatively much higher than the three Equipment accounts for the same classes of property. The increase in the Construction accounts by trending was 89 percent, while the increase in the Equipment accounts was only 29 percent. The excess of Original Cost Trended over Original Cost for the three Construction accounts amounting to $23,981,243 comprises about two-thirds of the excess of all thirty-two accounts, amounting to $35,366,275.

Three of the eight plant accounts listed in Table 1 were chosen for detailed study: Producing Gas Wells—Well Construction, Mains—Construction, and Mains—Equipment. They were selected because they constitute the largest Construction and Equipment accounts and represent in themselves a large part of total plant. Combined they contain nearly one-half of all Original Cost that was trended and embrace $24,153,863 of the total Excess of Original Cost Trended over Original Cost. A section of this report is devoted to each of them.

7 PRODUCING GAS WELLS—WELL CONSTRUCTION

The Producing Gas Wells—Well Construction Account is of outstanding importance in this examination because it is the largest of the company's plant accounts and was trended to an amount greatly in excess of the Original Cost of the property it represented. From an Original Cost of $17,783,637, it was trended to $34,384,320, an amount $16,600,683 or 93 percent in excess of that Original Cost. The trending was done by the application of factors based entirely on wage-rates. Charges to the account consist of the labor cost of drilling wells and other costs incident to that operation, such as teaming, rig-costs, and torpedoes.

Two studies of this account were made: an analysis of well drilling costs and an analysis of Original Cost as shown in Exhibit No. 20. The analysis of well drilling costs covers the years 1904–15, and 1938, and the analysis of Original Cost, the years,

1896–1900, 1911–15, 1937, and 1938. In both studies the ratio that the costs of earlier years bear to the costs of 1938 were developed and compared with the trend factors used in Exhibit No. 20.

Since well drilling costs constitute the major part of all costs charged to the Well Construction Account, the studies to the extent that they cover the same years may be said to be a duplication,

8 and in a sense they are. Both were undertaken so that comparisons from two sets of data might be made. Results for the years 1911–15, which are the years covered by both studies, are similar, as might be expected. The well drilling costs per foot for that period were 59.6 percent of those costs for the year 1938 and the corresponding ratio developed from the analysis of Original Cost was 60.0 percent. The proximity of these percentages indicates a close correlation between the cost per foot for drilling and the cost per foot for all charges applicable to the account.

The Original Cost of Well Construction like the Original Cost of all other plant accounts trended in Exhibit No. 20 was divided into the amounts thereof installed in each of the years during the period in which the plant that it represents was built. For Well Construction this period extends back forty-eight years, from 1938 to 1891, and part of the Original Cost of that account was installed in every one of those years. To each of these forty-eight subdivisions of the Original Cost of Well Construction a trend factor was applied to convert it into what purported to be its 1938 equivalent. This application and the resultant Original Cost Trended are shown on pages 66 and 67 of Exhibit No. 20. The conversion was accomplished simply by dividing each yearly amount of Original Cost by its trend factor.

The Development of the Trend Factors.

The factors used to trend Well Construction in Exhibit No. 20

9 for the years prior to 1906 were derived from the hourly wage-rates for Common Laborers, the only wage-rates available for those years, and for the years 1906 to 1938 from the hourly wage-rates for Drillers and Tool Dressers weighted equally, one and one. The wage-rates are those paid by the company (See pp. 55–6, Exhibit No. 20). For example, the trend factor of 38.2 which was used to trend Original Cost installed in 1911 is a composite of one-half the sum of 39.96 and 36.49, the trend ratios for Driller and Tool Dresser, respectively, for 1911. These ratios are the percent which the 1911

hourly wage-rates of Driller and Tool Dresser bear to their 1938 wage-rates.

Since the trend factors of Exhibit No. 20 are really the ratios that the hourly wage-rates of early years bear to the hourly wage-rates of 1938, the division of the amount of Original Cost by them, which is carried out in that Exhibit, translates that Original Cost into the amount the property would have cost to construct had it been installed in the number of hours in which it actually was installed, paid for at the hourly wage-rates prevalent in 1938. Virtually the resultant Original Cost Trended is the product of the hourly wage-rate of 1938 multiplied by the man-hours expended in earlier years; it represents the hourly wage-rates of the 40-hour week (or 176-hour month) of 1938 multiplied by the man-hours of the 72-hour week (or 312-hour month) of the past. (See Column 2, Appendix B, which is a copy of working papers that support Exhibit No. 20.) It is the capitalization of the weekly or monthly time of Drillers and Tool Dressers, who until 1924 worked 72 hours a week, in amounts that are as much as 77 percent higher than the amounts they received per week or per month in 1938. It is a capitalization of man-hours without regard to what was accomplished in those hours.

Well Drilling Costs.

The greater part of Original Cost of Producing Gas Wells—Well Construction, existing at December 31, 1938, probably about 70 percent of it, consisted of well drilling costs, and for this reason and the fact that the remainder of the costs were incident to the drilling costs, the entire account was trended in Exhibit No. 20 with factors derived from hourly wage-rates for drillers and tool dressers whose wages comprise well drilling costs. Accordingly, the average price per foot to drill affords a safe and convenient gauge with which to measure the trueness of the factors used to trend the account in Exhibit No. 20.

Depth of Wells and Cost to Drill.

Most of the company's well drilling was done under contract let by bid either to independent drillers or to the company's own well drilling department, on a "price per foot" basis, and a list of the costs incurred under certain of these contracts for certain years was available. This list which is reproduced in this report as Appendix C gives the depth in feet to which wells were drilled and the price paid per foot to drill them. These figures were

studied, first, to determine the variation each year in the
11 depth of drilling and in the price per foot to drill and then, to ascertain the effect, if any, that variation in the depth of drilling had upon price per foot to drill. It was important to confirm the fact that drilling conditions in each of the several years were reasonably uniform, for that uniformity was a prerequisite to the next step in the study, the development of drilling cost ratios.

Table 2, and the data underlying it, which are reproduced in this report in Appendix C, show clearly that wells were drilled to fairly uniform depths during the years compared, and that drillings were within such a narrow depth range that the price per foot to drill was not appreciably affected. For example, the deepest well drilled in 1938, to a depth of 4,503 feet cost $1.75 per foot to drill, although one of the shallowest wells drilled in that year, to a depth of only 1,642 feet, cost $2.50 per foot to drill. The cost of the wells listed in Appendix C indicates that depth was not an important determinant of the price per foot to drill.

12 TABLE 2.—*Well construction—Drilling statistics for the years 1904–05, 1906–10, 1911–15, and 1938*

	1904–05	1906–10	1911–15	1938
Basis for comparative statistics shown below:				
Number of wells drilled	10	25	73	26
Number of feet drilled	26,734	60,442	177,556	65,668
Cost of drilling, per foot:				
Highest price	$1.35	$1.40	$1.30	$2.50
Lowest price	$1.10	$1.10	$1.00	$1.45
Weighted average price	$1.23	$1.20	$1.15	$1.93
Depth drilled, in feet:				
Deepest drilling	3,054	3,094	3,214	4,503
Shallowest drilling	1,848	1,267	[1] 940	1,575
Average drilling	2,673	2,418	2,432	2,526

[1] The next shallowest drilling was 1,304 feet.

13 The ratios which the prices per foot to drill in the 1904–05, 1906–10, and 1911–15 periods bear to the price per foot to drill in 1938 are compared in Table 3 with the highest and lowest trend factors used in Exhibit No. 20 for years in those periods. This comparison shows unmistakably that the trend factors used in Exhibit No. 20 are much lower than they would be if they were predicated upon the cost to produce units of property rather than upon hourly wage rates only. The price-per-foot ratios were developed from the weighted average prices shown on Table 2.

14 TABLE 3.—*Producing gas wells—Well construction—A comparison of the trend factors used in Exhibit No. 20 for the years 1904–05, 1906–10, 1911–15, and 1938 with ratios based on well drilling costs for those years*

Years	Trend factors used in Exhibit No. 20 (1938=100.0)		Ratio of average price per foot for well drilling (1938=100.0)
	Highest	Lowest	
1904–05	33.1	31.1	63.7
1906–10	37.6	35.6	62.2
1911–15	40.2	38.2	59.6
1938	100.0	100.0	100.0

15 *Analysis of Original Cost.*

Although the well drilling cost tests, by inference, lead to the conclusion that man-hours for years prior to 1938, which were priced at 1938 hourly wage-rates in Exhibit No. 20, were less productive than 1938 man-hours, ultimate proof of the correctness of that conclusion really is to be found in an analysis of the Original Cost of Well Construction itself. Such an analysis was undertaken to establish that fact incontrovertibly.

A complete analysis of the Original Cost of the Well Construction Account was neither necessary nor feasible. It would have been a most lengthy task. Instead, two periods of five years each were chosen for analysis, the years 1896 to 1900, and 1911 to 1915, inclusive. Originally, the later period was selected because the amount of Original Cost installed in that period and existing at December 31, 1938, was sufficiently large to be representative of the account and also because the period was one of normal construction conditions. Moreover, its remoteness to 1938 gave full play to the very circumstances of the trending process sought to be exposed. Later, the 1896–1900 period was analyzed to widen the range of the period tested and to afford proof that the results of the analysis of the period first tested were not exceptional.

The aim in making this analysis was to determine the man-hour productivity of labor during the periods analyzed and it was accomplished in four steps. The cost of Well Construction
16 exclusive of Overheads was segregated from the total Original Cost of that construction; the number of feet of construction which that cost represented was tabulated; the cost of Construction exclusive of Overheads was divided by the amount of the average hourly wage-rates used in the trading process (Exhibit No. 20), thus developing the number of man-hours ex-